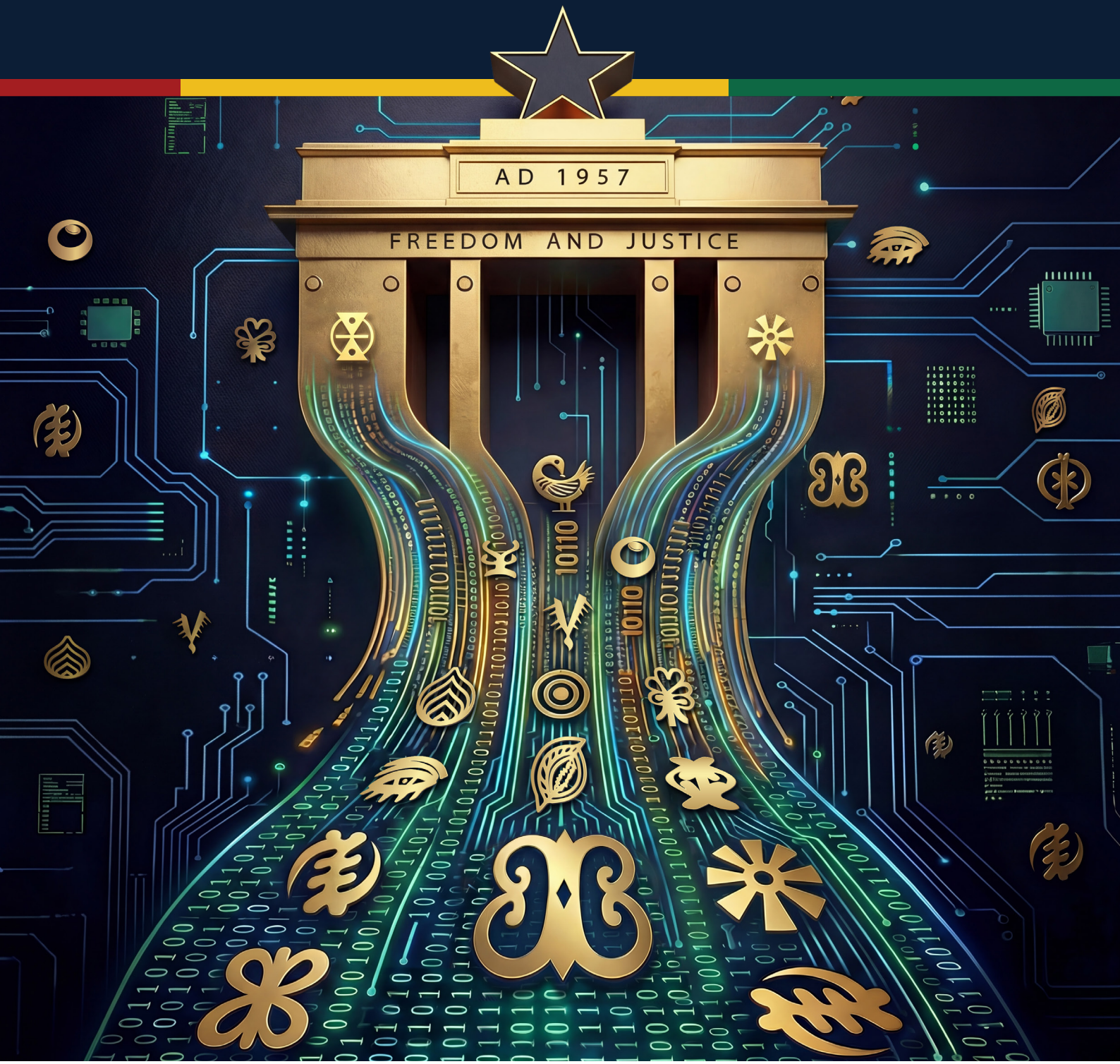
2025-2035

REPUBLIC OF GHANA NATIONAL ARTIFICIAL INTELLIGENCE STRATEGY

To harness AI for inclusive growth across all sectors and to improve the lives of people in Ghana, becoming a trailblazer for AI leadership in Africa and beyond.



MINISTRY OF COMMUNICATION, DIGITAL TECHNOLOGY AND INNOVATIONS
DECEMBER 2025

REPUBLIC OF GHANA NATIONAL ARTIFICIAL INTELLIGENCE STRATEGY

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2025-2035

HIS EXCELLENCY

JOHN DRAMANI MAHAMA

PRESIDENT OF THE REPUBLIC OF GHANA

MINISTER OF STATE

HON. SAMUEL NARTEY GEORGE (MP)

MINISTRY OF COMMUNICATION, DIGITAL TECHNOLOGY
AND INNOVATIONS

FOREWORD

The world stands on the precipice of a profound technological revolution. Artificial intelligence (AI) has rapidly emerged as a general-purpose technology with the unprecedented potential to reshape economies, redefine public service delivery, and transform human well-being. For the Republic of Ghana, the advent of AI represents more than a mere technological shift; it is a critical launchpad to accelerate our national, economic, and sustainable development objectives.

The Republic of Ghana National Artificial Intelligence Strategy: 2025-2035 is our comprehensive roadmap to harnessing this transformative power. Building upon the strong foundations of the Ghana Integrated Digital Transformation Blueprint, the Ghana Digital Economy Policy and Strategy, and the ICT for Accelerated Development (ICT4AD) policy, this strategy sets forth a bold ambition. Our vision is clear: Ghana 2035: The AI-Powered Society. By 2035, we envision a transformed society where AI advances the potential of our people, government, businesses, and systems to achieve inclusive social and economic transformation. We are committed to equipping Ghanaians with the capabilities and enabling environment necessary to compete in the global digital economy, firmly positioning Ghana as a trailblazer for AI leadership in Africa and beyond.

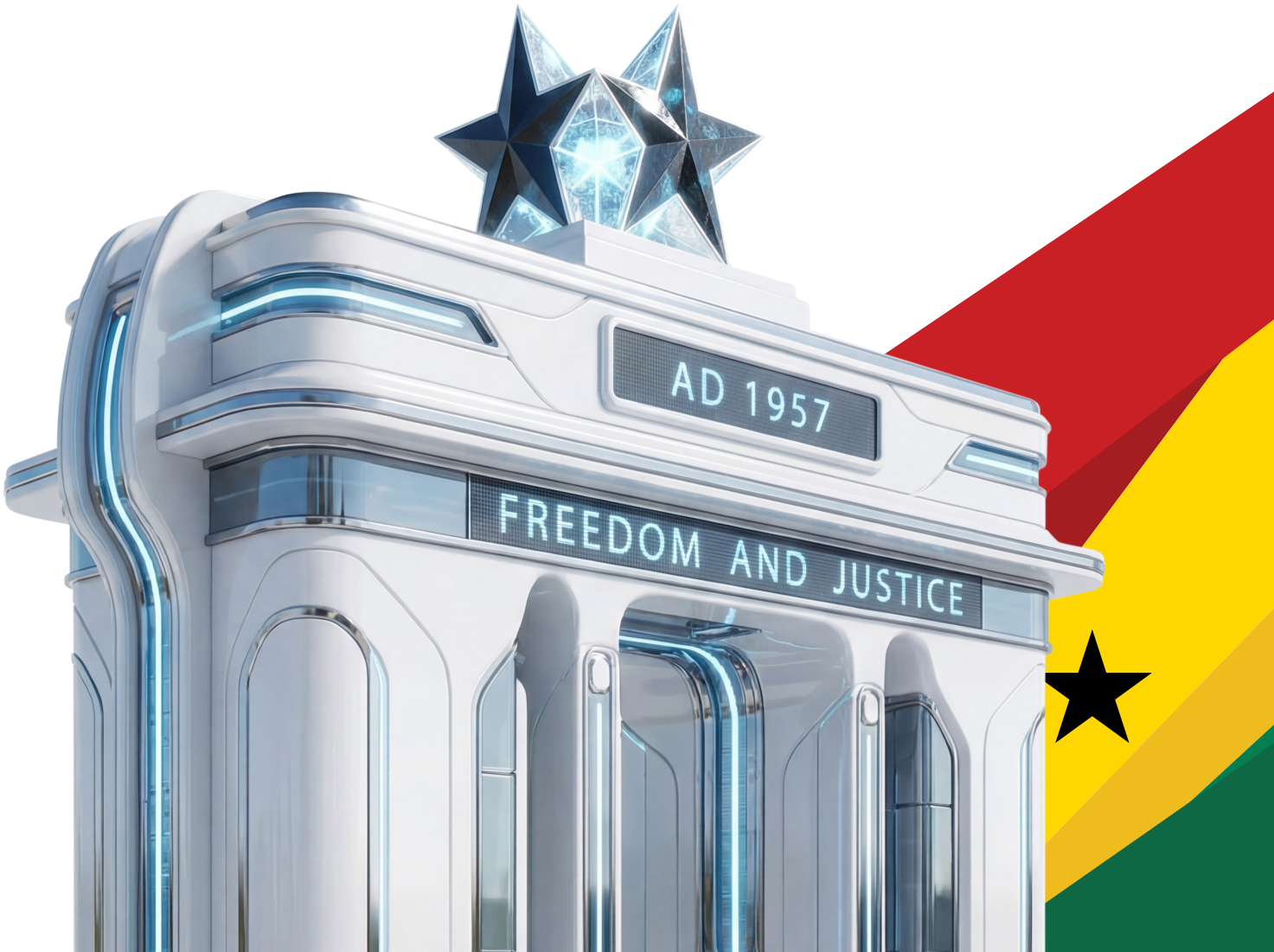
We recognise that while the majority of AI development is currently concentrated in advanced economies, its potential to address our unique local challenges is vast. Strategic adoption of advanced digital technologies can drive productivity in key sectors of our economy. From deploying predictive models to increase crop yields in agriculture, to utilising natural language processing for cultural preservation, and leveraging automated diagnostics to bridge structural inequalities in healthcare, AI can catalyse our progress towards the United Nations Sustainable Development Goals (SDGs). By establishing a National AI Fund and cultivating a vibrant local ecosystem, we project that AI will contribute 500 billion Ghanaian cedis to our GDP by 2035.

To realise this immense potential, this strategy is built upon eight essential pillars. We will decisively expand AI education and empower our youth for the jobs of the future, ensuring that our growing, dynamic population becomes the driving force of our digital economy rather than victims of automation. We will deepen our digital infrastructure and computing capacity while facilitating robust, secure data access and governance. We will coordinate a resilient AI community ecosystem, invest heavily in applied, producer-led research—including the establishment of a National Deep Science Institute—and accelerate AI adoption across both the private and public sectors.

However, we are acutely aware that the opportunities of AI are inextricably linked with substantial risks. Algorithmic bias, the widening of digital divides, cybersecurity threats, and the misuse of personal data pose genuine ethical and societal challenges. It is imperative that our AI ecosystem remains responsible, inclusive, and sustainable. To this end, our strategy is fully aligned with the UNESCO Recommendation on the Ethics of Artificial Intelligence. To champion this ethical deployment, drive implementation, and monitor our progress, the Government will establish an independent, well-resourced Responsible AI Authority (RAI Authority).

The success of this strategy does not rest with the Government alone. It requires a whole-of-society approach. I issue a strong call to action to our vibrant start-up ecosystem, our esteemed academic institutions, our traditional leaders, civil society, and our international development partners: let us collaborate to build an internationally connected, yet proudly Ghanaian, AI ecosystem. Together, we can harness the power of artificial intelligence to improve the lives of all people in Ghana and set a resounding example of digital leadership for the African continent.

HON. SAMUEL NARTEY GEORGE (MP)
MINISTER



CONTENTS

LIST OF ABBREVIATIONS

AfCFTA	Africa Continental Free Trade Area
AI	Artificial Intelligence
AI4D	Artificial Intelligence for Development
AIMS	African Institute of Mathematical Sciences
GI-KACE	Ghana-India Kofi Annan Centre of Excellence in ICT
AU	African Union
AWS	Amazon Web Services
BDC	Bureau of National Communications
BoG	Bank of Ghana
DFS	Digital Financial Services
DTT	Digital Terrestrial Television
ECG	Electricity Company of Ghana
FDI	Foreign direct investment
FTA	Free-to-Air
GDPR	General Data Protection Regulation (EU)
GIFEC	Ghana Investment Fund for Electronic Communications
GIPC	Ghana Investment Promotion Centre
GIZ	German Corporation for International Cooperation GmbH
GoG	Government of Ghana
GRIDCO	Ghana Grid Company Limited
GTL	Ghana Tech Lab
IEAI	Institute for Ethics in Artificial Intelligence
ICT	Information and Communications Technology
ICT4AD	ICT for Accelerated Development
ISP	Internet Service Provider
IT	Information Technology
KNUST	Kwame Nkrumah University of Science and Technology
KPI	Key Performance Indicator
MDAs	Ministries, Departments and Agencies
MEST	Ministry of Environment, Science & Technology
MMDAs	Metropolitan, Municipal and District Assemblies
ML	Machine Learning
MoCDTI	Ministry of Communication and Digital Technology and Innovations
MoF	Ministry of Finance
MoTAI	Ministry of Trade, Agribusiness & Industry
MOOC	Massive Open Online Course
NCA	National Communications Authority
NITA	National Information Technology Agency
NLP	Natural language processing
PoC	Proof of Concept
PPP	Public-Private Partnership
PPPP	Public-Private-People Partnership
PSSA	Payment Systems and Services Act
SADA	Smart Africa Digital Academy
SDG	Sustainable Development Goal
SME	Small and medium-sized enterprise
STEM	Science, Technology, Engineering, Maths
STI	Science, Technology, Innovation
SWOT	Strength, Weaknesses, Opportunities, Threats
TVET	Technical and Vocational Education and Training
TFS	The Future Society
UMaT	University of Mines and Technology
VRA	Volta River Authority
YEA	Youth Employment Agency

EXECUTIVE SUMMARY

Ghana's national, economic, and sustainable development objectives could be accelerated through the application of artificial intelligence (AI). A national AI strategy that builds upon existing digital policies and aligns key stakeholders will serve as a transformative catalyst for Ghana's AI ecosystem and leadership position in Africa.

The Government of Ghana, through the Ministry of Communication Digital Technology and Innovations, led the development of Ghana's National AI Strategy, with support from GIZ FAIR Forward, the British High Commission's Foreign, Commonwealth and Development Office (FCDO), the Data Protection Commission, the Responsible Artificial Intelligence Lab, KNUST and MinoHealth AI Labs/GUDRA AI. The project is grounded in extensive consultations with stakeholders and analysis of the country's AI and digital ecosystem and policy landscape.

Mission: "To harness AI and AGI for inclusive growth across all sectors and to improve the lives of people in Ghana, becoming a trailblazer for AI leadership in Africa and beyond."

Vision "Ghana 2035: The Artificial Intelligence-Powered Society: By 2035, people living in Ghana will experience a transformed society where AI advances the potential of people, government, businesses and systems to achieve inclusive social and economic transformation and quality of life. Ghanaians would have the capabilities and enabling environment to be competitive in the global digital economy, positioning Ghana as the leading African AI hub."

As described in Smart Africa's *Blueprint: Artificial Intelligence for Africa* report[1], AI brings major opportunities to Africa to achieve sustainable growth and development. The expansion of digital connectivity, the accumulation of more data, the development of more sophisticated algorithms, and the increase in computing power are facilitating AI's technological advancements. Most AI development and use is happening in advanced economies right now, but AI has a lot of potential to change emerging economies as well. Ghana possesses a variety of advantages and strengths that can be utilised to facilitate the development of a local Ghanaian AI ecosystem. Nevertheless, as much as AI wields positive transformative power, it also poses ethical concerns and risks that could compromise security, safety, privacy, and human rights, as well as lead to biased decision-making and data abuse. It is imperative for Ghana to ensure a responsible, inclusive, and sustainable AI ecosystem fully aligned with the UNESCO Recommendation on the Ethics of AI, which was agreed in 2021 by 193 countries, including Ghana. Consequently, data governance and policy are essential for fostering Ghana's AI ecosystem and mitigating its many risks.

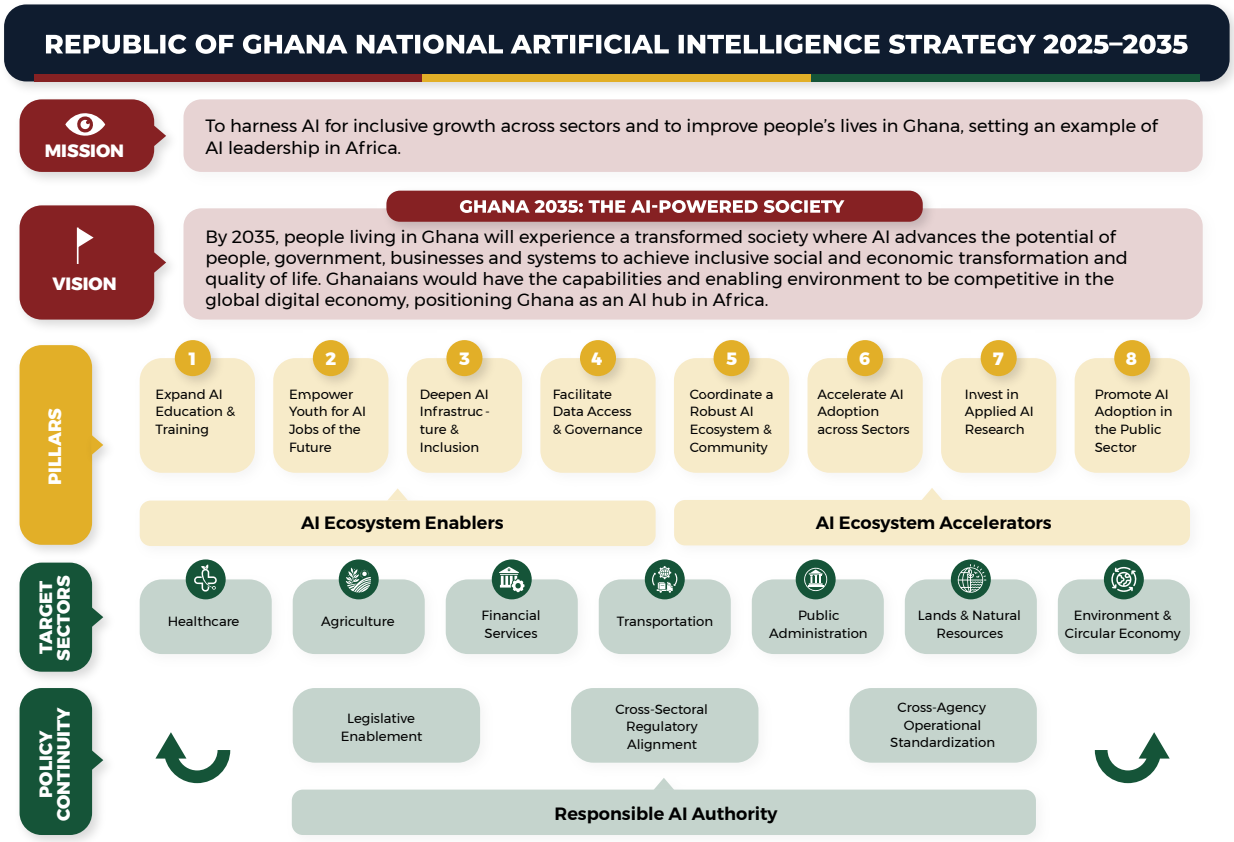
To support the implementation of Ghana's National AI strategy, there will be a creation of Ghana's National AI Fund, starting with a 5 billion Ghanaian cedis 5-year fund (2025 - 2030) and scaling to a 15 billion 5-year fund (2030 - 2035). In addition, we will attract a total of 200 billion Ghanaian cedis in foreign direct investment (FDI) and local private sector investment towards growing the AI ecosystem in Ghana by 2035. By 2030, AI should be contributing 200 billion Ghanaian cedis to Ghana's GDP, and by 2035, it should be contributing 500 billion Ghanaian cedis to Ghana's GDP.

Ghana is also working with UNESCO, with support from the European Commission,

to implement the Readiness Assessment Methodology (RAM). This multi-stakeholder process, overseen by a National Steering Committee will provide an evidence-based foundation to further guide and accelerate the implementation of Ghana's National AI Strategy.

The strategy document includes insights derived from a diagnostic assessment (SWOT Analysis) that identifies significant opportunities and constraints that AI developers in Ghana must contend with. The SWOT analysis revealed policy intervention areas required to accelerate, enable, and scale Ghana's AI ecosystem. As such, it serves as the foundation for policy recommendations centred on capitalising on the ecosystem's strengths, overcoming its weaknesses and threats, and capitalising on unique opportunities.

In addition, eight essential pillars for an ethical, responsible and inclusive AI ecosystem in Ghana were established. Notably, these overlap with the pillars identified in the "AI for Africa Blueprint" report by Smart Africa. [2]



Furthermore, the strategy document (Appendix 1) explores practical use cases for the adoption of AI in the real world that can boost productivity, efficiency, and outcomes in a number of critical sectors of the Ghanaian economy.

Booklet of AI Use Cases in Ghana

- **AI in Culture**
- **AI in Healthcare**
- **AI in Environment & Circular Economy**
  Air Quality Monitoring
  Recycling
  Smart Water Management
- **AI in Transportation**
  Urban Traffic Management System
  Smart Vehicle Fleet Management System
- **AI in Financial Services**
- **AI in Agriculture**
  Increasing Crop Yields
  Soil Management
  Farm Management
  Detecting Food Fraud
- **Land & Natural Resources**
  Simulation Modelling of Landscape and Settlement Distribution
  Land Use and Development
  Wildlife and Forest Conversation

Key Recommendations

Pillar 1: Expand AI Education & Training	1. Conduct an annual skills gap assessment. 2. Launch the "AI Ready Ghana" program. 3. Expand education courses in AI. 4. Promote training courses for teachers. 5. Include AI for the disabled & informal sector. 6. Strengthen AI education through practical training, gender inclusion, and stronger academia-industry collaboration
Pillar 2: Empower Youth for AI Jobs of the Future	1. Upskill youth, especially in marginalized areas. 2. Facilitate remote jobs or internships in AI. 3. Start-up support through AI funds and development tax incentives for youth in AI start-ups to promote employment. 4. Develop AI Fellowship programs. 5. Repatriate skilled African AI professionals. 6. Support continuous training and short courses for students and professionals to enter the AI field. 7. Launch internship programs for Data Protection and Cybersecurity roles with future integration into the civil service. 8. Develop targeted reskilling and workforce transformation programs to prepare youth and displaced workers for AI-enabled jobs.
Pillar 3: Deepen Digital Infrastructure & Inclusion	1. Review and identify gaps in the implementation of existing digital policies, including the development of national data centres. Address concerns over cloud/data sovereignty. 2. Initiate mutual partnerships engagement with world-class cloud computing providers for affordable access for AI start-ups in Ghana. 3. Orchestrate market dynamics that incentivise entrepreneurs to start enterprises that focus on AI products and services. 4. Build innovation hubs outside Accra. 5. Invest in the internet, data accessibility, and talent. 6. Use local languages to structure datasets. 7. Increase Ghana's total compute infrastructure to 1021 FLOPS (Floating Point Operations Per Second) by 2027, increased by 0.5 OOM (Order of Magnitude) every year, ensuring we have 1025 FLOPS total capacity by 2035. 8. Use local languages to structure datasets. 9. Drastically increase Ghana's energy capacity 0.5 to 1 OOM per year to be able to support the development of compute clusters. 10. Strengthen Digital Infrastructure for AI and Advanced Technologies 11. Enhance digital infrastructure through improved connectivity, renewable energy integration, and affordable compute access.

Pillar 4: Facilitate Data Access & Governance	1. Disseminate and drive enforcement of existing data sharing & governance policies. 2. Clarify data privacy and data sharing agreements and regulations for partnerships. 3. Disseminate guidance on trustworthy, safe, secure and ethical AI practices to AI developers and adopters. 4. Apply to international and regional AI governance platforms. 5. Rollout of the Ghana Open Data Initiative (GODI), the Ghana Data Exchange Hub and data repositories. 6. Establish Ghana's National AI Fund, with seed capital of 5 billion Ghanian cedis and scaled to a 15 billion, and a funding prioritization committee to support innovative, inclusive, and sustainable AI projects. 7. Create grants specifically for the creation and annotation of Ghanaian datasets across all key use case sectors of interest to the country (health, agriculture, education etc). By 2030, we should have 1 trillion tokens worth of Ghanaian datasets. 8. Ensure robust data governance and compliance, particularly in government bids involving data assets. 9. Ensure all government AI projects comply with national data protection and handling regulations 10. Transform the Data Protection Commission into an Authority with regional presence to enforce compliance and expand outreach 11. Strengthen data governance and access through transparency mechanisms, diverse datasets, and clear data sovereignty rules.
Pillar 5: Coordinate a Robust AI Ecosystem & Community	1. Build & convene an online and in-person AI community. 2. Expand and establish complementary physical or virtual AI innovation hubs across the country, especially in marginalised communities, to promote collaborations and knowledge sharing. 3. Collaborate with traditional institutions. 4. Define stakeholder collaborations for a dynamic AI environment. 5. Reduce the Urban-Rural Digital divide. 6. Reverse brain-drain and leverage global expertise to build an internationally connected AI ecosystem 7. Launch the Ghanaian Global AI Summit, which should aim to facilitate to the total investment of 80 billion Ghanaian cedis in Ghanaian AI companies by 2030. It should also lead to the formation of a total of 1,000 strategic partnerships by 2030. 8. Institutionalize multi-stakeholder collaboration to ensure policy alignment, accountability, and innovation.
Pillar 6: Accelerate AI Adoption in Key Sectors	1. Spark investment into AI adoption with 5 AI pilot projects from across key sectors. 2. Review and clarify laws for copyright, patents and intellectual property. 3. Implement incentives for AI start-ups, e.g. tax breaks for research & development or employment. 4. Facilitate the creation of a Ghanaian private AGI lab competing globally. 5. Support the creation of 10 Ghanaian AI unicorns. 6. Support innovation through targeted incubation and localized AI development.
Pillar 7: Invest in Applied AI Research	1. Establish a Special Research Initiative to delve into climate-smart agriculture and forestry. 2. Establish a Natural Language Processing (NLP) Centre of Excellence (CoE). 3. Develop a framework for the establishment of a National Deep Science Institute. 4. Support digitization of oral histories. 5. Call for AI sandboxing environments. 6. A more producer-led approach to AI development than consumer-led. 7. Set up a Ghana's National AI Fund. 8. Set up Ghana's National AI Fund, leveraging contributions from high-revenue sectors like mining and oil to support AI implementation and research activities under the National Research Fund. 9. Provide research incentives and protect intellectual property for AI innovations.
Pillar 8: Promote AI Adoption in the Public Sector	1. Develop a program that increases access for digital & AI-focused start-ups to public procurement processes 2. Evolve public sector mindset to view algorithms as IP and work with vendors & start-ups to co-create IP in AI 3. Establish a program to train civil & public servants to design, lead and implement AI projects in public services 4. Incentivise an AI culture by creating a reward system to encourage service delivery excellence utilising AI 5. Develop a comprehensive public administration data dashboard/interface to provide data analytics for policy, planning, programme mix, resource allocation, monitoring, and evaluation 6. Initiate a programme to identify critical public service AI use-cases 7. Develop a viable workflow and operational framework for public sector work that takes into consideration agility and data-driven decision making 8. ¸There should be a creation of the GhanaChat, a large language model trained with the data of the various agencies and arms of government, this will be privately used by the government to improve productivity. This will also ensure government staff aren't using foreign AI systems and therefore transmitting confidential government information to other countries, which is a security risk. 9. Mandate for all government agencies to use GhanaChat and other locally created AI solutions towards boosting productivity, increasing revenue and cutting down cost. 10. GhanaChat can also be fine-tuned and used in the delivery of government services to citizens, eg. tax filing, complaint management, policy education and sensitisation, regulatory compliance, and permit, license, & benefit applications. 11. Establish a National AI Office to oversee AI policy, implementation, and inter-ministerial coordination 12. Create dedicated Data Protection and Cybersecurity Officer grades in the civil service to manage digital risks 13. Integrate AI use case implementation into performance assessments for ministries 14. Institutionalize AI governance and create incentives for AI use in public services.

The report concludes with a recommendation that a Responsible AI Authority (RAI Authority) be established within the first year to lead the execution of the Ghana National AI Strategy. The RAI Authority shall be mandated to implement the National AI Strategy by coordinating institutional stakeholders and championing the responsible development and deployment of artificial intelligence. Furthermore, the office will oversee ongoing monitoring and evaluation of the progress of Ghana's AI efforts. The RAI Authority will be established as an independent, well-resourced institution tasked with driving implementation. This office is modelled on the Singapore National AI Office (NAIO), the Egypt National AI Council, and the United Kingdom's Office for AI.

Ghana has a momentous opportunity to build upon its burgeoning AI and digital ecosystem. By launching the Responsible AI Authority, coordinating key actors and driving action, the Government of Ghana accelerates ethical, responsible and trustworthy AI adoption to achieve inclusive growth across sectors, improving the lives of people in Ghana and becoming a trailblazer for AI leadership in Africa and beyond.

ACKNOWLEDGEMENTS

The *Republic of Ghana National Artificial Intelligence Strategy*: *2025–2035* results from rigorous research and engagement with government leaders, academic experts, business innovators, civil society representatives, and international organisations. This strategy reflects Ghana's commitment to digital transformation by focusing on the contributions of these key groups.

The Government of Ghana deeply appreciates the Ministry of Communication, Digital Technology and Innovations (MoCDTI) for its strategic leadership. We also acknowledge the crucial coordination of the Data Protection Commission (DPC). We thank key Ministries, Departments, and Agencies (MDAs), including the National Information Technology Agency (NITA), Cyber Security Authority, National Communications Authority (NCA), and Ministry of Environment, Science, and Technology (MEST), for their important policy inputs.

We thank our international development partners for their strong support. We thank GIZ FAIR Forward, the Smart Africa Alliance, and the Foreign, Commonwealth & Development Office (FCDO) through the British High Commission for their technical and financial assistance. We appreciate The Future Society (TFS) for leading policy analysis, and UNESCO for partnering on the AI Readiness Assessment Methodology (RAM) and integrating ethical principles into the strategy.

Ghana's academic and research institutions—especially KNUST, RAIL, AIMS, GI-KACE, University of Ghana, Ashesi University, and Academic City University College—were central to building this strategy's knowledge base through invaluable insights into AI education, research, and capacity development.

The vibrancy of Ghana's AI ecosystem is fueled by innovation in the private sector and civil society. We recognise leaders and start-ups such as Google AI Centre Accra, MinoHealth AI Labs, Mazzuma, Farmerline, and BACE Group. We also thank innovation hubs across the country that turn AI from theory into practical solutions. Our gratitude extends to the Artificial Intelligence Association of Ghana, Ghana NLP, and the Institute for Ethics in Artificial Intelligence (IEAI) for promoting an inclusive, locally grounded digital future.
Finally, we thank over forty expert contributors—primarily entrepreneurs, engineers, policymakers, and traditional leaders. Each group provided distinct perspectives and active participation, enriching our assessments and workshops. Their collective efforts have directly shaped a responsible, inclusive, and equitable AI-driven future for Ghana.

CONTEXT

The application of artificial intelligence (AI) has the potential to accelerate Ghana's movement toward achieving its economic and sustainable development goals (SDGs). The National AI Strategy of Ghana functions as a comprehensive roadmap that enables the country to capitalise on AI's socio-economic benefits while simultaneously mitigating its hazards. Artificial intelligence can boost human and economic development across Ghana in line with its national objectives, as well as progress towards the achievement of the United Nations Sustainable Development Goals (SDGs). Despite this, there are significant ethical dangers and practical obstacles associated with using AI, even though its opportunities are enormous. The UNESCO Recommendation on the Ethics of normative framework of values, principles and policy actions for navigating these ethical challenges and ensuring AI delivers for the benefit of all. Expanding on digital policies and aligning key stakeholders, a national AI strategy and action plan will establish Ghana's regional AI ecosystem and leadership. Ghana is also currently working with UNESCO to undertake the AI Readiness Assessment Methodology (RAM) to ensure the implementation of this strategy and action plan are fully aligned with the Recommendation.

The Ghanaian government, acting through the Ministry of Communication, Digital Technology and Innovations, has been the driving force behind the creation of the country's National Artificial Intelligence Strategy. This work has been made possible with assistance from GIZ FAIR Forward, Smart Africa, the FCDO through the British High Commission and it has been facilitated by The Future Society (TFS), RAIL and MinoHealth Labs. The project required close coordination with the government of Ghana, which was represented by the Data Protection Commission (DPC) at the Ministry of Communications, Digital Technology and Innovations. Additionally, the initiative engaged stakeholders from the local, regional, and international levels. Consequently, the National AI Strategy will position Ghana as a leader and harness AI for sustainable and inclusive growth, laying the groundwork for the future of the nation and the continent.

To date, the majority of African nations have yet to bring AI and digital technology advancements to policy tables. However, there is renewed impetus by some African countries such as Ghana, Rwanda, Kenya, Mauritius, South Africa, Tunisia, Morocco and Egypt to set the wheels of change in motion.[3] Smart Africa's *Blueprint: Artificial Intelligence for Africa* report[4] presents key elements and advice for national AI strategies and international coordination in Africa.

What is AI?

AI broadly refers to "an array of technologies relying on algorithms at their core to 'think' or 'act' towards solving a problem. AI includes tasks such as learning, reasoning, planning, perception, language understanding, and robotics."[5] Machine learning (ML) is the subset of AI which has garnered the most traction and enthusiasm in recent years, creating opportunities for rapid AI developments and applications.

AI includes many applications to improve outcomes and efficiency across sectors. These include, for example, language translation and customer service chat bots; prediction & optimization of electricity usage; autonomous vehicles & bus routes; facial recognition check-ins; predictive medical diagnoses for disease or triage; robotic process automation for businesses; virtual home voice assistants; analysis of satellite imagery to predict deforestation or agriculture outcomes; drone imaging for precision agriculture; algorithmic predictions for credit scoring or fraud detection; image classification for reading and digitising written text, and much more.

[3] https://oecd.ai/en/dashboards and The Future Society.

[4] Smart Africa, GIZ and GFA Consulting, "AI for Africa" Blueprint, 2021, https://smart.africa/board/login/uploads/70029-eng_ai-for-africa-blueprint.pdf.

[5] Russell, Stuart (2016) "Q&A: The Future of Artificial Intelligence". University of California, Berkeley. http://people.eecs.berkeley.edu/~russell/temp/q-and-a.html.

MISSION AND VISION STATEMENTS

Mission Statement

To harness AI for inclusive growth across all sectors and to improve the lives of people in Ghana, becoming a trailblazer for AI leadership in Africa and beyond.

Vision Statement

Ghana 2035: The AI-powered society:
By 2033, people living in Ghana will experience a transformed society where AI advances the potential of people, government, businesses and systems to achieve inclusive social and economic transformation and quality of life. Ghanaians would have the capabilities and enabling environment to be competitive in the global digital economy, positioning Ghana as the leading African AI hub.

METHODOLOGY

Ghana's National AI Strategy is grounded in stakeholder consultations and analysis of the country's AI and digital ecosystem and policy landscape (Appendix 2). Around 40 expert interviews were conducted with key actors and institutions in Ghana's AI ecosystem from the public sector, academia, start-ups and private sector and civil society, complemented by four high-level public sector consultation workshops.

The research involved deep engagement of stakeholders and in-depth cross-sectoral analysis of the AI ecosystem's strengths, needs, opportunities and challenges. Findings are presented in a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, which identifies the most urgent areas for reform to enable Ghana's AI ecosystem to flourish responsibly and inclusively. Background research also incorporates African and international emerging practices in AI policy based on benchmarks of various international AI strategies. A sectoral approach provides concrete examples of AI applications in key sectors in Ghana (Appendix 1 - Booklet of AI Use Cases in Ghana).

Public sector consultations and workshops were conducted to shape and prioritise actionable policy recommendations. An initial workshop in March 2022 with steering committee members defined mission and vision statements. Subsequent in-person and virtual public sector consultation workshops took place from May to October 2022.

In addition, the Strategy will be guided by the UNESCO Recommendation on the Ethics of Artificial Intelligence, adopted by Ghana in 2021, which provides a globally recognized normative framework of values, principles, and policy actions for the ethical development and deployment of AI. This Recommendation will serve as a key ethical guideline for implementing the Strategy and Action Plan.

AI FOR SUSTAINABLE AND INCLUSIVE DEVELOPMENT

Around the world, AI is becoming increasingly pervasive in our lives as a "general-purpose technology." As described in Smart Africa's *Blueprint: Artificial Intelligence for Africa* report[6], AI brings major opportunities to Africa to achieve sustainable growth and development. Technological advancements in AI are being enabled by greater digital connectivity, increasing amounts of data, advanced algorithms, and gains in computing power. While most AI development and applications are currently in advanced economies, AI also has great potential to transform emerging economies.

Smart Africa's *Blueprint: Artificial Intelligence for Africa* report presents various AI applications and opportunities for African countries, from agriculture, education, health, financial services, energy and transportation and climate change. Similarly, the Global Partnership on AI (GPAI) has identified numerous applications of AI to help combat climate change and support the environment.[7] International research identifies numerous use cases across sustainable development goals.[8] This report provides concrete examples of AI applications in key sectors in Ghana (Appendix 1 - AI Use Cases in Ghana).

AI can be a launch pad for Africa to make a paradigm shift to more efficient, optimal and transparent delivery of public services and infrastructure development. For example, in the healthcare sector, structural inequalities, shortages of qualified healthcare professionals or supplies, barriers to accessibility, affordability and rural and urban divides raise critical gaps that AI can help address.[9] Investing in digital technologies, including AI, will prepare Africa to generate new economies and contribute and compete in a global economy. Strategic adoption of advanced digital technologies such as AI can provide employment opportunities for the youth and opportunities for the continent's innovators and entrepreneurs to plug into global value chains.

While the ethical and responsible adoption of AI has the potential to help the country by driving inclusive economic advancement, Ghana has not yet taken full advantage. The African continent as a whole still lags behind. A measure of Oxford Insights' governments' readiness for AI adoption revealed that the African continent scored the lowest on average. Moreover, few countries in the region have set out their vision for the implementation of AI.[10] Generally, African countries lack the preparedness to harness the tools that widespread adoption of AI would bring to solve many of the continent's most pressing social and economic challenges.[11]

Nonetheless, Ghana has numerous advantages and strengths that can be harnessed to enable a local Ghanaian AI ecosystem. For example, some notable AI activities in Ghana have stemmed from the setting up of Google's first AI centre in Africa in Accra. For Ghana to take advantage of its burgeoning AI community, supporting and developing a responsible AI ecosystem with long-term benefits is critical. While AI development is rapid, adoption and upscaling across markets are still at an early stage, and much of its value is yet to be tapped. Thus, Ghana has a window of opportunity to harness AI for inclusive growth, sustainable development and well-being.

[6] Smart Africa, GIZ and GFA Consulting, “AI for Africa” Blueprint, 2021, https://smart.africa/board/login/uploads/70029-eng_ai-for-africa-blueprint.pdf.

[7] Global Partnership on AI, *Climate Change and AI,* https://www.gpai.ai/projects/climate-change-and-ai.pdf

[8] “Applying AI for Social Good | McKinsey.” n.d. Accessed August 28, 2019. https://www.mckinsey.com/featured-insights/artificial-intelligence/applying-artificial-intelligence-for-social-g ood ;Vinuesa, R. et al (2019) The role of artificial intelligence in achieving the Sustainable Development Goals, online: https://arxiv.org/ftp/arxiv/papers/1905/1905.00501.pdf .

[9] Lannquist, Y., 2021, “Opportunities & Challenges of AI in Healthcare in Africa,” The Future Society. https://thefuturesociety.org/2021/07/22/opportunities-challenges-of-ai-in-healthcare-in-africa/

[10] Oxford Insights and the International Development Research Centre. (2020). Government Artificial 2 Intelligence Readiness Index 2020. https://www.oxfordinsights.com/government-ai-readinessindex-2020

RISKS OF AI

However, the opportunities of AI are connected with substantial ethical and societal risks, including bias, discrimination and lack of transparency & explainability in algorithmic outcomes, widening inequality gaps, cybersecurity, privacy and safety concerns, and gaps in inclusion and data governance. These require developing innovative AI governance, carefully balanced by ethical guidelines for responsible AI adoption.

AI systems can widen already existing inequalities and exclusion. Gaps in digital inclusion in rural areas and other demographic groups mean that certain populations are underrepresented in AI systems and unable to benefit from them. Meanwhile, Ghana suffers from a systematic lack of accurate and high-quality data collection. Model bias can result in less accurate outcomes that are unsafe and unfairly discriminate against underrepresented groups. Currently, algorithmic bias can occur in data and models from foreign contexts that do not fit Ghana's context.

Personal data is vulnerable to violations in privacy or security during data collection, sharing, processing and storage. Furthermore, AI-generated realistic text, audio and video ('deep fakes') and personalised disinformation campaigns can manipulate, persuade and deceive citizens. Meanwhile, the lack of transparency and explainability in some AI systems (e.g. neural networks and deep learning) makes it difficult to detect bias, audit and trust AI systems, and hold them accountable. As more and more basic and vital services will be based on AI and digital technologies, these service systems have a new and increased vulnerability. Moreover, AI can be used for social harm, citizen surveillance and infringe on individual privacy.

The AI economy can provide both job opportunities and losses across skill levels. From data collection and labelling to applied research, people in Ghana can participate in the global AI value chains. However, if the population is not prepared, automation of tasks in jobs can result in job losses. It is important to "future-proof" Ghana's workforce by preparing them for future AI and digital jobs.

To address these ethical challenges, Ghana is working with UNESCO to undertake the AI Readiness Assessment Methodology (RAM) to ensure that AI is developed and deployed ethically and responsibly, minimizing the risks while maximizing the benefits.

It is imperative for Ghana to ensure a responsible, inclusive and sustainable AI ecosystem. As much as AI wields positive transformative power, it has the potential to infringe on human rights and lead to biased decision-making and misuse of data. To this end, data governance and policy are key to driving Ghana's AI ecosystem while mitigating its many risks.

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[11] https://ircai.org/wp-content/uploads/2021/03/AI4D_Report_Responsible_AI_in_SSA.pdf

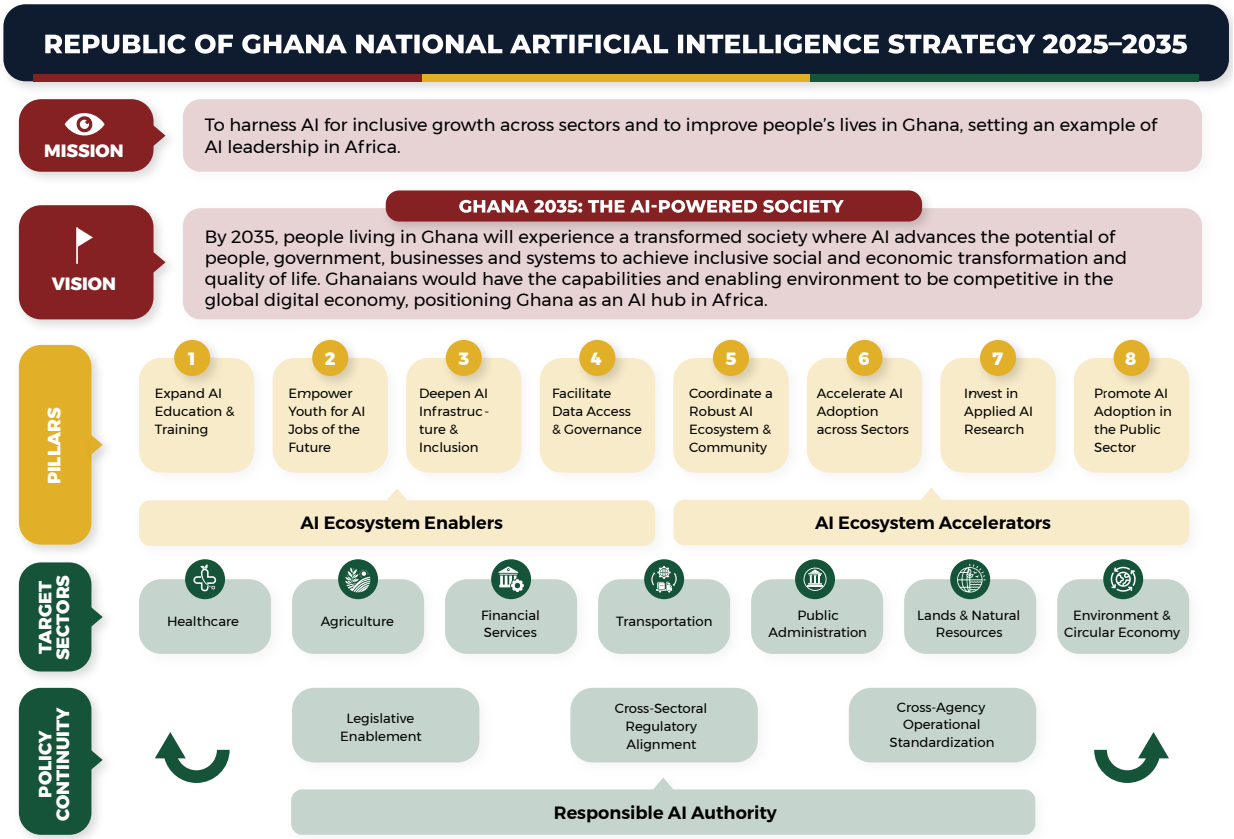
DIAGNOSTIC ASSESSMENT OF GHANA'S AI ECOSYSTEM - SWOT ANALYSIS

STRENGTHS	WEAKNESSES
• Vibrant and growing digital, e-commerce and innovation start-up ecosystem, including accelerators and innovation hubs (E.g. Ghana NLP, Mazzuma, Artificial Intelligence Association of Ghana)	• Low awareness about opportunities and the value of AI adoption, resulting in low demand for local AI projects and few job opportunities to develop human capital
• Digital connectivity expansion, including the availability of internet in urban areas (e.g. 800km fibre optic cables, submarine gateways via Eastern Corridor)	• Skills gap and lack of appreciation or low political will among government actors to drive AI development.
• Local digital hubs (e.g. Ghana Digital Centres Limitied AI Lab) and business-friendly environment for international investment (i.e. Anglophone market, political stability and security, academic institutions, solid internet infrastructure, ease of visas)	• Lack of coordination and collaboration among actors in the AI ecosystem, including AI projects in universities, companies, and across public sector institutions
• Growing international investment in AI and the digital landscape (e.g. Google, Twitter, Glovo)	• Limited access and low affordability of reliable electricity, high-speed internet and IT infrastructure, including cloud computing infrastructure and data centres for high-performance computing
• Presence of supportive global actors such as Tony Blair Institute for Global Change and Ghana-India Kofi Annan Centre of excellence (GI-KACE)	• Low digital skills & literacy, and smartphone penetration in rural areas are barriers to AI adoption in SMEs
• Hub in the West African sub-region is able to attract talent and lead by example	• Insufficient local digitised datasets that are accurate, updated, and representative.
• Relatively strong availability of university graduates equipped with fundamental skills in computer science, data analysis, mathematics and other relevant courses	• Data is inaccessible across sectors. Lack of standard practices in data digitization, collection, and sharing; data is siloed in sectors
• Young and fast-growing population with a strong drive to advance and improve the country through AI and emerging technologies	• Low awareness, compliance and enforcement of data privacy and cybersecurity policies & governance; telecommunications policies that do not align well with disruptions and new trends in the sector
• Existence of robust national vision, policies and objectives towards digital, ICT and innovation (e.g. Ghana Digital Economy Policy and Strategy, Ghana Integrated Digital Transformation Blueprint)	• Public scepticism and the need to demystify AI trends, including the impact on jobs.
• Championing data governance, digital development and e-payments in Africa	• Limited availability of university professors, funding, and courses in AI; skills gaps and an insufficient number of talent with data science and more advanced AI skills
• The expansion of the market to the African Continental Free Trade Area (AfCFTA) with headquarters in Ghana	• Gaps in internet coverage and lack of 5G. 4G penetration is at 41% on average in rural areas compared to 88% in urban areas
	• Lack of access to venture capital and traditional bank loans limits access to financing for start-ups
	• Lack of large-scale, local AI projects by industry or local digital hubs

OPPORTUNITIES	THREATS
• Leverage the growing, vibrant digital ecosystem, talent pool and international investment (e.g. Google, Twitter) for Ghana to become a hub and launchpad for AI solutions in the region and continent	• Lack of coordination and investment in implementing the National AI Strategy, resulting in a failure of the AI ecosystem to take off, limiting Ghana's competitiveness in the global digital economy
• Adopting AI tools can drive inclusion, outcomes and efficiency gains across sectors, including healthcare, transportation, energy, agriculture, education, culture and public services	• Low accessibility and inclusion in AI adoption due to gaps in digital skills and literacy in SMEs and rural areas
• Professionals access remote international AI job opportunities to grow skills, employment, and support the local AI community	• Risk of failures, errors, and discrimination due to lower accuracy of AI models trained on foreign data not fit for the local context, and underrepresentation in digital inclusion and AI development
• Growing niche in natural language processing (NLP) AI methods, including the collection and labelling of local languages for translation solutions and chatbots across sectors	• Loss of data privacy, security and public trust due to misuse of data or limited guidance, legislation and compliance for trustworthy AI adoption
• Skills and employment across the AI value chain and skills levels by training students in data science, data labelling and collection, data centre infrastructure and cloud services, cybersecurity, machine learning research and product development	• Lack of coordination and implementation in existing policies results in inefficient and underutilization of resources
	• Potential for job loss or unemployment in traditional jobs due to changing skills demand and automation
	• Brain drain of AI talent due to opportunities abroad
	• Limited long-term sustainability of initiatives financed by donor partners.

A diagnostic assessment (SWOT Analysis) identifies important opportunities and constraints that AI developers face in Ghana. It identifies the areas requiring policy interventions to accelerate, enable and scale Ghana's AI ecosystem. As such, it is the foundational knowledge base for policy recommendations to harness Ghana's strengths, overcome its weaknesses and threats, and ultimately take advantage of important opportunities for an AI ecosystem.

NATIONAL AI STRATEGY FRAMEWORK



The framework includes eight key pillars to enable a responsible and inclusive AI ecosystem in Ghana. Several of the pillars overlap with the five pillars identified in Smart Africa's "AI for Africa" Blueprint report: *Human capital, From Lab to Market, Networking, Infrastructure, and Regulation*.[12]

Pillar 1: Expand AI Education & Training

In an era of rapid technological and economic changes, it is essential to equip people in Ghana with the skills to survive and thrive - now and in the future. This pillar develops AI talent by increasing the number of graduates with AI and machine learning, data science, data engineering, computer science, and practical technical skills (e.g. data preparation, data collection and labelling). Additionally, incorporating data protection

and cybersecurity and ethics training as part of AI education is crucial to ensuring a secure digital landscape. Moreover, it is important to include AI initiatives that support individuals with disabilities and those in the informal sector, fostering inclusivity in this rapidly evolving field. By increasing AI talent, individuals and the nation can participate in the global AI and digital economy. Inclusive education programmes in rural areas and for women are essential to diversifying the AI field. Furthermore, this pillar prepares the workforce for an evolving labour market and skills requirements, ensuring that all segments of society benefit from advancements in technology.

Pillar 2: Empower Youth for AI Jobs of the Future

Youth employment remains a critical national priority, and Ghana's growing AI ecosystem presents a powerful opportunity to engage young people across all skill and education levels. By upskilling youth, especially in marginalized areas, and providing access to continuous training, short courses, and AI fellowship programs, Ghana can equip its young population to thrive in the AI value chain.

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[12] Smart Africa, GIZ and GFA Consulting, "AI for Africa" Blueprint, 2021, https://smart.africa/board/login/uploads/70029-eng_ai-for-africa-blueprint.pdf.

From data collection and labelling to applied data science and advanced machine learning research, youth can develop in-demand competencies and contribute to the creation of local, contextually relevant datasets and AI solutions. Facilitating remote AI internships and jobs allows youth to participate in the global digital economy while remaining in Ghana, thus contributing to local innovation and economic growth. Supporting AI start-ups through targeted funding, tax incentives, and mentorship will further drive youth employment and entrepreneurial success. Repatriating skilled African AI professionals can also enrich the local talent pool through knowledge transfer and mentorship. Together, these efforts not only future-proof Ghana's economy against automation and brain drain but also position the country as a competitive player in the global AI landscape.

Pillar 3: Deepen Digital Infrastructure & Inclusion

Reliable digital infrastructure and digital inclusion are fundamental for robust and inclusive AI in Ghana. This pillar enables greater access to the internet and digital infrastructure, hardware and cloud computing services. Internet penetration is incomplete, particularly in rural areas, and poses challenges in terms of affordability and reliability, with consequences for inclusion. There needs to be investments in the internet and data accessibility to address these, particularly by building innovation hubs outside Accra. Similarly, access to international world-class cloud service providers is unaffordable

for AI start-ups, students and practitioners. International cloud providers offer compute capabilities that are unmatched by domestic options in terms of reliability, quality, efficiency, security and scalability. A path to affordable access to world-class compute for AI/ICT start-ups and companies, while mitigating risks related to security and privacy, is necessary. This also involves addressing concerns over cloud/data sovereignty. In parallel, Ghana will prepare to build a national cloud infrastructure with AI-ready storage and compute capacity serving the region and the continent. Alongside these efforts, there will be investment into talent development, and the use of local languages to structure datasets will further strengthen Ghana's AI ecosystem. In addition, the scaling up of digital infrastructure will integrate consideration of environmental impact, including energy efficiency, renewable energy use and sustainable measures, to ensure responsible and climate-conscious AI development.

Pillar 4: Facilitate Data Access & Governance

Access and availability of accurate and quality data are critical for AI. Ghana requires collecting and labelling more local data sets to support home-grown local AI solutions fit for the context. Despite existing data policies, institutions are largely unprepared to responsibly share data across organisations or with AI researchers and practitioners. Implementation and compliance with data privacy laws, cybersecurity and governance frameworks are necessary to facilitate access to data across institutions and providers while safeguarding citizens' privacy, safety, security and rights. Governance is needed to protect people in Ghana against risks presented by AI and create an enabling environment for trustworthy innovation.

Pillar 5: Coordinate a Robust AI Ecosystem & Community

While Ghana has a growing AI ecosystem, including strong AI start-ups, practitioners and university research programs (Appendix 2), the community is not in regular communication and therefore does not benefit from knowledge sharing and collaborations. Coordination of the AI community in events, meetups, projects, conferences and beyond can foster shared skills development and collaborative projects to grow the AI ecosystem. AI practitioners can identify project partners and resources and coordinate toward exemplary and successful projects. A coordinated community also supports talent retention in Ghana.

Pillar 6: Accelerate AI Adoption in Key Sectors

The private sector plays a vital role in scaling up AI adoption across the economy and society. This pillar aims to accelerate the application of AI to boost productivity and

outcomes in key sectors and AI entrepreneurship. Exemplary successful pilot projects can raise interest in AI applications across sectors, such as healthcare, agriculture, transportation, energy, financial services, culture, and the environment. Numerous actors in Ghana's AI ecosystem are identifying use cases to add value and address local challenges in these sectors. It is important to raise awareness and demystify AI to spark interest and investment in pilot projects.

With more projects available, local AI talent gain practical skills and job opportunities and are likely to stay in Ghana and contribute to the local economy. Notably, partnerships and coordination with public sector institutions and universities for sectoral applications are crucial to synergize in R&D, data, funding, and logistics to achieve scalability. This report provides concrete examples of AI applications in key sectors in Ghana (Appendix 1 - Booklet of AI Use Cases in Ghana).

Pillar 7: Invest in Applied AI Research

Ghana's AI ecosystem should be future-oriented and able to drive value and progress towards local challenges and sustainable development. Rather than adopting technologies primarily made in foreign countries, local research into deep tech and applications is best able to address the country's unique challenges and contribute toward African and international outcomes. This pillar focuses on applied research concerning AI applications in key sectors, such as agriculture, health, the environment, and deep science, taking a more producer-led approach to AI development. It seeks to build on Ghana's existing strengths, such as natural language processing (NLP) within academic and corporate institutions, by establishing a Natural Language Processing (NLP) Centre of Excellence (CoE) and increasing investment in NLP for Ghanaian languages.

To further these goals, Ghana will create a Special Research Initiative to explore climate-smart agriculture and forestry, focusing on using local datasets for research and developing a plan for a National Deep Science Institute. To protect cultural heritage, Ghana will support the digitization of oral histories using artificial intelligence (AI). A Local Innovation Fund will be set up to encourage innovation, and there will be efforts to create AI sandboxing environments that allow for experimentation and development.

Pillar 8: Promote AI Adoption in the Public Sector

This pillar aims to support public sector leadership in the responsible and ethical adoption of AI. AI brings opportunities to improve quality and access to goods and services through a large number of use cases across public services, from administration and planning to healthcare, transportation, education, and beyond. Performance and efficiency gains through the application of AI technologies can help overcome shortages of resources. Public sector leadership can set an example and drive demand for AI in the economy through public procurement and PPPs that are open to AI start-ups and innovative

companies. Importantly, cross-sector collaboration and standardisation in operational models across institutions will ensure uniformity. Skills building and training across the public sector are important to build capacity for responsible and ethical AI adoption across Ghana.

AI Adoption in Key Sectors

AI adoption can support productivity, efficiency and outcomes in a number of critical sectors of the country. Examples of concrete AI applications are outlined in *Appendix 1- Booklet of AI Use Cases in Ghana*.

Target Sectors for AI Adoption
Healthcare
Agriculture
Transportation
Energy
Financial Services
Lands and Natural Resources
Environment and Circular Economy
Culture

DRIVING IMPLEMENTATION: GHANA'S RESPONSIBLE AI AUTHORITY

This report recommends establishing a Responsible AI Authority (RAI Authority) during the first year to spearhead implementation of the Ghana National AI Strategy. The RAI Authority shall be mandated to implement the National AI Strategy by coordinating stakeholders across institutions and championing AI's responsible development and deployment. Coordination of ongoing monitoring and progress measurements will also fall under the purview of the office. The RAI Authority is to be established as an independent, well-resourced entity mandated to drive implementation. To support its launch, the Data Protection Commission may act as a nurturing enclave and incubator to form the institution and position it to acquire the necessary capacity for its mandate.

This office follows several international examples, such as the Singapore National AI Office (NAIO), Egypt National AI Council, and the United Kingdom's Office for AI. To be confirmed as part of the RAI Authority's preliminary activities are:

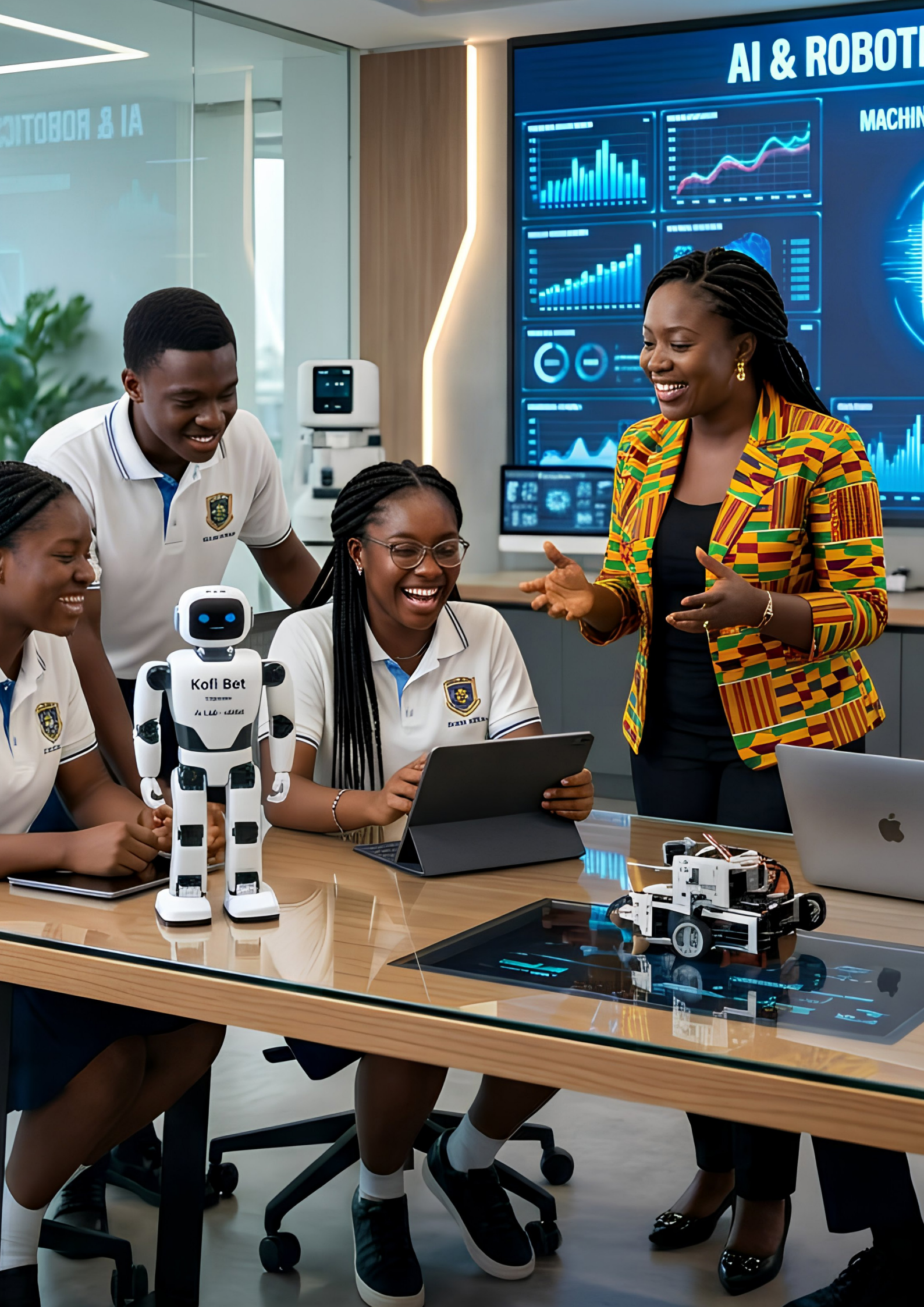
1. Develop an agenda to ensure **legislative enablement, cross-sectoral regulatory alignment** and **cross-agency operational standardisation**.
2. **Coordinate across institutions to implement** the National AI Strategy, involving government ministries and agencies, the private sector, academia and civil society, with an added dimension to ensure AI initiatives are useful and valuable to people and businesses. Responsible for leading several national AI strategy recommendations.
3. Lead quarterly **monitoring, measurement, and iteration** of the National AI Strategy, including identifying responsible actors, drawing up budgets, undertaking gap analyses, and reviewing, collating and updating emerging technology trends in Ghana and abroad.
4. Conduct **deeper analyses for market sizing opportunities** for AI across sectors.
5. Act on context-relevant studies such as UNESCO's AI Readiness Assessment Methodology and develop indices such as a **Ghana AI Readiness Index**. Learn from international examples such as Rwanda's AI Readiness Index or the Global Index on Responsible AI.
6. Actively **participate in the global governance of AI** platforms such as the UNESCO's Global Forum on the Ethics of AI, the Global Partnership on AI or the OECD Working Party on Artificial Intelligence Governance (AIGO) to shape international AI policy and learn from countries' practices. With Smart Africa and GIZ FAIR Forward, participate in peer learning in the Africa-Asia AI Policy Maker Network. Following examples, such as Egypt's National Artificial Intelligence Strategy, **coordinate with international organisations** (e.g. Smart Africa, African Union).

It is strongly suggested that the RAI Authority be equipped with a public-facing internet portal that displays its activities and agenda and facilitates community debates. The RAI Authority will be evaluated over the course of three years with the goal of transforming it into a full commission as a means of affirming the government's ambition, AI leadership, and commitment to becoming Africa's AI hub.

ACTION PLAN

Expand AI Education

PILLAR 1


AI & ROBOT
MACHIN
Kofi Bot

Target Sectors for AI Adoption	Recommendation	Activities	Actor(s)	Year
A pool of talent ready to work in AI	Annual AI skills gap assessment	1. Conduct an annual skills gap assessment. • Conduct a baseline study to identify the current needs and availability of talent with specific skills and competencies for AI in the labour market to inform curricula in schools and universities. • Develop a framework for a 5-yearly baseline assessment and adjustment for AI skills and capacity. • Consultations with associations and institutions, e.g. MEST's Strategic Technology Centre & Decade of Innovation strategy, TVET, COTVET, and the Association of Ghana Industries, to build a database of industry skill demands.	MoCDTI, Ministry of Education, The National Council for Curriculum and Assessment (NACCA), Ghana Technology and Business Hubs Associations, Ghana Tertiary Education Council, MEST, GI-KACE, National Accreditation Board, universities (e.g. KNUST, Ashesi University, University of Cape Coast, University of Ghana, AIMS, Academic City University College)	2025
	"AI Ready Ghana" program to train students	2. Launch the "AI Ready Ghana" program • Launch an Initiative that aims to train over 1,000,000 AI-ready youth by 2033. The Initiative would ensure AI training for youth in the first year of high school through their last years in tertiary education. Ensure by 2033, we also have at least 10,000 mid-level to senior AI researchers, capable of making algorithmic improvements in AI and AGI. • Update existing STEM and IT curricula in secondary education to incorporate practical coding and AI skills, basics of data ethics, data protection and data science, and raise awareness about jobs in AI and digital fields. • Prepare students by incorporating the basics of data science and coding in primary education. This can include teaching with resources like MIT's Scratch and using no-code tools. Students should also be taught on how to leverage existing AI across different use cases to improve their productivity, prioritising locally created AI systems. • Develop a digital counselling and career advisory framework to guide young people on career choices. n the digital economy. Such a framework should be implemented across all secondary and tertiary institutions through their career counselling units or departments, where they exist. Where such offices do not exist, steps shall be taken to establish one. • Include training on AI ethics in general as a core part of the programme. • Incorporate discussions on the societal and environmental implications of developing and using AI. • Expand beyond data protection and cybersecurity to cover other ethical dimensions outlined in the UNESCO Recommendation on the Ethics of AI, including environmental sustainability, cultural protection, fairness, inclusion and the future of work.	MoCDTI with the Ministry of Education, Ghana Education Services, Ghana Tertiary Education Council, National Youth Authority (NYA)	2025

	AI education courses	3. Expand education courses in AI • Coordinate among universities to create a database of • existing universities, technical universities and vocational training courses and degree programs in machine learning, artificial intelligence, data science, data engineering, cloud and database management, etc. For example, begin with a degree and courses at Kwame Nkrumah University of Science and Technology's Responsible AI Laboratory (KNUST-RAIL), African Institute for Mathematical Sciences (AIMS), Academic City, Ashesi University, University of Ghana, Academic City University College. • The database shall also include resources available to such programmes (e.g. teachers, hardware). Additionally, the database shall take stock of specific policies and clauses in related policies that have linkages to these programmes. • Based on the annual AI skills gap assessment, plan the rollout of additional modules, courses or degree programs in AI to be integrated into relevant subjects (e.g. computer science, statistics, mathematics, physics, biology). • With tertiary education institutions, develop a plan to attract lecturers and research programs in AI. Build upon existing institutions, attracting foreign experts such as AIMS or the first Master Sponsored Research Agreements in Africa between Google with KNUST and AIMS to enable research and leadership-sponsored programs developing young tech talent in Africa. • Incorporate data protection and cybersecurity training as a crucial component of AI education. This training shall equip students with the necessary skills to understand the ethical implications of AI, safeguard personal data, and implement security measures in AI systems, ensuring a well-rounded education that addresses both innovation and responsibility.	Ministry of Education, Ghana Tertiary Education Council	2026
	AI teacher training & upskilling	4. Promote training courses for teachers • Work with Ghana Education Services (GES) ICT coordinators to train teachers. Consider existing programs such as the Smart Africa Digital Academy (SADA) and AIMS' online hybrid course for teachers in mathematics.	MoCDTI with the Ministry of Education, Ghana Education Services, Ghana Tertiary Education Council, SADA, AIMS	2025
	AI for the disabled & informal sector	5. Include AI for the disabled, public, and informal sector for widespread AI literacy • Develop specialized AI training programs tailored for individuals with disabilities and informal sector workers to enhance their employability. • Create accessibility resources and tools that enable participation in AI education for disabled individuals and informal sector participants. • Launch outreach initiatives that target public sector employees and informal sector workers to educate them on AI applications relevant to their roles and trades, respectively.	Ministry of Education, NGOs focused on disability rights, MEST, Accessibility Advocacy Groups, Educational Institutions	2025

	Strengthen AI education through practical training models, inclusive programs, and stronger academia-industry collaboration.	6. Strengthen practical and inclusive AI training through internships, projects, and targeted programs a. Introduce mandatory internships, fellowships, and capstone projects linked to national AI use cases. b. Launch an annual "AI for Ghana Challenge" to connect students to real-world AI pilots. c. Establish industry-academia advisory boards to co-design AI curricula aligned with market needs. d. Encourage private sector partnerships (Google AI, NVIDIA, local startups) to provide mentorship and technical input. e. Launch a "Women in AI" initiative with scholarships, mentorship, and venture support. f. Set a 40% gender participation target for AI fellowships and technical training programs. g. Provide training for media personnel to strengthen responsible AI communication and public awareness. (please refer to: Reporting on Artificial Intelligence | UNESCO) h. Provide training for the Judiciary on AI, benefiting from UNESCO's Global Toolkit on AI and the Rule of Law, to uphold human rights, address bias and discrimination, and improve access to justice. (Please refer to: Strengthening capacities of judicial operators in Africa | UNESCO, Advancing African judicial expertise in AI, freedom of expression, and, Harnessing AI for Justice: Balancing Innovation and Equity in East,)	MoCDTI, Ministry of Education, Ghana Tertiary Education Council, RAI Authority, AIMS, KNUST, Universities, Ghana Digital Centres Limited, Developers in Vogue, Private Sector partners.	2025


MODEL TRAINING PIPELINE

ACTION PLAN

Empower Youth for Jobs of the Future

PILLAR 2

02


Machine Learning Pipeline
Machine Learning
Pipeline
Machine Learning
Machine Learning
Machine learning
MINISTRY OF COMMUNICATION, DIGITAL TECHNOLOGY AND INNOVATIONS
GHANA YOUTH INITIATIVE

Outcome	Recommendation	Activities	Actor(s)	Year
	Upskill youth, especially in marginalized areas.	1. Initiate ways to upskill the youth, especially those in marginalised areas. a. Deliver AI and digital skills training through rural tech hubs, mobile labs, and local TVET centres. b. Partner with NGOs and schools to identify and support youth in underserved communities. c. Provide scholarships, stipends, and free access to AI learning materials and courses. d. Launch mentorship programs linking rural youth to AI professionals in Ghana and abroad. e. Expand proven training models like Soronko Academy and HapaSpace to more regions. f. Set up regional AI learning centres with internet and computer access. g. Use national service and youth employment programs to place trained youth in local digital roles. h. Align training with industry needs through private sector input. i. Promote AI learning using local media, radio, and community outreach in local languages.	Responsible AI Authority, universities, and AI training providers	2025
Equip Ghana's youth to participate in the global AI and digital economy, raising employment and future-proofing jobs for the future	Remote AI job opportunities	2. Facilitate remote jobs or internships in AI • Enable local students or professionals to build competitive skills while contributing to Ghana's AI community through internships, on-the-job training, hackathons, hubs and incubator engagements. While job opportunities in AI are currently limited, locally based practitioners can gain employment and skills while contributing to community building in Ghana (Pillar 5) and local projects or companies at a later stage. Internships are an important part of training to develop practical skills. • Review programs which train youth and place them in local and international jobs (e.g. AmaliTech, Blossom Academy). • Incubation and innovation centres in the universities to support talented youth with start-ups and remote jobs. • Leverage Ghanaian diplomatic missions to facilitate and highlight AI remote jobs for youth in Ghana. • Expand the TVET voucher programme to include dedicated modules for digital skills of vocational trainees.	Responsible AI Authority, universities, and AI training providers	2025
	Tax incentives for youth in AI and start-up support through AI funds	3. Develop tax incentives and support for youth in AI start-ups to promote employment a. Review the gaps in existing tax programmes for business and develop a new framework for incentivising youth entrepreneurship in the digital economy with an additional dispensation for AI start-ups. This can include import duty exemptions for bringing in hardware needed for compute clusters and other AI work. b. GRA may engage beneficiaries of tax benefits to solve specified revenue mobilisation challenges. c. Create dedicated AI innovation funds to support youth-led start-ups. d. Offer seed funding, grants, and low-interest loans for AI-based ventures.	MoCDTI, Ministry For Business Development, Ministry of Finance, Ghana Revenue Authority, Responsible AI Authority, universities,	2025

		e. Set up incubators and accelerators within universities and tech hubs. f. Connect start-ups to mentorship from experienced AI professionals. g. Facilitate access to cloud credits, GPUs, and other AI infrastructure. h. Encourage public-private partnerships to co-invest in promising AI solutions. i. Organize pitch competitions and demo days to showcase AI start-ups. j. Promote gender-inclusive funding to support women-led AI start-ups.		
	AI Fellowshipsw	4. Develop AI Fellowship programs a. a. Design and run programmes to support applied and practical AI skills development in internships and projects in the public and private sectors. b. b. These programmes should be housed in the various regional ICT centres or hubs (Pillar 5), including ecosystems outside of Accra. Develop KPIs and metrics to track the number of participants and job outcomes. c. c. Coordinate with the Girls-in-ICT annual initiative by the MoCDTI for the inclusion of women in AI. d. d. Target projects addressing specific problems in Ghana, such as projects with the Bank of Ghana's sandbox program to test innovative ideas. Include projects in rural areas to build inclusion.	Responsible AI Authority, Ghana Digital Centres Limited, MoCDTI, Youth Employment Agency	2025
	Continuous training & short courses in AI	5. Support continuous training and short courses for students and professionals to enter the AI field a. Provide financial grants and tax incentives or share program information with the AI community for training (Pillar 5). b. Learn from the TVET-KFW training model to facilitate AI training for youth. Begin with examples such as Blossom Academy, Ghana Tech Lab's National AI Training Programme or 3-week National Female Pre-Tech Training Programme, Developers in Vogue, and free courses such as Microsoft Open Education or Hacklab Foundation, which integrates training with hackathons. c. Publicise courses across the AI value chain, ranging from data science and machine learning to technical and vocational training for data collection and labelling, cloud services/database management, and cybersecurity.	Responsible AI Authority	2025
	Repatriation of skilled African AI professionals	6. Repatriate skilled African AI professionals across the globe a. Create incentives for African AI professionals abroad to return or contribute remotely. b. Launch visiting researchers and teaching fellowships in Ghanaian institutions. c. Support remote mentoring and collaboration with local AI communities. d. Partner with diaspora networks to identify and engage skilled professionals. e. Offer relocation packages and research grants to returning experts. f. Involve repatriated talent in curriculum development and start-up mentoring. g. Promote hybrid roles that allow professionals to work across borders. h. Encourage global conferences and AI events to be hosted in Ghana.	MoCDTI, Ministry of Education, Universities, Ministry of Foreign Affairs, Ministry of Employment and Labour Relations, GIPC, NITA, Diaspora Affairs Office (Office of the President), GDCL, AI and tech communities.	2025

	Launch internship programs for Data Protection and Cybersecurity roles with potential for civil service absorption	7. Create new professional grades in civil service for specialized talent, including Data Protection Officers and Cybersecurity Officers. Deploy Data Protection and Cybersecurity Officers across ministries as interns, with a pathway to formal roles for data protection and information risk management. a. Launch internship schemes for Data Protection and Cybersecurity tracks. b. Partner with universities and technical institutes to recruit interns. c. Define transition pathways from internship to full-time civil service roles. d. Monitor and evaluate intern performance for hiring readiness	Office of the Head of Civil Service, Ministry of Communication, Digital Technology and Innovations, Data Protection Commission, Cyber Security Authority, National Youth Authority	2025
	Develop targeted reskilling and workforce transformation programs to prepare youth and displaced workers for AI-enabled jobs.	8. Future-proof Ghana's workforce through reskilling and continuous AI training a. Establish a National AI Reskilling Fund for workers impacted by automation. b. Embed AI and digital literacy in TVET programs and expand training for mid-career professionals. c. Support continuous short courses, hackathons, and TVET-based training models. d. Provide scholarships and stipends for youth in underserved regions to participate in AI programs.	MoCDTI, Ministry of Employment and Labour Relations, Ministry of Education, National Youth Authority, TVET Council, RAI Authority, Private Sector.	2025


CODE FOR GHANA
AI MODEL
UX FLOW

ACTION PLAN

Deepen Digital Infrastructure & Inclusion

PILLAR 3

03


GH
CONNECT
GHANA CONNECTED NETWORK

Outcome	Recommendation	Activities	Actor(s)	Year
Accessible & inclusive digital infrastructure in Ghana	Implementation of existing digital development policies	1. Review and identify gaps in the implementation of existing digital policies, including the development of national data centres. i.e. Ghana Integrated ICT for Accelerated Development Policy (ICT4AD), e-Transform Project, Ghana Digital Economy Policy and Stratey, and Ghana Integrated Digital Transformation Blueprint, including a focus on rural areas to ensure inclusion. Harmonise and integrate existing policies into a comprehensive plan across agencies and institutions. In addition, prioritise improving the affordability and reliability of high-speed internet across Ghana and developing national data centres while also establishing clear guidelines and frameworks to address concerns over cloud/data sovereignty, ensuring data privacy and security for Ghanaian users and businesses. • Deepen co-creation and private-public partnership in digital infrastructure funding, development, deployment and utilisation, including to support national data centres, with a focus on mitigating risks related to security and privacy, and establishing mechanisms to uphold data sovereignty. • Design a policy bridging framework across agencies to ensure that policies are responsive to the broader national development agenda, serving the needs of the people in a holistic manner, synergizing and ensuring non-duplication to optimise the use of budgets and resources. A policy bridging framework is the set of tools, models, governance approaches and protocols that different policies have to subscribe to ensure policy harmony, visibility and resource optimisation across sectors and agencies, especially in relation to data management and ensuring national control over critical digital infrastructure.	MoCDTI, Ghana Chamber of Telecommunications, GI-KACE, Data Protection Commission	2025
		• Increase Ghana's compute cluster capacity to ensure between government and private actors, we have a total compute capacity of 1021 FLOPS (Floating Point Operations Per Second) by 2027, increased by 0.5 OOM (Order of Magnitude) every year, ensuring we have 1025 FLOPS total capacity by 2035. This will involve government aggressively building AI compute clusters, but also involve convincing hyperscalers, cloud compute and ASIC (Application-Specific Integrated Circuit) startups to build compute clusters in Ghana. This is to ensure we have compute necessary to leverage the scaling laws towards building general purpose AI and AGI. • Drastically increase Ghana's energy capacity 0.5 to 1 OOM per year to be able to support the development of compute clusters.	MoCDTI, Ghana Chamber of Telecommunications, Data Protection Commission	2027-35
Competitive AI start-ups with access to world-class high-performance compute capacity	Plan for affordable access to world-class cloud computing	2. Initiate mutual partnerships and engagement with world-class cloud computing providers for affordable access for AI start-ups in Ghana a. Lead discussions with world-class cloud computing providers (e.g. NVIDIA, Google Cloud, Microsoft Azure, Amazon Web Services) to provide credits and subsidies for AI or digital start-ups	MoCDTI, Google, NVIDIA, and other cloud service providers.	2025

		across Ghana, enabling start-ups to overcome barriers in affordability and cost to access competitive cloud computing. Build upon frameworks from existing examples, such as NVIDIA's offer to start-ups (NVIDIA Inception Premier Members) or Google's Black Founders Fund, or research partnerships with universities. b. Explore incentive opportunities to attract local entrepreneurs and investors to develop local cloud computing infrastructure.		
Robust AI start-up ecosystem	Coordinate and facilitate viable innovation and AI markets	3. Orchestrate market dynamics that incentivise entrepreneurs to start enterprises that focus on AI products and services a. The government, through its ICT-oriented agencies, should work together to initiate strong market-led policy initiatives that: i. Clarify market conduct issues ii. Ease market entry iii. Establish enabling permissible segments to grow local AI enterprises	MoCDTI, NITA, NCA, DPC, GIFEC, Ghana Enterprise Agency, Chamber of Technology, Ghana Chamber of Telecommunications	2025
Enhanced digital inclusion and regional development in AI.	Enhanced digital inclusion and regional development in AI.	4. Build innovation hubs outside Accra a. Conduct feasibility studies to identify strategic locations for innovation hubs in various regions outside Accra, considering local resources and potential for specialized AI applications. b. Secure funding through public-private partnerships, grants, and international collaborations to establish and equip these hubs with necessary infrastructure, hardware, and internet connectivity. c. Develop specialized programs and initiatives within each hub to foster local talent, provide training in AI/ICT skills, and support the development of AI solutions relevant to regional challenges (e.g., agriculture, healthcare, local industries). d. Establish mentorship programs and networking opportunities for entrepreneurs and innovators within the hubs to connect with investors, industry experts, and potential collaborators.	MoCDTI, Ministry of Finance, Regional Coordinating Councils, Local Government, Private Sector, GI-KACE, Ghana Enterprise Agency	2025
Enhanced digital inclusion, widespread access to high-quality data, and a robust pool of skilled talent to drive Ghana's AI and digital economy	Implement a strategy to expand and improve digital infrastructure, foster data accessibility, and develop a skilled workforce for the digital age.	5. Invest in internet, data accessibility, and talent. a. Develop initiatives to reduce the cost of internet and data bundles for all citizens. b. Expand broadband infrastructure to underserved and rural areas to ensure universal and affordable internet access. c. Implement national digital literacy programs for all age groups, with a focus on foundational digital skills. d. Establish and promote open data platforms to increase access to public datasets for research, innovation, and AI development. e. Implement national digital literacy programs for all age groups, with a focus on foundational digital skills. f. Invest in specialized training programs and curricula for AI, data science, coding, and other in-demand digital skills at all educational levels. g. Foster collaborations between academia, industry, and government to ensure talent development aligns with industry needs and emerging technologies. h. Provide incentives for private sector investment in digital infrastructure and talent development initiatives.	MoCDTI, Ministry of Finance, NCA, GI-KACE, Data Protection Commission, TVET	2025

Culturally relevant and inclusive AI.	Develop and support initiatives for the systematic collection, annotation, and structuring of datasets in Ghanaian local languages for AI development and research.	6. Use local languages to structure datasets a. Fund initiatives to collect, transcribe, and label datasets in various local languages from diverse sources (e.g., oral histories, traditional media, community interactions). b. Develop guidelines and standards for data annotation and structuring in local languages to ensure consistency and quality. c. Foster collaborations between linguists, AI researchers, and local communities to ensure accurate and culturally appropriate data representation. d. Support research and development for Natural Language Processing (NLP) tools and models specifically for Ghanaian languages. e. Provide training and resources for data scientists and developers on how to work with and integrate local language datasets into AI applications.	MoCDTI, Responsible AI Office, DPC, Relevant cultural/linguistic institutions, Private Sector	2025
	Strengthen power and infrastructure for advanced digital systems	7. Strengthen Digital Infrastructure for AI and Advanced Technologies a. Assess and upgrade existing data centers to support AI and advanced digital technologies, or construct new ones as needed b. Leverage ongoing construction of five new data centers in Accra to enhance national digital infrastructure c. Ensure reliable power supply to support high-performance computing and AI systems, aligning with national energy plans	MoCDTI, Energy of Ministry, Ghana Grid Company, Private Sector	2025
	Enhance digital infrastructure through improved connectivity, renewable energy integration, and affordable compute access.	8. Expand digital infrastructure and energy capacity to support AI development a. Accelerate 5G licensing and rural connectivity expansion through public-private partnerships with telecom providers. b. Establish solar-powered edge data centres to reduce AI's energy footprint. c. Develop a Compute-as-a-Utility model to provide affordable GPU/TPU access for start-ups and researchers. d. Build capacity to monitor and evaluate the environmental impacts of AI, particularly in relation to energy use and digital infrastructure expansion	MoCDTI, Ministry of Energy, NCA, Ghana Chamber of Telecommunications, RAI Authority, Private Energy Providers, Cloud Providers (AWS, Google, Microsoft).	2025

ACTION PLAN

Facilitate Data Access & Governance

PILLAR 4

04

Outcome	Recommendation	Activities	Actor(s)	Year
Regulatory clarity and compliance in the AI & digital ecosystems to promote innovation and uphold privacy, security, and ethics	Implementation of data sharing & governance policies	1. Disseminate and drive enforcement of existing data sharing & governance policies Review and complete implementation of existing policies in data protection and cybersecurity, e.g. National Data Sharing Policy (NDSP); Data Protection Act, 2012 (Act 843); Right to Information Act 2019 Act 843; Cybersecurity Act 2020; Cyber Security Policy & Strategy 2015; Digital Financial Services (DFS) Policy; Health Sector ICT Policy and Strategy 2005, Electronic Transaction Act • Ensure industry-wide and cross-sectoral engagement and education to ensure uniformity • Create an advocacy and dissemination plan to educate, drive awareness and deepen the utilisation of these policies.	MoCDTI, DPC, Cyber Security Authority	2025
	Regulatory clarity for data sharing in PPPs in AI	2. Clarify data privacy and data sharing agreements and regulations for partnerships Build trust and transparency through national data sharing agreements, which would be championed and supervised by the DPC for all public & private institutions. This enables data holders to share data with AI project partners and start-ups across sectors, including public and private sectors, telcos and start-ups in PPPs.	MoCDTI, DPC, Cyber Security Authority	2025
	Ensure industry-wide and cross-sectoral engagement and education to ensure uniformity	Create an advocacy and dissemination plan to educate, drive awareness and deepen utilisation of these policies. Include Open Data Framework and Data Portability strategies.	MoCDTI, DPC, Cyber Security Authority	2025
	Clarify data privacy and data sharing agreements and regulations for partnerships	Address concerns on data sovereignty, support local hosting of datasets, and promote licensing regimes for AI models. Ensure alignment with continental frameworks.	MoCDTI, DPC, Cyber Security Authority, GCG, Legal Experts	2025
		Build trust and transparency through national data sharing agreements, supervised by the DPC, for all public & private institutions, including telcos and start-ups in PPPs	DPC, MoCDTI	2025
	AI Ethical Guidelines and tools for AI developers	3. Disseminate guidance on trustworthy, safe, secure and ethical AI practices to AI developers and adopters Based on existing work at DPC on the ethical use of AI, equip AI practitioners in the private sector and government with guidance about international best practices in data governance. Leverage AI community networks (Pillar 5) to disseminate guidance. Build upon work by UN Global Pulse with DPC to pave the way towards AI Ethical Guidelines in Ghana. Review and disseminate international guidelines such as OECD AI Principles and OECD.AI's Tools for Implementing Trustworthy AI or UNESCO Recommendation on the Ethics of Artificial Intelligence. Share free self-assessment tools for AI developers like the EU AI Trust Label, Denmark's D-SEAL, Singapore's Implementation and Self-Assessment Guide for Organisations (ISAGO), For further reference, see the UNESCO Recommendation on the Ethics of Artificial Intelligence (adopted by Ghana in 2021) https://unesdoc.unesco.org/ark:/48223/pf0000381137.	DPC, NITA, Cyber Security Authority	2025

	Establish a National AI Office with a legal mandate	Create a National AI Office with the authority to coordinate implementation, incident reporting, and oversight of AI system qualification	MoCDTI, Legal Experts, RAIL	2025
	Strengthen strategic planning and adaptability.	Reduce implementation timeline from 10 to 5 years with periodic reviews. Develop a detailed national implementation plan with stakeholder contributions	MoCDTI, RAIL, Academia, Legal Experts	2025
	Ensure inclusive and sustained implementation, Foster accountability and legal clarity	• Establish an AI Fund, with seed capital of $500 million, and a funding prioritization committee to support innovative, inclusive, and sustainable AI projects. • Clearly define responsibilities of each actor in the Action Plan; apply a soft guideline-based regulatory approach to avoid stifling innovation.	MoCDTI, National AI Office, Private Sector, Academia, Legal Experts, Cybersecurity Authority	2025
	MoCDTI, National AI Office, Private Sector, Academia, Legal Experts, Cybersecurity Authority	• Consider mandatory insurance requirements for high-risk AI-generated outputs to protect individuals' rights and wellbeing. • Develop and integrate a Monitoring & Evaluation (M&E) framework to track implementation, progress, and impact.	MoCDTI, Legal Experts, Sompa & Partners, National AI office, DPC	2025
Resilient and accountable AI systems through risk-based governance	Audit and certification tools for AI systems	Develop and deploy legal and technical tools for auditing and certifying AI systems to reduce risks like bias and hallucinations.	MoCDTI, Sompa & Partners, Legal Experts, DPC	2025
Ethical, explainable, and legally protected AI ecosystem	Strengthen oversight of AI errors, hallucinations, and human rights impact	Establish AI Ethics Hubs in universities. Integrate Explainable AI practices and legal dispute frameworks in critical sectors such as health, transportation, and law	Ghana Bar Association, CHRAJ, National Media Commission, GAUA, Sompa & Partners	2025
Inclusive, fair and human-centred AI in Ghana	Protect marginalized groups and enhance dataset inclusivity	Involve women, girls, persons with disabilities, and marginalized communities in AI design. Promote the use of localised, diverse datasets	GCG, Sompa & Partners, Cybersecurity Authority	2025
	Prevent AI-related exploitation and ensure gender equity	Prevent AI-related exploitation and ensure gender equity	Prevent AI-related exploitation and ensure gender equity	2025
Safe and secure AI environment with strong digital identity protections	Embed AI safety and ethical use across all applications	Include safety factors and ethical standards in AI development and deployment processes. Incorporate safety-by-design principles	GCG, Sompa & Partners, Cybersecurity Authority	2025
	GCG, Sompa & Partners, Cybersecurity Authority	Prioritize cybersecurity in AI strategy. Develop early detection and warning systems to counter misuse (e.g., terrorism, disinformation)	Cybersecurity Authority, GCG, MoCDTI	2025
Ghana contributing to and learning from leading international AI policies & practices	Participation in leading platforms shaping the responsible adoption of AI regionally and globally	4. Apply to international and regional AI governance platforms E.g. OECD Working Party on Artificial Intelligence Governance (AIGO), Global Partnership on AI (GPAI), UNESCO, ITU, Smart Africa, and African Union. Ghana would participate and share perspectives and learn from emerging best	Responsible AI Authority	2025

		practices and national AI strategies for responsible AI. To be globally competitive, we need to approach the AI race collectively with the rest of Africa, but Ghana can lead the charge or become the AI secretariat of Africa, similar to AfCFTA.		
Greater availability and accessibility of AI-ready data from the public and private sectors are fuelling Ghana's AI ecosystem.	The rollout of Open Data initiatives, exchanges and APIs, Community-centric data exchanges and repositories	5. Rollout of the Ghana Open Data Initiative (GODI), the Ghana Data Exchange Hub and data repositories a. Prioritise programs to share updated government data with the public or AI developers via APIs (data.gov.gh). Provide data collectors with guidelines and principles for collecting, storing and sharing data in both public and private sectors to be machine-readable and AI-ready. Ensure the data is cross-sectoral and not siloed. b. Review case for data marketplaces in Community-centric data exchanges for African Nations and the Continent: Roadmap for Ghana (2022) by UN Global Pulse. c. Work with international partners (e.g. Smart Africa, GIZ FAIR Forward, Mozilla), universities (e.g. KNUST Responsible AI Laboratory), and existing data labelling and collection initiatives such as Wiki in Africa or Ghana NLP to promote local and Africa-relevant data repositories. d. Digital data programs should be implemented in concert with cybersecurity precautions and infrastructure for APIs. e. Develop and implement incentive models that will stimulate data sharing from key institutions, agencies and demographics.	MoCDTI, NITA, Cyber Security Authority	2025
Robust data governance ensuring sovereignty & security in Ghana	Robust data governance ensuring sovereignty & security in Ghana	6. Develop and operationalise a national data classification and sovereignty framework a. Assess Ghana's capacity to generate, retain, and manage critical data domestically b. Classify data types (e.g., open, restricted) based on national priorities: • Open: Agricultural and meteorological data • Restricted: Health, financial and national security data c. Establish clear guidelines for data storage, sharing and cross-border transfer to uphold sovereignty and privacy	MoCDTI, Data Protection Commission, National Security, NITS, Private Sector	2025
Efficient, harmonized, and value-driven data ecosystem in Ghana	Implement a dual data harmonization system and explore ethical monetization models	7. Creating frameworks for responsible data monetization and differentiated data protection a. Establish separate frameworks for citizen data (prioritizing privacy and accessibility) and national security data (ensuring restricted access and robust protection) b. Develop guidelines for data monetization, addressing revenue models and mechanisms to protect privacy rights while enabling value extraction. c. Foster public-private partnerships to pilot monetization initiatives	MoCDTI, Data Protection Commission, National Security, NITA, Ghana Revenue Authority, Private	2025
Regulated use of data in public AI projects	Regulate data use in government bids	8. Ensure that data processing and handling are well-regulated, especially within government bids involving data assets a. Mandate data governance clauses in all public procurement documents involving digital or AI components. b. Audit public sector AI/data tenders for compliance with data protection standards. c. Train procurement officers in responsible data use and compliance.	Data Protection Commission (DPC), Public Procurement Authority, (PPA)	2025

		d. Develop a data governance checklist for Ministries, Departments, and Agencies (MDAs)		
Strengthened regional enforcement of data laws	Expand DPC into a national Authority with regional offices	9. Transform the Data Protection Commission into a Data Protection Authority with regional presence a. Pass enabling legislation to upgrade the DPC to an Authority. b. Establish regional offices in all 16 regions. c. Recruit and train regional data inspectors. d. Launch public awareness and compliance outreach in local languages. e. Integrate DPA operations with digital registry systems for automated monitoring.	MoCDTI, Parliament of Ghana, DPC, Ministry of Local Government, CSOs	2025
	Strengthen data governance and access through transparency mechanisms, diverse datasets, and clear data sovereignty rules	10. Improve data access, sovereignty, and transparency for ethical AI use a. Accelerate the rollout of machine-readable public datasets in key sectors such as health, agriculture, and education. b. Develop a national data sovereignty framework to regulate cross-border data exchange and protect privacy. c. Introduce mandatory transparency reports for all public-sector AI systems, detailing data sources and system impact. d. Create a Bias Mitigation Fund to support developers in testing models with diverse Ghana-relevant datasets.	Data Protection Commission, RAI Authority, Ghana Statistical Service, MoCDTI, Private Sector	2025

ACTION PLAN

Coordinate a Robust AI Community Ecosystem

PILLAR 5

05


INNOVATION
GHANA AI ECOSYSTEM

Outcome	Recommendation	Activities	Actor(s)	Year
A collaborative and coordinated AI community that accelerates the growth of AI in Ghana	Mapping & convening Ghana's inclusive AI community	1. Build & convene an online and in-person inclusive AI community a. Task the Responsible AI Authority to build a live online repository of personnel, programmes and resources of existing AI communities in Ghana, such as the Artificial Intelligence Association of Ghana, Ghana NLP, Google Developers, Python Ladies in Accra, Deep Learning Indaba, Ghana Tech Lab, including its Africa AI Accelerator Program, Hacklab Foundation, Tony Blair Institute's Ghana AI Policy Network, and stakeholders participating in the National AI Strategy consultation process. Ensure inclusion of communities dedicated to women and other underrepresented groups. b. Leverage these communities to expand the list to include start-ups, university research centres and programs (e.g. KNUST's partnership with Google on AI in agriculture), and students and professionals involved in AI. In addition, engage the Ghanaian professional diaspora working in international technology companies. c. Using this list, convene an online community and an initial in-person meet-up, followed by a sequence of continuous engagements. The meet-ups can revolve around the occasion of a conference, project presentations, or a hackathon for a challenge in Ghana presented by the public sector that can pave the way for a PPP project. For example, launch a series of quarterly AI meet-ups for AI practitioners to present their activities or tackle shared problems based on the City.AI model. d. Coordinate with MEST for their envisioned knowledge-sharing platform to provide AI innovators with a collaborative environment and support tools. e. Develop and implement incentive models that will stimulatew data sharing from key institutions, agencies and demographics. Create grants specifically for the creation and annotation of Ghanaian datasets across all key use case sectors of interest to the country (health, agriculture, education etc). By 2030, we should have 1 trillion tokens worth of Ghanaian datasets. 20% of this dataset can be made publicly available, but the remaining 80% will be publicly available but can only be accessed by Ghanaians upon verifications using their Ghanaian IDs (Ghana card). This will ensure Ghanaian AI researchers and innovators have an advantage in providing AI solutions for the country.	Responsible AI Office MEST	2025
	AI Hub in Ghana	2. Expand and establish complementary physical or virtual AI innovation hubs across the country, especially in marginalised communities, to promote collaborations and knowledge sharing f. Consider model examples such as Tunisia's AI Hub at The Dot. Begin from existing hubs, such as (but not limited to) iSpace, Impact Hub, Kumasi Hive, HapaSpace in Kumasi, the HOPin Academy, iCode in Takoradi and Ho Node in the Volta Region, corporate offices such as Google, or a virtual platform with events revolving around various hubs. g. Expand the capacity and presence of Ghana Digital Centres Limited across the various regions in Ghana, situating them to leverage the communities' unique strengths and opportunities. h. Liaise with District Assemblies to integrate AI Hubs with already established Community ICT Centres. i. Run community skills development and capacity-building programmes in rural and community schools to drive awareness and deepen their digital assertiveness.	Responsible AI Office	

	Collaborate with traditional institutions.	3. Collaborate with traditional institutions to support culturally rooted and inclusive AI development a. Engage with key traditional institutions across various regions in Ghana, including chieftaincies, religious bodies, and community leadership structures, to explore opportunities for collaboration on AI awareness, policy dialogue, and education. b. Facilitate community-centred AI forums where traditional leaders and local stakeholders can express cultural perspectives, needs, and values to inform AI design and deployment. c. Integrate traditional knowledge systems and indigenous languages into AI research and innovation efforts. For instance, through partnerships with linguists and cultural historians to develop local-language datasets and culturally relevant AI tools. d. Partner with these institutions to co-host public education campaigns, local AI showcases, or challenge competitions tailored to community-based development needs.	Responsible AI Authority National House of Chiefs and traditional councils Ministry of Local Government, Chieftaincy and Religious Affairs	2025
	Stakeholder collaborations for a dynamic AI environment	4. Define and implement multi-stakeholder collaboration frameworks to foster a responsive and dynamic AI ecosystem a. Map and categorize key AI stakeholders across government, academia, industry, civil society, and international development partners to ensure comprehensive representation in AI development. b. Establish a National AI Multi-Stakeholder Forum to regularly convene actors for joint planning, knowledge exchange, and progress tracking on AI initiatives. c. Develop clear guidelines for public-private partnerships (PPPs) in AI research, deployment, and capacity-building, especially in sectors such as health, agriculture, education, and governance. d. Facilitate co-creation workshops and innovation sprints among stakeholders to pilot AI solutions that address national development priorities. e. Promote open innovation models through shared datasets, APIs, and sandboxes for experimentation and responsible testing of AI systems. f. Creating the Ghana Global AI Summit. This will help annually bring together AI startups, enterprises, investors and governments. The goal will be for Ghanaian AI startups to exhibit their products to key stakeholders. As part of this summit, there will be deal rooms where the government can serve as a matchmaker by connecting specific Ghanaian AI startups and companies with specific investors or the government to encourage deal making, investment and partnerships. The Ghanaian Global AI Summit will aim to lead to the total investment of 80 billion Ghanaian cedis in Ghanaian AI companies by 2030. It will also lead to the formation of a total of 1,000 strategic partnerships by 2030. The summit will also allow the government and other sectors to determine how much progress is being made towards achieving Ghana's national AI strategy.	Responsible AI Authority MEST Ghana Standard Authority Academic and Research Institutions Private sector and industry associations	2025
	Reduce Urban-Rural Digital divide	5. Implement targeted strategies to improve equitable digital access and AI readiness across rural and underserved communities a. Expand digital infrastructure (broadband, mobile networks, and electricity access) in rural and marginalized regions through coordinated public-private partnerships. b. Establish community-based digital centres or innovation hubs equipped with internet access, AI learning resources, and digital literacy programs. c. Launch rural-focused AI education and training initiatives, including online and mobile-friendly platforms in local languages, targeting youth, women, and farmers. d. Develop and deploy AI-driven solutions tailored to rural development challenges in agriculture, health, education, and climate resilience. e. Promote incentives for start-ups and tech companies to pilot and scale rural-focused digital and AI innovations.	Responsible AI Authority Ministry of Communication, Digital Technology and Innovations National mmunications Authority	2025

	Diaspora & Talent Retention	6. Reverse brain-drain and leverage global expertise to build and internationally connected AI ecosystem. Create targeted incentives for Ghanaian AI professionals and researchers in the diaspora to: a. Participate in knowledge transfer initiatives b. Engage in collaborative research projects c. Provide mentorship to local AI talents	Legal Experts, Academia, Public Audience	2025
	Institutionalize multi-stakeholder collaboration to ensure policy alignment, accountability, and innovation	7. Foster collaboration and knowledge sharing across the AI ecosystem a. Establish a multi-stakeholder AI Advisory Council comprising government, academia, private sector, and civil society representatives. b. Hold quarterly cross-sector convenings to share policy updates, project progress, and innovation insights.	RAI Authority, MoCDTI, GI-KACE, Ghana Tech Lab, AI Association of Ghana, Civil Society Organizations.	2025


AI GHANA ECOSYSTEM

ACTION PLAN

Accelerate AI Adoption Across Sectors

PILLAR 6

Outcome	Recommen-dation	Activities	Actor(s)	Year
Private sector AI adoption resulting in inclusion, productivity and efficiency gains across sectors	5 Key AI Pilot to Showcase Projects	1. Spark investment into AI adoption with 5 AI pilot projects from across key sectors a. Catalyse investment into AI adoption by supporting the launch and showcasing the success of 5 AI pilot projects from key sectors: healthcare, transportation, agriculture, financial services, public administration,culture and environment (See Appendix 1 - Booklet of AI Use Cases). Facilitate PPPs or collaborate with public and private sector entities and universities on projects to ensure synergies in R&D, funding, data, logistics, and scalability. b. Coordinate with MEST's Ghana Innovation and Research Commercialization Centre (GIRC), CSIR-INST, and Strategic Technology Centres c. Involve a selection outside of Accra for the inclusion of diverse communities. d. In reference to Singapore's AI Strategy (2022), consider international collaborations with multinational researchers, businesses or governments to promote investment and knowledge sharing.	Responsible AI Office, MoCDTI, MEST, sectoral ministries, Bank of Ghana, international development organisations, multinational technology companies	2025
	Copyright, IP and patent law	2. Review and clarify laws for copyright, patents, and intellectual property, and data use. Encourage investment in research and development at start-ups and companies by supporting intellectual property. Engage a broad IP community in Ghana, including the registrar of companies, to protect the property rights of AI innovators. Clarification of laws around intellectual property and data use for AI solution development and deployment.	Various stakeholders in the IP community, IP and Patents Unit at Registrar General's Department at the Ministry of Justice & Attorney General's Department	2025
	Incentives to support AI and start-ups R&D, Ghanaian AGI Leadership and AI Unicorns	3. Implement incentives for AI start-ups, e.g. tax breaks for research & development or employment Refer to any existing policies (e.g. Ghana Digital Economy Policy, and Strategy, Ghana Integrated Digital Transformation Blueprint, Digital Financial Services Policy, Ministry of Environment, Science and Technology (MEST) Innovation Policy, Health Sector ICT Policy and Strategy 2005, Ghana Health Service Patients' Charter 2002. 4. Support the creation of a Ghanaian AGI lab. Ghana should produce at least one private AGI lab, competing globally. Similar to how DeepSeek from China is competing with OpenAI, Google and Anthropic in the US. An AGI lab is an AI lab with access to more than 1010 compute, that trains frontier foundation models with algorithmic and engineering innovations, and has access to more than 10 billion Ghanaian cedis in mixed funding (with local and global investment participation). The investment, resource support and more should be facilitated by government to ensure such a lab exists and scales to be globally competitive. This will ensure Ghana's leadership as the AI field rapidly evolves into the AGI field. 5. Support the creation of 10 Ghanaian AI unicorns. In addition to an AGI lab, Ghana should produce 10 Ghanaian AI unicorns by 2035. These are companies valued over a billion dollars. These companies can be focussed on AI applications, where they create wrappers on top of the frontier models from the AGI lab, and apply them to specific verticals. Eg. AI for legal practice, AI for transportation etc. Government should facilitate the investment and growth of these AI unicorns.	MoCDTI, MEST, MoF, MoH, Ghana Digital Centres Limited	2025
	Support innovation through targeted incubation and localized AI development.	6. Promote context-aware AI adoption through targeted incubation programs a. a. Launch a Use Case Incubator (RAI-led) with matched funding and public-private partnerships. b. b.Provide incentives for context-aware AI products, focusing on local languages and cultural relevance in agriculture, healthcare, and other priority sectors.	RAI Authority, MoCDTI, Private Sector, Ghana Investment Promotion Centre, Banks (BoG Fintech Sandbox), Universities.	2025

ACTION PLAN

Invest in Applied AI Research

PILLAR 7

07

Outcome	Recommendation	Activities	Actor(s)	Year
Continuous improvement of AI implementations and value creation from new AI opportunities	A climate-smart Agriculture and Forestry Research Initiative	1. Establish a Special Research Initiative to delve into climate-smart agriculture and forestry To develop viable responsive solutions, the Initiative's goals include: a. Improve productivity and commercial returns of farmers b. Ensure Ghana contributes to the preservation of the environment and global sustainability goals in a context-responsive and measurable manner c. Create strategies to sensitise key players who would benefit from research initiatives focusing on this domain d. Fostering of Partnerships among R&D departments of institutions and start-ups to generate new ideas and develop new solutions, as well as work together to bring funding to solve challenges	MEST CSIR-Institute for Scientific and Technological Information (CSIR-INSTI), universities	2025
	A Natural Language Processing Centre of Excellence	2. Establish a Natural Language Processing (NLP) Centre of Excellence (CoE) The CoE's goals include: a. Expand Ghanaian language dictionary, e.g. yearly addition of new words to the existing lexicon b. Bridge gaps in communication for the general public, including traders c. Develop translating chips using AI to easily translate English text and other foreign languages text and audio into Ghanaian languages d. Build legal tech that explores NLP to offer legal advice in Ghanaian languages i. GI-KACE is working on AI Projects in this regard at their Sunyani Campus e. Coordinate with existing NLP expertise in Ghana, including Ghana NLP and university (E.g. KNUST) and industry actors (e.g. Google)	Institute of Languages (GIL), GI-KACE, MEST, MoCDTI	2025
	A National Deep Science Institute	3. Develop a framework for the establishment of a National Deep Science Institute The Institute would pursue research in deep tech, cognitive tech, and leverage ML & AI to tackle critical societal issues as well as uncover breakthroughs for critical sectors of Ghana's economy. The focus should be on: a. Using AI to tackle and churn context-relevant inventions, new tools, learned models and insights to boost Ghana's sectors (e.g. health) and industry. b. Develop a strong data core for ML that other sectors, businesses and stakeholders can leverage. c. Develop capabilities in general purpose AI in a broad range of cognitive domains, such as learning, language, perception, reasoning, creativity, and planning. d. Develop capabilities in context-relevant human-AI collaboration to augment collaboration and shared abilities between humans and AI to boost outcomes and productivity of human labour.	MEST, MoCDTI, Ghana Tertiary Education Council, Academia, e.g. KNUST Responsible AI Laboratory (RAIL)	2025
		4. Support the digitisation of oral histories Preserving Ghana's rich oral histories is crucial for future generations and context-relevant AI. This initiative systematically captures, digitizes, and makes these invaluable narratives accessible, leveraging modern digital tools and ethical practices to protect and enhance understanding of Ghana's past and present. a. Identify and partner with cultural institutions, community elders, linguists, and historians across Ghana who hold or have access to significant oral histories. b. Develop ethical guidelines and protocols for the collection, preservation, and digital archiving of oral histories, ensuring community consent and ownership. c. Train local personnel in digital recording techniques, data		

		management, transcription (including in local languages), and metadata creation. d. Acquire and deploy appropriate digital recording, transcription, and archiving technologies, including secure storage solutions. e. Explore and integrate AI tools for transcription, translation, and analysis of oral history data, while ensuring accuracy and cultural sensitivity. f. Support the development of accessible digital platforms or repositories for the archived oral histories, ensuring long-term preservation and controlled access.		
	AI Sandbox environments	5. Call for AI sandboxing environments Ghana needs dedicated sandbox environments to encourage innovation and safe experimentation in AI development. This setup will protect system integrity and privacy. It promotes quick testing, helps find biases, and supports the creation of strong, ethical AI solutions that meet Ghana's specific needs. a. Offer technical support and mentorship to users of the sandboxing environments, including training on responsible AI development and testing methodologies. b. Establish a national framework and guidelines for AI sandboxing environments, including protocols for data privacy, security, and ethical considerations. c. Identify and designate secure physical and virtual spaces for AI sandboxes, equipped with necessary computational resources and relevant datasets. d. Develop mechanisms for evaluating the outcomes of experiments conducted within the sandboxes, facilitating knowledge sharing and the scaling of successful solutions. e. Provide access to diverse, anonymised, and representative datasets for testing AI models, ensuring data variety relevant to Ghanaian challenges.	MoCDTI, DPC, MEST, GI-KACE, Private Sector, Academia	2025
	A producer-led approach in developing AI technologies	7. A more producer-led approach to AI development than consumer-led The producer-led approach focuses on building local skills in AI research, development, and use. By supporting local talent and solving problems specific to Ghana, the country can make sure AI effectively addresses its challenges. a. Develop and implement policy incentives (e.g., tax breaks, grants, subsidies) for Ghanaian companies and start-ups engaged in the research, development, and commercialization of AI products and services. b. Promote strong linkages and collaborations between academia, research institutions, and local industry to facilitate the transfer of knowledge and commercialization of AI research. c. Create platforms and marketplaces to showcase and connect Ghanaian-produced AI solutions with potential local and international users and investors. d. Encourage the adoption of AI-first strategies within local businesses and public sector entities to create demand for domestically developed AI solutions.	MoCDTI, MEST, Ministry of Finance, Ghana Chamber of Technology, Academia, GI-KACE, Private Sector	2025
	Ghana's National AI Fund	8. Set up a National AI Fund A fund will provide essential financial support to Ghanaian entrepreneurs, start-ups, and researchers who are developing innovative AI solutions and advanced technology. Ghana's National AI Fund should start with a 5 billion Ghanian cedis 5 year fund (2025 - 2030) and scaling to a 15 billion 5 year fund (2030 - 2035). In addition, we will attract a total of 200 billion Ghanian cedis in foreign direct investment (FDI) and local private sector investment towards growing the AI ecosystem in Ghana by 2035. By 2030, AI should be contributing 200 billion Ghanian cedis to Ghana's GDP, and by 2035, it should be contributing 500 billion Ghanian cedis to Ghana's GDP. a. Design the legal and operational framework for the Local Innovation Fund, defining its governance structure, investment criteria, and disbursement mechanisms. b. Secure initial capital for the fund through a combination of government allocation, private sector contributions, and partnerships with international development agencies and philanthropic organizations.	Ministry of Finance, MoCDTI, MEST, Ghana Chamber of Technology, Academia, Bank of Ghana, GI-KACE, Private Sector	2025

		a. Explore mechanisms for the fund to generate returns to ensure its sustainability and continuous support for future innovations. b. Establish a transparent and merit-based application and evaluation process for funding proposals, prioritizing projects with clear societal impact, scalability, and alignment with national AI strategy. c. Implement a good monitoring and evaluation framework to track the impact of funded projects and ensure accountability and effective use of resources. d. Use royalties from extractive industries to fund national AI innovation and research via the National Research Fund		
	Strengthen Ghana-India Kofi Annan Center of Excellence (GI-KACE) as national R&D hub	9. Position GI-KACE as Ghana's central hub for AI and digital innovation research a. Develop GI-KACE into a centralized national R&D institution for AI and digital technologies, with government-funded programs b. Channel government R&D funding through GI-KACE to coordinate thematic research areas of national importance c. Establish partnerships between GI-KACE and universities for collaborative research projects	MoCDTI, GI-KACE, Ministry of Education, Universities	2025
	Provide research incentives and protect intellectual property for AI innovations	10. Support applied AI research through financial incentives and IP protection a. Introduce R&D tax incentives for companies developing AI solutions aligned with SDGs. b. Launch AI research grants for universities collaborating with industries such as healthcare and renewable energy. c. Fast-track patent approvals through an "AI IP Accelerator" program for AI researchers and innovators.	MoCDTI, RAI Authority, Ghana Standards Authority, Universities, Private Sector.	2025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AI INITIATIVE

ACTION PLAN

Promote AI Adoption in Public

PILLAR 8


LOCAL MARKET
PRICE FORECASTING
PUBLIC
INNOVATION
LAB - GHANA.

Outcome	Recommendation	Activities	Actor(s)	Year
Leverage the public sector as a key demand driver for AI companies and start-ups.	Public procurement processes redesigned to include AI start-ups	1. Develop a program that increases access for digital & AI-focused start-ups to public procurement processes • Leverage the public sector to support demand and opportunities for innovative start-ups. Start-up-friendly tenders/bids to be made available to support innovators in AI adoption. • Facilitate partnerships between start-ups and larger companies to collaborate in public procurement bids; • Establish a framework for bidding consortia to involve start-ups. Alternatively, develop a programme or regulatory sandbox to ease the minimum requirements for start-ups to apply to projects and enable trial and error. • Refer to Tony Blair Institute for Global Change's 'AI Procurement' recommendations in its AI Toolkit. • Public servants should conduct an ethical impact assessment for the procurement of AI systems in government, using tools such as UNESCO's Ethical Impact Assessment. 2. Evolve public sector mindset to view algorithms as IP and work with vendors & start-ups to co-create IP in AI a. Review contracting frameworks and establish a new contractual regime that motivates public sector investment in algorithms to co-create IPs.	MoCDTI, Ghana Digital Centres Limited, Public Procurement Authority, Ministry of Business Development	2025
AI transformation projects in the public sector	Civil servant AI capacity building program and digital culture mainstreaming	3. Establish a program to train civil & public servants to design, lead and implement AI projects in public services Build on examples such as Smart Africa Digital Academy (SADA)'s free 13-hour online course 'Artificial Intelligence for Policymakers', UNESCO's 'Digital Transformation & AI Competency Framework for Civil Servants,' the Tony Blair Institute's 'Harnessing Responsible AI Toolkit,' or GIZ and Human Sciences Research Council's 'Handbook for Implementing a Capacity Building Programme for Policy Makers on AI.' • Train civil and public servants to include focus on the ethical and responsible use cases of AI. 4. Incentivise an AI culture by creating a reward system to encourage service delivery excellence utilising AI Individuals can be rewarded (compensation, promotion, awards, recognition) for their role in utilising AI and ML to enhance public sector services delivery while exemplifying a positive AI and innovation culture with rewards prioritising solutions that demonstrate ethical and responsible use of AI, including fairness, transparency and social responsibility.	NITA, GI-KACE, Ghana Civil Service, Public Services Commission, National Labour Commission	2025
	Use of AI to guide Policy Planning, Programmes, Adoption and KPI Monitoring and Evaluation in the Public Sector	5. Develop a comprehensive public administration data dashboard/interface to provide data analytics for policy planning, programme mix, resource allocation, monitoring and evaluation Design and deploy a cross-agency Policy Data Reference Bureau (PDRB) for data gathering, sharing, analytics & visualisations for smart decision making.	Public Services Department, Office of the President, NITA, Private Sector	2025
	Transform public sector operational workflows and integrate AI in core public service functions	6. Initiate a programme to identify key public service AI use-cases a. Review opportunities in Appendix 1 - Booklet of AI Use Cases. b. For example, virtual agents for citizen services such as filing for taxes, requesting and renewing driver's licences and identification. AI to transform public infrastructure maintenance by using unstructured video data from public transport vehicles, such as buses, to detect potholes and generate a schedule and tracking model for repairs. 7. Develop a workflow and operational framework for public	Ministry of Local Government, Chieftaincy and Religious Affairs, Public Works Department, NITA	2025

		sector work for agility & data-driven decision making a. Set up a public sector workflow transformation committee to review the existing workflow and develop an operational architecture that aligns with the Enterprise Architecture, led by NITA, and integrates seamlessly with the Common National Digital Architecture. b. Encourage positions for data scientists in key sectors to support data-driven decision-making in the public sector. 8. Creating GhanaChat There should be a creation of the GhanaChat, a large language model trained with the data of the various agencies and arms of government, this will be privately used by the government to improve productivity. This will also ensure government staff aren't using foreign AI systems and therefore transmitting confidential government information to other countries, which is a security risk. 9. Adoption of GhanaChat Mandate for all government agencies to use GhanaChat and other locally created AI solutions towards boosting productivity, increasing revenue and cutting down cost. GhanaChat can also be fine-tuned and used in the delivery of government services to citizens, eg. tax filing, complaint management, policy education and sensitisation, regulatory compliance, and permit, license, & benefit applications.		
Centralized coordination of national AI efforts	Establish a National AI Office to oversee AI policy, implementation, and inter-ministerial coordination	10. Establish a bureaucratic structure for a National AI Office a. Set up a National AI Office under the Ministry of Communication, Digital Technology and Innovations to coordinate AI policy and execution. b. Recruit multidisciplinary teams including legal, policy, and technical experts. c. Develop annual national AI action plans. d. Facilitate collaboration between government, academia, and industry. e. Maintain a national AI project dashboard.	MoCDTI, Office of the President, PSC, NRSA	2025
Specialized AI-related roles across government	Create new professional grades in the civil service for Data Protection and Cybersecurity Officers	11. Create dedicated Data Protection and Cybersecurity Officer grades in the civil service to manage digital risks a. Design job descriptions and schemes of service for Data Protection and Cybersecurity roles. b. Align duties with AI governance and digital risk mitigation. c. Deploy officers across all government ministries. d. Integrate digital ethics and AI awareness into public sector training.	Office of the Head of Civil Service, Ministry of Communication, Digital Technology and Innovations, Data Protection Commission, Cyber Security Authority, Public Services Commission	2025
Institutional integration of AI performance	Use implementation of key AI use cases as part of performance assessments for ministries	12. Integrate AI use case implementation into performance assessments for ministries a. Identify priority AI use cases per ministry. b. Embed implementation metrics into Performance Contracts of Ministers and Directors. c. Review performance via biannual dashboards and scorecards. d. Align KPIs with national digital transformation strategy. e. Integrate regular risk assessments and audits into AI use case implementation to ensure accountability and responsible adoption.	Office of the President, NDPC, MoCDTI, Ministry-specific leads	2025
	Institutionalize AI governance and create incentives for AI use in public services.	13. Strengthen public sector AI adoption through ethical guidelines and startup-friendly policies a. Institutionalize sandbox-based bids, accelerated payment cycles, and shared IP arrangements to attract AI startups. b. Require all government agencies using AI to publish algorithmic accountability guidelines detailing decision-making processes. c. Extend subsidized internet access for public services using AI in underserved communities.	RAI Authority, MoCDTI, Ministry of Finance, Public Procurement Authority, Telecom Providers, Civil Service Commission	2025

CONCLUSION

The Republic of Ghana stands at the face of a profound technological revolution. The National Artificial Intelligence Strategy 2025-2035 sets forth a bold roadmap to realize our vision of “Ghana 2035: The AI-Powered Society”. By harnessing artificial intelligence as a general-purpose technology, we are committed to driving inclusive economic growth, redefining the delivery of public services, and improving the quality of life for all people in Ghana. This strategy firmly positions our nation not merely as a participant in the global digital economy, but as a trailblazer for AI leadership across the African continent and beyond.

To achieve this transformative vision, the strategy is anchored in eight essential pillars that comprehensively address both the foundational enablers and the accelerators of our AI ecosystem. Recognizing that our youthful and dynamic population is our greatest asset, we are fundamentally prioritizing the expansion of AI education and the empowerment of our youth for the jobs of the future. By integrating practical AI skills into national curricula, launching targeted upskilling initiatives, and expanding academic and vocational training, we ensure that Ghanaians are equipped to drive the digital economy rather than fall

victim to automation. This human-centric approach is inextricably linked to deepening our digital infrastructure and enhancing digital inclusion, ensuring that marginalized and rural communities are not left behind. By actively bridging the urban-rural digital divide and expanding affordable access to high-performance computing, we lay the robust groundwork necessary for scalable AI development.

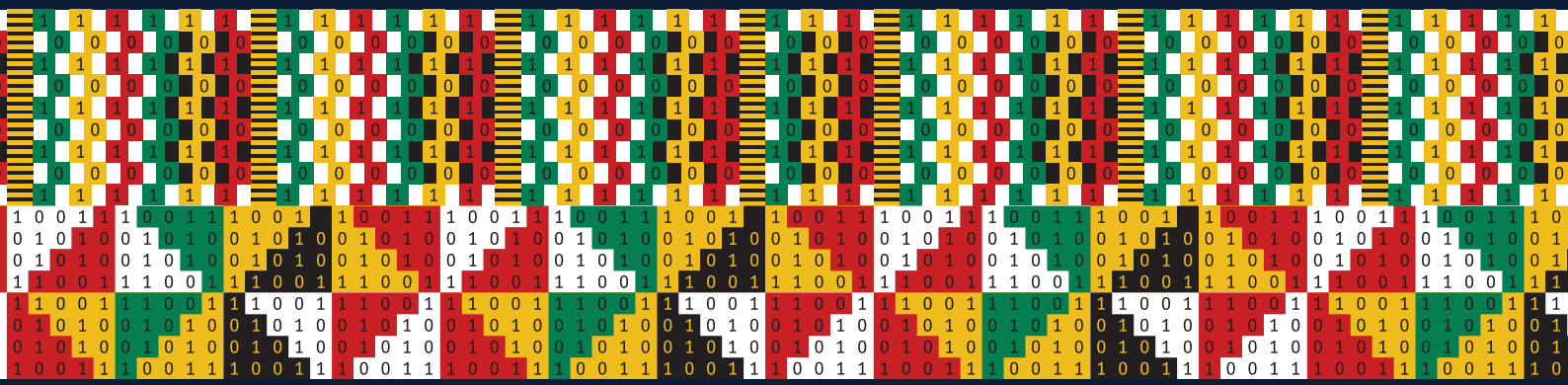
Furthermore, the success of our digital transformation relies on the facilitation of secure data access and robust data governance. By enforcing existing data protection frameworks, rolling out the Ghana Open Data Initiative, and systematically collecting localized datasets, we aim to build an environment of trust and sovereignty that fuels trustworthy, home-grown AI solutions. Building upon this secure foundation, the strategy catalyzes the coordination of a vibrant, multi-stakeholder AI community ecosystem. This collaborative environment will accelerate AI adoption across critical sectors—including healthcare, agriculture, financial services, and transportation—boosting national productivity and helping us achieve the United Nations Sustainable Development Goals. Concurrently, significant investments in applied AI research, spearheaded by initiatives such as the National Deep Science Institute and the Natural Language Processing Centre of Excellence, will empower Ghana to take a producer-led approach, shifting our paradigm from consuming foreign technologies to creating bespoke, culturally relevant innovations. By aggressively promoting AI adoption within the public sector, the Government of Ghana will lead by example, utilizing intelligent tools to optimize resources, enhance transparency, and deliver efficient services to citizens.

Realizing the immense socioeconomic benefits of this strategy—including a projected 500 billion Ghanaian cedis contribution to our GDP by 2035—requires decisive implementation, agile governance, and continuous adaptation. The establishment of the independent Responsible AI Authority (RAI Authority) will be instrumental in driving this execution, coordinating cross-institutional efforts, and championing the responsible development of AI. Supported by the creation of the National AI Fund, the RAI Authority will oversee rigorous monitoring and evaluation frameworks to track progress, ensure accountability, and adapt our policies to rapidly evolving technological landscapes. Moreover, our ongoing partnership with UNESCO to implement the Readiness Assessment Methodology (RAM) guarantees that our trajectory remains fully aligned with the global Recommendation on the Ethics of Artificial Intelligence, proactively mitigating risks such as algorithmic bias, cybersecurity threats, and the misuse of personal data.

Ultimately, the transformation of Ghana into an AI-powered society cannot be achieved by the Government alone. It necessitates a whole-of-society approach that unites our vibrant start-up ecosystem, esteemed academic and research institutions, private sector industries, civil society organizations, traditional leaders, and international development partners. Together, we must foster an internationally connected, yet proudly Ghanaian digital ecosystem. By adhering to the core values of ethics, responsibility, sustainability, and inclusivity, we will navigate the complexities of this technological revolution safely and equitably. With collective commitment and decisive action, we will harness the profound power of artificial intelligence to elevate the prosperity of our nation and set a resounding example of digital excellence for Africa and the world.

SCAN FOR APPENDICES

MINISTRY OF COMMUNICATION, DIGITAL
TECHNOLOGY AND INNOVATIONS
DECEMBER 2025



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