
Federal Democratic
Republic of Ethiopia
Digital
Ethiopia
Vision 2030
Locally Rooted, Digitally Powered

Foreword

H.E. Abiy Ahmed Ali (PhD)
Prime Minister of The Federal Democratic Republic of Ethiopia

We stand at the threshold of a **digital era** that will shape the destiny of nations through vision, resilience, and the ability to turn innovation into meaningful progress for their people.

Digital Ethiopia 2030 is our national response to this moment. It is more than a strategy. It is a **declaration of intent**, a **commitment to act with confidence, creativity, and purpose.** This initiative affirms Ethiopia's determination to **chart its own digital path.**

Building on the strong foundations of ***Digital Ethiopia 2025***, DE2030 advances with greater ambition. It seeks to embed digital transformation into the fabric of our **economy, governance, and society**. What makes this journey distinct is that our approach is **rooted in Ethiopia's identity and values**, designed to expand opportunity in ways that are **inclusive, equitable, and meaningful** for our people.

Emerging technologies such as **artificial intelligence, machine learning, blockchain, and quantum computing** are practical tools that will strengthen our sectors. By harnessing these innovations, Ethiopia will accelerate progress while **safeguarding its sovereignty** and ensuring that **no community is left behind.**

This commitment demands **investment in people**. We will **uplift communities, both urban and rural,** and cultivate **a generation of digital thinkers and builders** prepared to lead Ethiopia into a new era of **inclusive growth and innovation.** It also requires **institutions that can protect data, foster trust, and ensure that digital systems serve citizens reliably.**

Digital Ethiopia 2030 is grounded in **collaboration** among government, the private sector, academia, global partners, and citizens. By embracing the spirit of ***Medemer*****,** we turn collective effort into **national progress.**

Let this moment be when Ethiopia **adapts, innovates, and helps define the digital world.** Guided by ***Medemer***, clarity of purpose, and courage to act, we will continue to build **a digital Ethiopia that is strong, sovereign, and ready to seize future opportunities.**

Executive Summary

The world is being remade before our eyes. Digital technologies particularly, Artificial Intelligence, Big Data, Cloud computing, the Internet of Things, and Robotics, are transforming societies at unprecedented speed. This revolution may unsettle old ways of thinking, but it also offers an extraordinary opportunity for Ethiopia: to reshape our economy, governance, and daily life. The question is not whether to act, but **how boldly and wisely we seize this moment.**

Digital Ethiopia 2030 (DE2030) is the national blueprint to harness this transformative power. Building on the achievements and lessons of Digital Ethiopia 2025, DE2030 combines **locally rooted strategies with global best practices**, ensuring Ethiopia's digital transformation is inclusive, resilient, and aligned with the nation's identity and values.

Why Now

Ethiopia's demographic dividend is immense: a population of over 130 million, with 70% under 30. The Homegrown Economic Reform Agendas and Digital Ethiopia 2025 have opened key sectors, laying fertile ground for innovation. Yet barriers persist, such as, limited digital literacy, infrastructure and usage gaps with internet penetration at 45%, high logistics costs, slow sectoral transformation and a digital economy contributing just 3.9% of Gross Domestic Product.

Globally, rapid technological advances are reshaping competitiveness; regionally, digital sovereignty and integration create new opportunities. DE2030 ensures that digital transformation not only remains central to Ethiopia's growth agenda but also drives **progress for every community**.

Vision & Mission

Vision: A digitally empowered Ethiopia where innovation reflects local identity, inclusion is intentional, and technology serves national priorities.

Mission: To accelerate Ethiopia's digital transformation by strengthening infrastructure, fostering innovation, and building the institutions and partnerships needed for a thriving, indigenous digital economy.

Guiding Principles

Digital First | Inclusive by Design | Adaptive | Homegrown | Interoperable | Secure | Sustainable | Sovereign

Strategic Objectives

DE2030 is anchored in **four objectives:**

1. **Empower People and Institutions** – Build digital literacy, data-driven decision-making, and innovative public institutions.
2. **Accelerate Inclusive Digital Economic Growth** – Create jobs, scale startups and SMEs, modernize key sectors.

3. **Achieve Universal Digital Access** – Provide equitable broadband and enable full digital participation.

4. **Position Ethiopia as a Destination of Choice for Digital FDI** – Build competitive digital services, attract investment, and scale ICT-enabled exports.

Foundations and Enablers

Foundational Pillars: Reliable electricity | Digital infrastructure | Cybersecurity

Enablers:

- Digital Public Infrastructure: Fayda ID, interoperable payments, national data exchange
- Data as a national asset
- Digital skills & capacity: literacy, entrepreneurship, workforce readiness
- Policy & regulation: inclusive, forward-looking frameworks
- Modernized government services: integrated, user-centred platforms
- Adoption of Industry 5.0 technologies tailored for Ethiopia

Key Initiatives

- Expand reliable electricity at household level and pilot smart grids
- Rollout nationwide high-speed broadband, establish sovereign cloud, build AI compute capacity
- Establish a 24/7 National Cybersecurity Operations Centre
- Promote cyber resilience and digital trust through coordinated policies, awareness and capacity building
- Implement trusted data protection and privacy frameworks
- Scale core rails through DPI: Fayda digital ID, payments, and launch a national data exchange.
- Provide integrated eService's via portals, apps, and MESOB Centres
- Rollout National Digital Literacy & Competency Framework and scale the 5 million coders initiative.
- Modernize regulations to ensure inclusion, innovation, and investor confidence
- Apply digital solutions across sectors to drive innovation, growth and efficiency
- Operationalize the Startup Proclamation, mobilize financing through venture funds, Public Private Partnerships and launch Digital Ethiopia Investment Roadmap.
- Ensure accountability via DE2030 Dashboard, annual progress reports, Digital Transformation Council oversight.

Approach & Governance

DE2030 was developed through a **nationally led, consultative process**, engaging federal and regional governments, private sector actors, academia, civil society, and development partners. It aligns with:

- African Union Digital Transformation Strategy (2020–2030)
- AU Continental AI Strategy (2024)
- Africa Continental Free Trade Agreement (AfCFTA) Digital Trade Protocol
- United Nations Sustainable Development Goals and Global Digital Compact
- BRICS Digital Partnerships

Implementation is overseen by the **Digital Transformation Council**, supported by government institutions, the private sector, and development partners. Funding blends public resources, PPPs, donor support, and domestic investment.

Risks, cyber threats, regulatory gaps, inequality in access, will be **managed proactively**, and progress tracked with clear KPIs, dashboards, and periodic assessments.

Conclusion: The Imperative to Act

Earlier modernization efforts have been challenged not in planning, but in execution. DE2030 remedies this by embedding **measurable, accountable, and deliverable change mechanisms.** The opportunity is generational: millions of jobs, increased exports, improved governance, and full digital inclusion are within reach.

Ethiopia possesses the youth, the innovation, the political will, and the technological readiness to succeed.

With this mindset, DE2030 will **transform Ethiopia into a digitally empowered, globally competitive nation:** rooted in its values, powered by innovation, and ready for the future.

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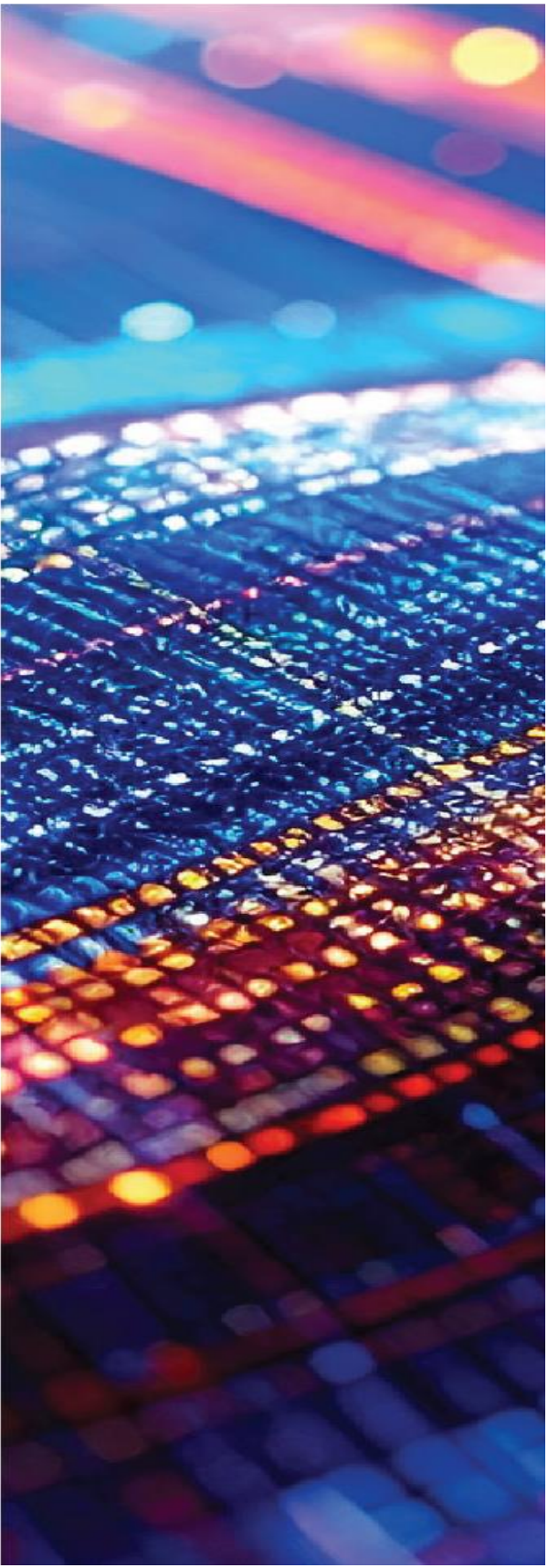


Introduction

Brief Overview

Digital Ethiopia 2030 (DE2030) is Ethiopia's digital transformation strategy to harness the power of digital technologies for inclusive prosperity, sustainable development, and global competitiveness.

Anchored in the **Ten-Year Development Plan (2020-2030)** and the **Homegrown Economic Reform Agenda 2.0 (HGER 2.0),** DE2030 serves as a critical engine for accelerating economic transformation and modernisation.

It is built around four objectives:

1. **Empowering people and institutions**
2. **Accelerating inclusive economic growth**
3. **Achieving universal digital access**
4. **Positioning Ethiopia as a destination for digital investment**

These objectives deliver job creation, equitable public services, increased earnings, and inclusive national prosperity. They guide all DE2030 initiatives to ensure alignment with Ethiopia's broader agenda.

The strategy propounds **foundational digital platforms**, **scalable Digital Public Infrastructure (DPI)**, **responsible data usage**, and levels up a **digitally skilled workforce**. Focused attention is given to decisively closing the digital divide.

DE2030 reflects Ethiopia's values to unlock meaningful, lasting, human-centred progress.

Global Digital Context

Globally, the digital era is setting new rules for progress. Digital technologies are transforming how societies operate; governments deliver services and economies compete. Digital Ethiopia 2030 understands these global shifts create both opportunities and urgent imperatives for action.

Global Shift	Description
AI Everywhere	Generative AI and autonomous agents (e.g., ChatGPT, Gemini) are transforming content creation, service delivery, and decision-making across sectors. Countries are investing in AI governance and responsible deployment.
Cybersecurity & Trust	With cyber threats on the rise, trust in digital systems is a global priority. Governments are scaling up data protection, digital identity security, and cyber resilience.
Digital Sovereignty	Nations are asserting control over their digital infrastructure, data, and platforms through localization laws and sovereign cloud strategies.
Digital Inclusion	The global digital divide persists; especially in access, affordability, and digital skills.
Climate-Tech & Sustainability	Tech is being used for climate resilience, smart agriculture, and green infrastructure worldwide.
Ubiquitous Connectivity	5G, satellite internet, and edge computing are enabling real-time services across remote regions.

Africa Digital Context

Amid rapid global evolution, Africa balances vast potential with vestigial structural impediments. Infrastructure gaps, fragmented regulatory environments, and uneven access hinder digital progress. However, momentum is building through modernising continental strategies. These efforts strive towards a competitive, and digitally sovereign Africa. Digital Ethiopia 2030 sits alongside these visionary efforts to forge Africa's digital future.

Context	Description
Increased Connectivity	Africa remains predominantly mobile-first, with investments in subsea cables (e.g., 2Africa, Equiano) expanding bandwidth and access.
Digital Public Infrastructure & eGovernment	Countries like Ethiopia, Nigeria, and Rwanda are rolling out digital ID systems, payment platforms, and online services to boost service delivery and inclusion.
Policy & Regulation	39+ countries now have data protection laws; focus is growing on cross-border digital trade and emerging tech regulation (AI, Fintech).
Innovation Ecosystem	African tech hubs are booming, driven by fintech, youth entrepreneurship, and rising investment in digital startups.
Coding Skills	As of late 2024, two African countries have officially adopted coding as a mandatory subject in public schools, and a couple of countries, including Ethiopia, have launched coding initiatives.
Cybersecurity & Trust	Continental initiatives (like the AU Cybersecurity Expert Group) are pushing for shared standards and regional cooperation on cybersecurity.

This table captures the forces shaping the African digital landscape.

Emerging Trends Shaping the Future of Digital Transformation

Ethiopia must respond to the evolving trends that redefine the role of technology in development. Innovations in AI, digital manufacturing, climate resilience, and digital trust create new opportunities and challenges. These trends govern how Ethiopia prioritises investments, designs policies, and positions itself in the global economy.

Trend	What's Emerging
🧠 Autonomous Agents	Large Language Models (LLMs) are evolving into AI agents capable of executing tasks and decision-making across various domains.
🤖 Intelligent Robotics	AI-powered robots are transforming manufacturing, logistics, and agriculture.
🏭 Advanced Manufacturing	3D printing enables localized, on-demand production—from housing to medical devices.
🥽 Immersive Environments	Digital twins, Augmented Reality (AR), Virtual Reality (VR), and Extended Reality (XR) are creating new experiences in planning, learning, and service delivery.
♻️ Green Tech	Climate-aware tech (IoT, AI, circular electronics) is enabling sustainable infrastructure.
🌍 DPI for Global Development	DPI is now seen as foundational infrastructure for inclusion and digital public service reform.

The evolving digital landscape offers Ethiopia a chance to redefine its development path through technology. By localizing change to its own needs and aspirations, Ethiopia can shape solutions that truly serve its people. With momentum accelerating across Africa, the urgency is clear: Ethiopia must build infrastructure and systems that are inclusive, interoperable, and future proof.

Ethiopia's Digital Context

Population - 130 million

Urban: 24.2% Rural: 75.8% (2025)

Major GDP Contributors: Service (38%), Agriculture (34.1%), Industry (28.9%)-2024/25

Digital Economy Contribution: ≈ 3.9%

ECONOMIC & ICT INDICATORS

- GDP per capita -$1,144 (2024/25)
- GDP Growth Rate – 9.2 %(2025)
- Overall Inflation – 11.7 % (Oct. 2025)
- Unemployment Rate – 8 % (2021 NLFS)
- Adult Literacy – 52% (2023):
- Youth Literacy – 70% (2023)
- Access to Electricity – (63 %)(Rural -45%) (2024)
- Internet penetration – 45% (2025)- 58 mln users
- Mobile Broadband Coverage – 98% (2024)
- Mobile Penetration – 71 %: 86.6 mln users (March 2025)
- Smartphone Adoption – 46% (2023)
- DID Enrolment – 25mln (September 2025)
- UN E-Gov Development Index – 169/193 (2024)
- Global Cybersecurity Index – Tier 3: Establishing (2024)
- Global Innovation Index – 130/133 (2024)
- Network Readiness Index - 126/134 (2023)

Macro-Economic Context and Case for Digital Transformation

Ethiopia stands at an economic crossroads. With an average **Gross Domestic Product (GDP) growth of 9.2%** the country has shown remarkable resilience and long-term potential. Bold reforms have liberalised key sectors such as telecoms, logistics and finance, boosting exports and attracting strong **Foreign Direct Investments (FDI)**.

Macroeconomic conditions remain an important consideration as Ethiopia continues to manage **inflation and debt pressures** with steady progress. **Exports currently account for 5.6% of GDP**, and the **digital economy presents strong opportunities to expand** its contribution in line with regional peers. **Strengthening digital skills, connectivity, and infrastructure** will further boost productivity and inclusive growth.

Integrating digitalization more **deeply into Ethiopia's broader economic transformation agenda** will be essential to unlocking sustainable and equitable development.

Unlocking Digital for Growth

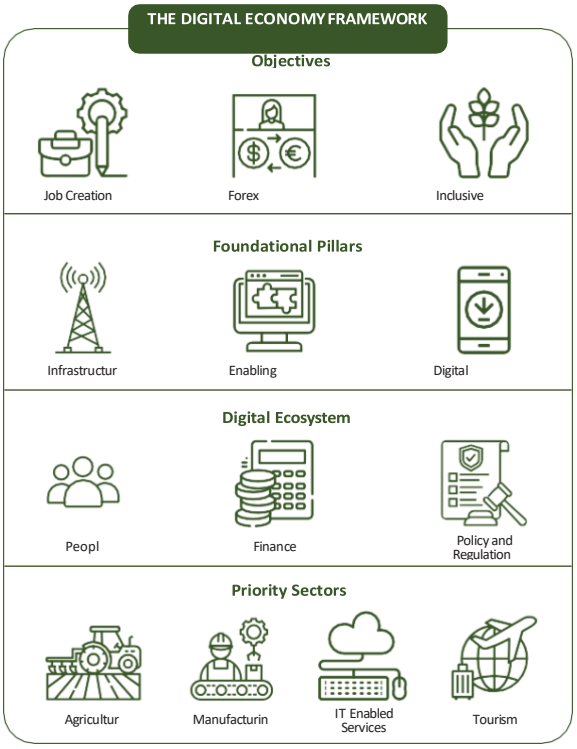
Digital transformation will continue to tackle Ethiopia's structural constraints and drive inclusive long- term growth:

- **Public Finance & Inflation**: Digitalisation boosts tax collection, curbs inefficiencies, and supports better policy decisions.
- **Exports**: Digital trade reduces costs and opens global markets for Business Process Outsourcing (BPO).

- **ICT Sector Growth**: Investment will expand digital value chains and transform key sectors.
- **Productivity & Skills**: AI and digital tools revolutionise efficiency.
- **Diversified FDI**: A robust digital ecosystem and business-friendly services will draw investors.

Digital Ethiopia 2025 Achievements & Prevailing Challenges

Digital Ethiopia 2025 was a farsighted roadmap towards an inclusive digital economy.



The strategy aimed to catalyse job creation, boost foreign exchange earnings, and foster prosperity via digital technologies. It identified four priority sectors, including agriculture, manufacturing, tourism, and IT-enabled services, needed to unlock digital opportunities. Ethiopia was situated to thrive in the digital era.

Five years on progress is evident.

Infrastructure

Since 2020, Ethiopia has strengthened the infrastructure essential for a digital economy. Electricity access reaches 63% of the population, with power generation exceeding 6,000 MW.

Ethiopia's telecom sector has seen major reforms since 2018. Efficiency gains reduced costs, and subsequently liberalization expanded coverage and operational efficiency. As a result, internet penetration has reached 45%, with mobile and broadband services significantly more accessible.

Local digital infrastructure is advancing, with Tier III data centres now operating in the Ethiopia IT Park and Telecom-certified facilities throughout the capital.

Manufacturing supports **domestic device production**, cutting imports and boosting tech self-reliance.

Digital Interactions

Digital platforms are transforming public service delivery. Over 800 services have been digitised. The **MESOB One Stop Service Centres** launched by bringing together 23 agencies and offering 180 services under one roof. This marks the beginning of a rapidly growing national initiative. While these centres currently serve as **key access points**, growing digital literacy will enable citizens to access all government-to-citizen services directly online through portals and mobile apps—enhancing convenience, transparency, and trust.

Public administration is going digital. Taxpayers now use e-filing systems, and the Electronic Single Window Program streamlines processes.

Ethiopia is founding a digital marketplace. National legal instruments encourage digital trade. A National Addressing System enhances last-mile delivery and logistics efficacy.

Digital trade platforms emerge, the Business Process Outsourcing (BPO) sector grows, highlighting strong private sector engagement.

Enabling Systems

Core components of a secure, inclusive digital economy are taking shape. Over 25 million people are enrolled in the national digital ID program, used across 55 services to simplify verification.

Digital payments have surpassed cash transactions, reflecting strong momentum toward a cash-lite economy.

Cybersecurity is strengthening with investments in Computer Emergency Response Team capabilities, the deployment of a National Cybersecurity Operation Centre, the launch of a Public Key Infrastructure (PKI) and the implementation of national cyber resilience, awareness and data protection frameworks to ensure digital trust and national security.

Digital Ecosystem

The Digital Ethiopia 2025 Strategy identified three critical areas that must evolve to enable digital transformation: finance, people, and policy. These are the foundational conditions without which digital initiatives fail.

Finance | People | Policy and Regulations

Access to finance has constrained the economy. The **Investment Proclamation No. 1180/2020** introduced major reforms: expanding recognition of intellectual property as capital; shifting to a negative list for foreign investment and encouraging diaspora investments.

In September 2020, regulations were issued which supported telecom sector licensing. These earned Ethiopia a **Gold award from World Bank in 2021**.

The Banking Liberalisation Policy (2022) opens Ethiopia's financial sector to foreign

participation, permitting up to five international banks to operate, either as subsidiaries, joint ventures, or minority shareholders, with up to 40% ownership allowed. Complementing this, the **Capital Market Proclamation No.1248/2021** established the

Ethiopian Capital Market Authority and enable establishment of the Ethiopian Securities Exchange.

Funding is growing through initiatives like Venture Meda, Orbit Innovation Hub, NINIJA, and Visa Everywhere. In 2023, Inclusion Japan and Kazana Group launched a USD 100 million startup fund. The National Bank of Ethiopia approved offshore accounts for strategic foreign investors, enhancing confidence in the financial sector.

Finance | **People** | Policy and Regulations

The Digital Ethiopia 2025 Strategy highlighted the importance of literacy and digital skills. The **Digital Skills Country Action Plan (2020–2030)** focuses on enabling policies, skills reform, connectivity, and capacity building for 40,000+ staff.

The **e-SHE project**, targets 800,000 students and 35,000 instructors in 50 universities. The World Bank's Digital Foundations Project is expanding broadband to universities and TVETs; as of March 2023, 34 were connected, with a target of 200 by2027.

EDGET (2020), promotes digital entrepreneurship, and **Mesirat (2023)**, a USD 48 million programme, will train two million youths.

In the public sector, the Digital Foundations Project funds official training.

Finance | People | **Policy and Regulations**

The Digital Ethiopia Strategy called for enabling policies, coordination, new regulation, and procurement reform. Progression has occurred. The Investment Proclamation No.1180/2020 expanded recognition of intellectual property as collateral, and redefined domestic investors to include the diaspora. The Movable Collateral Registration Directive allowed banks to accept IP as collateral. In November 2022, new trade licenses were added for e-commerce operators.

The **Electronic Government Procurement (EGP, 2021)** system expanded to 74 federal agencies, with more than 8,000 suppliers registered. The system digitises procurement planning, tendering, and contract administration. The **AI Policy (2024)** provides a strategic framework for responsible AI development and deployment across sectors.

The **Personal Data Protection Proclamation No.1321/2024**, established the Ethiopian Communications Authority as the regulator and set new rights for data use. The **Startup Proclamation** proposes tax incentives, a startup fund, regulatory sandboxes, and new institutions.

Sectors

Agriculture

Digital Ethiopia 2025 identified agriculture as ripe for digital transformation. It outlined two recommendations: (1) build a digital agriculture platform, and (2) support ag-tech entrepreneurship. These interventions aimed to address challenges in fragmented systems, poor data access, weak interoperability, and the need for skilled talent. Consequently, Lersha, a mobile app connecting farmers with inputs and mechanisation services, and the Digital Agricultural Advisory Services (DAAS) project, which digitally supports 3.5 million farmers through extension tools have been launched. The Ministry of Agriculture has inaugurated the Farm Registry, National Agri-Data Hub, and a sector-wide e-learning platform, each offering innovative digital tools for smallholder farmers. In addition, the recent policy reform, ending the state's decades-long monopoly over agricultural extension services and opening the way for a pluralistic, multi-actor system, is poised to be a transformative milestone for the sector. However, challenges remain. Stakeholders identify infrastructure gaps, limited data integration, and lengthy policy processes.

Manufacturing

Digital Ethiopia 2025 viewed manufacturing as a waypoint in the digital transformation prioritising: (1) internet connectivity, and (2) digitally enabled logistics to drive export. These aimed to address challenges such as low digital integration, poor coordination, and limited access to digital tools. Since, the Ministry of Industry's centralised industrial data system and the Integrated Agro-Industrial Parks (IAIP) portal supports investor engagement. These initiatives modernise data and improve service delivery. The National Logistics Strategy (2020–2030) and a complementary 30 - year master plan is both designed to improve the efficiency of freight and road infrastructure. Additional plans for new dry ports in Hawassa and Jimma boost connectivity. However, manufacturing uptake remain limited, with persistent resistance to digital tools and weak institutional coordination.

IT Enabled Services

Digital Ethiopia 2025 targeted IT-enabled services for digital-led growth. It recommended two interventions: (1) invest in infrastructure, and (2) operationalise the ICT Park to attract leading BPOs. Ethiopia is now a hub for business process outsourcing due to its competitive wages, English-speaking workforce, and high university graduate output. The number of BPO companies has increased, and the sector has benefited from improved connectivity. The revised Investment Regulation 517/2022 offers incentives for eligible BPO firms.

Tourism

Digital Ethiopia 2025 prioritised tourism for digital transformation targeting infrastructure and systems gaps. It proposed a digitalisation taskforce, digital marketing, and SMEs support. Despite COVID-19 setbacks, recovery is underway. In 2021/22, tourism contributed 7% to GDP, and over 1.3 million visitors arrived by mid-2025. Tools like the 'Visit Ethiopia' app and the Tourist Smart Card improved services, but progress still hinges on stronger connectivity, digital literacy, and infrastructure investment.

Lessons Learned from Digital Ethiopia 2025

Digital Ethiopia 2025 delivered critical momentum for Ethiopia's transformation. It established institutional anchors, and advanced foundational infrastructure.

Yet this foundation while vital is not sufficient. Ethiopia still faces challenge, from connectivity to skills gaps, weak digital adoption in key sectors, and underdeveloped data and innovation ecosystems. Building on the gains of 2025 therefore requires a deeper, more ambitious push that addresses these structural bottlenecks and secures inclusive, future-ready digital transformation.

This table captures salient lessons.

Lesson Area	Key Insights
Digital Ethiopia as a National Brand	The strategy became recognizable and unifying.
Digital Transformation is a journey	Digital change is a long-term process—not a one-off project.
Momentum on Digital ID	The rollout of Fayda demonstrated strong coordination and global recognition. It offers a replicable model for other DPI components.
Acceleration of Digital Payments	Significant progress in mobile and digital payments enabled the shift to cashless services.
Iterative Development Delivered Results	Building both supply and demand side systems in parallel allowed Ethiopia to move quickly and adaptively.
Strategic Vision vs. Execution	Strong vision without coordinated implementation led to fragmented efforts.
Digital Skills & Capacity Building	Weak capacity among civil servants and citizens limited adoption.
Inclusion by Design	Digital access was uneven, favouring urban areas.
Data Governance	Lack of clear data policies led to fragmentation and low trust.
Localization	Services lacked cultural and language relevance. Local languages and contexts are key to driving engagement.
Private Sector Engagement	Startups faced barriers in procurement and finance. De-risking and incentivizing private sector participation is essential.
Monitoring, Evaluation & Learning	Unclear KPIs and adaptive feedback mechanisms hindered progress tracking.
Institutional Readiness	Some institutions lacked digital leadership and clarity

Framework & Methodology

The Digital Ethiopia 2030 strategy was rooted in Ethiopia's priorities and global best practices. It was informed by international frameworks and aligned with continental strategies, including the AU Digital Transformation Strategy and AfCFTA Digital Trade Protocol. The result is a nationally owned, inclusive, and future-oriented strategy.

National Foundations and Strategic Alignment

The strategy builds on Digital Ethiopia 2025 and incorporates findings from its 2024 review. It is anchored in Ethiopia's broader national development priorities. It also integrates priorities from the National Artificial Intelligence Policy (2024) and the Digital Agriculture Roadmap (2025).

Alignment with Continental and Global Frameworks

The strategy aligns with Ethiopia's regional commitments including:

- African Union Digital Transformation Strategy (2020–2030)
- African Union Continental Strategy on Artificial Intelligence (2024)
- African Digital Compact (2024)
- African Union Data Policy Framework and Guidelines on Data Governance (2022)
- African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention, 2014)
- United Nations Agenda for Sustainable Development
- United Nations Global Digital Compact

Pillar Focused Research and Strategic Deep-Dives

Detailed technical analysis and sectoral deep dives informed the strategy:

- Foundational: Electrification, Digital Infrastructure, Cybersecurity
- Enablers: Digital public infrastructure, Data, Digital Skills & Capacity Building, Policy & Regulation, Industry 5.0 technologies
- Public sector modernisation: cloud-first systems, user-centric design, interoperability
- Sectoral transformation

Stakeholder Engagement

The strategy was developed through an iterative process involving all stakeholders across public sector, private sector, academia, civil society and development partners.

Synthesis

Inputs were synthesised into a strategy linking Ethiopia's digital vision with core enablers. The strategy was validated through coordination by the Digital Transformation Council.

Global Alignment

Ethiopia's digital transformation unfolds within a dynamic global landscape shaped by rapid change, shifting geopolitics, and evolving development models.

Continental Alignment: African Union

Africa's digital transformation is a path toward inclusive growth, economic integration, and regional and digital sovereignty.

The **African Continental Free Trade Area (AfCFTA)** is creating a unified space for digital commerce, innovation, and secure cross-border data flows. Its Protocol on Digital Trade represents a landmark continental framework for accelerating Africa's digital transformation. Embedding AfCFTA into Digital Ethiopia 2030 will boost connectivity and innovation.

Ethiopia must align its cybersecurity laws with the Malabo Convention and its digital trade policies with AfCFTA's legal instruments to leverage continental opportunities.

Multilateral Partnerships and Digital Sovereignty: BRICS

Ethiopia's admission into BRICS opens pathways for digital sovereignty, local innovation, and tailored governance. BRICS promotes the development of indigenous technologies. For Ethiopia, this enables the advancement of homegrown digital solutions in agriculture, health, and e-governance amongst others. Engagement with BRICS innovation hubs, AI collaborations, and cybersecurity initiatives will strengthen Ethiopia's digital resilience.

Financial and Trade Institutions and the Global Digital Landscape

International institutions shape Ethiopia's digital transformation through funding, expertise, and policy frameworks. Strategic engagement with these actors enables Ethiopia to align with modern global standards.

Global Digital Governance and UN-Led Frameworks

The United Nations set global digital norms. The Global Digital Compact (2024) calls for ethical AI, digital inclusion, and rights-based governance. Ethiopia aligns by participating in the Internet Governance Forum (IGF). UN frameworks offer guidance that supports Ethiopia's digital development goals. Additionally, the SDGs provide guidance that supports Ethiopia's digital development goals.

Rationale for Digital Ethiopia 2030

Ethiopia stands at an inflection point. The country requires a bold and adaptive digital transformation to secure its future. Rapid global technological shifts, continental integration, and the urgency to unlock opportunities for a youthful population underscore the need for bold action.

Digital Ethiopia 2030 will position Ethiopia as a digital leader in Africa.

This work is driven by three key factors:

BUILDING ON STRONG FOUNDATIONS	RESPONDING TO CHANGING DIGITAL & GLOBAL LANDSCAPE	URGENT, AMBITIOUS ACTION
Ten-Year Development Plan (2020 – 2030): Identifies technology as the driver of productivity. **Homegrown Economic Reform Agenda 2.0:** asserts digital transformation will modernise the economy. **Digital Ethiopia 2025:** laid focus the on and a digital ecosystem, prioritising key sectors. Sectoral strategies: aligned to the Digital Ethiopia 2030 umbrella strategy, guiding the focus and implementation.	**Emerging Tech:** AI, robotics, immersive tech, IoT and 3D printing are reshaping global service delivery. **AI Race:** The global AI race is accelerating; nations are investing in governance, and infrastructure. **Continental Direction:** The African Union's Digital Transformation Strategy (2020–2030), African Digital Compact, AU Continental AI Strategy and the AfCFTA Protocol on Digital Trade place digital public infrastructure, AI, inclusion, and sovereignty at the centre of continental development.	**Demographic dividend**: Over 70% of Ethiopians are under 30. Unlocking their potential requires digital access, digital skills and jobs. **Service transformation:** Digital platforms improve public service delivery. **Economic competitiveness:** Productivity, automation, and innovation drive growth. **Resilience and sustainability**: Data, climate-smart tech, and digital tools support risk adaptation. **Financial Inclusion & Entrepreneurship**: Digital tools expand access to finance and enable youth-led innovation. **Global Integration:** Digital access opens pathways to global trade and digital services.
DT 2030 continues & deepens impact	**DT 2030 positions the country to lead**	**Cost of Inaction is High**

"Digital Ethiopia 2030 provides the vision, direction, and coordination needed to build a digitally empowered nation driven by its people, rooted in its values, and ready for the future"

Prime Minister, H.E. Abiy Ahmed (PhD)

Vision, Mission and Principles

The vision, mission, and principles anchor Digital Ethiopia 2030. They are a commitment to technology as a force for national transformation: one that is **inclusive, resilient,** and **rooted in Ethiopia's identity**. The vision defines the destination; the mission outlines how technology will serve people and institutions; and the principles ensure that every step of implementation is grounded in equity, adaptability, and global relevance.

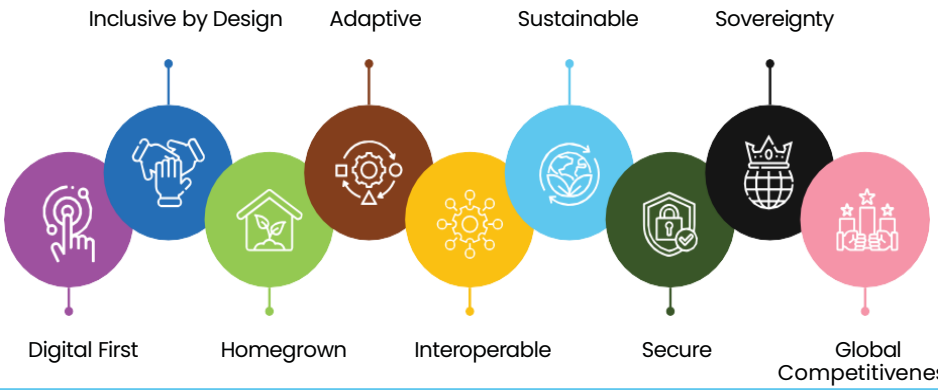
VISION

A **digitally empowered Ethiopia** where **innovation** reflects local identity, **inclusion** is intentional, and **technology** serves national priorities.

MISSION

To **accelerate** Ethiopia's digital transformation by **strengthening** infrastructure, **fostering** innovation, and **building** the institutions and partnerships needed for a **thriving**, **indigenous** digital economy.

PRINCIPLES



These principles guide how institutions design, implement, and govern digital services.

Strategic Objectives

Digital Ethiopia 2030 is anchored in four interdependent objectives that reflect national priorities. They chart Ethiopia's path toward a digitally empowered society.

Objective 1: Empower People & Institutions through Skills, Data & Technology

People-powered transformation: Ethiopia's digital journey relies on individuals and institutions. Focus areas:

- Expanding digital literacy and competencies
- Equipping institutions to deliver responsive, people-centred services
- Using data to inform decisions, and boost performance
- Ensuring technology improves lives

Objective 2: Accelerate Inclusive Digital Economic Growth

Digital innovation for growth: Unlocking Ethiopia's economic potential through technology and entrepreneurship. Focus areas:

- Creating quality digital jobs
- Helping startups and SMEs scale with digital tools
- Supporting entrepreneurs
- Ensuring equitable access for all

Objective 3: Achieve Universal Digital Access

Access for all: Digital inclusion starts with access. Everyone, regardless of location or income, should be able to connect, learn, work, and participate fully. Focus areas:

- Expanding affordable, reliable, and secure infrastructure
- Reaching rural and peri-urban communities
- Embedding DPI and data exchange as public utilities
- Using community centres and mobile platforms for outreach

Objective 4: Position Ethiopia as a leading destination for Digital FDI

Global digital gateway: Key areas:

- Positioning Ethiopia for global tech and digital industries
- Scaling export-ready services: BPO/ KPO, software, and creative sectors
- Strengthening the regulatory environment
- Showcasing Ethiopia's digital talent, culture, and innovation

Digital Ethiopia 2030 Architecture

Digital Ethiopia 2030 is built on two complementary components: **pillars** and **focus areas**.

The **pillars form the national digital backbone**. **Foundations** (electricity, digital infrastructure, cybersecurity) provide basic readiness, while **Enablers** (digital public infrastructure, data, skills, policy and regulatory frameworks) convert readiness into scaled transformation.

Meanwhile, **modernised government services** serve as a **cross-cutting pillar** to create more efficient, transparent, and citizen-centric governance.

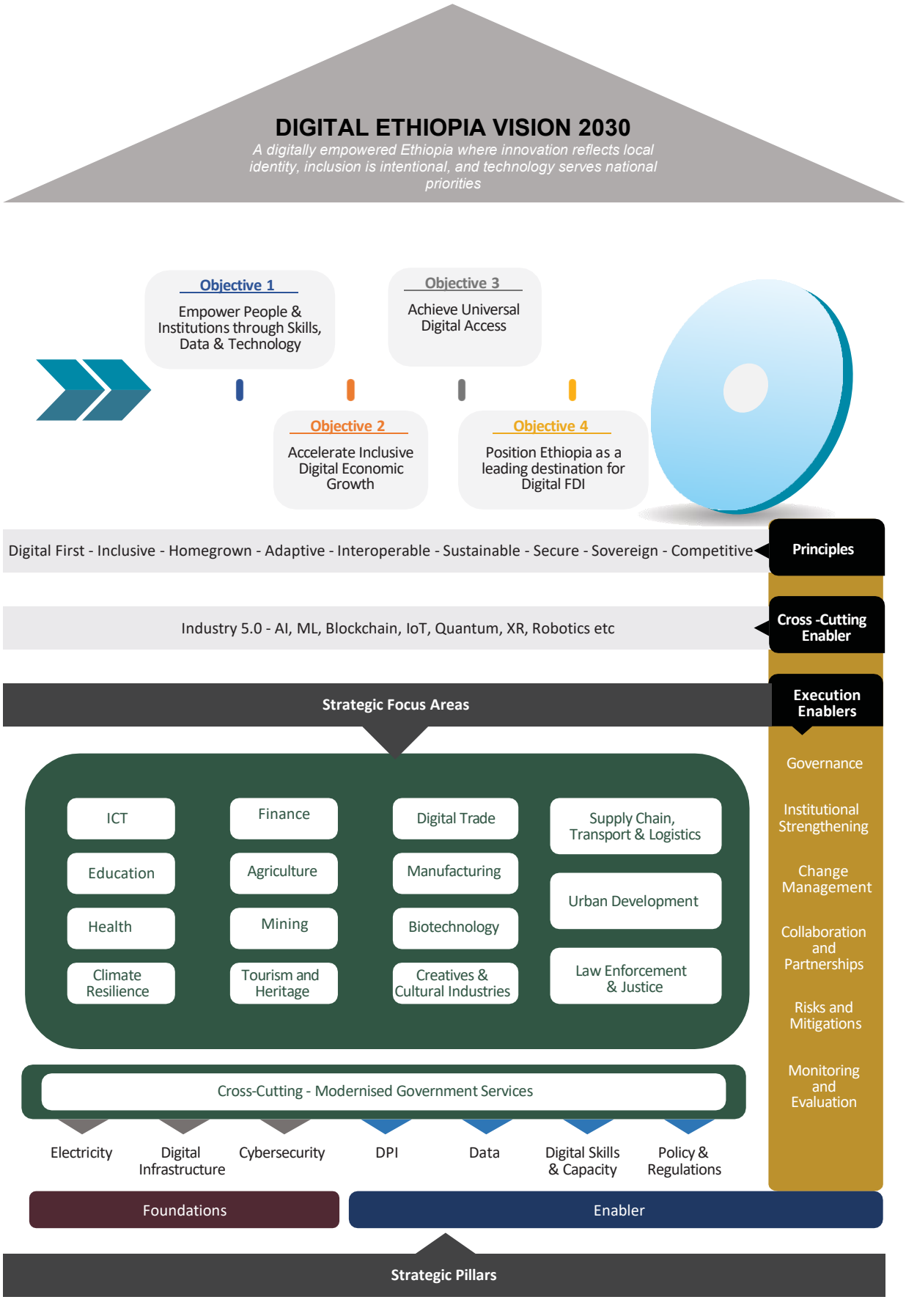
Collectively, the pillars enable secure, inclusive, and interoperable systems that drive better public services.

The **focus areas target sectoral domains where digital technologies strongly impact**. These are reinforced **by Industry 5.0 technologies** and supported by the **Foundations** and **Enablers**, ensuring interventions are both strategic and impactful.

This architecture ensures Ethiopia's vision of a people-centred digital economy.

Implementation is sequenced across **short term (0-3 years)** and **long term (3-5 years) strategic initiatives** to consolidate and scale digital transformation.

Digital Ethiopia 2030 Architecture



Industry 5.0 Technologies

Industry 5.0 places human–machine collaboration and sustainability at the heart of innovation. In Digital Ethiopia 2030, it serves as a cross-cutting enabler that underpins transformation across pillars and sectors. Its deployment is guided by **digital sovereignty, prioritising domestic innovation, secure data, and balanced global partnerships.**

Key Technologies Prioritised in the Strategy

- **Artificial Intelligence (AI) & Machine Learning (ML):** Driving intelligent systems that support automation, prediction and decision making.
- **Internet of Things (IoT):** Enables connected devices that generate and exchanging data real time.
- **Cloud Computing:** Providing scalable infrastructure for storage, computing and digital services.
- **Blockchain / Distributed Ledger Technologies (DLT):** Enabling secure, tamper-proof transactions and data integrity.
- **Quantum Computing:** Next generation computing paradigm to solve complex optimisation and security challenges.
- **Extended Reality (XR):** Blending digital and physical environments for training, engagement and design.
- **Robotics**: Automating physical tasks in industry and services, while enhancing collaboration between humans and machines.
- **Edge Computing:** Processes data closer to where its source for faster, more reliable insights.

Foundations

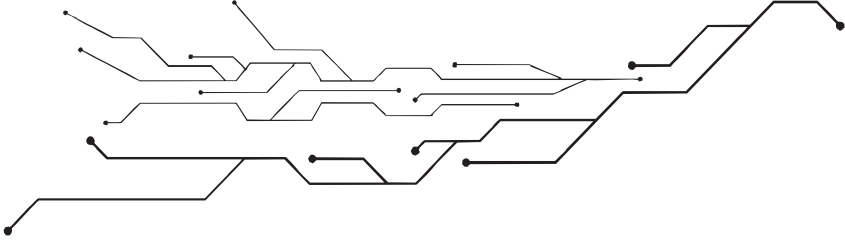
- **Electricity & Connectivity:** Reliable power and broadband are essential for Industry 5.0.
- **Cybersecurity:** Strong cyber-resilience is critical to protect national systems.

Enablers

- **Data:** ML and AI require well-governed, secure, and interoperable data systems.
- **Digital Public Infrastructure:** Fayda digital ID, unified payments, and national data exchange form the backbone for deploying Industry 5.0 tools in e-services, finance, and trade.
- **Digital Skills & Capacity:** A future-ready workforce is essential.

Cross Cutting Enabler

Modernised Government: AI enables smart service delivery, automates back-end operations, and enables real-time citizen engagement. Additionally, Industry 5.0 tools drive adaptive interfaces and intelligent systems that increase efficiency in public interactions.



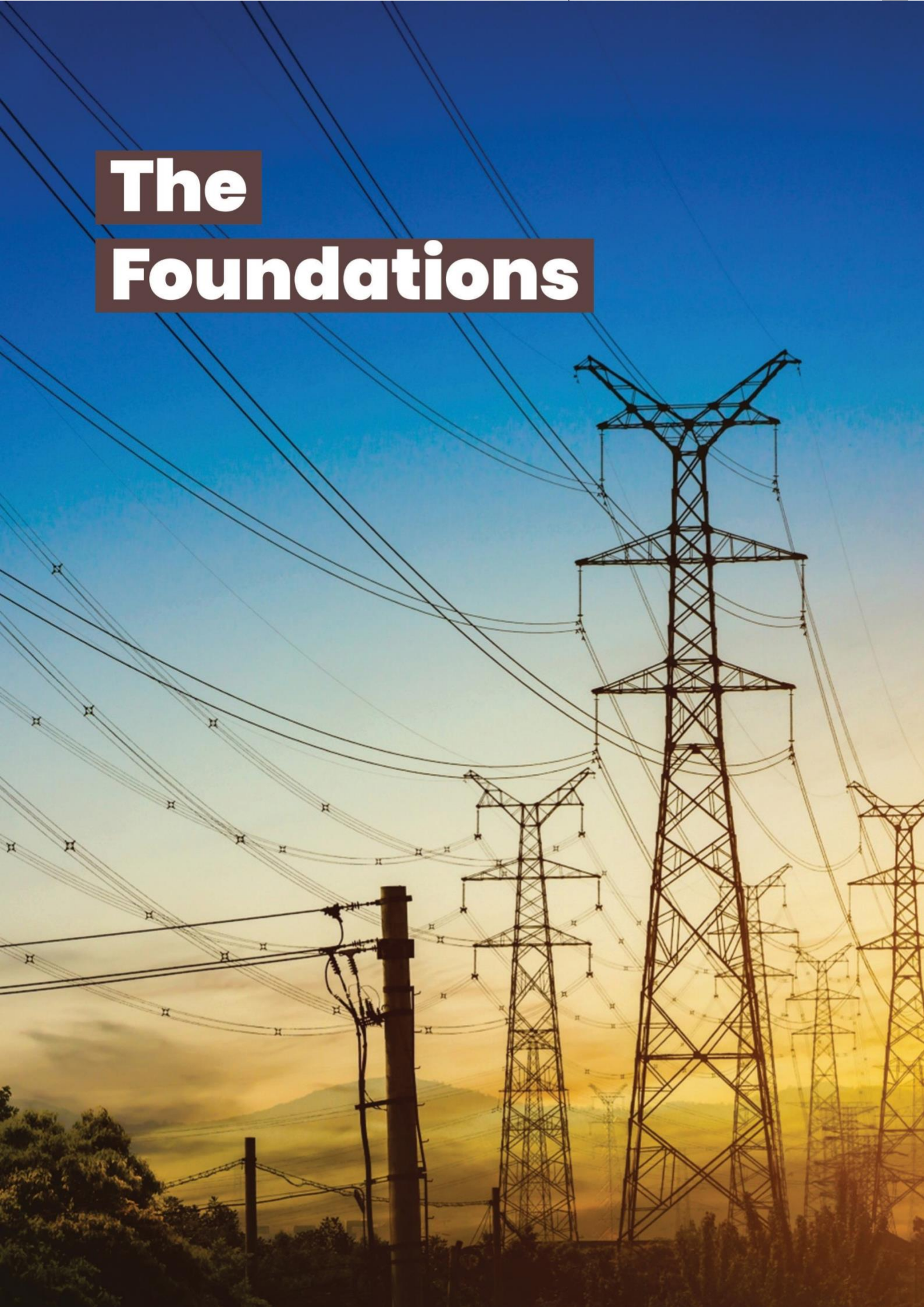
Sectoral Applications:

- **Agriculture:** IoT for soil and crop monitoring, AI for yield forecasting and drones
- **Health:** AI for diagnostics, robotics for patient care, and ML for disease outbreak prediction.
- **Manufacturing:** Smart factories with robotics and AI-led quality control.
- **Education:** XR for immersive learning, AI for personalized tutoring
- **Finance:** AI-powered credit scoring, blockchain-based remittances, and fraud detection.
- **Tourism & Heritage:** XR-enhanced heritage sites, AI-driven visitor insights, and digital storytelling platforms.
- **Climate & Urban Development:** Smart energy grids, AI-driven early warning systems, and IoT - enabled waste and traffic management.
- **Transport, Logistics & Trade:** Blockchain for supply chain traceability, AI for inventory management, and automated cross-border processing.
- **Creative Industries:** Generative AI, digital art tools, and immersive content creation for music, gaming, and fashion.

Industry 5.0 shifts the focus from efficiency to human-centric innovation. It allows Ethiopia to leapfrog legacy systems, harness frontier technologies, and build an inclusive, sustainable digital economy.

Industry 5.0 will enable Ethiopia to apply advanced technologies in a way that is inclusive, human-centred, and aligned with national development priorities

The Foundations



Access to Electricity

Context

While 63% of Ethiopians have access to electricity, reliability, affordability, and rural coverage remain persistent issues. Outages limited last-mile connectivity, and reliance on hydropower makes the energy sector vulnerable to climate shocks.

Strategic Importance

Electricity is essential for Ethiopia's digital transformation. Without affordable, uninterrupted energy, digital infrastructure cannot scale, innovation stalls, and rural populations are excluded.

Strategic Initiatives

Co-Lead: EEP | EEU **Support:** MOWE | ECA | Telcos | Private Sector

Expand Electrification & Renewable Energy ▪ Expand **rural energy access** through **solar mini-grids, pay-as-you-go (PAYG) models, and renewable investments.** ▪ Use **bulk procurement and regulatory tools,** including **power wheeling frameworks, and standardised Power Purchase Agreements,** to lower costs and accelerate last-mile connections.	Short term
Implement Smart Grids, Energy Storage & Management ▪ Deploy **smart meters, IoT sensors, and AI-driven energy tools** for load balancing, predictive outage response, disaster resilience, and demand forecasting. ▪ Deploy **energy storage systems** to support grid stability.	Short term
Improve Utility Infrastructure Management ▪ Develop a **national geo-referenced utility map** covering **electricity, telecom, and water networks** to minimise service disruptions.	Short term
Position Ethiopia as a Regional Clean Energy Hub ▪ Leverage **Ethiopia's abundant renewable resources to export surplus green electricity, advance energy diplomacy and build regional partnerships.**	Short term
Leverage Crypto mining for Energy Monetisation ▪ Establish a **regulated framework for crypto mining operations** to harness low-cost renewable electricity and generate revenue. ▪ Re-invest a **portion of these revenues into rural electrification and Grid expansion.**	Short term

Investments in electricity will power Ethiopia's digital infrastructure, support reliable services expand rural inclusion and strengthen grid resilience. Deploying green energy also advances climate goals and SDG targets, laying the foundation for an economically competitive Ethiopia.

Access to reliable, affordable, and sustainable energy is the foundation of Ethiopia's digital transformation. It powers connectivity, enables innovation, and ensures that no community is left behind as we build a digitally inclusive and future-ready nation.

Pay-As-You-Go Solar Electrification in India

India's DREAM (Decentralised Renewable Energy Applications for Millions) successfully expanded energy access to underserved communities through pay-as-you-go (PAYG) solar solutions. The program combined mini-grid installations with mobile-enabled payments, allowing households to access clean energy without large upfront costs.

Impact

- Reached over 2.5 million households across several states
- Enabled productive use of electricity for education, health, and small businesses
- Reduced reliance on diesel and kerosene, supporting India's sustainability goals
- Created local green jobs through installation, servicing, and distribution

Relevance to Ethiopia

- This approach holds strong applicability for Ethiopia, where electrification remains uneven, particularly in rural and remote areas.
- By leveraging PAYG solar models integrated with platforms like Telebirr and Mpesa, Ethiopia can accelerate access to reliable, affordable electricity.

Digital Infrastructure

Context

Internet penetration in Ethiopia is roughly 45%, with rural areas most underserved. While 5G is being rolled out in major cities, fixed broadband penetration and AI compute capacity remain limited. Achieving Ethiopia's digital ambitions requires investment in future-ready, secure, and inclusive digital infrastructure.

Strategic Importance

Modern, robust digital infrastructure is foundational for scaling public services, enabling private sector innovation, and achieving Ethiopia's goal of becoming a regional digital hub.

Strategic Initiatives

Co-Lead: ECA | MINT | INSA | EAII |Telcos **Support:** Line Ministries| Private Sector

Overarching Principles	Digital First	Inclusive	Homegrown	Adaptive	Interoperable	Sustainable	Secure	Sovereign	Competitive

Achieve Universal Internet Access ▪ Deliver affordable broadband through a **mix of fixed and wireless technologies,** guided by a five-year **National Broadband Strategy (NBS).** ▪ The ECA will accelerate rollout via **licensing, spectrum reforms, and infrastructure sharing**. ▪ Establish **Community Internet Access Centres** in underserved locations to provide **Wi-Fi, shared devices, and e-government counters** with priority connectivity to clinics, schools, productive zones. ▪ Rollout **5G** based on **high impact use cases and sectors** ***Note***: Detailed mechanisms for spectrum allocation, licensing, and infrastructure sharing to be developed through the NBS, with related regulations guiding efficient infrastructure use, sharing, and new deployments across Ethiopia's large and diverse market.	Long term
Modernise Government Backbone Network (WoredaNet) ▪ **Modernise WoredaNet** into a **secure, interoperable backbone network using emerging technologies** to enable seamless delivery of services.	Short term
Establish a Government Cloud & Cutting-Edge Data Centres ▪ Establish a **sovereign government cloud** with green, energy-efficient data centres to host **critical public systems,** complement national platforms, and ensure Ethiopian data remains within the country. ▪ Empower local telecom operators and domestic stakeholders to lead ownership, operations, and capacity building, while	Short term

inviting global hyperscalers to provide expertise and investment. ▪ Develop **regional data centres** to localize content, reduce latency, support applications, and maximize local value creation, skills development, and sustainability. ▪ **Align all data centre and hyperscaler engagements with the National Cloud Policy,** ensure complementarity with existing platforms such as TeleCloud, 251 Telecom and others avoiding duplication while strengthening Ethiopia's competitiveness as a regional digital hub.	
Build National AI Compute Infrastructure ▪ Develop a **national AI compute infrastructure** by building **GPU clusters, scalable training environments** and integration with **sovereign cloud infrastructure**. ▪ Provide **AI compute access and tools** to government agencies, startups, universities, and innovators positioning Ethiopia as a **regional AI powerhouse.**	Short term
Expand Fibre Backbone, IXPs and International Gateway ▪ Expand **national fibre backbone and metro networks**, and **interconnect data centres** to localise traffic and reduce costs. ▪ **Further enhance diversified submarine cables and terrestrial routes** and **attract Content Delivery Networks (CDNs).**	Short term

Digital infrastructure investments will expand equitable, high-speed internet, enable scalable services, and provide the computational foundation for AI. Coupled with cybersecurity and IoT/GIS-based physical security, these measures position Ethiopia as a competitive, future-ready digital leader.

Digital infrastructure is a foundation, spanning connectivity, data and AI infrastructure, government cloud, and edge computing. We aim to build resilient, scalable, future-ready digital infrastructure that enable services to reach every citizen, business, and institution across Ethiopia.

UAE's Strategic Investment in AI Infrastructure

The United Arab Emirates has strengthened its AI leadership through Stargate UAE, a next-generation compute cluster in Abu Dhabi developed with G42, OpenAI, Oracle, NVIDIA, SoftBank, and Cisco. Powered by clean energy, it enables large-scale AI training and deployment while attracting top global partners

Relevance to Ethiopia

- Shows the value of national AI infrastructure
- Highlights the role of public-private partnerships
- Offers a model for scaling AI capabilities sustainably and strategically

Cybersecurity & Digital Trust

Context

Ethiopia's digital footprint grows in lockstep with its cybersecurity risks. In 2023/24, cyber-attack attempts rose from 7,000 to over 8,800. While Ethio-CERT has strengthened defences, Ethiopia remains at Tier 3 of the Global Cybersecurity Index (score 76.34). To address these issues, the 2024 National Cybersecurity Policy underscores Ethiopia's commitment to cyber-resilience.

Strategic Importance

Cybersecurity and digital trust are foundational to digital transformation, underpinning user confidence. Strong cyber governance, threat detection, digital signatures, and data protection will make services durable.

Strategic Initiatives

Co-Lead: INSA | MINT **Support:** Line Ministries | Agencies | Telcos | Private Sector

Establish Resilient National Critical Infrastructure ▪ Conduct a **resilience assessment of critical infrastructure** and integrate these systems into **Ethio-CERT** for coordinated response.	Short term
Modernise Public Infrastructure and Digital Signatures ▪ Upgrade the **PKI system** with **future-ready cryptographic standards**.	Long term
Strengthen National Cyber Resilience and Sectoral Readiness ▪ Conduct a national **cybersecurity maturity assessment**. ▪ Expand **Ethio-CERT** into a **24/7 National Security Operations Centre (SOC)** with AI-enabled threat monitoring. Introduce a **National Cyber Maturity Index** to benchmark institutional readiness.	Short term
Improve Disaster Recovery and Infrastructure Resilience ▪ Establish **disaster recovery sites** with secure government data backup, replication, and establish contingency telecom connectivity.	Short term
Create Cybersecurity Businesses and Talent ▪ Establish a national **Cybersecurity Centre of Excellence** to train **skilled professionals, support research and innovation**, provide certification, ethical hacking programs, and strengthen secure system design ▪ Foster **local cybersecurity firms** and position **Ethiopia as a regional hub for cybersecurity talent and services.**	Short term

Cybersecurity and digital trust initiatives will protect Ethiopia's critical systems. By integrating post-quantum cryptography, zero-trust frameworks, and AI-based threat detection, they ensure resilient digital services.

Fortified cybersecurity is the backbone of our digital transformation. It protects the integrity of our systems, builds trust in digital services, and ensures that Ethiopia's digital future is secure and resilient.

Implementing Quantum-Resistant PKI in the Public Sector

In March 2024, an EU country became the first to implement QAN platform's quantum-resistant technology within its public sector infrastructure. This deployment safeguards government-owned cybersecurity systems by integrating quantum-resistant cryptographic algorithms.

Impact

- Enhanced protection of sensitive government data.
- Demonstrated feasibility of integrating quantum-resistant solutions.
- Set a precedent for other nations to adopt similar proactive cybersecurity measures.

Relevance to Ethiopia

- Adopting quantum-resistant cryptographic solutions can future-proof national cybersecurity.
- Such technologies can protect critical government data and communications.
- Early adoption positions Ethiopia as a leader in cybersecurity resilience.


The
Enablers

Data

Context

As Ethiopia digitises, its data landscape remains fragmented and loosely governed. Lack of a unified national data policy creates duplication, siloed datasets, and underutilisation of critical information. Without strong governance and local control, Ethiopia risks lagging in AI readiness.

Strategic Importance

Data is a strategic asset for development. Effective governance of infrastructure, policies, standards, and institutions will allow Ethiopia to manage data securely, uphold sovereignty, and ethically innovate with AI.

Strategic Initiatives

Co-Lead: EAII | ECA | MInT | INSA **Support:** NIDP | Line Ministries | Telcos | Private Sector

Prioritise Data Protection & Governance ▪ Implement the **Personal Data Protection Proclamation** through clear **regulations,** and **strong institutions**. ▪ Establish a **National Data Governance Framework** to set national standards, oversight, and secure protocols. ▪ Launch a **Data Stewardship Programme** in key institutions to train data stewards, improve data quality, and drive ethical, evidence- based policymaking. ▪ Ensure **datasets are inclusive and disaggregated** to reflect disadvantaged groups.	Short term
Strengthen National Digital Infrastructure & Analytics ▪ Build a **National Data Infrastructure** by integrating sovereign cloud platforms, government data centres, national registries, and the Ethio-Connect Data Exchange. ▪ Establish a **National Big Data and Analytics Platform** to process **large-scale datasets** for real-time analytics. ▪ Develop a **National Data Analytics Infrastructure** to enable services such as MESOB, eServices, Single Window, and Digital Trade, guided by the **Government Enterprise Architecture** for interoperability, ownership, and data quality.	Short term
Harness Open Data & High Value Datasets ▪ Implement a **National Open Data initiative** guided by an **Open Data Policy** to provide secure access to non-sensitive government datasets.	Short term

Establish a National Data Authority ▪ Establish a dedicated authority to coordinate **national data governance** and oversee the secure, ethical use of **data as a national asset.**	Short term
Develop and Expand Data Registries ▪ Develop **sectoral data registries in priority domains.** ▪ Ensure that registries are underpinned by reliable and interoperable core datasets.	

A robust data governance and sovereignty framework will allow Ethiopia to manage data responsibly, build trust in digital systems, drive AI innovation, enhance public sector efficiency, and align with national priorities.

Our data is a national asset. Our ability to protect, govern, and ethically harness it will define our sovereignty in the digital age and shape how inclusive, intelligent, competitive in the age of AI and resilient our development becomes.

United Kingdom's Data Ownership and Governance Model

The United Kingdom (UK) has implemented a comprehensive Data Ownership Model across its government departments to enhance data governance. This model clearly defines roles such as Data Owners, Data Stewards, and Data Custodians, establishing accountability for data management throughout its lifecycle. By formalising these roles, the UK ensured that data is treated as a strategic asset, promoting better data quality, compliance, and informed decision-making across the public sector.

Impact

- Established clear roles and responsibilities for managing public data
- Improved data quality and interoperability across departments
- Strengthened data-driven policymaking and service design

Relevance to Ethiopia

- Shows the value of assigning formal data stewardship roles within institutions
- Demonstrates how treating data as an asset improves service delivery and policy outcomes
- Offers a practical model for Ethiopia's data governance entity and sectoral coordination

Digital Public Infrastructure

Context

Ethiopia has made significant progress in digital systems. By mid-2025, over 23 million people were enrolled in Fayda and integrated with 55+ service providers. Digital payments are growing rapidly, surpassing cash transactions. Despite this, digital systems remain siloed, with incomplete data exchange, and underdeveloped governance.

Strategic Importance

Digital Public Infrastructure (DPI) underpins a digitally inclusive, innovation- driven, and AI-ready economy. A unified DPI stack enables secure, scalable services. It also ensures data interoperability, reduces redundancy, and fosters trust in digital transactions

Strategic Initiatives

Co-Lead: NIDP | EthSwitch | EAII | MInT| NBE | INSA **Support:** MDAs |Telcos |Private Sector

Establish Institutional Governance for DPI ▪ Establish a **multi-institutional technical and policy coordination team** to oversee DPI architecture, integration, and implementation. ▪ Introduce **laws and implementation directives** that require integration with core DPI components for digital services. ▪ Enforce **open standards and API frameworks** across government systems, including API, data schemas, authentication protocols ▪ Develop a certification and sandbox framework to ensure **compatibility, secure testing, and developer integration**.	Short term
Develop Ethiopia DPI Stack ▪ Develop an **interoperable DPI Stack,** integrating Fayda ID, digital payments, national data exchange and the national addressing system. ▪ Adopt **open standards and APIs** to enable seamless access to services. ▪ Align the **stack with continental frameworks under AfCFTA** and the **AU Digital Transformation Strategy** to ensure cross-border interoperability; harmonizing e-signature, payments, data governance.	Short term
Expand Fayda Integration and eKYC Use ▪ Scale **Fayda** by prioritising **eKYC,** digital onboarding, and public service authentication, ensuring it interoperates with existing wallets such as Telebirr, M-Pesa, and bank/fintech solutions.	Short term

▪ Deploy the **Fayda Wallet as a user-controlled credential platform** to serve as the trusted backbone for digital transactions, complementing front-end payment wallets. ▪ Extend **access to underserved groups** to strengthen trust, inclusion, and financial participation.	
Operationalise a National Digital Payments Layer ▪ Develop a **unified national digital payment layer** (UPI-style) by linking **banks, mobile money operators, FinTechs, and merchants** through**, API-driven systems**. ▪ Strengthen **payment switching under EthSwitch**, adopt **international standards** and establish **sandbox environments** to ensure secure, and inclusive digital payments.	Short term
Establish Secure Data Exchange(s) ▪ Deploy an **interoperable national data exchange platform** (EthioConnect) to enable secure data sharing. ▪ Operationalise high priority data exchange use cases such as digital ID validation, health, and education to drive innovation and public value.	Short term
Scale the National Addressing System ▪ Integrate **Ethiopia's digital addressing system in the DPI stack,** linking it with Fayda, digital payments, data exchange and public service platforms. ▪ Ensure **interoperability** with **geospatial and logistics systems.** ▪ Expand **adoption across priority sectors** to enable seamless integration.	Short term

Ethiopia's DPI stack will prioritise national sovereignty by keeping data within the country, promoting local solutions, and nurturing digital assets. A well-integrated DPI enables efficient, service delivery, and supports financial inclusion.

Digital Public Infrastructure is not just a set of platforms, Ethiopia DPI Stack is the foundation for equitable service delivery, trusted interactions, and scalable innovation across the economy. Our future depends on getting this right.

India Stack – A Scalable DPI Model for Inclusion and Innovation

India Stack is one of the world's most advanced DPI models, integrating digital ID (Aadhaar), digital payments (UPI), and a consent-based data-sharing framework (DEPA). It enabled rapid digitisation of public services and catalysed a vibrant digital economy.

Impact

- Enabled over 1.3 billion people to access digital identity and banking services
- Reduced leakage in government transfers, saving an estimated $34 billion
- Supported the emergence of over 100,000 digital startups and service providers
- Became a reference model for scalable, open, and interoperable DPI globally

Relevance to Ethiopia

- Highlights the power of integrating digital ID, payments, and data exchange into a unified Stack
- Shows how open APIs and public-private collaboration can accelerate innovation and inclusion
- Emphasises the importance of use-case driven deployment in scaling adoption
- Demonstrates that even in a large and diverse country, a modular and open DPI approach enables national digital transformation

Digital Skills & Capacity Building

Context

Ethiopia, with a population of over 130 million is one of the youngest countries in the world with 70% of the population under 30 and 26 million in formal education. Yet digital literacy remains low. Nevertheless, programs like the 5 million Coders are bridging the gap. It has so far enrolled over 2.3 million learners and certified 1.5 million. To deepen the digital economy, scaling digital skills and capacity development is an urgent national priority.

Strategic Importance

Developing a digitally skilled workforce is key to Ethiopia's digital transformation. Digital skills empower citizens, drive innovation, create jobs, and modernize public services. Through investment, Ethiopia can strengthen competitiveness, promote inclusion, and unlock global opportunities.

Strategic Initiatives

Lead: MoE | MInT| MoLS | FCSC **Support:** INSA | EAII | Academia |Telcos |Private Sector

Develop a National Digital Literacy and Competency Framework ▪ Develop this **framework through broad consultation** with government, industry, and partners. ▪ Define **progressive skill levels,** establish **national standards**, and guide **curricula** to ensure coherent learning.	Short term
Expand Nationwide Digital Literacy ▪ Launch a **nationwide digital literacy program** across schools and underserved communities using localised content. ▪ Promote **cyber-hygiene campaigns** to encourage safe technology use with tailored training for women, rural youth, SMEs, and other disadvantaged groups. ▪ Deliver these programs through a **National Digital Academy** as the institutional platform for digital literacy.	Short term
Strengthen Civil Service Digital Capacity ▪ Strengthen **civil service skills** through digital skills learning via the **Government Digital Academy,** supported by digital KPIs. ▪ Introduce a **Digital Fellows program** across priority ministries to encourage skills transfer and institutional excellence.	Continuous
Develop a Future-Ready Workforce ▪ Implement a **demand-driven workforce strategy** to scale training through initiatives such as the 5 million Coders program.	Short term

▪ Partner with **universities, TVETs, and global tech firms** to deliver competency-based training and Train-to-Hire schemes. ▪ Launch **specialised training in exportable skills** to connect with global BPO, freelancing, and outsourcing markets.	
Scale Lifelong Learning Systems ▪ Integrate **Micro-credentialing** and continuous reskilling into vocational institutes. ▪ The government will help employers to **design on-demand upskilling programs**. ▪ Establish **industry-focused digital training hubs** to deliver **blended technical training**, enabling citizens to access new employment opportunities.	Short term
Build Innovation Ecosystem ▪ Expand **innovation hubs and incubators** to support **advanced research,** and collaboration between **government, academia, and industry.**	

Investing in digital skills builds a future-ready workforce. By aligning skills with industry needs, Ethiopia can unlock new opportunities.

"A digitally empowered population is the engine of Ethiopia's transformation. Equipping our children, youth, civil servants, and entrepreneurs with digital skills and emerging skills is not optional - it is the pathway to Ethiopia inclusive growth and national competitiveness."

Prime Minister, H.E. Abiy Ahmed (PhD)

Estonia & European Union – Building Digital Skills

Estonia: The AI Leap initiative (2025) integrates AI into public education, targeting 58,000 students and 5,000 teachers by 2027. Training emphasizes digital ethics, self-directed learning, and equity.

European Union: The DigComp framework sets out 5 areas, 21 competences, and 8 proficiency levels, covering AI, data use, cybersecurity, and digital well-being. With 250+ practical examples, it informs curricula, assessments, and adoption across schools, civil service, and employment services.

Impact

Estonia: By 2027, 58,000 students and 5,000 teachers will gain AI literacy. The initiative enhances teacher capacity, empowers learners with practical AI tools, and positions Estonia as a global leader.

EU (DigComp): Provides a shared measurement system. The framework underpins national digital literacy policies and micro-credential schemes across multiple member states.

Relevance to Ethiopia

- **Estonia:** Shows how AI can be integrated in curricula and teacher training in a scalable, equity-focused way.
- **EU DigComp:** Provides a ready-to-use blueprint for Ethiopia's National Digital Literacy & Competency Framework, with clear proficiency levels, role-based applications and a proven methodology.

Policy & Regulation

Context

Ethiopia's policy and regulatory landscape is evolving alongside rapid digitisation. While important steps have been taken, such as the adoption of the Personal Data Protection Proclamation and the liberalisation of the telecom sector, policies remain fragmented.

Strategic Importance

A modern policy and regulatory framework are essential to enable Ethiopia's digital transformation. Well-designed regulations foster trust, promote innovation, encourage competition, and ensure ethical use of digital technologies. They also enable full participation in the digital economy.

Strategic Initiatives

Lead: MInT | ECA | EAII | MoTRI | MoI | EIC | INSA | EAII **Support:** MoF | MDAs |Telcos | Private

Expand Inclusive and Affordable Digital Access ▪ Ensure **Telecom regulations** promote infrastructure expansion, competition and lower costs. ▪ Improve the **affordability of smart devices** through fiscal reforms and local production. ▪ Adopt **National digital accessibility standards,** ensuring services are usable across languages, literacy levels, and by disadvantaged groups	Short term
Strengthen Cybersecurity and Online Safety ▪ Ratify the **National Cybersecurity Policy (2024)** with CII protection, breach reporting, and incident response. ▪ Align with the **AU Malabo Convention on Cybersecurity** and Personal Data Protection. ▪ Expand **INSA's mandate to lead sectoral audits and cyber drills**. ▪ Introduce **Online Child Protection legislation**. ▪ **Address digital harms** including deepfakes, misinformation, and online abuse.	Short term
Ensure Fair Digital Markets ▪ Introduce a **Digital Platform Regulation Framework** to define responsibilities for content governance, transparency, accountability. ▪ Update **consumer law** to cover **algorithmic transparency**, **redress, and data portability.** ▪ Introduce **digital competition policies** to prevent dominance and anti-competitive practices. ▪ Establish **frameworks for cross-border taxation of digital services**.	Short term

▪ Align with **AfCFTA Digital Trade Protocol** by recognising digital contracts, enabling cross-border data flows, and dispute-resolution mechanisms. ▪ Advance **National Digital Payments Strategy (NDPS)** by enhancing regulatory frameworks for fintech, digital lending, and secure data sharing; adopting open banking, prioritising Fayda for eKYC, steering AI-driven financial products (e.g. robo-advice, algorithmic credit scoring) by fairness, transparency, and inclusion principles.	
Advancing Innovation & Technology Governance ▪ Adopt a **National AI Strategy** alongside an **AI Ethics and Risk Framework**. ▪ Develop a **National IoT Strategy** to guide interoperable IoT deployment. ▪ Develop a **Cloud and Edge Computing Policy and Strategy** ▪ Develop a **Blockchain and DLT Strategy**. ▪ Expand **regulatory sandboxes for AI, blockchain, telecom, and frontier innovations, including stablecoins, DeFI and cryptocurrencies.** ▪ Introduce **horizon-scanning and governance** for quantum computing, cross-border data flows, and other systemic risks.. ▪ Operationalise the **Startup Proclamation** with directives on licensing, IP protection, taxation, and innovation **zones**	Short term
Modernise IP and Promote Local Content ▪ Modernise **copyright and neighbouring rights laws to** reflect digital realities such as streaming, remix culture, and platform distribution. ▪ Strengthen the **Collective Management Society** to ensure effective royalty collection and enforcement. ▪ Establish **frameworks for digital royalties, online licensing, and metadata tracking** to protect creators. ▪ Promote **indigenous-language innovation** through **NLP legal protections, incentives, and funding.** ▪ Require **all public-facing digital services** to support **Ethiopia's major languages** to advance inclusion and cultural equity.	Short term
Regulate E-Waste and Promote the Circular Economy ▪ Enact **e-waste regulations** with Extended Producer Responsibility ▪ Encourage **repair, refurbishment, and sustainable manufacturing**. ▪ Adopt **green procurement and eco-labelling.** ▪ Set **energy-efficiency standards for data centres, devices, and telecoms equipment.** ▪ Align with **national climate strategies** for a sustainable digital economy.	Short term

Cross-Cutting Enabler: Modernised Govt Services

Modernised Government Services

Context

Ethiopia is digitising public services, with over 800 accessible through the National eService's Portal and the MESOB One-Stop Service Centre. These efforts reflect a growing focus on integrated, citizen-centred government services. Despite progress, there is a strong need to modernise back-end systems, strengthen coordination, and expand access, particularly in rural areas.

Strategic Importance

Digitising government services is essential to Ethiopia's vision of efficient, citizen-centred governance. Modern, integrated digital systems will streamline interactions, increase transparency, expand access for rural populations, and strengthen Ethiopia's global standing

Public service delivery will be transformed through shared systems, data integration, and user-centred design, ensuring fast, inclusive, and accountable government.

Strategic Initiatives

Lead: MINT | EAII | FCSC **Support:** All MDAs |Telcos |Private Sector

Implement the National Digital Government Strategy ▪ Execute the **National Digital Government Strategy** to modernise service delivery, improve digital governance, and ensure citizen-centric design. ▪ Launch a **Digital Services Standards** that cover **interoperability, UI/UX, DPI integration, reusable component, security and** consistent **data practices.** ▪ Institutionalise the **Government Enterprise Architecture (GEA)** as the blueprint for designing and integrating systems. ▪ Reengineer **bureaucratic processes** and establish a **National Service Integration Index** to benchmark progress. ▪ Digitise **priority G2C, G2B, and G2G services through a yearly eService's Roadmap leveraging Ethiopia's DPI stack.**	Short term
Expand Access to Digital Public Services via eService's Portal ▪ Expand the **national eService's portal as the designated gateway** integrating services through **APIs, AI enabled navigation and Ethiopia DPI Stack.** ▪ **Scale MESOB One Stop Centres** and establish additional **Community Service Centres** to ensure access for the	Short term

unconnected. ▪ Ensure inclusive access for **women, rural populations, low-literacy users, and PWDs.**	
Modernise Public Sector Transformation through Cloud- Native Development ▪ Mandate **cloud-native, modular, and scalable development for all new public services**. ▪ Implement a **Digital-by-Default policy** with user-centric principles. ▪ Leverage **Public Procurement & Property Administration Proclamation No. 1333/2024 for agile procurement.** ▪ Introduce **pilot procurement** and **startup-friendly** engagement models ▪ Institutionalise **hackathons** to co-design services. ▪ Integrate **green digital governance** by requiring eco-friendly procurement, and paperless workflows.	Short term
Embed User Feedback and Champion Innovation ▪ Require all major **digital platforms** to integrate **user feedback and complaint resolution** mechanisms. ▪ Publish **quarterly service performance dashboards to strengthen transparency and accountability.** ▪ Promote **innovative apps and champion services within MDAs with a national recognition and awards framework for** innovation public services. ▪ Establish **regulatory sandboxes for digital innovation.**	Short term
Transition Toward Paperless, Resource-Efficient Government ▪ Implement **paperless workflows across government.** ▪ Expand **the adoption of digital signatures and e-documents.** ▪ Benchmark public institutions annually **on paperless operations.**	

Modernised government services will ensure that Ethiopia delivers citizen-centric, efficient, and inclusive public services.

India, Singapore & Korea – User-Centric eGovernment Services

India: India has strengthened citizen-centric delivery by a unified design framework and enhancing inclusivity and accessibility. This has improved citizen
satisfaction and trust in government services.

Singapore: Singapore has scaled digital government through its national portal for life-event journeys, combined with the SG Tech Stack. These platforms ensure secure, cloud-native service rollouts and integrated citizen experiences.

South Korea: Korea's Government24 portal provides one-stop access to thousands of services, underpinned by deep back-office integration. It uses AI, cloud, and data to proactively deliver benefits to citizens.

Impact

- **India:** UX4G has standardised the design and usability of digital services, training hundreds of developers in user-centred, accessible service design. Through these practices, citizen satisfaction has measurably improved.
- **Singapore:** Singpass is used by around 5 million people, enabling more than 41 million transactions each month and linking citizens to 2,700+ services from 800 providers. More than 80% of eligible government systems have migrated to GCC 2.0.
- **Korea:** the country ranked first overall in the 2023 OECD Digital Government Index, reflecting its global leadership in citizen-centred services. The Government24 portal provides guidance on almost 12,000 services, with around 1,300 fully online and integrated.

Relevance to Ethiopia

- **India:** Provides a model for a unified UX framework and capacity-building programme to drive consistency and inclusivity.
- **Singapore:** Demonstrates the effectiveness of a cloud-native mandate and shared development stack to streamline end-to-end service journeys.
- **South Korea:** Validates the role of a one-stop national portal integrated with back-office systems and highlights how a platform government approach using AI and cloud can make services proactive and data-driven.

Strategic Focus Areas:

The Sectors

Sectoral Digital Transformation: Vision and Approach

Sectoral digital transformation is to be implemented in a results-driven manner across public, private, and civic institutions. Therefore, **every sector has a responsibility to modernise its systems**, **improve service delivery, and adopt digital tools.**

While high-priority sectors have been selected for focused intervention, the strategy defines a **common digital transformation baseline** that **all sectors** are expected to meet.

These include:

- **Electricity and connectivity readiness**, in facilities where digital services are delivered
- **Cybersecurity integration**, including compliance with the National Cybersecurity Policy
- **Adoption of Ethiopia DPI Stack** components
- **Alignment with the Government Enterprise Architecture** to ensure interoperable, standards- based digital design
- **Establishment of digital transformation teams** or focal units within institutions to coordinate implementation
- **Digitisation of five+ high-impact services per sector**, with plans to scale
- **Participation in national monitoring frameworks**, including regular performance
- **Implementation of inclusion measures**, ensuring accessibility to women, rural communities, low-literacy users, and persons with disabilities

Information Communication Technologies

Context

Ethiopia's Information Communication Technology (ICT) sector is expanding rapidly and looks to become a vital engine of the national economy. The ecosystem encompasses software development, IT-enabled services, digital infrastructure, and research in advanced technologies. The government's enterprise has led to improved broadband access, regulatory reforms, and the liberalisation of the telecom sector. Despite these gains, domestic IT manufacturing is minimal, software exports are limited, and innovation remains embryonic.

Strategic Importance

A vibrant and dynamic ICT sector is critical to Ethiopia's vision of sustainable economic growth. By strengthening local capabilities in digital innovation, cloud services, and advanced technology research, Ethiopia will enhance competitiveness across all economic sectors. A robust ICT sector will underpin the broader digital economy, create sustainable jobs, and firmly position Ethiopia as a regional leader.

Strategic Initiatives

Co-Lead: MInT | EIC | IT PARK | ECA| INSA **Support:** MOI |Telcos |Private Sector

Expand Software Export Capacity ▪ Develop **software development clusters targeting export markets**. **Provide IP protection and export facilitation services** to support startups. ▪ Launch a **National ICT Export and Investment Promotion Program** to market Ethiopia's ICT globally through a dedicated digital investor portal.	Short term
Enable Local Hardware Production and Assembly ▪ Promote the **production of ICT hardware,** in partnership with private investors and industrial parks. ▪ Introduce targeted **investment incentives** to reduce reliance on imports and strengthen Ethiopia's **electronics manufacturing** ecosystem.	Long term
Build National Cloud Infrastructure and Advance R&D ▪ Expand **sovereign and commercial cloud services** to the private sector. ▪ Develop **edge computing infrastructure** in smart cities, health zones, and logistics corridors for real-time applications. ▪ Prioritise **national research** in **emerging technologies** through funding, innovation partnerships, and local innovation zones.	Short term
Strengthen Cybersecurity Frameworks ▪ Enforce **cybersecurity regulations for data centres, cloud providers, and software platforms**. ▪ Establish standards for **secure development, ethical AI use, and security** requirements.	Short term
Create an ICT Sector Regulatory Sandbox ▪ Establish **testbeds for AI, IoT, cross-border data flows, and fintech products** through a **regulatory sandbox.** ▪ Enable **rapid innovation and deployment** under **flexible regulations**, while maintaining safeguards for security and consumer protection.	Short term

Digitally transforming the ICT sector will accelerate Ethiopia's shift to a regional digital hub, fostering innovation, creating quality jobs, and driving export revenues.

The ICT sector is the engine of Ethiopia's digital economy. It will enable competitiveness and integration into regional and global markets.

Singapore & UAE -Accelerating ICT Growth Through Infrastructure & Private Partnership

Singapore: Singapore has built one of the world's most advanced digital government ecosystems by leveraging public–private collaboration. Programs like Government on Commercial Cloud (GCC 2.0) and the SG Tech Stack enable scalable ICT delivery, while GovTech's co-creation model brings in startups and global tech firms to innovate alongside government.

United Arab Emirates: The UAE has become a regional hub for hyperscale cloud and AI infrastructure. Microsoft Azure, AWS Middle East (UAE) Region, and Oracle Cloud Abu Dhabi all provide sovereign and commercial cloud services. These investments are backed by pro- innovation regulations, data centre incentives, and free zone frameworks.

Impact

- **Singapore:** Over 80% of government systems have migrated to commercial cloud. In FY2024, the Singapore government allocated S$3.3 billion (~USD 2.4B) to ICT infrastructure and digital services, with ~45% of projects co-developed with private partners. The SG Tech Stack accelerates app development through shared APIs and developer services.
- **UAE:** Hyperscaler cloud investments have made the UAE a regional digital services hub, while Stargate UAE positions it as a leader in sovereign AI infrastructure.

Relevance to Ethiopia

Singapore:

- Demonstrates how government cloud migration paired with private sector co-creation scales digital services.
- Provides a model for stacks and APIs to integrate into national platforms.
- Shows how consistent ICT procurement budgets signal market opportunity for local and international firms.

UAE:

- Illustrates how attracting hyperscalers provides both sovereign and commercial cloud capacity for government and enterprise.
- Offers lessons in regulatory sandboxes, free zone policies, and data centre incentives that reduce investment barriers.
- Shows how bold initiatives like Stargate UAE can position a country as a regional AI and cloud hub.

Finance

Context

Ethiopia's digital finance ecosystem is expanding rapidly, with over 128 million registered mobile money accounts and digital transactions surpassing 9.6 trillion Birr in 2024. Daily transactions exceed 10 billion through platforms like Telebirr, which has over 57 million subscribers. The sector is projected to contribute 3.9% of GDP by 2025. To seize this momentum, the government champions interoperability, digital ID integration, and broader merchant adoption. Despite this progress, gaps persist, particularly in rural access, credit infrastructure, and digital ID penetration.

Strategic Importance

Digital financial inclusion directly advances Ethiopia's goal of economic empowerment, ensuring that all citizens benefit from the digital economy. Digital enabled financial tools will significantly enhance financial access, promote secure transactions, and create new opportunities. This transformation will be especially impactful for SMEs and informal workers, driving inclusive growth across Ethiopia.

Strategic Initiatives

Co-Lead: NBE | ECMA | ESX | EthSwitch **Support:** MOF | EAII | MMOs | FinTechs | All MDAs

Expand Financial Inclusion ▪ Expand digital payments to **rural and underserved areas** through G2P, P2P, B2B, and utility integrations. ▪ Integrate **Fayda for secure eKYC.** ▪ Deploy **AI-driven alternative credit scoring** to widen access.	Short term
Develop Digital Currencies & Defi Ecosystems ▪ Develop a **regulated DeFi ecosystem** to enable peer-to-peer lending, digital asset management, and smart contracts. ▪ Conduct **CBDC feasibility pilots** to lower remittance costs. ▪ Regulate use of **stablecoins** to improve remittances and regional trade, under a sandbox with safeguards**.**	Short term
Modernise Capital Markets ▪ Align **capital market data infrastructure** with global standards for integration and diaspora participation. ▪ Adopt **DLT-enabled systems** to improve trading, clearing, and settlement efficiency. ▪ Promote **financial literacy programmes.** ▪ Introduce **ESG disclosure requirements,** green bonds, and sustainable finance instruments.	Short term

Foster Startup Growth through Digital Investor Platforms

- Establish **digital investor platforms** offering crowdfunding, private placements, and mentorship. Short term
- Promote **investment in green enterprises**, social ventures, and inclusive businesses, bridging financing gaps.

By scaling secure, inclusive, and innovative financial services, Ethiopia will empower citizens, grow the formal economy, and reduce reliance on cash. Digital finance drives financial inclusion, entrepreneurship, and more efficient public service.

A secure and inclusive digital finance ecosystem will expand economic participation, reduce informality, and unlock access to credit and capital for all.

Brazil, India and Kenya: Digital Finance and Capital Markets at Scale

Brazil: PIX, a nationwide instant payments system (2020), now serves 160M+ users (80% of adults), cutting costs for citizens and SMEs. B3 exchange digitised services and mobilised billions through green and social bonds.

India: Since 2017, digital ID–based onboarding and simplified platforms expanded retail participation, with 200M+ accounts by 2025 and growing SME listings.

Kenya: M-Akiba (2017) enabled mobile-based bond purchases from as little as $30, widening citizen access to government securities.

Relevance to Ethiopia

- **Brazil**: Pair instant payments (Telebirr, M-Pesa) with sustainable bond products.
- **India**: Use digital ID and SME-focused platforms to broaden investor participation.
- **Kenya**: Leverage mobile channels for retail bonds, with strong financial literacy support.

Digital Trade

Context

Ethiopia's digital trade ecosystem is growing, with e-commerce revenues projected at USD 465 million in 2024 and BPO expected to reach USD 845.7 million by 2030. However, fragmented logistics, limited digital payments, and regulatory gaps remain. A comprehensive **Digital Trade Strategy** is needed to enhance cross-border interoperability, enable seamless transactions, and develop high-value capabilities.

Strategic Importance

Advancing digital trade supports Ethiopia's economic diversification, global competitiveness, and drives job creation. By opening domestic and international markets, it strengthens SMEs, generates income for rural communities, and promotes inclusive growth. Strategic engagement with the AfCFTA Digital Trade Protocol will enable high-value exports.

Strategic Initiatives

Co-Lead: MoTRI | MInT **Support:** EAII | ECA | INSA | MDAs | Telco| Private Sector

Implement a National Digital Trade Strategy ▪ Implement a comprehensive **National Digital Trade Strategy** to expand Ethiopia's participation in regional and global markets. ▪ Align with the **AfCFTA Digital Trade Protocol and WTO frameworks**, strengthen logistics, and establish digital trust infrastructure. ▪ Ensure that **SMEs, startups, farmers, and youth entrepreneurs** are empowered to access cross-border trade opportunities.	Short term
Grow Digital Trade ▪ Grow **digital trade exports in software, cloud, AI, data analytics, cybersecurity, and BPO/KPO services.** ▪ Strengthen **homegrown platforms** serving **SMEs, farmers, and artisans,** including existing national initiatives such as Zemen Gebeya, Jiji Ethiopia, AfroTie, Zmall, and others to highlight contributions to financial inclusion, entrepreneurship, and accessibility. ▪ Develop a flagship **Global Ethiopia** platform to sell **Ethiopia's major export products** and connect **startups and freelancers** to global markets.	Short term
Ensure Institutional Readiness for Digital Trade ▪ Digitise **customs, tax, and trade institutions to enable real-**	Short term

time clearance, and cross-border payments. ▪ Integrate **institutional systems with the Ethiopia DPI Stack to streamline trade flows.**	
Ensure Robust Cybersecurity and Compliance ▪ Introduce **national standards and certifications** for digital trade. ▪ Strengthen **Ethiopia's digital trust infrastructure** to safeguard cross-border data, protect sensitive transactions, and provide secure sovereign cloud access for digital trade operators	Short term

A strong digital trade ecosystem will diversify Ethiopia's exports, expand access to regional and global markets, and boost high-value service exports. It will drive job creation, attract foreign exchange, and reward innovation.

Digital trade is Ethiopia's gateway to regional and global markets, unlocking new opportunities for SMEs, farmers, and entrepreneurs while driving inclusive growth and competitiveness.

Philippines – Scaling Digital Trade through Services Exports

The Philippines grew a global outsourcing industry, moving from call centres to high-value digital services, supported by skills programs, incentives, and strong branding.

Impact

- USD 38B export revenues in 2024
- 1.82M jobs in 2024, projected to reach 2.5M by 2028

Relevance to Ethiopia

- Shows how digital services exports can drive forex and jobs
- Underscores the role of skills, policies, and branding
- Offers a pathway for Ethiopia to move up the value chain

Supply Chain, Transport & Logistics

Context

Ethiopia's logistics sector is undergoing significant reshaping. In 2023, the country's Logistics Performance Index (LPI) was assessed at 2.94 out of 5, highlighting challenges in infrastructure and customs efficiency. To rectify, the government unveiled a $2.6 billion strategic plan to modernise logistics infrastructure and diversify trade corridors. However, logistics costs remain high while intra-African trade accounts for only 9.1% of the total. There is an urgent need for digital solutions to improve efficiency, traceability, and cross-border integration.

Strategic Importance

Digitally transforming Ethiopia's supply chain directly advances the aspiration of becoming a competitive, integrated trade hub. Strategic use of digital technologies will enhance delivery efficiency, minimise wastage, increase transparency, and strengthen market access. These interventions enable Ethiopia to boost export performance.

Strategic Initiatives

Co-Lead: MOTL | MOI | ESL | Ethiopian Airlines | Ethiopost **Support:** Private Sector

Deploy cutting-edge technologies for Smarter Logistics ▪ Use **AI and ML tools to forecast demand patterns, optimise routing,** and balance delivery schedules across urban and rural corridors. ▪ Deploy **IoT sensors and fleet tracking systems** in delivery fleets, warehouses, and cold chains to improve inventory management.	Short term
Introduce Blockchain for Supply Chains ▪ Develop **blockchain-based platforms** to record, timestamp, and secure transactions**.** ▪ Enable **full traceability of goods,** reduce disputes.	Long term
Expand Last-mile Logistics and Urban Mobility Systems ▪ Support **e-commerce logistics providers** and electric delivery fleets to strengthen last-mile coverage. ▪ Deploy **digital public transport platforms** to improve urban mobility (e.g. QR-based e-ticketing, real-time passenger apps, and Public Transport Management Systems)	Short term
Digitalise Multimodal Transport Infrastructure ▪ **Apply digital technologies across road, rail, aviation, and ports** to improve performance and efficiency. ▪ Introduce **AI-enabled predictive maintenance** for railways, IoT for real-time traffic and cargo tracking, and **blockchain** for border clearance.	Short term

Digital transformation in supply chains and logistics will improve delivery efficiency, reduce wastage, enhance export readiness. It will create jobs, integrate rural producers into broader markets, and position Ethiopia as a digitally enabled hub.

A modern, digitally enabled supply chain and logistics system will cut costs, boost efficiency, and transform Ethiopia into a competitive regional trade hub.

Dubai & Rwanda - Building Integrated & Digital Logistics & Urban Mobility

Dubai linked Jebel Ali Port, JAFZA Free Zone, and Al Maktoum Airport into one bonded hub, enabled by the Dubai Trade single window with AI-driven customs and IoT cargo tracking. RTA digitised transport through the Nol smart card/app, AI traffic management, and real-time passenger tools.

Kigali has a cashless, smart-card and mobile-based bus payment system, combined with GPS-enabled fleet tracking. The system has become the reference point in Africa.

Impact

Dubai: Jebel Ali handled 15.5 million TEUs in 2024. Dubai Trade portal processed 300 million+ transactions, eliminated 617 million paper documents and avoided 25,400 tonnes of CO_2 emissions. Dubai Customs processed 30.4 million transactions in 2023, up 17.5% year-on-year, enabled by AI. Nol cards and apps process 2 million transactions daily; Dubai Metro carried 255 million passengers in 2022.

Kigali Smart Bus: 1.2M+ transactions in the first year, with passenger satisfaction improving and fare leakages reduced. Rwanda is now cited by the World Bank and ITDP as a regional leader in digital urban mobility.

Relevance to Ethiopia

Dubai: shows how multimodal hubs with AI/IoT boost throughput and cut costs. Ethiopia can link Fayda and digital payments to bus and metro ticketing.

Kigali proves that digital ticketing and GPS-based fleet management are feasible.

Education

Context

Embedding digital technologies into Ethiopia's education system will improve access, quality, and equity. Ethiopia faces significant shortfalls, particularly in rural and underserved areas. Digital tools remain underutilised, and institutions lack the infrastructure to deliver technology-enabled instruction. Yet it can also supercharge the nation's digital journey by ingraining digital literacy.

Strategic Importance

Investing in digital education directly supports Ethiopia's inclusive growth by creating a digitally skilled workforce driving sustainable and equitable development. Tech-enabled education will embed widespread digital literacy and equip learners with future-ready skills. The education sector will lead the implementation of Ethiopia's national digital

literacy and competencies framework.

Strategic Initiatives

Co-Lead: MOE | MOLS **Support:** MINT | EAII | NIDP | ECA | Private Sector

Integrate Digital Education from an Early Age

- Embed **digital education** by equipping schools with devices, interactive tools, and connectivity.
- Root **STEM and digital literacy from Grade 1 to high school**
- Introduce **AI-powered adaptive learning**, **VR/AR immersive tools, and offline-first solutions** for low-connectivity areas.
- Ensure **curriculum-aligned digital content** is available in major Ethiopian languages.

Short term

Scale National Talent Development Programs

- Expand the **AI Summer Camp and 5 million Coders** initiatives to cover all education levels, focusing on training in AI, data science, cloud computing, and cybersecurity.
- Introduce **project-based learning** in partnership with the private sector and academia
- Prioritise **teacher digital skills training** to ensure effective programme delivery.

Short term

Promote Inclusive Digital Learning Tools

- Deploy **offline-first, solar-powered devices,** and digital textbooks in rural areas.
- Ensure **inclusive design** for PWDs, girls, and marginalised communities.

Short term

Enable Secure Digital Credentialing & Modern Assessment Systems

- Implant **Fayda digital ID into the national education management system** to secure pupil IDs and verify credentials.
- Deploy **digital assessment platforms** for examinations, proctoring, and automated grading.
- Ensure **credentials and assessments feed directly into verification systems.**

Digitally transforming education will improve access to quality learning, close geographic and gender gaps, and deliver a future-ready workforce.

Integrating technology to education is critical to bridge learning gaps, build digital capabilities, and equip Ethiopia's youth for a knowledge-based economy.

India, Singapore and Uruguay: Digital Education at Scale

India: (DIKSHA): National platform with digital content, QR-coded textbooks, and teacher training for professional development.

Singapore: (**OpenCerts**): Open-source platform for tamper-proof, verifiable digital certificates, reducing fraud and admin costs.

Uruguay: (**Plan Ceibal**): From "one laptop per child" to a full digital ecosystem—universal connectivity, student/teacher devices, national platforms, and large-scale teacher training.

Impact

- **India:** ~300K resources, 6,477 QR-coded textbooks, 4.7M teachers supported.
- **Singapore:** All major institutions now issue digital certificates via OpenCerts.
- **Uruguay:** By 2021, 100% of public schools were connected to Wi-Fi, millions of devices were distributed, and over 40,000 teachers were trained in digital pedagogy.

Relevance to Ethiopia

- **Platform scale (India):** deliver multilingual, curriculum-aligned content and teacher training.
- **Verifiable credentials (Singapore):** Link secure digital certificates to Fayda.
- **System-wide approach (Uruguay):** Pair connectivity and devices with digital content and training for impact.

Agriculture

Context

Agriculture remains the backbone of Ethiopia's economy, employing over 65% of the population and contributing one-third of GDP. Despite its scale, the sector suffers from low productivity, limited technological integration, and vulnerability to climate shocks. Key value chains such as coffee, horticulture, and livestock remain constrained by anachronistic practices, weak market linkages, and minimal use of digital tools.

Strategic Importance

Digitally transforming agriculture directly supports Ethiopia's objective of inclusive prosperity by improving rural livelihoods, enhancing climate resilience, and integrating farmers into global markets. Leveraging Industry 5.0 technologies will improve yields, enhance value chain transparency and strengthen exports.

Strategic Initiatives

Co-Lead: MOA

Support: EAII | NIDP | MOTL | Ethiopost | Ethiopian Airlines |MMOs | FinTechs | Private Sector

Deploy Climate Smart Farming & Livestock Management

- Deploy **IoT-based soil and weather sensors** and integrate satellite data to optimise irrigation schedules, improve planting windows, and strengthen climate resilience.
- Introduce **AI-powered livestock monitoring** to track health, fertility, and nutrition, reducing disease outbreaks.
- Scale **AI-based plant monitoring solutions** for Ethiopia's major **grain and horticultural products** to detect diseases early and increase yields and reduce post-harvest losses.

Short term

Adopt Blockchain and AI Solutions for Coffee Traceability and Disease Detection

- Adopt **blockchain-based traceability systems** across Ethiopia's coffee value chain to strengthen certification.
- Position Ethiopian **coffee as a premium certified origin product**
- Scale **AI-based coffee disease detection,** deploy it through farmer cooperative and support it as an exportable digital product to other coffee-producing countries.

Short-Long Term

Expand E-Agriculture Platforms

- Expand **mobile-based advisory and digital marketplace platforms** to connect farmers with buyers, cooperatives, and service providers
- Integrate **Fayda for secure identity verification** to improve access to subsidy programmes and input distribution.

Short-Long Term

▪ Enable **digital payments and e-vouchers** to strengthen financial inclusion.	
Launch Smart Storage & Digital Logistics ▪ Develop a **national smart storage and digital logistics initiative** to reduce losses and strengthen food security. ▪ Deploy **IoT-enabled storage units and digital warehouse receipts** to expand credit access. ▪ Establish **AI-driven forecasting and mobile dashboards** for real-time inventory, and traceability.	Long Term
Strengthen Agricultural Market Linkages and Export Competitiveness ▪ Promote **e-agriculture platforms,** digital trade services, and export Facilitation tools. ▪ Provide **targeted support** for high-value exports such as **livestock products, horticulture, and oilseeds.** ▪ Strengthen **data-driven value chain management** to improve transparency, reduce costs, and boost competitiveness**.**	Short term

Digital transformation in agriculture boosts food production, expands export markets, reduces rural poverty, and drives inclusive, climate-resilient growth.

Ethiopia's agricultural transformation will be driven by real-time data, digital tools, and smart systems, enhancing productivity, d inclusion, and climate resilience.

India - Digital Agriculture at Scale

India integrated AI, IoT, blockchain, and remote sensing into farming, anchored by the e-NAM (National Agriculture Market) platform that unifies wholesale markets and enables digital trading.

By October 2024, 1,389 markets across 23 states and 4 Union Territories were integrated with e-NAM; 1.78 crore (~17.8 million) farmers and 2.62 lakh traders were registered, and cumulative trades worth ₹3.79 lakh crore (~USD 45 billion) had been recorded.

Relevance to Ethiopia

- Shows how digital marketplaces can boost transparency and reduce middlemen
- Shows how linking digital ID to farmer sharpen support delivery.
- How geospatial and IoT data scales climate risk insurance.

Manufacturing

Context

Manufacturing contributes close to 7% to GDP and provides employment across textiles, leather, agro-processing, and construction materials. Ethiopia invested in industrial parks, attracted export-oriented manufacturers, and prioritises import substitution. However, the sector faces low productivity, limited technology adoption, and weak supply chain visibility.

Strategic Importance

Digital manufacturing directly supports Ethiopia's becoming a globally competitive, sustainable, and innovative manufacturing hub. By strategically deploying Industry 5.0 technologies, Ethiopia increases manufacturing productivity, enhances product quality, reduces waste, and strengthens export competitiveness.

Strategic Initiatives

Co-Lead: MoI | MInT **Support:** EAII | ECA | Telcos | Private Sector

Digitise Quality Control in Leather and Textiles ▪ Leverage **AI-powered inspection systems** and sensor-enabled quality checks to improve consistency in leather finishing and textile production. ▪ Enhance **product standards** to strengthen Ethiopia in export markets.	Short term
Enable Predictive Maintenance for Heavy Industry ▪ Adopt **AI-powered computer vision and ML models** to detect defects and predict failures in heavy industry. ▪ Deploy **IoT sensors in agro-processing plants** to monitor temperature, moisture, and machine performance, reducing downtime.	Short term
Foster Digital Skills ▪ Train **factory workers and supervisors in digital production tools, robotics, and automation.** ▪ Introduce **low-cost lean automation** in repetitive tasks.	Short term
Expand Electronics Manufacturing ▪ Promote **electronics assembly and component manufacturing** through targeted incentives, specialised training, and investment. ▪ Prioritise **consumer electronics, solar devices, mobile accessories, and IoT equipment.**	Long term

Adopt 5G and Secure Connectivity for Industrial Automation

- Lauch **5G connectivity in industrial parks** to support low-latency automation, real-time analytics, and machine-to-machine communication.
- Enforce **cybersecurity protocols** to protect systems

Short term

Digitalising manufacturing will increase Ethiopia's industrial output, improve product quality, and enable deeper integration into global value chains. It creates skilled jobs while positioning Ethiopia as a competitive industrial player.

Smart manufacturing is a key priority to increase industrial output, raise competitiveness, and drive value addition through technology and data.

Malaysia - Industry4WRD Smart Manufacturing

Malaysia's National Policy on Industry will establish 3,000 smart factories by 2030. Government supports SMEs with grants, training, and partnerships to adopt Industry 5.0 dashboards in manufacturing.

Impact

- 500 manufacturing companies had benefited from the Intervention Fund, with 2,500 more projected by 2030.
- Adopters of Industrial IoT in Malaysia have seen productivity improvements of 20–30%.

Relevance to Ethiopia

- Shows how government-backed funds and training ecosystems help SMEs adopt smart technologies.
- Demonstrates the impact of IoT, AI, and predictive maintenance.
- Provides a model for Ethiopia to build its own manufacturing innovation ecosystem.

Health

Context

Ethiopia's health system faces uneven service delivery, a shortage of skilled personnel, and limited integration of digital health tools. As of 2024, approximately 16.4 million people need healthcare services, with only 30% of funding available. The country is grappling with multiple public health emergencies, including over 58,000 cholera cases, more than 774,000 malaria infections, and increasing measles outbreaks. The Ethiopian Artificial Intelligence Institute (EAII) has developed AI-driven diagnostic tools for diabetes and cancer, with four patents secured in 2024. However, challenges around data availability, human capacity, and infrastructure underscore the need for transformation.

Strategic Importance

Leveraging digital health solutions advances Ethiopia's vision of equitable and accessible healthcare. Digital technologies expand healthcare access, enhance the quality of care, and modernise service delivery.

Strategic Initiatives

Lead: MoH **Support:** EPHI | EAII | ECA | Telcos | Private Sector

Build a National Integrated Health Data & Surveillance System ▪ Operationalise a **nationwide health data platform** to consolidate patient records, diagnostics, and service delivery data. ▪ Embed **AI-powered decision support tools and real-time disease surveillance.**	Short term
Develop an Integrated National Electronic Medical Record System ▪ Develop an **open-source AI enabled electronic medical record (EMR) system,** and scale it across all health facilities. ▪ Integrate **Fayda for secure patient identification** and ensure interoperability with insurance, digital payments, and the national health data platform. ▪ Standardise **clinical record-keeping** for continuity of care nationwide.	Short term
Scale AI Tools for Health ▪ Enhance **and deploy AI-driven diagnostic models** for chronic and infectious diseases. ▪ Deploy **in referral and primary facilities** to improve diagnostic	Short term

accuracy and bridge specialist gaps, especially in rural areas.

Expand Telemedicine and Remote Consultation Services

- Scale **telehealth and remote consultation platforms** for rural populations.
- Deploy **5G-enabled services** in selected hospitals for **real-time video consultations, remote diagnostics, and monitoring of chronic conditions.**

Short term

Digital health transformation improves the accessibility, affordability, and responsiveness of healthcare services in Ethiopia. By leveraging AI, big data, and DPI integration, the health sector will become more proactive, inclusive, and resilient.

A connected health system, powered by data and digital tools, is essential to expand coverage, improve outcomes, and respond effectively to Ethiopia's public health challenges.

India – AI-Powered Diagnostics in Health

qXR, an AI-based chest X-ray screening tool, has rapidly expanded to a large-scale rollout. Supported by the India Health Fund and government programs, the technology is deployed across 130+ facilities nationwide and integrated into public health.

Impact

- qXR is now active in 130+ facilities across 20 states. It has processed 120,000+ chest X-rays, leading to a 30 - 40% increase in TB detection in Mumbai and Rajasthan.
- During the 2025 Maha Kumbh Mela, AI-driven screenings identified 12% presumptive TB cases, demonstrating scalable use in high-density environments.
- Cost-effectiveness & global scaling.

Relevance to Ethiopia

- Demonstrates that AI diagnostics can scale rapidly and effectively.
- Offers a model for integrating AI into national TB campaigns and mass screening efforts.
- Highlights the importance of cost-efficient AI systems that maximise impact.
- Underscores the value of deploying AI diagnostics through public health systems, tied to national initiatives

Mining

Current Context

Ethiopia's mining sector grows, driven by increased gold production and strategic investments. The annual volume of export for 2024/2025 fiscal year, is 38.8 million grams and USD 3.46 Billion in revenue. Despite these advancements, challenges persist, including limited geological data and outdated mining methods. Many mining operations remain manually intensive.

Strategic Importance

Digitally transforming Ethiopia's mining sector delivers the national vision of sustainable and inclusive economic growth. Digital interventions enhance exploration accuracy, and enable Ethiopia to maximize value from mineral resources, while minimizing environmental impacts and safeguarding human welfare.

Strategic Initiatives

Lead: MoM **Support:** EAII | SSGI | Private Sector

Strengthen Mining Explorations

- Use **drones**, **satellite imagery, IoT sensors, and big data analytics** to expand exploration.
- Apply AI **to geological, seismic, and geochemical datasets** to improve discovery, reduce exploration costs, and accelerate investment decisions.

Short term

Enhance Mining Operations with Emerging Technologies

- Adopt **AI and ML-based predictive maintenance systems** to extend asset lifecycles.
- Deploy **blockchain-based traceability systems** to ensure compliance, strengthen mineral provenance, and build investor confidence.
- Pilot **5G connectivity** to enable real-time machine communication., remote operations and large-scale automation.

Short – Long term

Improve Worker Safety and Environment Monitoring

- Introduce **wearable devices and IoT-enabled environmental monitoring systems** to improve worker safety.
- Monitor **air quality, vibration, and toxic gas exposure.**

Short term

Establish a National Mining Data Exchange and Analytics Hub

- Create a **centralised platform for mining sector data** supporting

Short term

evidence-based policymaking, investment promotion, and oversight.

- Collect, analyse, and publish **geological and operational data** to enhance competitiveness.

Foster Public–Private Partnerships for Innovation Pilots

- Co-develop **digital mining solutions in high-potential regions** through partnerships
- Enable testing of **frontier technologies** before nationwide scale-up.

Long term

Digital transformation in mining modernises Ethiopia's extractive sector, supports sustainable resource management, and attract responsible investment. It will improve labour standards.

Digital mining solutions, driven by blockchain, AI, and real-time monitoring, can unlock Ethiopia's mineral wealth, ensuring transparency, sustainability, and global competitiveness.

Rwanda – Blockchain Traceability in Mining

Rwanda pioneered blockchain-enabled traceability systems to strengthen compliance and transparency in its mining sector. In 2022, Rwanda also approved Minexx's blockchain platform to integrate artisanal and small-scale miners into responsible, transparent global supply chains

Impact

- LuNa Smelter (OreSource): Deployed since 2020, the system has tracked ~50,000 tonnes of tin, ensuring compliance with EU Conflict Minerals Regulation and OECD due diligence requirements, while reducing paperwork.
- Minexx Blockchain (ASM traceability): Approved in 2022, the system allows artisanal miners to log payments, exports, and taxes on blockchain, improving access to finance and responsible international markets.

Relevance to Ethiopia

- Demonstrates how blockchain traceability boosts Ethiopia's gold and mineral export competitiveness.
- Provides a model for integrating artisanal and small-scale miners.
- Highlights how public–private collaboration modernises Ethiopia's mineral governance and attracts responsible investment.

Biotechnology

Context

Ethiopia's biotechnology sector is embryonic with promising developments across health, agriculture, and industrial bioprocessing. Research and development investment is low. The country has 79 researchers per million people. Laboratory infrastructure is limited, and public misperceptions and regulatory gaps hinder enterprise.

Strategic Importance

Investment in biotechnology advances sustainable development, inclusive growth, and regional innovation leadership. Biotechnology holds transformative potential to address critical development challenges in agriculture, healthcare, and industry. With strategic investment and innovation, Ethiopia will enhance agricultural productivity, develop resilient healthcare solutions, and create new export opportunities.

Strategic Initiatives

Lead: BETin **Support:** MOA | EAII | Private Sector

Advance R&D in Health Innovation

- Strengthen **R&D in genetic engineering, bioinformatics, and synthetic biology.**
- Develop Ethiopia's own **bioinformatics and genomic datasets** to ensure research reflects national realities.
- Expand **AI-enabled diagnostics, vaccine research, biologics, and therapeutic** solutions to improve disease detection and treatment.

Short term

Apply Biotechnology to Seed Development

- Deploy **biotech tools** to enhance seed quality, increase drought and pest resistance, and improve soil productivity.
- Prioritise **genomic-assisted breeding** for staple crops while expanding innovation for high-value export crops

Long term

Develop Industrial Bioprocessing

- Support initiatives for **enzyme production, biodegradable materials, and waste-to-energy solutions**.
- Launch public–private **pilots** in agro-processing, textiles, and leather.

Short term

Position Ethiopia as a Regional Biotech Hub

Launch a **National Biotechnology Roadmap** to attract investment.

Short term

Biotechnology supports Ethiopia's digital strategy by advancing innovation, promoting sustainable development, and enabling new economic sectors. Strategic investment in biotech improves food security, health innovation, climate resilience, and industrial transformation.

A connected health system, powered by data and digital tools, is essential to expand coverage, improve outcomes, and respond effectively to Ethiopia's public health challenges.

India, Brazil and South Africa - Advancing Biotechnology

India: India's globally competitive biotech clusters combine R&D, GMP-certified manufacturing capacity, and public–private partnerships. These hubs host over 200 biotech companies, from vaccine producers to multinationals, and are backed by catalytic government funding.

Brazil: Brazil leads in agricultural biotechnology, with over 95% of soybean, cotton, and maize production using biotech drought and pest resistance. The national research institute Embrapa drives innovation in GM crops, bio-inputs, and bioeconomy solutions.

South Africa: South Africa commercialised biotech crops (maize in 1997) and cultivates millions of hectares of GM maize, soybean, and cotton. It has also advanced health biotechnology and established a biosafety regulatory system.

Impact

- **India:** Genome Valley and Mumbai Bio cluster anchor 200+ biotech firms; the Mumbai cluster received ₹60 crore (USD 7m) in 2024 for shared GMP production and training infrastructure.
- **Brazil:** Brazil is the second largest grower of biotech crops, cultivating 63million+ hectares; Embrapa's drought-resistant beans and bio-inputs are exported to 20+ countries.
- **South Africa:** By 2022, ~80% of South Africa's maize crop was biotech; the country planted 2.7 million hectares of GM crops, and its biosafety system has become a continental benchmark.

Relevance to Ethiopia

- **India:** Offers a model for building biotech clusters and shared GMP infrastructure to scale R&D into industrial and health applications.
- **Brazil:** Demonstrates how public agricultural research can drive biotech adoption in crops.
- **South Africa:** Provides an African reference for mainstreaming biotech crops safely.

Urban Development

Context

Ethiopia's urban landscape is rapidly transforming. In 2025, the urban population reached million, 24.2% of the total, with an annual growth rate of 4.77%. Swift urbanisation has intensified traffic congestion, pollution, and strained public services. In response, the City Corridor Projects modernises urban corridors by enhancing transportation infrastructure, expanding green spaces, and improving public amenities. The project anticipates a 2% annual increase in GDP, the creation of 50,000 jobs, and a 30% reduction in congestion. Challenges in traffic management, solid waste collection, public safety, and energy efficiency demand smarter, more sustainable city models.

Strategic Importance

Smart city initiatives deliver sustainable urban development, enhanced liveability, and efficient resource management. Digital technologies build better cities, improving urban mobility, public safety, energy efficiency, and environmental sustainability. Digitising urban infrastructure will hugely benefit Ethiopia's urban populations.

Strategic Initiatives

Co-Lead: MUI | City Administrations | EAII **Support:** MInT | Telcos | Private Sector

Deploy AI & 5G for Traffic Management

- Deploy **AI-powered systems for traffic flow optimisation**, congestion prediction, and adaptive signal control.
- Integrate **5G connectivity** to enable traffic monitoring, emergency response, and public safety applications.

Short term

Introduce IoT-Enabled Environmental Monitoring

- Deploy **IoT sensors to track pollution levels,** air quality, noise, and waste bin fill rates.
- Integrate data into **city dashboards** to support responsive planning, environmental management, and public health interventions

Short term

Modernise Utility Infrastructure with Smart Grids

- **Develop smart electricity grids** to integrate renewable energy sources with demand-side management.
- **Support decentralised solar,** improve grid efficiency, and reduce energy losses.
- **Deploy an EV Charging** Infrastructure across the country

Medium to Long term

Leverage Digital Twins for Urban Planning Simulation

- Create **digital replicas of city infrastructure** to simulate traffic

patterns, energy use, and population flows.

- Use these **tools to test new policies** and **infrastructure investments virtually** before large-scale implementation, improving planning efficiency and resilience.

Smart cities will support economic competitiveness, sustainable development, and improved citizen wellbeing. Ethiopia can address infrastructure gaps, improve environmental management, and create safer, more inclusive cities.

Smart urban development, powered by digital technologies, will create safer, greener, and more liveable cities, thus enhancing efficiency, resilience, and quality of life for Ethiopia's growing urban population

South Korea, Singapore and Dubai - Smart Urban Development

South Korea: Seoul pioneers' data-driven traffic management, using smart cards and GPS to optimise bus routes. In July 2025, Busan launched a major overhaul of 40

bus routes, based on big data analysis and citizen feedback to improve efficiency.

Singapore: Singapore has the most advanced urban planning platform with Virtual Singapore, a fully operational 3D digital twin of the city. It integrates real-time data on traffic, energy use, population flows, and environmental factors.

Dubai: Dubai digitised government and city operations under its Paperless Strategy, saving billions of dirhams and millions of staff hours. Through Dubai Now, residents can access more than 130 city services on one platform

Impact

- **South Korea:** Big data analysis reduced congestion with Busan's 2025 changes improving accessibility while cutting redundant routes.
- **Singapore:** Virtual Singapore allows test policies before implementation, strengthening disaster preparedness and optimising land use.
- **Dubai:** The Paperless Strategy eliminated 331 million sheets of paper, saved AED 1.3 billion, and freed 14 million staff hours by 2021, consolidating city services onto a single platform.

Relevance to Ethiopia

- **South Korea:** Shows how big data helps Ethiopian cities dynamically adjust routes, improve bus networks, and integrate citizen feedback.
- **Singapore:** Provides a model for deploying digital twins to optimise Ethiopia's urban planning.
- **Dubai:** Demonstrates how digitising city operations delivers efficiency, transparency, and improved citizen experience.

Climate Resilience

Context

Ethiopia sees recurring droughts, floods, and shifting weather patterns. Climate shocks cost the country between 1% and 1.5% of GDP annually, with projections suggesting this could rise to 5% by 2040. Ethiopia recently experienced its most severe drought in 40 years. In response, the country has begun implementing multi-hazard early warning systems and secured a $500 million investment for climate resilience programs.

Strategic Importance

Climate resilience initiatives align with Ethiopia's vision of sustainable and inclusive growth. Leveraging digital technologies will significantly enhance Ethiopia's preparedness and promote sustainable land and resource management. By deploying smart monitoring systems, geospatial mapping, and AI-driven forecasting tools, Ethiopia protects ecosystems, safeguard vulnerable communities, and participate in global carbon markets.

Strategic Initiatives

Lead: MoPD | EPA | SSGI **Support:** MInT | EAII | Private Sector

Conduct National Climate Risk Mapping and Vulnerability Assessment ▪ Use **geospatial technologies, satellite imagery, and GIS tools** to map flood-prone zones, drought-vulnerable areas, earthquake and erosion hotspots. ▪ **Integrate findings into national planning.**	Short term
Enable AI-Powered Climate Forecasting and Disaster Early Warning ▪ Develop **machine learning models** to analyse environmental data for predictive insights. ▪ Power **multi-hazard early warning systems** to guide data-driven resource allocation.	Short term
Deploy IoT and Sensor Networks for Real-Time Monitoring ▪ Install **IoT sensors in critical regions** to measure soil moisture, rainfall, water levels, and temperature. ▪ Feed **real-time data into climate platforms** to support timely responses.	Long term
Use Blockchain to Track Carbon Credits and Climate Finance ▪ Introduce **a blockchain-based platform** toregister	Long term

reforestation, soil regeneration, and clean energy projects. ▪ Ensure **transparency and verification for carbon credit trading** and international climate finance.	
Promote Climate-Resilient Infrastructure and Agriculture ▪ Mainstream **climate-smart agricultural practices** and **infrastructure design standards** through digital platforms. ▪ Provide farmers and planners with **localised guidance from satellite and IoT analytics.**	Short term

Digital transformation in the climate sector will enhance Ethiopia's resilience, protect ecosystems, and improve disaster preparedness.

Digital systems will be central to Ethiopia's climate resilience, supporting early warning, adaptive planning, and sustainable management of natural resources.

Bangladesh, Kenya and Mozambique - Climate Resilience

Bangladesh: Bangladesh has a highly advanced flood early-warning system. Its Flood Forecasting and Warning Centre (FFW) combines hydrological models, satellite data, and AI-based surge forecasting up to 5–10 days in advance.

Kenya: In 2025, Kenya committe0d 5% of its disaster budget to build a multi-hazard early warning. The program uses ICT-enabled alerts, expanded observation networks, and integration with the East Africa Hazards Watch platform, making accessible forecasts.

Mozambique: Mozambique scaled up SMS-based alerts, IoT-enabled river gauges, and community evacuation protocols. These systems evacuated hundreds of thousands of people early in 2023, preventing devastating loss of life.

Impact

- **Bangladesh:** Extended lead-time forecasts have reduced flood deaths by two-thirds since the early 2000s, while pilots of anticipatory cash transfers cut household losses and sped up recovery.
- **Kenya:** The EW4All program ensures that Kenyans will be covered by early warning systems by 2027.
- **Mozambique:** Early-warning alerts and evacuation protocols saved tens of thousands of lives.

Relevance to Ethiopia

- **Bangladesh:** Provides a model for using AI and probabilistic forecasting to strengthen Ethiopia's own early-warning and climate intelligence systems.
- **Kenya:** Shows how budgeting for multi-hazard early warnings can accelerate Ethiopia's disaster response system build-out.
- **Mozambique:** Demonstrates the importance of community-level communication and evacuation protocols.

Tourism & Heritage

Context

Ethiopia is home to a rich and diverse tapestry of cultural, historical, and natural attractions, as well as abundant wildlife, making it a unique destination. The country is home to 12 UNESCO World Heritage Sites and 6 UNESCO-inscribed intangible cultural heritages. These sites reflect Ethiopia's profound historical significance and diverse cultural heritage. In 2024, Ethiopia experienced a significant rebound in international tourism, with arrivals increasing by 40% compared to pre-pandemic levels. This growth underscores the country's potential as a premier tourist destination. Despite this, the tourism sector faces challenges, including limited digital infrastructure, fragmented booking systems, and underutilization of digital platforms. To address these challenges Ethiopia aims to integrate advanced digital technologies into the sector.

Strategic Importance

A robust tourism strategy underpinned by digital transformation is essential for Ethiopia's global positioning. Digitally enhancing tourism and heritage directly supports the national vision of inclusive economic growth and cultural preservation. Advanced digital platforms and immersive technologies can amplify Ethiopia's international visibility, modernize visitor engagement, and generate broad-based economic opportunities. By embedding tourism within the digital agenda, Ethiopia can attract diverse global audiences while safeguarding and promoting its cultural and natural heritage

Strategic Initiatives

Overarching Principles	Digital First	Inclusive	Homegrown	Adaptive	Interoperable	Sustainable	Secure	Sovereign	Competitive

Lead: MOT **Support:** EAII | NIDP | NBE |EthSwitch | Tourism Boards | Heritage Sites | Telcos | Private Sector

Enhance Visitor Experiences with Immersive Technologies ▪ Deploy **VR/AR heritage experiences at key cultural and historical sites to enrich learning.** ▪ Introduce **5G-enabled platforms for live streaming, virtual tours, and cultural broadcasts.**	Short term
Expand Digital Ticketing and Payments in Tourism ▪ Introduce **digital ticketing platforms** for national parks, cultural attractions, and heritage sites, integrated with Fayda ID, QR codes, and payment systems. ▪ Scale **digital and mobile** payments across hotels, guides, and Artisanal vendors.	Short term
Develop AI-Driven Tourism Platforms ▪ Create **AI-driven platforms** to deliver tailored recommendations and analyse visitor flows. ▪ Build **integrated data systems** for geospatial mapping, visitor	Short term

tracking, and demand forecasting. ▪ Establish a **Tourism Data Observatory** to coordinate insights, strengthen sector planning, and support evidence-based decision-making.	
Build Rural Digital Hospitality Skills ▪ Launch **digital skills training programmes** for rural communities around tourist destinations. ▪ Equip **local people to benefit directly** from digital tourism platforms and capture greater value from Ethiopia's attractions.	Short term
Strengthen Global Digital Tourism Partnerships ▪ Forge **partnerships with international digital platforms** to boost Ethiopia's global visibility. ▪ Coordinate **national agreements** for **site listings, and collaborative digital marketing campaigns.** ▪ Establish **data-sharing agreements** to access visitor analytics ▪ Strengthen **private sector capacity in online engagement.**	Short term

By leveraging Industry 5.0 technologies, Ethiopia can transform its tourism sector into an inclusive, sustainable, and globally competitive industry. This will promote digital inclusion through local job creation, foster innovation via immersive technologies, and contribute to economic growth.

Digitising tourism and heritage are key to preserving our national identity, expanding economic opportunities, and projecting Ethiopia's story to the world.

Egypt & Rwanda – Digital Tourism & Heritage Platforms

Egypt digitized heritage access through e-ticketing and immersive VR/3D such as virtual tours of King Tutankhamun's tomb. These initiatives improve crowd management, modernise visitor experiences, and promote tourism.

Rwanda Development Board transformed gorilla trekking tourism by a regulated online permit system. It ensures secure booking, visitor limits to protect ecosystems, and sustainable revenue for conservation.

Impact

- **Egypt:** Since 2021, QR-enabled e-ticketing system has reduced queue times and improved revenue transparency. VR storytelling experiences have attracted global interest.
- **Rwanda:** Gorilla trekking permits are issued exclusively online, ensuring compliance with conservation policies. The system supports both visitor satisfaction and ecosystem protection.

Relevance to Ethiopia

- **Egypt:** Demonstrates how e-ticketing modernises access at heritage sites, and VR/3D storytelling can showcase Ethiopia's cultural heritage globally.
- **Rwanda:** Offers a model for digital permit systems that manage high-value tourism sustainably.
- **Both:** Highlight the importance of linking digital visitor systems with tourism data observatories.

Creative and Cultural Industries

Context

Ethiopia's Creative and Cultural Industries (CCIs) are a powerful expression of its national identity and a rising economic force. The sector spans diverse domains such as music, fashion, gaming, arts, handicrafts, and cultural festivals. In 2018, CCIs directly employed 617,000 Ethiopians, with the potential to create over 260,000 new jobs by 2025, particularly for youth and women. Ethiopia is also home to Africa's fastest-growing gaming market, with projected revenues of $280M by 2025 and a user base exceeding 24 million mobile gamers. Despite these gains, the sector remains constrained by infrastructure gaps, limited investment, and weak IP enforcement.

Strategic Importance

Investing in digital tools for Ethiopia's creative and cultural industries aligns directly with the nation's vision of inclusive economic growth and job creation. The creative economy, powered by immersive digital platforms, will significantly empower local creators, stimulate inclusive economic opportunities, and project Ethiopia's rich cultural heritage onto the global stage. CCIs can effectively bridge tradition and innovation, becoming a catalyst for Ethiopia's sustainable economic transformation.

Strategic Initiatives

Lead: MoCS **Support:** MInT | EAII | Tourism Boards | Private Sector and other partners

Grow the Gaming Industry with Local Content ▪ Invest in **Ethiopia's gaming ecosystem** by supporting studios with funding, development tools, and global platform access. ▪ Localise **content** with **Ethiopian history, languages, and folklore** to enhance cultural relevance and competitiveness.	Short term
Scale Distribution of Ethiopian Music and Art ▪ Develop **digital platforms and e-commerce channels** to scale the distribution of Ethiopian music, art, fashion, and handicrafts. ▪ Support **global promotion programmes** showcasing **Ethiopian creative products, expand export**	Short term
Digitise Ethiopia's Festivals and Cultural Heritage ▪ Digitise Ethiopia's major festivals using VR/AR platforms, 360° live streams, and cultural metaverse spaces. ▪ Promote **festival export and cultural diplomacy** while enabling new revenue streams for creators.	Short term
Launch a Creative Accelerator for Youth and Startups ▪ Establish **a national accelerator programme** providing seed funding, mentorship, IP support, and international exposure. ▪ Create **global collaboration labs** to foster co-productions with	Short term

African and diaspora markets.	
Protect and Monetise Ethiopia's Creative and Cultural Assets ▪ Create a **national rights and royalties' platform** for creators and manage licensing. ▪ Build a **digital archive** of **Ethiopia's cultural assets, music, fashion, visual art, and artefacts.**	Long term

CCIs will drive inclusive economic growth, promote Ethiopia's cultural leadership globally, and stimulate innovation across digital platforms. Digitally enhanced creative sectors will create jobs, expand export revenues, and elevate Ethiopia's visibility on the global cultural map.

Digital investment in the creative economy will unlock new industries, empower cultural expression, and position Ethiopian talent in global markets.

South Korea's 'Hallyu Wave'

South Korea has leveraged digital technology to promote its cultural and creative industries globally, a phenomenon widely known as the "Hallyu Wave" or Korean Wave. Through intentional government policies, targeted investments and strong public-private collaborations, South Korea effectively positioned its creative products, on global stages. Digital streaming services, social media platforms, and online fan communities significantly boost the country's cultural exports and tourism.

Impact

- Cultural exports reached an estimated USD 9.85 billion in 2024, tripling their value.
- The total value of Hallyu-related exports, covering cultural products and services, grew 5.1% to USD 14.16 billion in 2023 (KRW 19.54 trillion).
- K-Pop exports alone generated around USD 12.3 billion in 2024
- Looking forward, the Hallyu market is projected to balloon to USD 198 billion by 2030.

Relevance to Ethiopia

- Demonstrates the transformative economic potential of promoting creative industries digitally.
- Illustrates how focused government policy, combined with digital platforms, can elevate local culture to global prominence.
- Highlights the importance of public-private collaboration and targeted investment in digital infrastructure for creative sector growth.
- Provides a replicable model for Ethiopia to digitally scale its creative industries.

Law and Justice

Context

Ethiopia's law enforcement and judiciary systems assume the foundational role in public trust, safety, and access to justice. While digital transformation in the sector is still embryonic, momentum is building. Courts have begun piloting digital case filing and virtual hearings, supported by national judicial reforms. However, most institutions still rely on paper-based processes, with limited interoperability. Infrastructure gaps, low digital capacity, and fragmented systems underscore the need for coordinated, technology-driven reform.

Strategic Importance

Investing in digital tools for Ethiopia's law enforcement and judiciary directly supports the goal of equitable access to justice. Modern policing and court systems will significantly improve crime prevention, case management, and public trust. By embedding emerging technologies responsibly, Ethiopia can build a justice system that is faster, more inclusive, and better equipped to serve the rule of law in a digital age.

Strategic Initiatives

Lead: MoJ **Support:** EFP | INSA | EAII | Private Sector

Digitise Policing and Crime Prevention Systems ▪ Adopt **AI-powered tools** for **crime mapping, predictive policing, and digital forensics.** ▪ Deploy **integrated platforms** for **real-time incident reporting, case tracking, and cybercrime response**.	Short term
Digitise and Scale Smart Court Systems Nationally ▪ Expand **digital case management, e-filing, and virtual hearings** across federal and regional courts. ▪ Scale up the **AI-powered Smart Court System** for scheduling, reducing backlogs, and strengthening coordination between courts, prosecutors, and law enforcement.	Short term
Launch a Citizen-Facing Justice Portal ▪ Provide **citizens with mobile-friendly access to legal services**, including case status updates, legal aid resources, and court notifications.	Short term
Integrate AI and Language Technologies in Judicial Workflows ▪ Use **AI tools for legal research, translation, and transcription**. ▪ Streamline **low-risk judicial processes**.	Short term

Digitally transforming Ethiopia's justice and law enforcement systems is essential for building a fair, secure, and trusted digital society.

A digital justice system will strengthen public trust, expand equitable access to justice, and enhance public safety, ensuring Ethiopia is governed by the rule of law in the digital age.

Thailand & Estonia – Justice Transformation

Thailand: Thailand has rolled out comprehensive e-Court reforms. This includes e-filing of cases, digital summons and notices, online fee payments, and remote hearings. By 2023, the Supreme Court mandated e-filing across all courts.

Estonia: Estonia has integrated its justice system into its wider e-Governance ecosystem. Court services are accessible through the X-Road interoperability platform, enabling secure data exchange across police, courts, and prisons. Citizens can file cases online, track progress, and even attend hearings digitally. Judges access digital case bundles and evidence via secure platforms.

Impact

- **Thailand:** Reduced backlog and improved accessibility. Citizens and lawyers save on travel and time costs, while courts reduce administrative burden.
- **Estonia:** Judicial efficiency has been boosted, with nearly all civil cases now filed electronically and case processing times significantly shortened

Relevance to Ethiopia

- **Thailand:** Offers a practical developing-country model for rolling out e-filing, e-summons, and remote hearings.
- **Estonia:** Provides a global best practice for interoperability and secure digital justice.

Governance & Coordination

Governance & Institutional Strengthening

Successful implementation of the Digital Ethiopia 2030 strategy hinges on an **effective governance framework** that ensures strategic alignment, institutional accountability, and agile coordination. Ethiopia has laid the foundation for such a framework through the establishment of high-level coordination bodies. These will be enhanced to support results-driven execution.

1. Digital Transformation Council

The **Digital Transformation Council (DTC),** guides Ethiopia's digitization journey. The DTC ensures that digital transformation remains a national priority by aligning sectoral plans, addressing delivery bottlenecks, and overseeing major investments and reforms. To strengthen its operational effectiveness, the DTC will be enhanced accordingly:

- **Dedicated coordination team:** inter-ministerial collaboration, partnerships, and funding mobilisation
- **Technical advisory committee:** strategic guidance on frontier technologies
- **Sectoral Integration:** sectoral integration and regional inclusion in planning and implementation
- **Formal engagement frameworks:** for the private sector, development partners, and academia

2. Establishment of a National Data Governance Entity

The **National Data Governance Entity** will be an independent institution. It will serve as the central authority on:

- Data standards, interoperability, and classification
- Data privacy, protection, and ethical use
- Cross-sector and cross-border data exchange protocols
- Coordination with ministries, regulators, and private actors.

3. Institutional Reinforcement

Ethiopia's core digital institutions will be empowered with **clear mandates, expanded capacity, and coordinated roles:**

Ministry of Innovation and Technology (MINT)

MINT's role will be buttressed through a **collaborative eGovernment function,** jointly operated with EAII, FCSC, NIDP, and INSA to drive end-to-end service digitisation, DPI adoption, and institutional modernisation.

National ID Program (NIDP)

NIDP will scale up the Fayda digital identity platform and coordinate its integration across public and private service delivery, anchoring identity as a core layer of the DPI stack.

Ethiopian Artificial Intelligence Institute (EAII)

EAII will lead the development and implementation of a National AI Strategy, build out AI infrastructure and tools, and oversee an AI Innovation and Ethics Framework.

Information Network Security Agency (INSA)

INSA will deploy advanced cybersecurity platforms, support ministries, and institutions with digital infrastructure protection, and lead national cyber resilience efforts.

Ethiopian Communications Authority (ECA)

ECA will expand its mandate to include proactive oversight of digital platforms and data markets. It will implement personal data protection, while also enforcing universal service obligations. Through this role, ECA will ensure that project selection, oversight, and disbursement are transparent and aligned.

Federal Civil Service Commission (FCSC)

The FCSC will lead public sector digital transformation by digital capacity building in the civil service. This includes foundational digital literacy, data usage for policy making, and leadership development.

4. Whole-of-Government and Regional Engagement

Every federal regional administration will contribute to strategy execution by:

- Appointing Digital Change Leads
- Establishing cross-functional Digital Delivery Teams
- Developing institutional and regional digital roadmaps
- Participating in standards development and DPI integration pilots
- Reporting progress through a unified monitoring framework

Regional governments will be supported to contextualise digital solutions to local priorities.

5. Private Sector Engagement

The private sector is a co-implementer of Digital Ethiopia 2030.

- A Public-Private Digital Forum, anchored under the DTC, will beformalised
- Regulatory sandboxes will allow testing of new solutions in real settings
- Fast-track procurement pathways will enable co-delivery of services
- Investment incentives will support digital infrastructure, platforms, and talent development

6. Delivery Coordination and Monitoring

The implementation of the Digital Ethiopia 2030 strategy will be overseen by the Digital Transformation Council. Key responsibilities include:

- Tracking results through a central digital dashboard
- Conducting quarterly reviews
- Linking institutional progress to annual budgeting, leadership KPIs, and public reporting

This structure will ensure transparency, drive accountability and accelerate implementation of the strategic initiatives.

Integrated Change Management

Digital Ethiopia 2030 has the political backing, basic institutional alignment, and national vision to succeed. The critical challenge lies in ensuring that this momentum translates into real behaviour change, adoption, and results. This is not a matter of training alone - it is a transformation of how government operates, how services are delivered, and how institutions interact with citizens and each other.

Some of the previous reform efforts in Ethiopia have fallen short at the point of execution, not because of weak design, but due to fragmented uptake, limited accountability, and insufficient adaptation to local contexts. This strategy acknowledges that reality and introduces a change management approach that is practical, systemic, and sustained.

The Digital Ethiopia 2030 change management program is treated as an essential pillar of success. It moves beyond conventional awareness efforts by focusing on the institutions, behaviours, and incentives that shape how transformation happens. It is designed to be:

- **Embedded, not external**
- **Localised, not one-size-fits-all**
- **Tracked and measured**
- **Inclusive by design**
- **Resilient to uncertainty**
- **Driven by collective ownership**

Strategic Initiatives

Initiative	Timeline
1. **National Digital Change Leadership Program:** Equip public sector leaders to drive change from within	**Q1–Q2, Year 1:** Launch foundational program for executive leaders, including modules on change management, adaptive implementation, and digital inclusion. **Annually:** Refresher sessions **Rationale:** Early leadership alignment sets direction and expectations.
2. **Prioritizing Quick Wins That Build Confidence and Trust:** Deliver early results in high-visibility initiatives	**Q2–Q4, Year 1:** Identify and launch high-impact initiatives. **Year 2:** Expand initiatives based on uptake. **Dependency:** Requires cross- ministerial coordination.
3. **Appointing Digital Change Leads:** Designate embedded staff to facilitate adoption	**Q1, Year 1:** Deploy Leads in early service rollouts. **Year 2:** Expand to priority institutions and regions. **Year 3 onward:** Formalize role based on performance. **Supports:** Service adoption, process change,

	and localized implementation.
4. Partnering with Trusted Intermediaries for Citizen Uptake: Use existing community channels to reach citizens and build trust	**Q4, Year 1:** citizen onboarding through trusted networks. **Year 2 onward:** Integrate outreach into all rollouts. **Supports:** Broader service uptake, trust, and equitable access.
5. Mandating Localisation of Digital Interventions: Empower regions to adapt national tools to their own realities.	**Q1–Q4, Year 1:** Develop and deploy localization toolkit, protocols, and training. **Q3, Year 2 onward:** Implement in pilot regions. **Ensures:** Federal compatibility.
6. Linking Digital Progress to Institutional Recognition: Tie digital delivery and adoption to how institutions are resourced and evaluated	**Q2, Year 2:** Embed digital performance indicators into planning and budget templates. **Year 2 onward:** Link performance to visibility in DTC reviews and introduce annual Digital Excellence Awards. **Reinforces:** Accountability, visibility, and delivery pressure.
7. Embedding Change into Public Sector Routines: Incorporate digital norms into HR and reporting	**Q2, Year 2:** Begin updating civil service job roles. **Year 3 onward:** Fully institutionalized across government.

These change interventions enable delivery through a sequenced, nationally anchored, and locally adapted approach. By embedding change into planning, budgeting, service delivery, and performance management, the strategy ensures that digital transformation becomes an intrinsic part of government.

Funding & Collaboration

Funding Digital Ethiopia 2030

A coordinated financing approach is required to mobilize public, private, philanthropic, and international capital. This includes establishing new investment vehicles, strengthening financial ecosystems, and aligning incentives to attract long-term digital investments. The strategy adopts a six-part framework to guide fund creation.

Strategic Initiative	Description
1. **Government Funding**	The government will commit through **ring-fenced budget** allocations and **programmatic funding lines.**
2. **Establish Digital Transformation Fund & Fund of Funds (FoF):** Mobilize public, donor, and diaspora financing	**Digital Transformation Fund:** Establish a dedicated, special-purpose vehicle seeded by government, donor, and diaspora capital. **FoF:** Accelerate the creation of a FoF to channel capital into Ethiopia's startup ecosystem.
3. **Strengthen PPP Framework:** Enable private capital to scale digital infrastructure	Reform PPP legislation and guidelines to attract long-term private capital. Offer fiscal and regulatory incentives to support co-investment in national infrastructure.
4. **Enhance Local Capital Market:** Unlock domestic financing through new instruments	Introduce innovative financing tools such as digital bonds, sukuk, and regulated crowdfunding platforms. Deploy credit guarantee mechanisms to de-risk private investment in digital sectors.
5. **Leverage Donor Partnerships & Philanthropic Capital:** Align donor financing with national goals	Work with donors and philanthropic funds to co- design and fund inclusive digital public goods.
6. **Engage Venture Capital & Tech Investors:** Create a favourable investment environment	Introduce innovation-friendly regulations, tax incentives, and streamlined procurement rules to attract VCs and tech investors.
7. **Showcase Leading Projects & Pipeline:** Promote investment-ready digital initiatives	Curate a pipeline of high-impact, investment-ready projects with strong ROI potential. Host targeted investor roadshows, innovation forums, and matchmaking sessions.
8. **Operationalise the Universal Service Access Fund**	USAF administered through ECA will finance projects that expand connectivity in underserved and unserved areas.

Collaboration & Partnerships

Ethiopia's digital transformation vision depends on strong partnerships at bilateral, regional, and global levels. The strategy prioritises collaboration for success.

1. **Regional Digital Market Integration:** Ethiopia will position itself as a strategic player in the AfCFTA Digital Trade Protocol, advancing cross-border trade, digital payments interoperability, and secure data flows.

2. **Engaging the Ethiopian Diaspora:** A national **knowledge exchange platform** will be established to facilitate collaboration between Ethiopia-based institutions and the global Ethiopian diaspora. Diaspora professionals will contribute to skills transfer, mentorship, and knowledge-sharing in cutting-edge fields such as AI, data science, cybersecurity, and climate tech.

3. **Bilateral and Multilateral Digital Cooperation**: Ethiopia will deepen cooperation with leading digital economies and international organisations to enable technology transfer, joint R&D, regulatory alignment, and co-investment in priority areas such as digital public infrastructure, emerging technologies, and inclusive connectivity.

4. **Critical Regional Infrastructure Partnerships:** Ethiopia will collaborate with regional stakeholders to develop shared fibre optic networks, cloud infrastructure, and digital trade corridors.

5. **R&D and Innovation Partnerships:** The strategy champions joint research with leading global universities, AI labs, and innovation ecosystems. Focus areas will include AI for development, AgTech, fintech, cybersecurity, and emerging technologies such as 6G.

Risks & Mitigations

Risks & Mitigation Measures

Digital Ethiopia 2030 Strategy requires management of cross-cutting risks that imperil delivery. The table below outlines mitigation measures.

Risk Area	Description	Mitigation Measures
1. Financing Constraints	Institutions may resist new ways of working.	Diversify financing through **ring-fenced public budget lines**, targeted **donor support**, **blended finance**, and **PPP models**.
2. Resistance to Change	Institutions may resist new ways of working.	Mandate **change management, digital capacity- building,** and **incentives tied to digitization.**
3. Decentralised Implementation Gaps	Disparities in digital readiness may fragment delivery.	Promote **localised implementation structures** under a **unified national standards framework**.
4. Institutional Capacity Deficits	Skills gaps, high turnover, and weak delivery mechanisms affect implementation.	Establish **digital change leads**, deliver **focused technical training**, and **embed private sector experts**.
5. Cybersecurity and Data Risks	Digitization without safeguards exposes systems to threats.	Operationalise the **Personal Data Protection Proclamation**, invest in **advanced cybersecurity infrastructure**.
6. Exclusion and Accessibility Gaps	Low-literacy users' risk being left behind in digital transformation.	Design for inclusion: expand **offline channels** local language interfaces, and **community digital access points**.
7. Weak Monitoring, Evaluation, and Learning (MEL)	Lack of performance data, and weak feedback, hinders course correction.	Define **prioritised KPIs** tied to strategic objectives; conduct **reviews** and publish **performance reports**.

Monitoring & Evaluation

Monitoring & Evaluation

Overview

A robust monitoring, evaluation and learning (MEL) system will ensure that DE 2030 delivers measurable impact. It is aligned with national planning, budgeting, and accountability processes. Implementation will be guided by **SMART milestones**: Specific, Measurable, Achievable, Relevant, Time-bound targets, linked to each strategic objective. Progress will be tracked through a **National Digital Transformation Dashboard,** monitoring performance and user feedback. The following are the core KPIs; a more detailed framework will underpin the dashboard.

Objective 1: Empower People & Institutions

KPIs	Baseline	2030 Targets
Digital economy share of GDP	3.9%	6% by 2027; 12% by 2030
Digital SMEs scaled (above revenue threshold)	*<200*	1,000 by 2027; 5,000 by 2030.
Jobs in ICT/BPO/tech-enabled services	To be established	200,000 by 2027; 1,000,000 by 2030.
Digital exports (USD)	<USD 100m (est.);	USD 500m by 2027; USD 3B by 2030.
Share of ICT government procurement awarded to local SMEs	<5%	15% by 2027; 35% by 2030

Objective 2: Accelerate Inclusive Digital Economic Growth

KPIs	Baseline	2030 Targets
Digital literacy Rate	20-25%	40% by 2027 70% by 2030
Public servants trained in digital skills	5%	40% by 2027 75% by 2030
Civil service digital readiness index	To be established	≥55 by 2027; ≥80 by 2030.
Basic digital skills certifications (such as 5M Coders Initiative)	2.3M (Oct. 2025)	5M By 2027 10M By 2030
Advanced digital skills certifications (AI, data, cloud, cybersecurity)	150 PhD 300 Master's	100,000 combined by 2030
Schools- primary/secondary schools connected (%)	5.10%	50%
Schools w/Digital tools in the curriculum	-	40%

Objective 3: Achieve Universal Digital Access

KPIs	Baseline	2030 Targets
Internet penetration (% population)	45%	60% by 2027; 90% by 2030.
Household electricity access	63% national / 45% rural	80%/65% by 2027; 95%/90% by 2030.
Smartphone adoption	46%	65% by 2027; 85% by 2030.
Broadband affordability index (cost as % median income)	>5% (est.)	<4% by 2027; <2% by 2030.
Number integrated G2C services available online	15%	70% by 2027; 98% 2030.
Community Centres in Rural Areas	TBD	90% by 2030.
4G Coverage - % of population with 4G mobile broadband coverage	76%	99%
5G Coverage (No if town and use cases)	26 Towns	100 Towns + 22 Use Cases in priority sectors

Objective 4: Position Ethiopia for Digital FDI

KPIs	Baseline	2030 Targets
Digital FDI inflows (USD/year)	<USD 100m (est.)	USD 500m by 2027; USD 1B annually by 2030.
Presence of Local Cloud Providers	5 (Tier III or modular DCs)	5 fully certified Tier III + by 2027; 10+ local cloud providers by 2030 with combined ≥50 PB capacity
Presence of Global hyperscalers	None	1 by 2027 direct or via local partner DC; 2 global by 2030
Share of exports from digitally delivered services	5%	8% by 2027 20% by 2030.
Ease of doing business (digital-specific)	-	Dashboard -tracks efficiency, accessibility, G2B services user satisfaction (business registration, licensing, tax filling). Focus: service delivery time, digital uptake, system uptime, end to end service digitalization

Cross-Cutting KPIs (Applicable Across All Objectives)

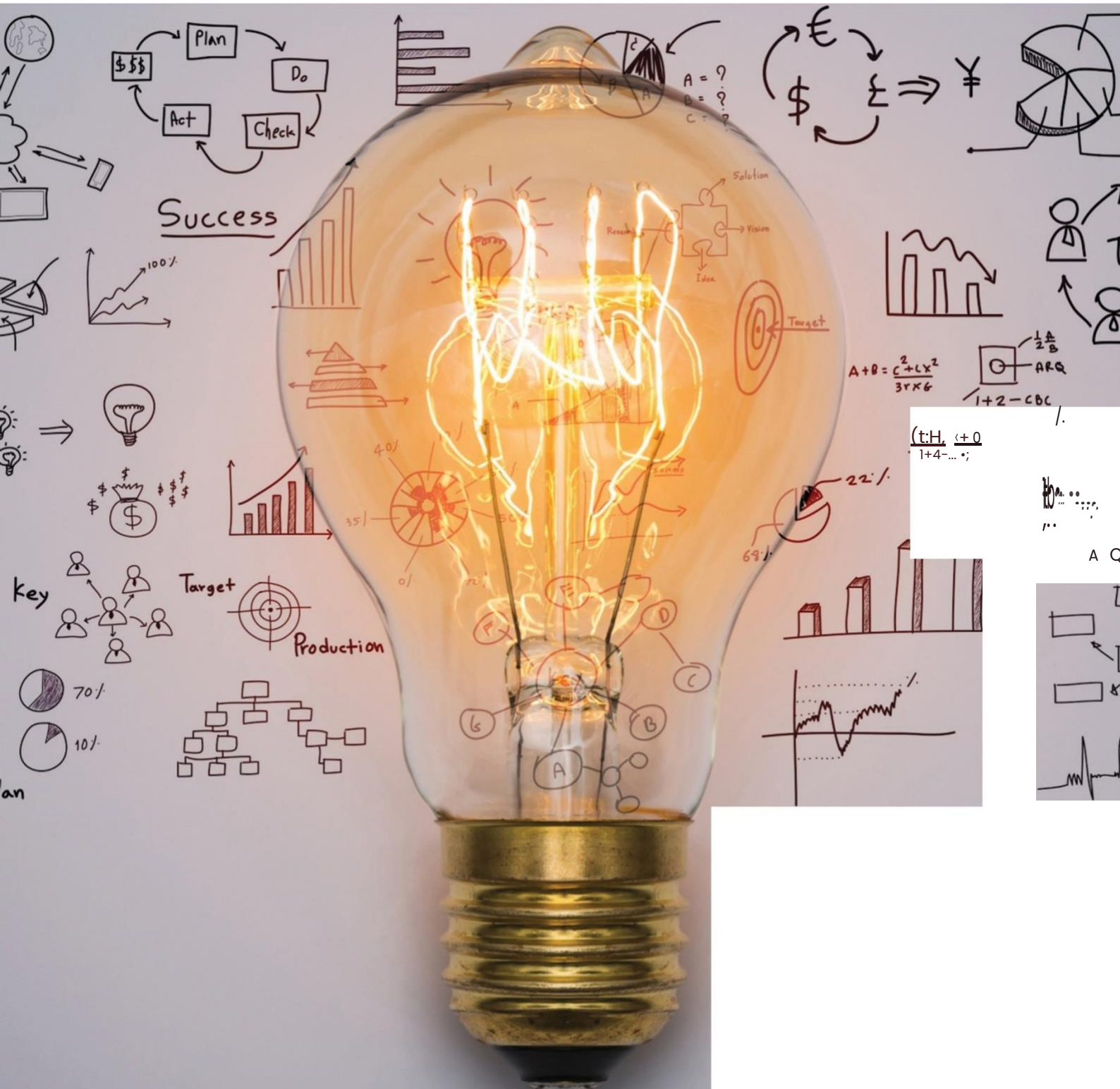
Key System-Wide KPIs	Baseline	2030 Targets
Fayda enrolment (digital ID coverage)	25M (Sept-2025)	70M by 2027; ~95% adult coverage by 2028.
Integration of Fayda across services	55+ services	80% of services by 2027; 100% of major G2C/G2B services by 2030.
National data exchange use cases live	2–3 pilots	10 by 2027; 30+ by 2030.
Cybersecurity maturity index	Tier 3, score ~76/100	"Managed" (≥65) by 2027; "Optimized" (≥85) by 2030.
AI-Ready Sovereign Data Storage (infrastructure)	16 Petabytes (PB)	600+ PB by 2030
National AI compute capacity (GPU-hours/year)(Training access)	10k GPU-hours	50k GPU-hours by 2027; 1M GPU-hours by 2030.
Trust & privacy adoption - % of citizens aware of / protected by data privacy law	TBD	Operational dashboard

Governance and Delivery of M&E

Entity	Role
Digital Transformation Council	Review progress, unblock delivery, coordinate M&E, manage dashboard, support institutional reporting
Line Ministries & Regions	Track KPIs, validate data, and report performance
Ministry of Finance & Ministry of Planning	Link M&E results to budgets, planning, and performance reviews

Baseline study (Year-0 is 2025): For indicators lacking robust national baselines, a **National Digital Baseline Study (Q4 2025)** will establish reference values. All targets and quarterly reporting will use the study's baselines unless otherwise re-baselined by the Digital Transformation Council.

Conclusion



Conclusion

Digital Ethiopia 2030 is a **national transformation agenda. It** redefines how government serves citizens, how businesses grow, and how people participate in the economy.

Anchored in **Ethiopia's identity and values**, while aligned with continental frameworks and global best practices, DE2030 lays the foundation for a **digital economy that is inclusive, resilient and competitive.**

Ethiopia holds the ingredients for success: a **youthful, innovative population,** expanding infrastructure, a **reform-minded government,** and unprecedented opportunities for **regional and global integration**. This strategy outlines the **foundations, enablers, and sectoral priorities** needed to turn these conditions into **lasting, inclusive progress.**

The cost of inaction is high. Without bold execution, Ethiopia risks **widening inequality, falling behind in competitiveness, and missing the promise of its demographic dividend.** With coordinated, decisive implementation, however, the nation can **create millions of jobs, expand exports, improve governance, and ensure universal digital inclusion.**

Delivering on this ambition requires more than policies: it demands **strong governance, transparent monitoring, and accountability through** mechanisms such as the **DE2030 Dashboard and the Digital Transformation Council.** It also requires sustained investment in **people, especially women, youth, startups and rural communities,** to ensure no one is left behind, while embedding **sovereignty, security, and sustainability** at the heart of digital transformation.

DE 2030 therefore calls for **commitment across government, private sector, and society,** and requiring **accountability, collaboration, and continuous innovation**.

The opportunity before Ethiopia is generational. If seized, it will propel the nation into a **new era of prosperity, fairness, and resilience;** an Ethiopia that is **digitally empowered, globally competitive, and sets a benchmark for Africa's digital future.**

The time to act is now, the next five years offer Ethiopia the chance to lead by example in building an inclusive digital nation.

Glossary

Acronym	Full Term
AACA	Addis Ababa City Administration
AI	Artificial Intelligence
API	Application Programming Interface
BETin	Bio and Emerging Technology Institute
BPO	Business Process Outsourcing
CBDC	Central Bank Digital Currencies
CCI	Creative and Cultural Industries
CHE	Creative Hub Ethiopia
CNCM	Collective Management Society of Ethiopia
CSA	Central Statistics Agency
DLT	Distributed Ledger Technologies
DPI	Digital Public Infrastructure
DTC	Digital Transformation Council
EAII	Ethiopian Artificial Intelligence Institute
EBA	Ethiopian Broadcasting Authority
ECA	Ethiopian Communications Authority
ECC	Ethiopian Custom Commission
EIPA	Ethiopia Intellectual Property Authority
EGDI	E-Government Development Index
EPA	Environmental Protection Authority
FCSC	Federal Civil Service Commission
FoF	Fund of Funds
FPPPA	Federal Public Procurement and Property Authority
INSA	Information Network Security Agency
IoT	Internet of Things
IPR	Intellectual Property Rights
KPO	Knowledge Process Outsourcing
MESOB	Modern Ethiopian Systems for Organized Benefit

Glossary

Acronym	Full Term
MOCS	Ministry of Culture and Sport
ML	Machine Learning
MINT	Ministry of Innovation and Technology
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOLS	Ministry of Labour and Skills
MOPD	Ministry of Planning & Development
MOTRI	Ministry of Trade and Integration
MOTL	Ministry of Transport and Logistics
MOT	Ministry of Tourism
MOE	Ministry of Education
MOH	Ministry of Health
NBE	National Bank of Ethiopia
NIDP	National ID Program
PKI	Public Key Infrastructure
PPP	Public-Private Partnership
R&D	Research and Development
SDGs	Sustainable Development Goals
USAF	Universal Service Access Fund

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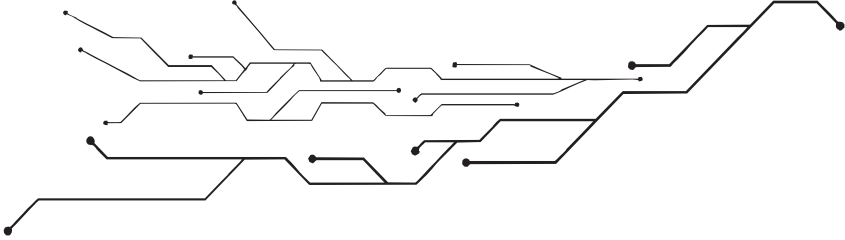

Digital Ethiopia Vision 2030

Locally Rooted, Digitally Powered

Federal Democratic Republic of Ethiopia