

**Informed approach to the design and
formulation of Artificial Intelligence National
Strategy Plans within Sub- Saharan Africa**



Strathmore University

*Centre for Intellectual Property and
Information Technology Law*

Acknowledgements

The preparation and publication of this report were facilitated through funding provided by the International Development Research Center (IDRC-CRDI), the Swedish International Development Cooperation Agency (SIDA), and the Artificial Intelligence for Development Africa (AI4D). We are thankful for these organizations and their continued support.

Natasha Karanja, Research Assistant at CIPIT, authored the report, which received additional peer review and contributions from Florence Ogonjo, Research Fellow at CIPIT, and Irene Mwendwa, Executive Director at Pollicy.

We are grateful to the management and administrative team for their essential support, coordination, and organizational efforts, which were instrumental in completing this report successfully. We are also grateful to Gloria Muthoka for designing the report outline.

Table of Contents

Acknowledgements.....	2
Background and Purpose.....	4
Aims and Objectives.....	5
Methodology.....	5
Literature Review.....	6
Design of effective National AI Strategies. The necessary checklist?.....	9
Key Indicators in the Design of National AI Policy Plans;.....	12
Indicator I: Standardised Data Protection Laws and Ethics.....	12
Indicator II: Incorporating a multi-stakeholder model.....	15
Indicator III: Human Capital.....	17
Indicator IV: Strategic Investment in Core Industry Sectors.....	18
Indicator V: Engaging in Regional and International Collaboration.....	19
Strategic Design AI Policy Plan Criterion.....	21
Country Analysis.....	23
Egypt.....	24
Mauritius.....	29
Rwanda.....	33
Nigeria.....	37
Benin.....	41
Recommendations.....	44
Conclusion.....	46

Background and Purpose

There is held to be a significant disruption, that is anticipated with the advancement of Artificial Intelligence (AI).¹ This calls for assessment as to how various states will monitor the practicalities of the present and imminent developments in AI.² Specifically, assessment will be on how to tackle the inevitable set of “technical, social and public policy conundrums” that arise with AI deployment in modern day.³ This strategic approach is encapsulated into a national strategy. National strategies are policy documents that coordinate collective action in relation to actualising specific policy objectives.⁴ The strategies are held to be defining instruments that aim to “deliver effective outcomes to enhance social change.”⁵ Looking towards AI, there is an uprise in the number of states that have crafted national strategic AI plans. The plans provide insights as to how the states are streamlining policy to maximise the benefit of utilising AI. In addition, the plans do provide for how coordination would occur, with various stakeholders as well as mitigation measures in place for any potential shortcomings. There is a limited focus on strategic plans, that focus on information technologies.⁶ The following study seeks to evaluate the design of these policies and the extent to which they are held to be nuanced and contextualized to match the realities of the states. Specifically, focus will be on Sub-Saharan Africa, where assessment will be on the five existing National AI Strategies in place (Egypt, Mauritius, Rwanda, Nigeria and Benin). The study would be an opportunity to provide succinct and centralised data on the current ‘best African practices’, to provide guidance to other African states who are in the nascent stages of formulating and designing their national AI policy plans.

1 Samar F, Desouza K, Dawson G & Gregory S, National Strategic Artificial Intelligence Plans : A Multi-Dimensional Analysis [2020] EAP Vol 67.

2 *ibid.*

3 *ibid.*

4 Filgueiras F Tunquillo T.A, The Brazilian (Non)perspective on national strategy for artificial intelligence [2023]

Discov Artif Intell 3; 7.

5 *ibid.*

6 Kaifeng Y & Melitski J, Competing and Complementary Values in Information Technology Strategic Planning: Observations from Ten States [2007] PP&MR 30.

Aims and Objectives

1. To supply evidence regarding the need for an informed approach to the design and formulation of African National AI Strategies.
2. To understand and analyse the current practices adopted in the designing National AI strategies within Sub-Saharan Africa.
3. To propose necessary reforms that would assist with providing guidelines as to how African states should design and formulate their National AI Strategies.

Methodology

The main method of research is desk-based research that relies on collection of data from existing secondary sources. Discussion will start off with designing and forming a set checklist as to how existing National Artificial Intelligence plans are formulated. The design is rooted within two current frameworks formulated by the [World Economic Forum \(WEF\), Centre for Fourth Industrial Revolution ; A Framework for Developing a National Artificial Intelligence Strategy](#) and [The Blueprint Artificial Intelligence for Africa](#) framework. The aim of this section is to formulate an evaluative checklist that would assist with analysing the National AI Strategy plans with the relevant indicators formulated within the checklist. The indicators are contextualised to the African setting. This allows for contextual analysis of the design of the various strategies and how they align with their local realities and national agendas in place.

Literature Review

Currently there is a global AI race, where various states have been pushed to formulate national AI strategies.⁷ AI is held to infiltrate all spheres of life, thus governments are on the spot as regulators, where they are bestowed with the role of regulating and governing AI, through initiatives such as the formation and implementation of national strategic AI plans.⁸ These plans articulate the potential risks and ethical challenges, that are inevitably derived from the deployment of AI.⁹ Assessment of these plans are usually within an economic perspective of AI competitiveness and AI readiness.¹⁰ This is reductionist in nature, as these plans are not merely a set of rules.¹¹ They are held to be “powerful and peculiar hybrid policy” as they employ and envision national strategic positioning within the global arena whilst articulating the national narrative of the use and benefit of AI and its integration to society.¹² The State can structure AI expectations by strategically releasing regulations and assigning resources with its own narratives and visions.¹³ This is evident with various states and their approaches to formulation of the National AI strategic plans.

They include countries from Post -Soviet Bloc and East Asia, that centre their plans around the thematic area of development, where focus is on the state’s participation in AI innovation.¹⁴ While European countries key focus is on control, this is reflective of the union’s tough stance on AI regulation.¹⁵ The United States and United Kingdom, adopts more of a hybrid approach that incorporates a market lens, where they appreciate the role the private sector plays in the promotion of AI.¹⁶ Assessing the geographic distribution of these plans , data evidences that, majority of the plans present, belong to European and North American states with Asian states closely following behind.¹⁷

A copious amount is from the European union, as there is evidence of “a union-level initiative to encourage the development of national AI plans.”¹⁸ However, looking towards the African context, there is a limited number, with the continent, as the continent possesses seven existing National AI Strategies; Egypt, Rwanda,

⁷Dutton T, “An Overview of National AI Strategies.” *Politics + AI* [2018] < <https://medium.com/politics-ai/an-overview-of-national-ai-strategies-2a70ec6edfd> > last accessed 14th August 2023.

⁸Yarime M & Papyshv G, *The state’s role in governing artificial intelligence: development, control and promotion through national strategies* [2023] PD&P Vol 6.

⁹Bareis, J & Katzenbach C, *Talking AI into Being: The Narratives and Imaginaries of National AI Strategies and Their Performative Politics* [2022] *ST&HV s*, 47(5),855.

¹⁰Cambrian Futures, “Nation AI Readiness.” Cambrian Group [2019] < <https://www.cambrian.ai/nair-index> > last accessed 14th August 2023.

¹¹Bareis(n9).

¹²ibid.

¹³ibid.

¹⁴Yarime (n8)17.

¹⁵ibid.

¹⁶ibid.

¹⁷Yarime (n8)4.

¹⁸ibid.

Mauritius, Sierra Leone, Tunisia, Nigeria and Benin¹⁹ as well as the existence of two working drafts plans; Ethiopia and South Africa. However, the continent boasts of a wide variety of policy instruments that go beyond the strategic plans, as eighteen out of thirty-two countries have ongoing initiatives to govern the use and deployment of AI within the national level.²⁰The development and utilisation of AI is prominent in majority of the development plans of African states.²¹ However, despite these positive advancements, accessibility of these initiatives is limited, specifically National AI policy plans, as they are not accessible within public domain.²² Currently we only have four accessible National AI policy plans and working draft plans; Egypt, Mauritius, Rwanda, Nigeria and Benin. This demonstrates the lack of accessibility of these plans which inherently contributes to the opaque nature of AI policy formulation within the Continent. The lack of accessibility is one of the attributing factors as to why the development and formulation of National AI policy plans are held to be opaque and stagnant. Opaqueness within this context is the lack of transparency of various existing plans that are created but are not within public domain. This limits the practise of scrutiny and assessment of these plans, which limits the curation of shared knowledge and best practises within the Continent. Appreciating that regulation of AI is based on “information asymmetries and power dynamics,”²³ there is need for effective and transparent policy design, this can only be achieved by observing contextual best practises. The following study aims to assess the ‘opaque gap’ by providing analysis on the current five accessible African National AI Policy Strategic Plans. Analysis will assist with creating an informed approach for other African states that are in the nascent stages of AI regulation.

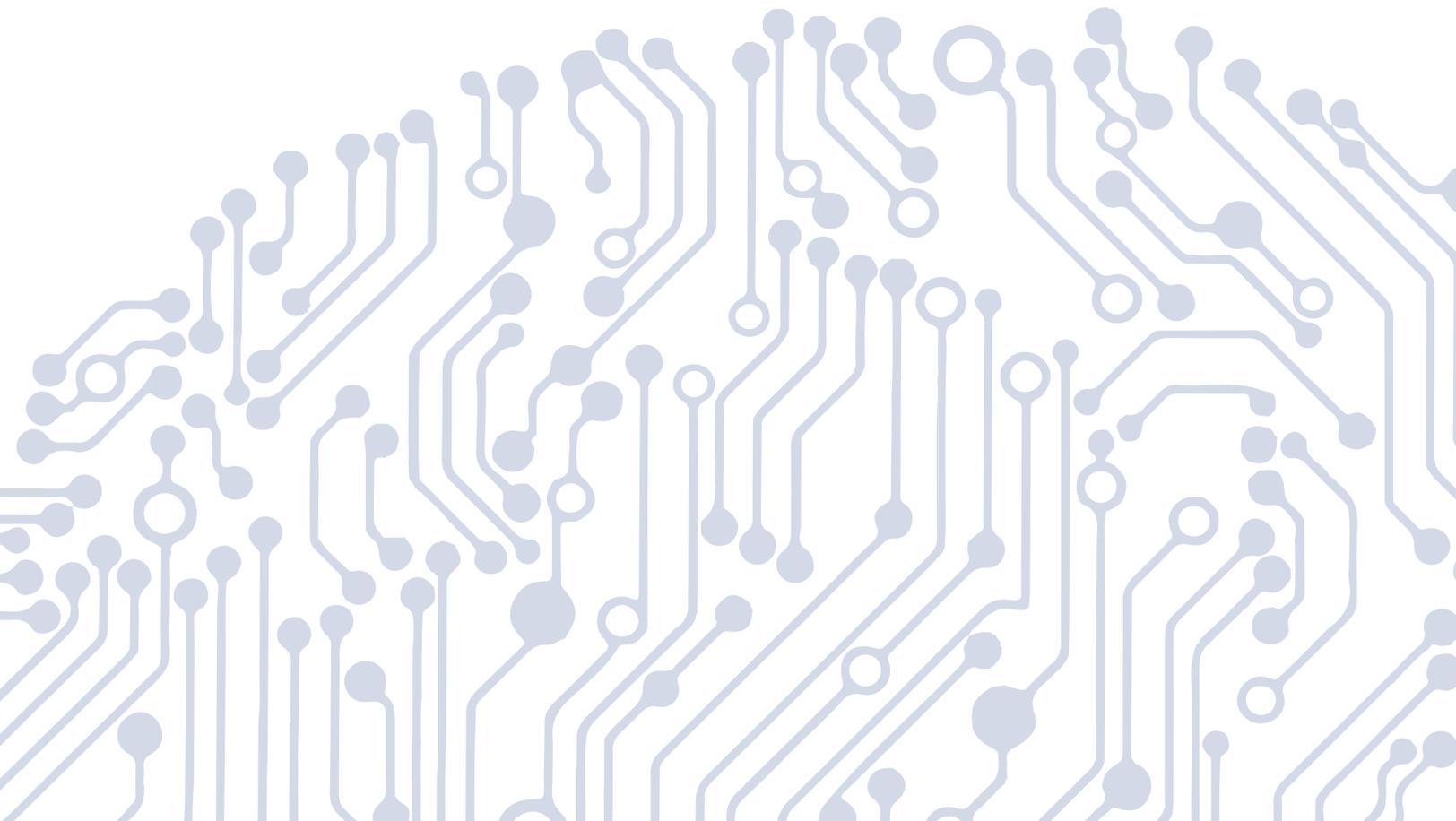
¹⁹ALT Advisory, AI Governance in Africa, September 2022 < <https://ai.altadvisory.africa/wp-content/uploads/AI-Governance-in-Africa-2022.pdf>> last accessed 14th August 2023.

²⁰United Nations Education Scientific and Cultural Organization (UNESCO), Artificial Intelligence Needs Assessment Survey in Africa [2021] 22.

²¹ibid.

²²ibid.

²³Taeihagh A, Ramesh M & Howlett M, Assessing the Regulatory Challenges of Emerging Disruptive Technologies [2021] R&G 15 (4).



Design of effective National AI
Strategies. The necessary checklist?

Design of effective National AI Strategies. The necessary checklist?

Policy design for all purpose and emerging technology is not a candid process, as there is need to understand design as a process of patterned and intentional interactions between various institutions and actors.²⁴ To maximise on the process, there must be clarity as to the how the responsibilities of actors are spread across the governance spectrum.²⁵ Considering the sensitive nature of AI, more is required in terms of broader governance framework that would assist with restructuring basic relations between the public and the private sector. ²⁶ Assessing AI policy design within the African context, there is need for the continent to detangle itself from the narratives from the Global Markets when defining AI expectations, risks and benefits.²⁷Context is key, as there is need to understand “narratives, historical underpinnings ,cultural traditions and political dynamics”.²⁸ Failure to appreciate this , implies a risk of implementing policy transplants of the Global Markets that would fail to be ‘fit for purpose’ and thus fail to meet the needs of the continent and its states. An ‘Africanised policymaking process’ would assist the continent self-actualising its AI potential in a manner that advances its interests and values.

Appreciating this, we assess and utilise the WEF’s National AI Strategy framework ²⁹ and The Blueprint Artificial Intelligence for Africa framework. ³⁰ The starting point for design assesses the state’s strategic objectives, strengths and weaknesses. ³¹ The design of policy should align to the strategic goals of the state and the capacity of the state that is reflective of the demographic needs, strategic priorities, national agendas, national values, resource constraints and geopolitical considerations.³² Therefore, design is based on SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis model. ³³The model will assist with identifying the focal area of the state’s strategy. When implementing the SWOT model, parameters should be established to ensure analysis is succinct.

²⁴Radu R, *Steering the governance of artificial intelligence: national strategies in perspective* [2021] P&S Vol 40:2.

²⁵ibid.

²⁶ibid; Radu argues that the same was applied when the internet was first being regulated.

²⁷Ogoh G & Eke D, *Forgotten African AI Narratives and the future of AI in Africa* [2022] IRIE Vol 31,4.

²⁸ibid.

²⁹World Economic Forum (WEF) Centre for Fourth Industrial Revolution, *A Framework for Developing a National Artificial Intelligence Strategy*, White Paper [2019], <https://www3.weforum.org/docs/WEF_National_AI_Strategy.pdf> last accessed 18th August 2023.

³⁰<[The Blueprint Artificial Intelligence for Africa](#)> last accessed 20th August 2023.

³¹ibid..6.

³²ibid.

³³ibid.

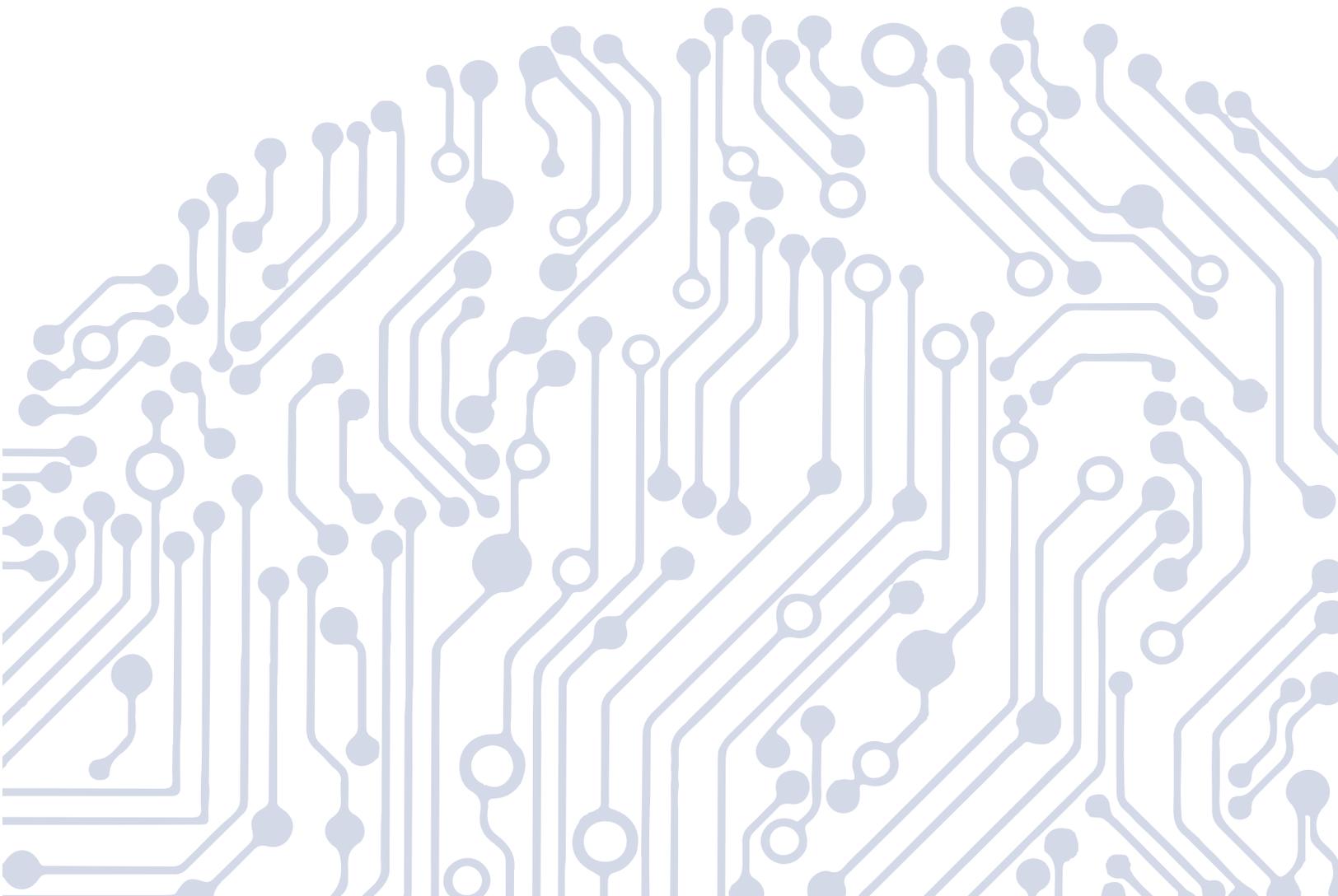
Key examples when assessing strengths and weaknesses would include assessing the workforce, digitalization/ infrastructure, industry-academy collaboration, training capacity and regulation.³⁴ In terms of opportunities and threats, examples would be innovation ecosystems, industry adoption and international collaboration.³⁵ SWOT analysis aims to curate a set of objectives that would be complimentary to the national agendas of the state. Objectives should be centred around, capacity, investments, adoption and regulation.³⁶ We appreciate that, specific recommendations for actualising national objectives will differ with each state, as each state has differing national priorities. However, they are key indicators, that are held to be pre-requisites when formulating the plans, as they are held to be the backbone of a minimum viable strategy.³⁷

³⁴ibid.

³⁵ibid.

³⁶ibid..8.

³⁷ibid.



Key Indicators in the Design of National AI Policy Plan

Key Indicators in the Design of National AI Policy Plans;



Indicator I: Standardized Data Protection Laws and Ethics³⁸

Standardised Data Protection

Data is held to be “oxygen” for AI, as it necessitates large amounts of data sets to function and develop,³⁹ therefore, there is need for a unified and stable regulatory environment of “mutual trust between data subjects and organisations”, where there is transparency and accountability as to how data can be “collected, stored, processed, shared and potentially deleted.”⁴⁰ Within the African context, there is fragmented continent-wide consensus of an approach to personal data protection as some states have minimal to no data protection frameworks or constitutional provisions whilst others have an exhaustive protection framework.⁴¹ This showcases a fragmented data protection landscape. The lack of uniformity poses a threat of distorted bargaining power when interacting with the Global North and its multinationals. Uniformity can be found within [The Malabo Convention](#), also referred to as the African Union Convention on Cyber Security and Personal Data Protection. The convention aims to curate a standardized framework for data protection across African states. The Convention was adopted in 2014 and came into effect in 2023. It serves as a tool for the harmonization of data protection and practises within the continent, addressing the increasing challenges posed by cybercrime and the need for personal data security. This is expressed through the provision of a data protection framework, that outlines essential definitions and guidelines such as rights of data subjects as well as the establishment of National Data Protection Authorities (DPAs) in member states to oversee compliance and protection of individual rights. Additionally, the convention encourages harmonisation of laws through creating cohesive legal environment that facilitates cross-border data flow and e-commerce whilst ensuring that personal data is protected and processed lawfully and transparently. It further encourages a collaborative approach with the public and private sector to encourage a culture of cybersecurity and data protection to enhance the effectiveness

³⁸ibid.

³⁹Mazurek G & Malagocka K, Perception of privacy and data protection in the context of the development of artificial intelligence [2019] JMA Vol 6 :4.

⁴⁰ibid.

⁴¹Coleman D, Digital Colonialism: The 21st Century Scramble for Africa through the Extraction and Control of User Data and the Limitations of Data Protection Law [2019] MJRL Vol 24:417, 432.

of the provisions of the Convention. However, despite the comprehensive framework, it has taken up to 9 years for the Convention to take effect noting the lack of quorum in ratification. A regional convention requires ratification by at least 15-member state countries.⁴² Since the adoption on 2014, African states have been slow to ratify the convention with countries like South Africa noting concerns of compatibility with the convention with already enacted national data protection regulations.⁴³ It is only in 2023 that, the convention attained expected ratification numbers with Mauritania ratifying the convention establishing its effect in June 2023.⁴⁴

Additionally we have [the African Union \(AU\) Data Policy Framework](#) as a soft law instrument that can be applicable within different African contexts. The recommendations are centred around developing a cross-border data flows mechanism, establishing a common data categorisation, working with national data protection authorities to assist with establishing coordination mechanisms that oversee the transfer of personal data and compliance. Therefore, ratifying the Malabo Convention and utilising the AU Data Policy Framework as a guideline would be beneficial for African states at whatever stage of development they are in data governance policy. This assists with creating a standardized means of formulating data protection laws. In addition, to data protection laws, data strategies should be formulated, as it would expound on key aspects beyond the law. The strategies would go beyond legal focus to more of 'technological infrastructure requirements' as well as 'institutional frameworks', where focus would be on developing data and digital skills to align with the existing policy frameworks that enable secure data use and sharing.⁴⁵

African Ethics

Despite "the claims of universality,"⁴⁶ we must appreciate that, there has been a "Global North dominant" perspective around AI ethics, where ethical frameworks, principles and values are centred around the perceptions of the Western world.⁴⁷ This is evident with the fact that, the bulk of the world's dominant AI companies are housed in the Global North, where the design teams working on AI, hail from predominantly Caucasian and Asian backgrounds.⁴⁸ The lack of diversity translates into existing ethical frameworks; this poses a risk to African states as AI ethics inevitably influence how "the public and private realm" designs, develops deploys and regulates AI.⁴⁹ Therefore, to contextualise AI ethics to fit into the African context, the development of AI ethics within the continent should be steered by African ethics and moral values. Ignoring this, excludes and denies Africans the applicability of frameworks that are reflective of their realities. We appreciate that Africa is not "homogeneous", thus one would question what sort of African values should be implemented within AI. There is no collective stance in the continent, when comes to the regulation of AI, as each African state with its "own peculiarities" is usually "tasked with its own rule making."⁵⁰ Therefore, we assess philosophy as a starting point to pinpoint values. Western philosophy is centred around the notion of

⁴²Sheik S, AU Convention on Cyber Security and Personal Data Protection [2023] < <https://www.michalsons.com/blog/au-convention-on-cyber-security-and-personal-data-protection-malabo-convention/65281#:~:text=Article%2036%20of%20the%20Malabo,which%20is%208%20June%202023> > last accessed 30th August 2024

⁴³ibid

⁴⁴ibid

⁴⁵Mwaya J, Dare to Share Unleashing the Power of Data in Africa [2022] < <https://www.institute.global/insights/tech-and-digitalisation/dare-share-unleashing-power-data-africa> > last accessed 30th August 2023.

⁴⁶Gwagwa A, Kazim E& Hillard A, The role of the African value of Ubuntu in global AI inclusion discourse : A normative ethics perspective [2022] Patterns (N.Y) Vol 3:4.

⁴⁷ ibid.

⁴⁸Ormond E, Governance of AI Ethics: Perspective from the Global South (Africa) [2023],3.

⁴⁹ibid.

⁵⁰Gwagwa (n43).

utilitarianism, that assumes moral actions are stemmed in rationality.⁵¹ AI discourse is reflective of this as it “excludes and discriminates against those who do not measure up to it.”⁵² Within the African context there is no “unified philosophical approach”, however, the value of Ubuntu has gained recognition as a general value applicable within different African contexts. The value has been utilised to describe African morality and the way of life, as its maxim emphasises that, “whatever happens to the individual happens to the whole group and whatever happens to the whole group happens to the whole individual.”⁵³ The value requires the individual to submit to their communities in order to qualify for personhood.⁵⁴ It amplifies a “communitarian social arrangement” that expresses African culture and describes social relations amongst African individuals of different African background. This goes against the notion of utilitarianism as it embraces the “communal and collective” approach of shared benefit and risk, where technology merely integrates itself into this existing way of life.⁵⁵ Inclusion of this to AI Ethics discourse assist with creating frameworks and principles that result in inclusive and equitable AI.⁵⁶ This would result in accessible AI that would have “less adverse effects” for the marginalized groups.⁵⁷ As application of western frameworks will not address African concerns of “inclusion” rather they will “conceal deep political and normative disagreement” warranting “unwanted” adverse effects of the implementation, development and governance of African AI.⁵⁸

⁵¹ibid.

⁵²Mhlambi S, *From Rationality to Relationality : Ubuntu as an Ethical & Human Rights Framework for Artificial Intelligence Governance* [2020] Carr Centre Discussion Paper Series.

⁵³Mbiti S J , *African Religions & Philosophy* (Heinemann 1970).

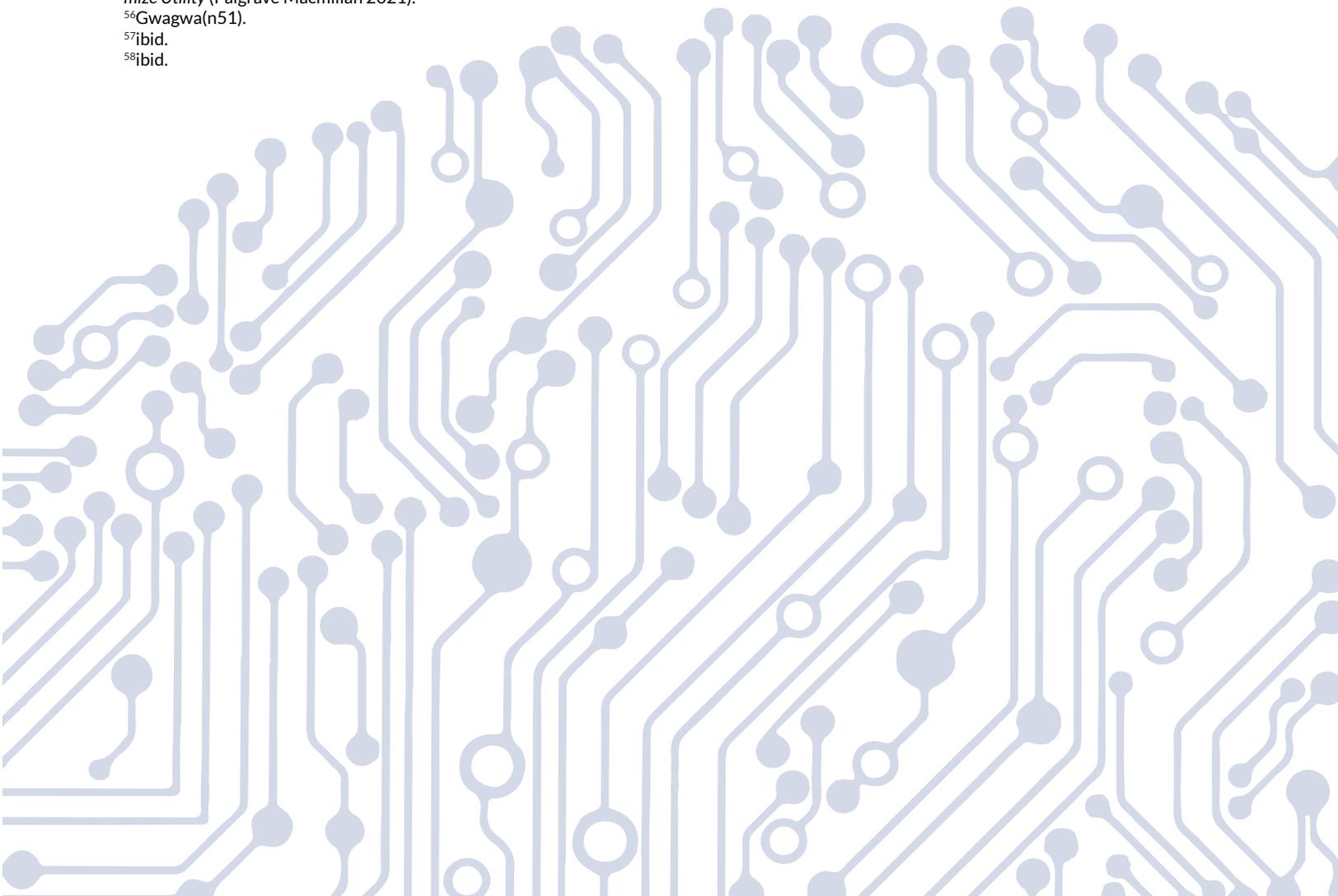
⁵⁴Gwagwa(n47).

⁵⁵Okyere-Manu D B, *African Values, Ethics and Technology ; Questions, Issues and Approaches ; Metz T, African Reasons Why AI Should Not Maximize Utility* (Palgrave Macmillan 2021).

⁵⁶Gwagwa(n51).

⁵⁷ibid.

⁵⁸ibid.





Indicator II: Incorporating a multi-stakeholder model

Multi-stakeholder model to policy making is an efficient means of developing informed solutions.⁵⁹ It provides ground for decision making to consider all diverse viewpoints and expertise and “counteract polarization of policy discourse.”⁶⁰ In view of Africa AI policy development, the creation of set standards has great impact on the trajectory to which AI will evolve. Considering the field is “susceptible to strategic and geopolitical considerations”, the utilisation of a multi-stakeholder model will develop standards that can “foster trust” amongst active stakeholders.⁶¹ The model is vital as it allows for collaborative effort of stakeholders from various backgrounds and expertise to formulate “relevant and applicable policy” for the national setting.⁶² The model breaks down “traditional multilateralism” as it embraces a “bottom up” approach of policy formulation where there is engagement with the private sector, industry, civil society, academia and the general public.⁶³ The bottom up approach includes the viewpoints for those who are actually “directly affected by the technology”.⁶⁴ It allows for interaction at each level, where there is representation of “diverse social actors” in the policy making process.⁶⁵ This involves an informed approach right from the start, in terms of regulating the design, development and deployment of AI.

To actualise the model, there are necessary values that should be present. They include.

- i) **Inclusivity:** There must be active participation by all stakeholders. To ensure active participation, there must be timely, accessible and affordable means of participation offered by the state.⁶⁶ Therefore, capacity building initiatives should be targeted towards diverse group of stakeholders, including stakeholders that tend to be “underfunded and unrepresented.”⁶⁷
- ii) **Diversity:** This involves going beyond the inclusion of traditional stakeholders to more of a distinctive stakeholder group that represent different perspectives and expertise they possess along with the need for “geographical, gender and linguistic diversity.”⁶⁸
- iii) **Collaborative:** A consensus must be present as to the “common norms” and values that will be utilised by each stakeholder in the consultation process.⁶⁹
- iv) **Transparent:** There has to be clarity as to the needs and interests of the stakeholders and their affiliations.⁷⁰

⁵⁹Drein V, Gelissen T, Raashi S, Marielza O, Prateek S, Riezebos S & Yang Y.H, Multistakeholder AI Development : 10 building blocks for inclusive policy (2022 UNESCO & Innovation for Policy Foundation) 8.

⁶⁰ibid.

⁶¹Abdala B M, Ortega A & Pomares J, Managing the transitions to a Multi-Stakeholder Artificial Intelligence Governance, Task Force 5: The Future of Multilateralism and Global Governance [2020] 7.

⁶²Drein (n56).

⁶³ibid..17.

⁶⁴Ormond (n45)10.

⁶⁵Drein(n59).

⁶⁶ibid.

⁶⁷ibid.

⁶⁸ibid.

⁶⁹ibid.

⁷⁰ibid.

- v) **Equal:** Presence of equitable and equal participation of each stakeholder despite differing roles, responsibilities and level of expertise.⁷¹
- vi) **Flexible and Relevant:** Participation needs to be fluid, to accommodate to the dynamic nature of digital technologies.⁷² It should be tailored to be applicable to regional and multilateral multi-stakeholder initiatives.⁷³
- vii) **Safe and Private:** The privacy and safety of the stakeholders should be ‘reasonably’ upheld throughout the process.⁷⁴
- viii) **Accountable and Legitimate:** Consultation with the stakeholders is an ongoing process that should seek to analyse and evaluate decision making throughout. ⁷⁵This would ensure that decision making is “legitimate, relevant and transparent”.⁷⁶
- ix) **Responsive:** Transparency is required on the “inclusion of rejection of the contributions” to the decision making as well as “the availability of the appeal or redress opportunities” for those who feel insufficiently heard.⁷⁷

Essentially the values listed are guiding tools to creating an open, participatory and inclusive process, where various stakeholders can share their practises, research and insights into AI policy formulation.⁷⁸ Co-creation is a “non-linear process” that entails interaction from various actors.⁷⁹ Therefore, the model allows for resources and capabilities of actors to be merged and geared towards a “common goal” that is reflective of shared set of objectives, values and firm evidence.⁸⁰

⁷¹ibid.

⁷²ibid.

⁷³ibid.

⁷⁴ibid.

⁷⁵ibid.

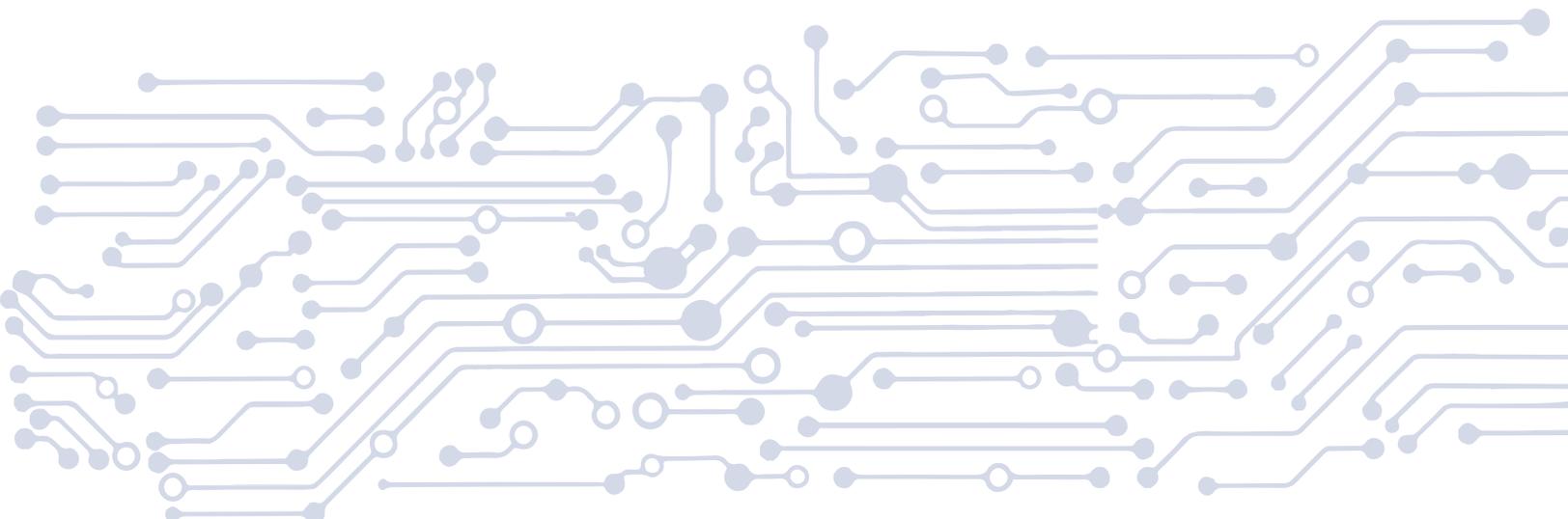
⁷⁶ibid.

⁷⁷ibid.

⁷⁸ibid..34.

⁷⁹ibid.

⁸⁰ibid.





Indicator III: Human Capital

AI has the potential to transform the economic trajectories of most African states, as the technology boasts of maximized efficiency and effectiveness.⁸¹ The technology allows for opportunities for lesser costs on production units, maximized productivity and earnings as well as the introduction of new products and business lines.⁸² This creates room for the new forms of employment that would be accessible and attractive for the emerging workforce.⁸³ On the other hand, the technologies are double-edged, as there is potential for AI to further exacerbate the current digital divide present in the continent.⁸⁴ Thus, affecting the current workforce. The divide is characterized by two clashing factors, they include; limited and costly technological infrastructure (*“limited supply of electricity to limited availability of ICT facilities”*) and low digital literacy rates equating to a limited digital skilled populace.⁸⁵ This develops the need for “countervailing policy”, where a balance is established between the creation of new employment utilizing AI technologies and the skilling, reskilling and upskilling of the current and future workforce in a digital eco system that is reflective of the continent’s capabilities.⁸⁶ To actualize this, policy instruments should seek to set out objectives that provide for investments for digital and ICT infrastructure as well as training opportunities. Training is necessary to “overcome challenges of technophobia” and “reluctancy” of engagement with the technologies.⁸⁷ In addition, skilling assists with leveraging infrastructure investments, however skilling has to be reflective of the state’s digital illiteracy and demand for skilling to ensure that remodifications of educational curricula and development of training programmes are aligned to meet the needs of African labour market consequently with the demands of global digitalization.⁸⁸

⁸¹Fox L & Signè L, From Subsistence to disruptive innovation Africa, the Fourth Industrial Revolution and the future jobs [2022] AGI Brookings,4.

⁸²ibid.

⁸³ibid.

⁸⁴Brookings, Inclusion, Inequality and the Fourth Industrial Revolution (4IR) in Africa [2022] < <https://www.brookings.edu/blog/africa-in-focus/2022/09/23/inclusion-inequality-and-the-fourth-industrial-revolution-4ir-in-africa/#:~:text=Adoption%20of%20Fourth%2DIndustrial%2DRevolution,discussed%20in%20our%20recent%20report.>> last accessed 5th September 2023.

⁸⁵Chetty K, Qiguo L, Gcora H, Joise J, Wenwei L & Fang C, Bridging the digital divide: measuring digital literacy [2018] Economics Vol 12, 2.

⁸⁶ibid.

⁸⁷ibid.

⁸⁸ibid.



Indicator IV: Strategic Investment in Core Industry Sectors

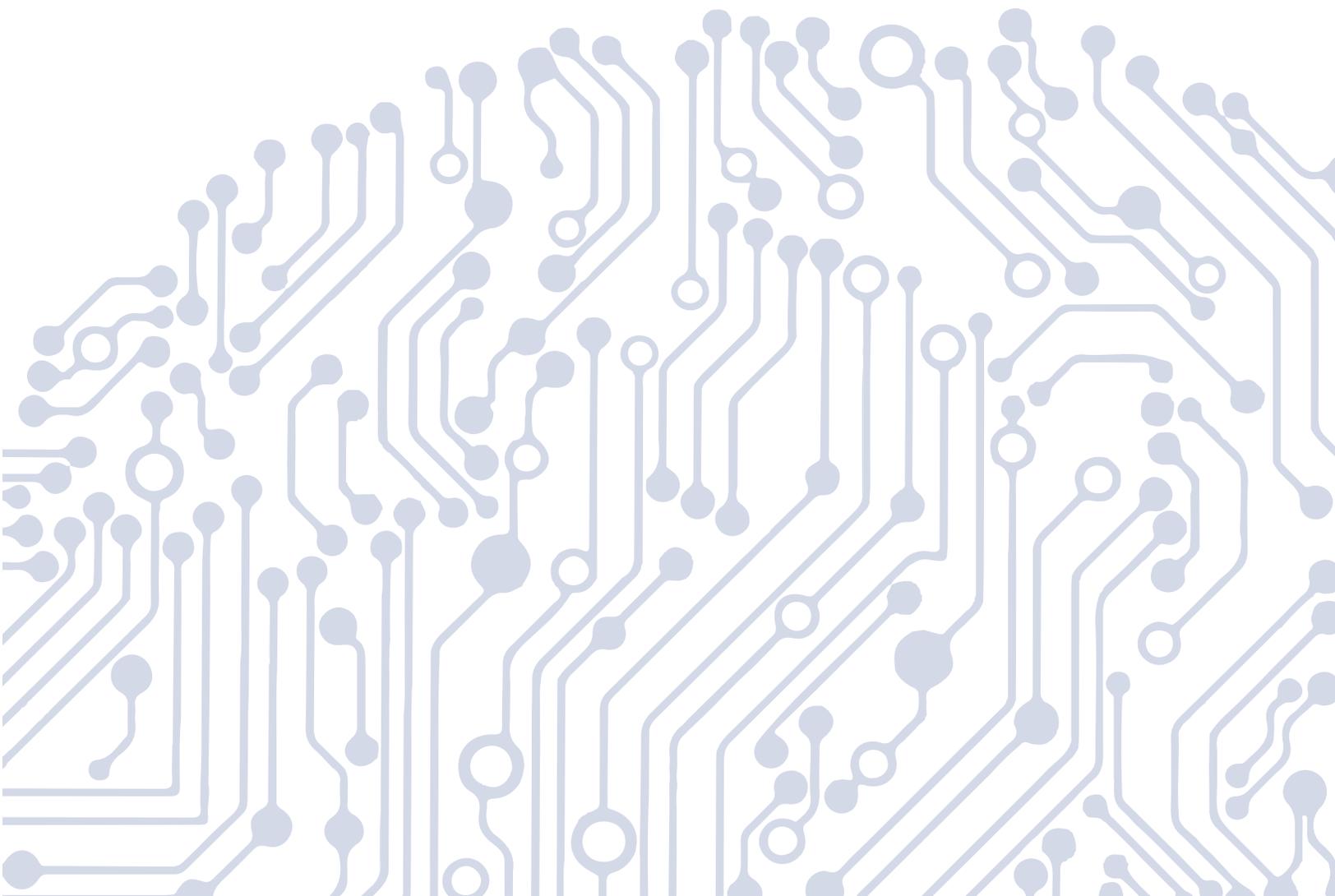
AI is held to be a powerful tool for development, where its impact is evidently in key core sectors such as agriculture, healthcare, public services and financial services.⁸⁹ However, to maximize on its potential, a “sectoral or application-based approach” should be utilized, where AI should be “primarily designed” to integrate into Africa AI’s eco system and amplify existing “core sectors of excellence.”⁹⁰ The sectoral approach is more of a tailored approach to investment, where states can design their national AI eco system in accordance with needs and requirements of their core industries. ⁹¹ This allows for AI solutions that are specific to key core sectors, as there is knowledge of how AI will assimilate into each sector and how it approaches the unique challenges, requirements and opportunities the sector possess. This is more of a logical route to adopt, as “spreading small amounts of resources” across various sectors yields a minimal return, thus such an approach would not be justified against the financial priorities and capabilities of African states.⁹² Therefore, the sectional approach allows for synergy in terms of harnessing the power of AI to tackle sector-specific problems.

⁸⁹Ndubisi E & Ikechukwu A K, *Artificial Intelligence and Socio-economic development in Africa* [2022] AJIS Vol 3:1, 13.

⁹⁰WEF (n37) 11.

⁹¹ibid.

⁹²ibid.





Indicator V: Engaging in Regional and International Collaboration

Appreciating the “pace, scope and global reach” of AI technologies, it is a fantasy to imagine that any state could realise its full benefits by working in isolation.⁹³ Hence, a collaborative interaction is necessary both regionally and globally to ensure there is mobilisation of expertise and capabilities to maximise on the benefits AI poses as well as mitigate the shortcomings of the technologies.⁹⁴ Regionally, the continent would benefit from a collective approach to rulemaking around AI akin to the “collective policy response” of the European states, who also share “cultural disparities” similar to African ones.⁹⁵ Despite the diverse nature of the continent, states share a “common history” and essentially a “similar cultural value system”.⁹⁶ Commitment to a regional initiative would promote standardised means of regulation especially in ethical and governance frameworks, where they would be opportunity to incorporate African values in how they are formulated.⁹⁷ This would allow for harmonisation and cohesion for African states. Globally, there is acknowledgement that regulation of AI is one that transcends “national boundaries” as its externalities have a global effect.⁹⁸ Thus, international collaboration is essential to ensure there is alignment between the transnational nature of AI and the national character of policy that governs AI.⁹⁹ National AI efforts should be complimentary to the global stance of promoting normative values that assist with regulation of AI in a manner that benefits all actors within the global sphere.¹⁰⁰

Assessment of the National AI Strategic Policy Plans

The following section aims to analyse and evaluate the five accessible African National AI strategy's; Egypt, Mauritius, Rwanda, Nigeria and Benin. The criterion is on the key dimensions highlighted where; the paper will seek to evaluate whether the key indicators are present within the strategies. Analysis will be modelled around utilizing a quantitative means of assessment, as the indicators will be yard sticks of measurements as to how effective the design is of the national strategic AI policy plans. This will involve the use of a strategic policy design criterion that incorporates scores on the basis of percentages. The score will be categorized into ; Very Good (70-100%) Good (50-69 %) Average (40-49 %) Acceptable (39 %- 49%) Unacceptable (0-39%). Justification of the percentages will be present in the analysis of the results given.

⁹³WEF (n86)12.

⁹⁴ibid.

⁹⁵Gwagwa A, Kachidza P, Siminyu K & Smith M, *Responsible Artificial Intelligence in Sub-Saharan Africa : Landscape and General State of Play* [2021] IDRC, 22.

⁹⁶ibid.

⁹⁷ibid.

⁹⁸Erdélyi J O & Goldsmith J, *Regulating Artificial Intelligence Proposal for a Global Solution* [2018] AIES' 18,96.

⁹⁹ibid.

¹⁰⁰ibid.

Strategic Design AI Policy Plan Criterion

Strategic Design AI Policy Plan Criterion

Category	Score
Very Good (70%-100%)	<p>This category involves an in-depth and detailed presence of all four indicators (<i>Data Protection laws and Ethics, Multi-Stakeholder Model, Workforce readiness for the Digital Economy, Strategic Investment in Core Industry Sectors and International and Regional Collaboration</i>) within the national strategic AI policy plan. There is strong evidence, that the policy plan articulates how each indicator is incorporated and aligned to the national interests and agenda. Each indicator is contextualized to the state's national context in terms of the state's capabilities and limitations. There is strong evidence of an informed decision, in terms of the policy reflecting a SWOT analysis when formulating the National AI Policy Plan that is reflective of 'instrumental calculations' and 'background factors'.</p>
Good (50%-69%)	<p>This category involves a good presence of all four indicators (<i>Data Protection laws and Ethics, Multi-Stakeholder Model, Workforce readiness for the Digital Economy , Strategic Investment in Core Industry Sectors and International and Regional Collaboration</i>) within the national strategic AI policy plan. There is a good level of evidence, that the policy plan articulates how each indicator is incorporated and aligned to the national interests and agenda. There is good discussion as to how the indicators would be implemented as well as discussion around the state's capabilities and limitations when implementing the indicators. There is decent evidence of an informed decision , in terms of the policy reflecting a SWOT analysis when formulating the National AI Policy Plan that is reflective of instrumental calculations and background factors.</p>

Category	Score
<p>Average (40%-50%)</p>	<p>This category involves an adequate presence of all four indicators (<i>Data Protection laws and Ethics, Multi-Stakeholder Model, Workforce readiness for the Digital Economy , Strategic Investment in Core Industry Sectors and International and Regional Collaboration</i>) within the national strategic AI policy plan. There is an adequate level of evidence, that the policy plan articulates how each indicator is incorporated and aligned to the national interests and agenda. There is adequate discussion as to how the indicators would be implemented as well as discussion around the state’s capabilities and limitations when implementing the indicators. There is adequate evidence of an informed decision , in terms of the policy reflecting a SWOT analysis when formulating the National AI Policy Plan that is reflective of instrumental calculations and background factors.</p>
<p>Below Average (40% and below)</p>	<p>This category involves minimal to no presence of all the four indicators (<i>Data Protection laws and Ethics, Multi-Stakeholder Model, Workforce readiness for the Digital Economy , Strategic Investment in Core Industry Sectors and International Collaboration</i>) within the national strategic AI policy plan. There is no discussion as to how the indicators would be implemented as well as minimal to no evidence of the plan reflecting the state’s capabilities and limitations. A SWOT analysis is absent from the policy plan.</p>

Country Analysis



Egypt

Summary

[The National AI policy plan](#) is an inclusive promotes the developmental agenda of Egypt when discussing AI. The narrative of the plan is centred around a conscious approach. The strategy is reflective of the realities of the state , as the plan is rooted in a SWOT analysis. The overarching goal is to exploit AI technologies to serve Egypt’s developmental goals and to foster regional and international cooperation.¹⁰¹ The mission is to effectively “create an AI industry in Egypt”.¹⁰² This requires people, technology, policy and infrastructure.¹⁰³ To actualize the above, there are four pillars and four enablers of the strategy.¹⁰⁴ The pillars are AI for government, AI for development, capacity building and international relations.¹⁰⁵ These pillars are underpinned by four enablers: governance, data, ecosystem and infrastructure.¹⁰⁶

Analysis



Indicator I – Data Protection Law and African Ethics

The policy plan acknowledges that data plays a significant role in reshaping modern society, as it affects every segment of day-to-day life. In relation to data protection , the strategy acknowledges data protection as an important aspect of an effective AI and data eco-system, as it mentions Egypt’s Personal Data Protection Law 2020, as the main legal basis for advocating for the security of personal data, that is processed and stored online.¹⁰⁷ In addition, it emphasizes that, the act provides for oversight on “data transmission with other countries.”¹⁰⁸ The plan advocates for an effective data strategy that seeks to categorize data according to its sensitivity and develop suitable and effective measures.¹⁰⁹ Classification is to assist with maintaining national security and the privacy of the state’s citizens. ¹¹⁰It ranges from top secret to unclassified. The strategy defines the responsibilities and roles of each data actor ; owner , curator and user.¹¹¹ This allows for transparency that provides insights as to how the data will be shared and the benefit it yields to each data actor.¹¹² Furthermore , the plan encourages the set up a local data centre that aims to provide, “data

¹⁰¹Ministry of Communications and Information Technology, Egypt National AI Strategy <https://mcit.gov.eg/en/Artificial_Intelligence > last accessed 1st September 2023.

¹⁰²ibid.

¹⁰³ibid.

¹⁰⁴ibid.

¹⁰⁵ibid.

¹⁰⁶ibid.

¹⁰⁷The National Council for Artificial Intelligence, Egypt National Artificial Intelligence Strategy < https://mcit.gov.eg/Upcont/Documents/Publications_672021000_Egypt-National-AI-Strategy-English.pdf > last accessed 2nd September 2023.

¹⁰⁸ibid.

¹⁰⁹ibid.

¹¹⁰ibid.

¹¹¹ibid.

¹¹²ibid.

locality, scalable storage and computer resources.”¹¹³ Looking towards ethics, there is an attempt for the plan to contextualize to its national setting, as it seeks to develop an Egyptian Charter for Responsible AI. ¹¹⁴ With the Charter, the National Council of Artificial Intelligence (NCAI) is formulating training programs for AI practitioners on the ethics of AI, as well as incorporating AI ethics within their educational curricula.¹¹⁵

The appropriate score for this indicator is very good – 80%, as there is strong evidence that the privacy of the citizens is at its core objectives of regulating how data is regulated and utilized. This is evident with the incorporation of the Personal Data Protection Law 2020 as the main legal basis for regulating how the data eco system would function. In terms of implementation, the plan devises a strategy as to how data governance would be at the core of the industries that incorporate AI. There is contextualization with its ethical principles, where the state aims to curate its own set of ethical practices that are aligned with national values.



Indicator II – Incorporating a Multi-Stakeholder Approach

The mission statement of the strategy promotes the notion of “human -centric AI” where there is prioritization of the populace well-being and presence of a “multi-stakeholder dialogue” in the design and deployment of responsible AI , with the overarching goal of formulating informed based policy.¹¹⁶ The model is reflected in the creation of committees that are encompassed of business experts, academics, researchers and potential beneficiaries.¹¹⁷ The role of these committees are to study the potential use cases of AI within different sectors, where their input will be utilized to progress and refine the strategy to increase uptake of AI .¹¹⁸ The role of the committees as well is to ensure exchange of knowledge and best practices to guide the development and use of AI for the nation’s betterment. ¹¹⁹

The appropriate score for this indicator is good – 68% , there is substantial evidence as to how a multi stakeholder approach is applied and would be beneficial to the design and deployment of AI. However, to reach a score of very good , more discussion would be needed in terms of ; the process of choosing the stakeholders, diversity of the stakeholders as well as more information as to how the process of stakeholder consultation would occur through the different phases of the plan from implementation to monitoring and evaluation.



Indicator III- Human Capital

The plan provides for a comprehensive discussion on the need to prepare the workforce for the digital economy. The plan has a dedicated chapter, that focuses on formal education and training of its citizens to utilize AI effectively. This involves integrating digital skills into curricula from the very early stages of education (preparatory), where focus is on “exposing students to the basics of AI”. ¹²⁰This allows for a “base” where potential

¹¹³ibid.

¹¹⁴ibid.

¹¹⁵ibid.

¹¹⁶ibid.

¹¹⁷ibid.

¹¹⁸ibid.

¹¹⁹ibid.

¹²⁰ibid.. 38-40.

AI experts can emerge from.¹²¹ The idea is that students should possess a basic understanding of AI , where the teaching of AI should be mandatory.¹²² Moving on to the secondary stage, AI becomes an elective unit, as a student would already possess a basic understanding , therefore the elective would be centred around an in-depth discussion of AI.¹²³ The mode of teaching needs to be interactive , where it takes to account the level of the students’ numeracy and technological knowledge and competence. The course would be designed to address AI and its workings plus the societal implications of AI and the importance of ethics when applying AI. ¹²⁴ Looking towards higher learning, there is encouragement of STEM programs that integrates AI into the main teaching. ¹²⁵ The courses should be accessible to students who have “adequate levels” of STEM knowledge. ¹²⁶ Additionally to promote practicality of these courses , the Egyptian Ministries of Communications and Information Technology (MCIT) and Higher Education and Scientific Research (MHESR) have teamed up to establish a technical university that offers both undergraduate and postgraduate programs in AI, where there is opportunity for students to apply their learning to real life projects.¹²⁷ Looking towards Technical and Vocation Training (TVET), the plan establishes key objectives for the institutions to achieve.¹²⁸ They include ; introducing AI educators to the students, increasing innovations of technical schools that utilise AI to be used on a larger scale and implement them on a nationwide platform.¹²⁹

The appropriate score for this indicator is very good – 85% , there is commendable evidence as to how the workforce is being prepared for the digital economy. The plan has a dedicated chapter that focuses on digital literacy and the utilisation of AI from the earlier stages of education all the way to university level. In addition, it provides for reformulation of TVET programs to integrate AI with the overarching goal of producing a capable and digital literate workforce that integrates effectively and generates AI innovations that would be beneficial for the state.



Indicator IV – Strategic Investment in Core Industries

There is a call for utilisation of AI in “vital developmental sectors” through partnerships with beneficiaries and local or foreign tech partners, to ensure resource mobilisation is present when addressing Egypt’s developmental needs.¹³⁰ There is prioritisation of AI in the following sectors ; Agriculture , Water management and environment , Finance and Banking and Manufacturing and Smart Infrastructure management.¹³¹ The plan goes in-depth in each industry , where discussions are reflective of a SWOT analysis in terms of how AI would assimilate in each industry effectively. ¹³² This involves; assessing the impact of AI in each industry in terms of its benefits and how they would be actualised within the Egyptian context.¹³³

¹²¹ *ibid.*.

¹²² *ibid.*

¹²³ *ibid.*

¹²⁴ *ibid.*

¹²⁵ *ibid.*

¹²⁶ *ibid.*

¹²⁷ *ibid.*

¹²⁸ *ibid.*

¹²⁹ *ibid.*

¹³⁰ *ibid.*..29-33.

¹³¹ *ibid.*

¹³² *ibid.*

¹³³ *ibid.*

The appropriate score for this indicator is good – 68%, there is substantial evidence as to how AI would be applied to the vital industries, however to reach a higher score, more discussion on the SWOT model should have been expounded on , as discussion is centred on the strength's and opportunities of employing AI . Therefore, discussion should have extended to assess the weaknesses and threats of AI.



Indicator V – International and Regional Collaboration

There is acknowledgement that a collaborative approach to AI is ‘essentially beneficial’ for the state , as the state believes in the “worldwide transfer of knowledge” which exists through intentionally creating relevant networks regionally and globally.¹³⁴ The state is actively engaged in global discourse , as it aims to articulate the perspective of the global south , to ensure the discussions around AI development addresses the current socio-economic needs of the continent.¹³⁵ To ensure international cooperation, the plan calls for active participation of the state in international conferences and relevant consortia. It pushes for multi-stakeholder effort at national, regional and international levels, where technological consultations should take place amongst international governments.¹³⁶ Active collaboration is present as it seeks to promote AI research, ethical considerations, capacity building and socio-economic impact amongst the projects it undertakes with global actors.¹³⁷ Regionally , the state is aiming to launch initiatives on a regional level to unify the voices and promote cooperation in how AI is designed, deployed and regulated within the continent.¹³⁸

The appropriate score for this indicator is very good – 75% , there is strong evidence as to how it is important to acknowledge international and regional collaboration in deploying and regulating AI. The plan adopts a progressive approach to active collaboration as it seeks to influence discourse, regionally and globally, of how AI can be utilised and regulated. It provides for actionable steps to actualise this through the objectives laid out. However, to achieve a higher score, more in-depth discussion would have been beneficial in terms of creating an implementation plan of the set objectives.

Conclusion

The plan has an average score of 75 (Very good), this is justified on the basis that, the plan has all the five key indicators present within the strategy. The plan is very contextualised to the state’s realities, this is evident with initiatives such as Arabic Natural Language Processing (NLP), where the state aims to utilise Arabic NLP to create AI applications that would be utilised by its populace.¹³⁹ In addition, the national plan is practical, as it provides for an implementation plan; execute, plan and explore framework. ¹⁴⁰The framework is one that adopts a “funnel approach “ , where the national AI strategic goals are categorised

¹³⁴ibid..44.

¹³⁵ibid.

¹³⁶ibid.

¹³⁷ibid.

¹³⁸ibid.

¹³⁹ibid.. 34.

¹⁴⁰ibid.

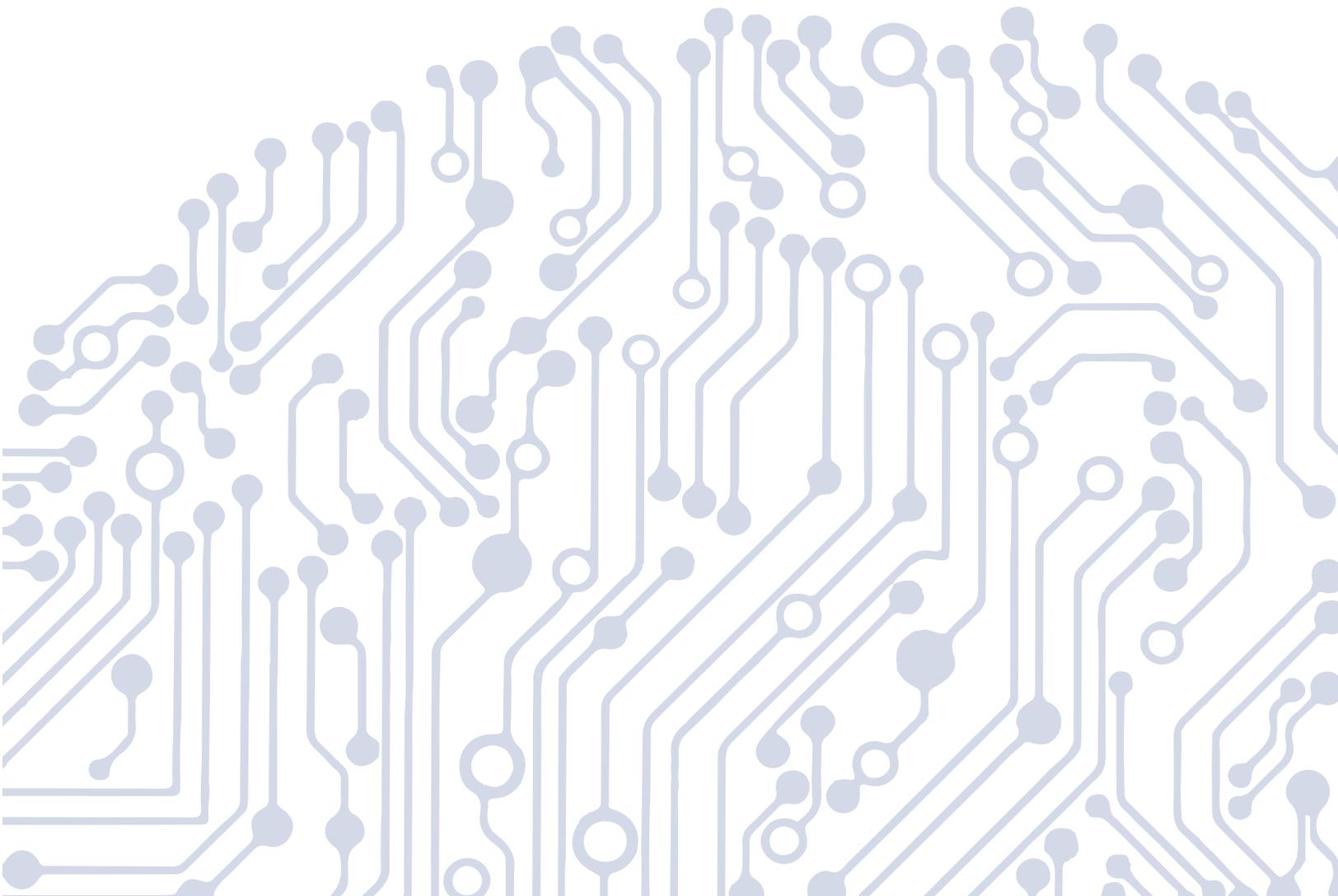
based on their stage of “maturity and implementation.”¹⁴¹ To ensure further efficacy, the plan as well creates a monitoring and evaluation mechanism that is based on performance indicators encompassing of both “qualitative and quantitative metrics” that are there to benchmark the progress of the plan through “tangible examination”.¹⁴² The examination is based on three factors ; total strategy impact, strategy thought leadership and strategy execution effectiveness.¹⁴³ The process of monitoring and evaluation is throughout , as the aim is to ensure continuous reviews and improvements of the plan, as it is treated as “a living document” until the finalisation of the strategy in 2030.¹⁴⁴

¹⁴¹ibid..54-67.

¹⁴²ibid.

¹⁴³ibid..67-71.

¹⁴⁴ibid.





Mauritius

Summary

[Mauritius Artificial Strategy Plan 2018](#) was the first strategy drafted by an African state. The plan is the guiding instrument that establishes the “cornerstone of the next national development model.”¹⁴⁵ It assists in actualising the potential of AI to improve the economic growth, productivity and quality of life for the Mauritian state.¹⁴⁶ The main focal areas of the plan are centred around; matching existing and new AI solutions to specific sectors and areas, establishing a ‘Mauritian unique selling point’ of AI, an appropriate ecosystem to nurture AI with focus on creating collaborative communities, human capital to sustain the AI eco system and lastly a regulatory framework that acts as a catalyst for AI development and fiscal growth.¹⁴⁷

Analysis



Indicator I – Data Protection Law and African Ethics

The plan appreciates that, AI requires a surplus amount of data to operate at an optimal level as, “the greater the amount of data these AI systems have, the better the decisions become.”¹⁴⁸ Therefore, the plan recognises the use of AI has consequences that touch on privacy, data protection and the rights of the populace. Failing to appreciate this, leads to poor data governance, where there would be an unintentional release of secure and confidential information.¹⁴⁹ To mitigate this, necessary amendments to Data Protection legislations should be in place to ensure the rights of the populace are upheld. Furthermore, policy initiatives such as data centres should be explored, where there is advocacy for safe and accessible data.¹⁵⁰ In terms of ethics, the plan advocates for an ethical AI eco system. To establish, it seeks to create a permanent committee on ethics to assist with maintaining ethical dialogue and formulating proposals.¹⁵¹

The appropriate score for this indicator is good – 51%, the plan acknowledges the need for effective data governance to regulate how data is utilised as well as protecting the privacy rights of its citizens. Additionally, there is mention of amending Data Protection legislation to ensure the rights of its citizens are upheld and data is protected. The discussion around the creation of data centres is a positive sign, as it combats possible threats of cross data

¹⁴⁵Mauritius Working Group on Artificial Intelligence, Mauritius Artificial Intelligence Strategy [2018] < <https://ncb.govmu.org/ncb/strategicplans/MauritiusAIStrategy2018.pdf> > 2, last accessed 15th September 2023.

¹⁴⁶ibid..16.

¹⁴⁷ibid.

¹⁴⁸ibid.

¹⁴⁹ibid.

¹⁵⁰ibid.

¹⁵¹ibid.. 67.

border flows. However, to achieve a higher score, the plan should go more in-depth as to the implementation of what constitutes as effective data governance, specifically how legislation would be fit for purpose in addressing potential data breaches that AI yields as well as what sort of ethical principles would be formulated to guide the use of AI within the state.



Indicator II – Incorporating a Multi-Stakeholder Approach

Under this indicator, the plan provides for recommendations that call for collaborative stakeholder action in terms of defining specific projects with clear responsibilities and implementation timelines to foster AI in Mauritius.¹⁵² Moreover, it allows for a local company ranging from Micro, Small and Medium Enterprises and Large Companies to provide insights for collaborative research and development projects with “commercial potential” in partnership with local academic research and tertiary institutions in relation to AI innovation.

The appropriate score for this section would be adequate- 40%, the presence of stakeholders is evident, however there is limited discussion as to actual engagement with stakeholders in terms of their insights as to how AI should be developed and regulated.



Indicator III- Human Capital

Looking towards skill development, there is appreciation that, a limited supply of AI talent exists within the eco system. Therefore, to enhance research and development of AI in the public and private sphere, Mauritius needs to develop a skilled AI workforce. In terms of expertise skill set, the state seeks to gather global expertise to work concurrently with local computer scientists and mathematicians to cultivate local talent that will sustain the local AI eco system and deploy ‘Mauritian AI’ solutions in targeted sectors.¹⁵³ Assessing education, AI should be an existing elective module at university level, where it should be reviewed, and programming and coding should mandatory for all disciplines.¹⁵⁴ Essentially in the long run , there should be strategic investments in STEM education, national retraining programs and lifelong learning to ensure the populace are equipped with digital skills to integrate effectively into the digital economy.¹⁵⁵ In view of the existing workforce, the reskilling of the workforce needs to be addressed through the formulation of a scheme that enables workers to acquire skills to “improve their occupational mobility.”¹⁵⁶ Additionally , innovative initiatives such as “talent watch” allows for the state to capitalise on AI talent to streamline with industry needs , as the watch would be responsible for determining, the industry needs in terms of AI and AI related profiles and skills, with main goal of matching the skillset to future employment.¹⁵⁷

¹⁵²ibid..54.

¹⁵³ibid-65.

¹⁵⁴ibid.

¹⁵⁵ibid.

¹⁵⁶ibid.

¹⁵⁷ibid.

The appropriate score for this indicator is very good – 70%. There is considerable amount of evidence as to how the workforce is being prepared for the digital economy. The plan has a dedicated chapter that focuses on skill development and the utilisation of AI from various perspectives of the existing workforce, developer to user of AI. Additionally, the plan provides for the benchmarking of established AI eco systems, as a means of guiding local expertise on the development and deployment of AI. To achieve a higher score, the plan should provide for specific discussions as to the implementation of the initiatives it has listed.



Indicator IV – Strategic Investment in Core Industries

There is exhaustive analysis as to how AI should be implemented in each of the core industries; healthcare, fintech, agriculture , ocean economy and transport.¹⁵⁸ The discussion of these key sectors is in depth, where the application of AI is evaluated through a SWOT lens.¹⁵⁹ Each unique condition of each sector is catered for in discussions, as it highlights the impact of AI in terms of how it would disrupt and benefit the sector.

The appropriate score for this indicator is very good - 87%, there is substantial evidence as to how strategic investment of AI into the different sectors would play out. Discussion of the sectorial approach forms majority of the policy plan, as it provides for an in-depth analysis of AI impact, benefits and challenges that would exist in each sector.



Indicator V – International and Regional Collaboration

In view of collaboration, there is no elaborative chapter that discusses how the state would aim to collaborate with regional and international actors, however there is presence of international collaboration through the inclusion of international experts within the Mauritius Artificial Intelligence Council.¹⁶⁰ Showcasing evidence of international interaction , in terms of international exchange of knowledge. Regionally, there is mention of Mauritius as a “regional pioneer” in view of establishing adequate framework for other African states in the fintech industries that utilise AI.¹⁶¹

The appropriate score for this section would be adequate- 40%. There is limited discussion as to how the state would engage with international and regional actors. To achieve a higher score, there would be need for a detailed section, that expound on what sort of interactions the state would be aiming at regionally and internationally.

¹⁵⁸ibid.

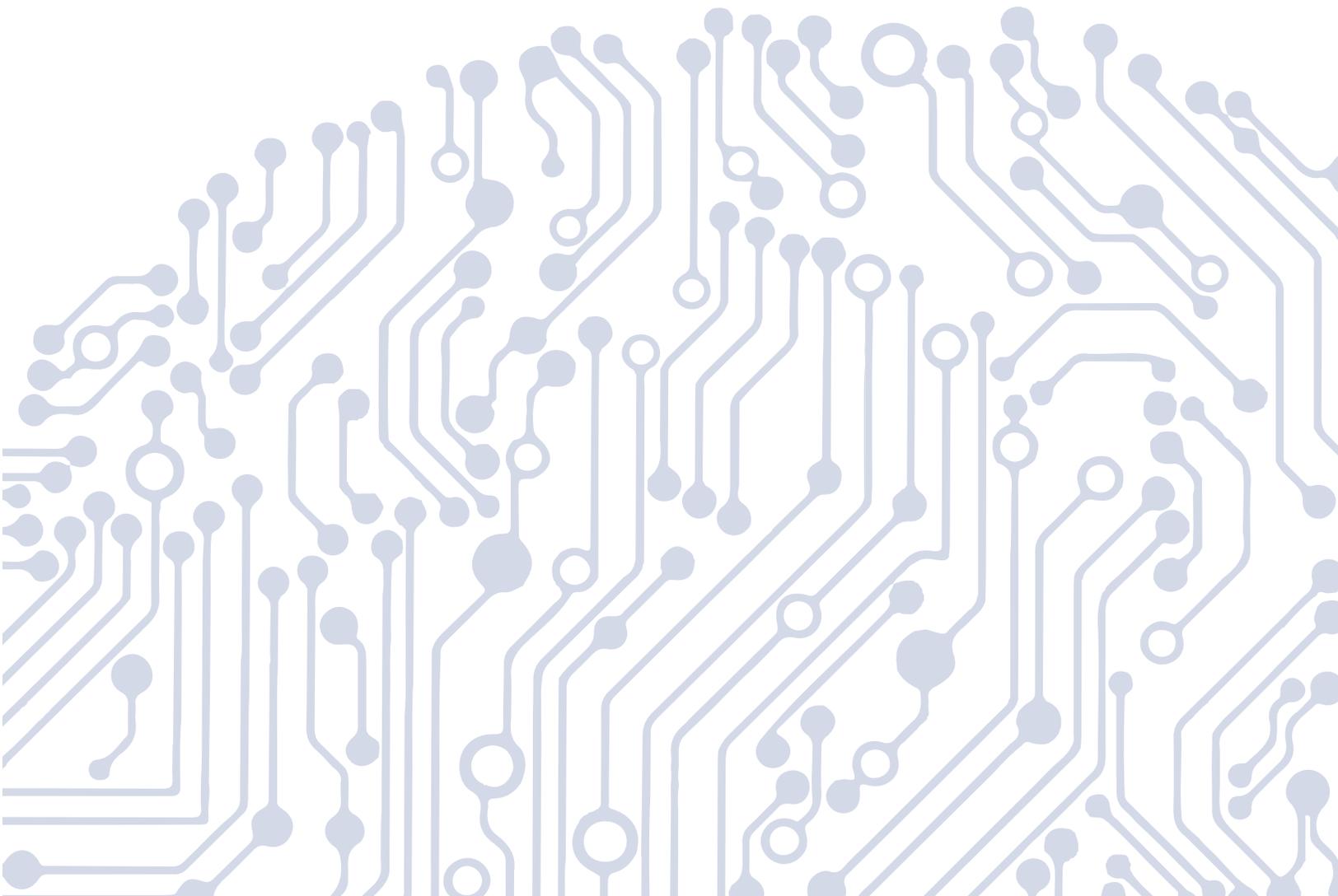
¹⁵⁹ibid-59.

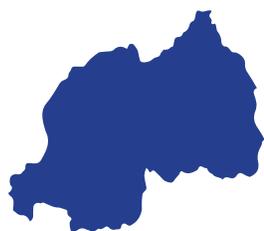
¹⁶⁰ibid.

¹⁶¹ibid.

Conclusion

The plan has an average score of 56 (Good). The score is justified on the basis that, there is a good attempt to incorporate all four indicators into their national plan. Bearing in mind, that the strategy was formulated in 2018, it is understandable as to why certain indicators are not adequately covered, as AI discourse was still at its nascent stages. However, considering the amount of discourse that has emerged, the plan should aim to continuously adapt to today's standards. Specifically, in areas such as multi-stakeholder / collaborative models, as now there is societal and industry awareness of AI and the impact it poses. In view of regional and international collaboration, there is presence of regional initiatives and international initiatives where the state can actively participate and influence discourse. However, we commend the strengths of the plan such as the sectorial approach it adopts in its core industries. The plan is analytical and evaluative when assessing how AI would be implemented within each industry.





Rwanda

Summary

[The National Artificial Intelligence Policy](#) is a roadmap to the state harnessing the benefits of AI as well as mitigating the potential risks of AI.¹⁶² The plan is in alignment with the current national plans in place ; vision 2050 and Smart Rwanda Master plan.¹⁶³ This allows for a synergistic effect to occur, as the plans concurrently work towards achieving the main goals of the state.¹⁶⁴ Essentially the plan is a catalyst for Rwanda harnessing AI for “sustainable and inclusive growth” as it seeks to mobilise local, regional and international stakeholders , where mobilisation will assist with positioning the state to become a “leading African Innovation Hub and Africa’s Centre of Excellence in Artificial Intelligence.”¹⁶⁵ The policy fosters inclusive and sustainable socio-economic transformation that is rooted around the national agenda of the state.

Analysis



Indicator I – Data Protection Law and African Ethics

A robust data strategy is a priority area for the policy plan as it seeks to , “ increase the availability and access to quality data for training AI models.”¹⁶⁶ This is actualised through implementable activity. The activity is allocated a time period and a responsible leading institution. Key activities that align with this indicator include; the “conduction of a feasibility study for the implementation of data sharing /infrastructure within the state and developing frameworks and protocols for data sharing through a public-private and multi-sectoral taskforce.”¹⁶⁷ However, in terms of data protection this falls under a different priority area (**reliable infrastructure and compute capacity**), where there is enforcement of data protection and privacy laws as well as the publication of guidance targeted towards industry and users on the applicability of privacy legislation within cloud computing.¹⁶⁸ In view of ethics, there is a priority area dedicated to its discussion. The output of this area is to promote the “widely diffused and operationalised guidelines on the ethical development

¹⁶²Rwanda Ministry of ICT and Innovation, Rwanda National AI Policy [2022] < <https://www.minict.gov.rw/index.php?eID=dump-File&t=f&f=67550&token=6195a53203e197efa47592f40ff4aaf24579640e>> last accessed 18th September 2023.

¹⁶³ibid.

¹⁶⁴ibid.

¹⁶⁵ibid.

¹⁶⁶ibid.

¹⁶⁷ibid.

¹⁶⁸ibid.

and implementation of artificial intelligence.”¹⁶⁹ This is implemented through activity such as promoting and advertising “Rwanda’s Guidelines on the Ethical Development and Implementation of Artificial Intelligence”, incorporating a multi stakeholder approach to discussing the development of sector-specific AI ethics guidelines as well as updating and releasing new versions of the guidelines to incorporate input from the consultations, government priorities and the latest trends in AI development and deployment.

The appropriate score for this indicator is good – 68%. The plan appreciates the need for quality data for AI to function. It encourages safeguarding of data through promoting data protection and privacy legislation. In view of ethics, there is extensive discussion as to the formulation of national guidelines as well as a multi-stakeholder approach to the design of the guidelines. The guidelines aim to adopt a progressive means of development, as they would be regularly updated to ensure conformity with government priorities and the latest trends in AI development and deployment. To achieve a higher score, analysis should have expounded more on data protection and privacy, listing the key components of privacy legislation and how they would be actualised within AI development and deployment.



Indicator II – Incorporating a Multi-Stakeholder Approach

The multi-stakeholder model is an active feature of the plan, as it is highlighted in key priorities areas. Starting off with priority area 2; reliable infrastructure and compute capacity ; we see the model utilised as a means of promoting dialogue in the tertiary education sector to ensure identifiable measures for establishing necessary skills set for cloud computing .¹⁷⁰ Priority area 5 ; widely beneficial AI adoption in the private sector; we see the importance of gathering stakeholder input when analysing the benefits of AI to industry.¹⁷¹ Assessing AI adoption , the plan calls for collaborative action between industry, researchers and technology companies to innovate solutions that would be reflective of the public and private sector needs.¹⁷² Within the ethical priority area, the plan acknowledges the need for an annual participatory industry and society consultation forum to assist with comprehending how stakeholders are applying the ethical guidelines and the operational challenges that arise with application.¹⁷³

The appropriate score for this indicator is very good – 72%, the model is embraced in key priority areas of the plan. It promotes dialogue in important areas of AI deployment and regulation.

¹⁶⁹ibid.

¹⁷⁰ibid.

¹⁷¹ibid.

¹⁷²ibid.

¹⁷³ibid.



Indicator III- Human Capital

Building 21st Century Skills and AI Literacy is an essential objective and priority area of the policy plan.¹⁷⁴ There is acknowledgement that Rwanda’s workforce needs to be equipped with pre-requisite skills to flourish within the transition, as well as remain competitive in the regional and global arena.¹⁷⁵ This is achieved through the formulation of the National Skills Building Program that empowers the populace with AI and data skills as well as the opportunity to apply their skills through the Young Professionals/Apprenticeship Program to develop AI talent and career opportunities in the digital economy.¹⁷⁶ Investments in public and private partnerships are held to be key enablers in establishing AI skills programs both in formal and informal education.¹⁷⁷ It appreciates that an economy requires “long term investment” in human capital from the early stages of primary education level all the way to university level, thus it advocates for a change in curricula to ensure adaption to the fourth industrial revolution and its technologies.¹⁷⁸ The investment also extends to the teachers, where the state aims to invest and create a Teacher Corps to provide support and training to learners in AI and data- related subjects.¹⁷⁹

The appropriate score for this indicator is very good – 80% , there is commendable evidence as to how Rwanda is preparing its populace for the digital economy specifically on AI and data skills. The plan categorises it as a key priority, where discussions aim to provide insights as to how the state is actualising this objective. This is evidenced by reformulating curricula, training teachers, creating a national learning program and promoting STEM at all levels of education.



Indicator IV – Strategic Investment in Core Industries

The plan advocates for strategic investment in the private sector, as it promotes for the beneficial adoption of AI in key sectors.¹⁸⁰ The key sectors include; healthcare, banking and digital payments, e-commerce and trade, transportation, agriculture, public administration and education, manufacturing and construction.¹⁸¹ It targets robust investment in these targeted AI industries, where the aim is to generate social and economic impact as well as innovative growth opportunities.¹⁸² To achieve this, there is the conduction of a market study to forecast the economic impact of the implementation of AI within these industries, where the findings assist with developing proof concept plans for national AI projects.¹⁸³ In addition to aims to develop sector specific industry AI deployment plans where it provides specific guidance on the AI solutions to adopt.¹⁸⁴

¹⁷⁴ibid.

¹⁷⁵ibid.

¹⁷⁶ibid.

¹⁷⁷ibid.

¹⁷⁸ibid.

¹⁷⁹ibid.

¹⁸⁰ibid.

¹⁸¹ibid.

¹⁸²ibid.

¹⁸³ibid.

¹⁸⁴ibid.

The appropriate score for this indicator is very good – 80%, there is clear evidence as to how the state aims to invest in the key identified sectors. It provides for informed analysis through market research and consultation with key industry players in terms of formulating concrete investment plans for generating applicable AI solutions



Indicator V – International and Regional Collaboration

International collaboration is considered to be vital in driving the sustainable development of AI.¹⁸⁵ The state aims to create meaningful international partnerships, that would drive the development of AI in Rwanda as well as “spur” local, regional and global investment in AI foundations. It targets international discourse as it desires to actively contribute to the shaping of responsible AI principles and practises globally , with a focus of providing a “Rwandan Perspective” into international and regional discourse on AI.¹⁸⁶

The appropriate score for this indicator is very good 70% , there is clear evidence as to how the state aims to collaborate internationally and regionally. It pushed for its own voice in terms of influencing regional and international AI discourse.

Conclusion

The average score of the state is very good- 74, as all the indicators are sufficiently present within the plan. The plan adopts a practical stance to assessing the impact of AI within the state. This is evident with the structure of the plan that creates, quantifiable objectives that have a set period for implementation. Its objectives are rooted in informed analysis as the plan is reflective of a diagnostic evidence-based analysis that is essential to creating objectives and strategies that are capable of being implemented and achieved.

¹⁸⁵ibid.

¹⁸⁶ibid.



Nigeria

Summary

[Nigeria's National Artificial Intelligence Strategy \(NAIS\)](#) is a comprehensive plan designed to position the country as a global leader in AI, driving sustainable development through ethical and inclusive innovation.¹⁸⁷ The strategy is guided by core principles that emphasize responsible and ethical AI development, including transparency, accountability, human-centric **assessment of Rwanda's AI Ecosystem. Therefore, the plan is centred around** approaches, inclusivity, and shared prosperity.¹⁸⁸ Data ethics and agency are also paramount, with strict adherence to principles of privacy, consent, fairness, and transparency.¹⁸⁹

The NAIS is structured around four strategic pillars. The first involves building foundational AI infrastructure, including investments in AI-specific hardware and software, establishing clean energy-powered AI clusters, and offering incentives for private sector investment in critical AI infrastructure. The second pillar focuses on building and sustaining a world-class AI ecosystem by developing a robust network of partners, academia, and a highly skilled workforce. Initiatives include creating platforms for sustainable AI partnerships and establishing Deep Tech AI Accelerators and AI Centres of Excellence.¹⁹⁰

The third pillar accelerates AI adoption and sector transformation by driving widespread AI adoption across various sectors, transforming industries, and promoting economic growth.¹⁹¹ This includes launching sector-specific AI adoption roadmaps and creating a National AI Research and Development Fund.¹⁹² The fourth pillar ensures responsible and ethical AI development, addressing concerns around ethics, bias, transparency, job automation, and privacy.¹⁹³

The NAIS aims to contribute significantly to Nigeria's economic growth and social progress.¹⁹⁴ AI is projected to add substantial value to Africa's GDP by 2030, with Nigeria poised to benefit from this growth through strategic adoption.¹⁹⁵ By focusing on these strategic pillars and guiding principles, Nigeria's NAIS seeks to harness the potential of AI responsibly and inclusively, driving innovation, job creation, and sustainable development.¹⁹⁶

¹⁸⁷NAIS National Artificial Intelligence Strategy <https://ncair.nitda.gov.ng/wp-content/uploads/2024/08/National-AI-Strategy_01082024-copy.pdf> last accessed 17th August 2024.

¹⁸⁸ibid.

¹⁸⁹ibid.

¹⁹⁰ibid.

¹⁹¹ibid.

¹⁹²ibid.

¹⁹³ibid.

¹⁹⁴ibid.

¹⁹⁵ibid.

¹⁹⁶ibid.

Analysis**Indicator I – Data Protection Law and African Ethics**

The NAIS acknowledges the importance of ethics and data protection but lacks detailed implementation plans and specific regulations or guidelines.¹⁹⁷ It emphasizes the need for a human-centered approach to ensure AI systems are fair and accountable across various groups, addressing concerns around ethics, bias, transparency, job automation, and privacy. While the strategy does not specify existing legislation directly, it implies the need for regulatory frameworks to ensure data protection and ethical AI use.¹⁹⁸ This could involve aligning the plan with the Nigerian Data Protection Regulation (NDPR) 2019.

The appropriate score for this indicator is good- 55%. The strategy recognizes the importance of ethics and data protection but needs more detailed plans for implementation.

Indicator II – Incorporating a Multistakeholder Approach

The NAIS involves a co-creation approach that includes various stakeholders such as top AI researchers, local startups, technology companies, civil societies, and other organizations.¹⁹⁹ The strategy was developed through a collaborative process involving multiple stakeholders, including the Lagos Business School, Data Science Nigeria, NITDA, and other key players.²⁰⁰ The National AI Strategy Workshop brought together global and local experts to co-create the strategy, emphasizing stakeholder engagement and collaboration.²⁰¹

The appropriate score for this indicator is Good - 65%. The strategy emphasizes stakeholder engagement, but more details on specific mechanisms for collaboration would strengthen this aspect.

**Indicator III – Human Capital**

NAIS places significant emphasis on workforce readiness, recognizing the critical role that education and training play in preparing workers for an AI-driven economy.²⁰² The strategy includes several initiatives aimed at equipping the workforce with the necessary skills to thrive in this new landscape.²⁰³ It outlines initiatives such as the National AI Research Scheme (NAIRS) and programs designed to equip children with coding and machine learning skills. These programs are intended to foster a culture of innovation and ensure that the workforce is adequately prepared to leverage AI technologies.²⁰⁴

The strategy emphasizes the need for educational institutions to embrace AI and equip students with necessary skills. This includes integrating AI into the curriculum and providing training programs that focus

¹⁹⁷ibid.

¹⁹⁸ibid.

¹⁹⁹ibid.

²⁰⁰ibid.

²⁰¹ibid.

²⁰²ibid.

²⁰³ibid.

²⁰⁴ibid.

on emerging technologies.²⁰⁵ It also highlights the importance of developing a digitally competent workforce, which is crucial for the successful adoption and implementation of AI technologies. This involves not only technical skills but also soft skills that are essential for a workforce that needs to adapt to rapid technological changes.²⁰⁶

The strategy implies that policy support is necessary to reform education policies and ensure that educational institutions are equipped to provide AI-related training. This could involve amendments to existing education laws or the development of new policies that support AI education.²⁰⁷ Additionally, it emphasizes the importance of building institutional capacity to support AI education and training. This includes investing in infrastructure and resources that enable educational institutions to deliver high-quality AI-related programs.²⁰⁸

The appropriate score for this indicator is Very Good - 70%. The strategy provides a comprehensive approach to workforce readiness, including specific initiatives and evidence of implementation plans. However, more detailed timelines and specific metrics for success would further strengthen this pillar.



Indicator IV – Strategic Investment in Core Industries

The strategy emphasizes the importance of strategic investments in core industry sectors to drive economic growth and innovation.²⁰⁹ The strategy outlines plans to accelerate AI adoption in key sectors such as healthcare, agriculture, and education. NAIS identifies healthcare, agriculture, and education as critical sectors where AI can drive meaningful improvements.²¹⁰ For instance, AI can be applied in healthcare to enhance diagnostic accuracy, improve patient outcomes, and streamline administrative processes.²¹¹ In agriculture, AI can optimize crop yields, predict weather patterns, and enhance resource allocation.²¹² In education, AI can personalize learning experiences, improve student engagement, and support teacher training.²¹³

It includes initiatives such as the Nigeria Artificial Intelligence Research Scheme (NAIRS) and the Fourth Industrial Revolution Technology Application (4IRTA) initiative. These programs are designed to support startups and innovation hubs that apply AI to critical sectors, fostering economic diversification and inclusive growth.²¹⁴ The strategy highlights the role of institutions like the National Centre for Artificial Intelligence and Robotics (NCAIR) in supporting AI research and development.²¹⁵ NCAIR is positioned to facilitate the integration of AI into various sectors, ensuring that investments are aligned with national priorities.²¹⁶ It also implies that policy support is necessary to create a conducive environment for investment in AI. This includes regulatory reforms and incentives to encourage private sector investment in AI-driven initiatives.

²⁰⁵ *ibid.*

²⁰⁶ *ibid.*

²⁰⁷ *ibid.*

²⁰⁸ *ibid.*

²⁰⁹ *ibid.*

²¹⁰ *ibid.*

²¹¹ *ibid.*

²¹² *ibid.*

²¹³ *ibid.*

²¹⁴ *ibid.*

²¹⁵ *ibid.*

²¹⁶ *ibid.*

The appropriate score for this indicator is Good - 65%. The strategy provides a comprehensive approach to strategic investments, including specific initiatives and evidence of implementation plans. However, more detailed sectoral focus and specific metrics for success would further strengthen this pillar.



Indicator V- International and Regional Collaboration

The strategy recognizes that AI is a global phenomenon and that collaboration with international partners can facilitate knowledge sharing, technology transfer, and joint innovation. It highlights Nigeria's participation in global AI initiatives and its aim to position itself as an AI facilitator to other African countries.²¹⁷ This includes engaging with global AI investment forums and showcasing Nigeria's AI ecosystem to global investors and partners. The strategy underscores Nigeria's role as a leader in AI adoption on the African continent, building on its pioneering establishment of the National Centre for AI and Robotics (NCAIR) and other AI-specific government initiatives.

The appropriate score for this indicator is good - 58%. The strategy acknowledges international collaboration, provides some evidence of implementation plans, and emphasizes Nigeria's role as a regional leader in AI adoption. However, more detailed mechanisms for international collaboration and specific metrics for success would further strengthen this pillar.

Conclusion

The average score of the state is good-63%. It indicates that while NAIS has a good presence of all indicators, it requires further development in specific areas to ensure effective execution. The strategy's strengths include its recognition of key challenges and opportunities, emphasis on a human-centered approach, and involvement of a multi-stakeholder model. However, weaknesses include the lack of detailed implementation plans, specific regulations, and mechanisms for stakeholder engagement, workforce development, strategic investments, and international collaboration.

²¹⁷ibid.



Benin

Summary

[Benin's National Artificial Intelligence and Big Data Strategy \(SNIAM\)](#) is a comprehensive plan aimed at leveraging AI and big data to drive economic development, improve governance, and enhance the quality of life for its citizens.²¹⁸ Developed by the Ministry of Digital Affairs and Digitalization, the strategy involves a holistic approach with all stakeholders, focusing on technological solutions suited specifically to Benin's needs, particularly in education, healthcare, agriculture, living conditions, tourism, and security.²¹⁹

The SNIAM is rooted in Benin's National Development Plan 2018-2025 and the Government Action Program 2021-2026.²²⁰ It adheres to key principles such as iterative and incremental implementation, resource pooling, accountability, and results-based management.²²¹ These principles ensure that the strategy is aligned with national priorities and that all stakeholders are involved in its design, implementation, and ongoing monitoring and evaluation.²²²

Analysis



Indicator I – Data Protection Law and African Ethics

SNIAM acknowledges the importance of data protection and ethics, particularly in the context of AI applications. However, it does not provide detailed implementation plans or specific regulations for data protection laws and ethics. The strategy is supported by a suitable institutional and legal framework, including the Code of Digital Affairs, which provides a foundation for AI development.²²³ However, specific guidelines on data protection are not extensively outlined.

The appropriate score for this indicator is good - 55%. The strategy recognizes the importance of ethics and data protection but lacks detailed plans for implementation.

²¹⁸National Artificial Intelligence and Big Data Strategy <<https://numerique.gouv.bj/assets/documents/national-artificial-intelligence-and-big-data-strategy-1682673348.pdf>> last accessed 20th August 2024

²¹⁹ibid.

²²⁰ibid.

²²¹ibid.

²²²ibid.

²²³ibid.



Indicator II – Incorporating a Multistakeholder Approach

The SNIAM involves a holistic approach that includes all stakeholders, ensuring that the strategy is well-aligned with national priorities and context-specific needs. This multi-stakeholder model is essential for the successful implementation of the strategy, as it leverages the strengths of various stakeholders to drive innovation and growth. The strategy was developed through a collaborative process involving multiple stakeholders, including government agencies, private sector entities, civil society, and educational institutions. This collaborative effort ensures that the strategy is responsive to the needs of different sectors and communities.

The strategy's implementation mechanism is structured to involve various stakeholders, ensuring accountability and effective participation. Benin has a suitable institutional framework that supports the multi-stakeholder model. The Ministry of Digital Affairs and Digitalization plays a central role in coordinating the efforts of different stakeholders. The strategy emphasizes resource pooling, which allows for the effective utilization of resources across different sectors and stakeholders.²²⁴This principle ensures that the benefits of AI are shared equitably and that all stakeholders have access to the necessary resources.²²⁵

The appropriate score for this indicator is Good -60%. This score reflects the strategy's emphasis on stakeholder engagement and collaboration but highlights the need for more detailed mechanisms for collaboration.



Indicator III- Human Capital

SNIAM emphasizes workforce development and education to prepare workers for an AI-driven economy. This includes initiatives to strengthen human capabilities in AI and big data management, which is essential for leveraging AI to drive economic growth and improve sectoral productivity.²²⁶ The strategy outlines specific programs aimed at equipping children with coding and machine learning skills, as well as initiatives to enhance the capacity of educational institutions to integrate AI into their curricula. There is emphasis on collaborative efforts with educational institutions and emphasizes the need for a digitally competent workforce.²²⁷This is reflected in the development of programs that focus on emerging technologies and the integration of AI into the education system.

The appropriate score for this indicator is Good -65%. This score reflects the strategy's comprehensive approach to workforce readiness, including specific initiatives and evidence of implementation plans. However, more detailed implementation plans, timelines, and specific metrics for success are needed to further strengthen this pillar.

²²⁴ibid.

²²⁵ibid.

²²⁶ibid.

²²⁷ibid.



Indicator IV – Strategic Investment in Core Industries

SNIAM aims to accelerate AI adoption in key sectors such as agriculture, healthcare, education, tourism, and security. This strategic focus is designed to drive economic growth, improve productivity, and enhance service delivery in these sectors.

The strategy targets strategic sectors identified in the National Development Plan 2018-2025 and the Government Action Program 2021-2026.²²⁸ For instance, AI is expected to improve agricultural productivity through smart agriculture solutions, enhance healthcare outcomes through better diagnostic tools, and improve educational outcomes through personalized learning experiences.²²⁹ This includes four programs to be rolled out in three phases over five years, with a portfolio containing actions impacting both public and private sectors. T²³⁰hese programs are designed to support the development and deployment of AI in core industries.

The appropriate score for this indicator is Very Good -70%. This score reflects the strategy's focus on strategic investments in core sectors, the presence of a programmatic framework, and evidence of implementation plans. However, more detailed sectoral focus and specific metrics for success are needed to further strengthen this pillar.



Indicator V – International and Regional Collaboration

The SNIAM emphasizes international collaboration, positioning Benin as a leader in AI in West Africa.²³¹ This involves participation in global AI initiatives and showcasing Benin's AI ecosystem to global investors and partners. The strategy highlights Benin's participation in global AI forums and its aim to become a major player in AI in West Africa. This global engagement is essential for accessing best practices, technology transfer, and joint innovation.²³² It aims to make Benin a hub for digital services in West Africa, leveraging AI to drive regional innovation and economic growth.²³³

The appropriate score for this indicator is good- 58%. SNIAM's approach to international and regional collaboration is robust but requires more detailed mechanisms for cooperation and specific metrics for success. By addressing these areas, the strategy can ensure more effective international collaboration, positioning Benin as a leader in AI in West Africa.

Conclusion

The average score of the state is good – 62%. SNIAM demonstrates a good overall performance across all indicators, reflecting a well-aligned strategy with national priorities and a holistic approach to AI development. However, the strategy requires more detailed implementation plans, specific mechanisms for execution, and metrics for success to ensure effective policy implementation.

²²⁸ibid.

²²⁹ibid.

²³⁰ibid.

²³¹ibid.

²³²ibid.

²³³ibid.

Recommendations

1

Conduct a Comprehensive SWOT Analysis

Conducting a thorough SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is crucial for understanding the state's capabilities and limitations in the context of AI development. This analysis helps in making informed decisions and aligning the policy with national interests and agenda. The SWOT analysis should be regularly updated to reflect changing circumstances and ensure that the strategy remains relevant and effective.

2

Develop Detailed Implementation Plans

Detailed implementation plans for each indicator are essential for operationalizing the strategy effectively. This includes specific timelines, resource allocation, and metrics for success. The plans should be reviewed and updated regularly to ensure they remain aligned with national priorities and sectoral policies. Develop a project management framework that outlines the steps, timelines, and resources required for each action. Ensure that all stakeholders are involved in the planning and review process.

3

Ensure Multi-Stakeholder Engagement

Involving all stakeholders in the development and implementation of the strategy is crucial for ensuring that the strategy is well-aligned with national priorities and context-specific needs. The engagement mechanisms should be evaluated to ensure they are effective and inclusive. Establish clear mechanisms for stakeholder engagement and collaboration, including specific protocols for communication, decision-making, and conflict resolution. Regularly evaluate the effectiveness of these mechanisms and make necessary adjustments.

4

Align with National Priorities

The strategy must be aligned with national priorities and sectoral policies, such as National Development Plans and sector-specific strategies (e.g., National Digital Agriculture Strategy, National e-Health Strategy). Regularly review the alignment of the strategy with national priorities to ensure coherence and effectiveness. Conduct annual reviews to assess the alignment of the strategy with national priorities. Make necessary adjustments to ensure that

the strategy remains coherent with national development plans.

6

Implement Results-Based Management

Implementing a results-based management approach is crucial for focusing on achievements rather than activities. This involves establishing clear objectives, indicators, and targets. The effectiveness of the results-based management approach should be regularly evaluated to ensure that it is achieving the desired outcomes.

7

Resource Mobilization and Financing

Developing financing mechanisms, including public-private partnerships and support from development partners, is essential for facilitating the implementation of the strategy. The effectiveness of the financing mechanisms should be regularly evaluated to ensure they are supporting the strategy effectively.

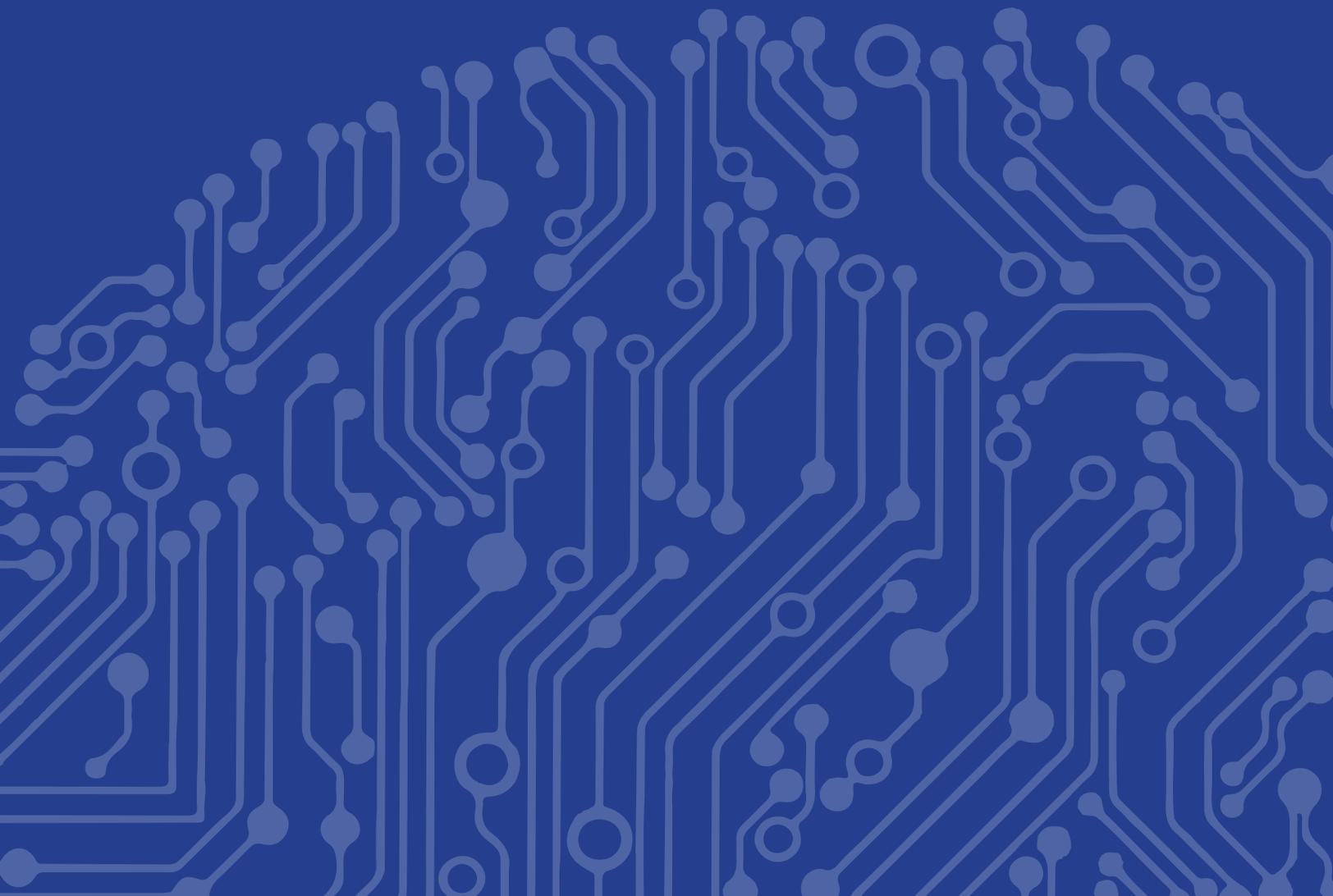
8

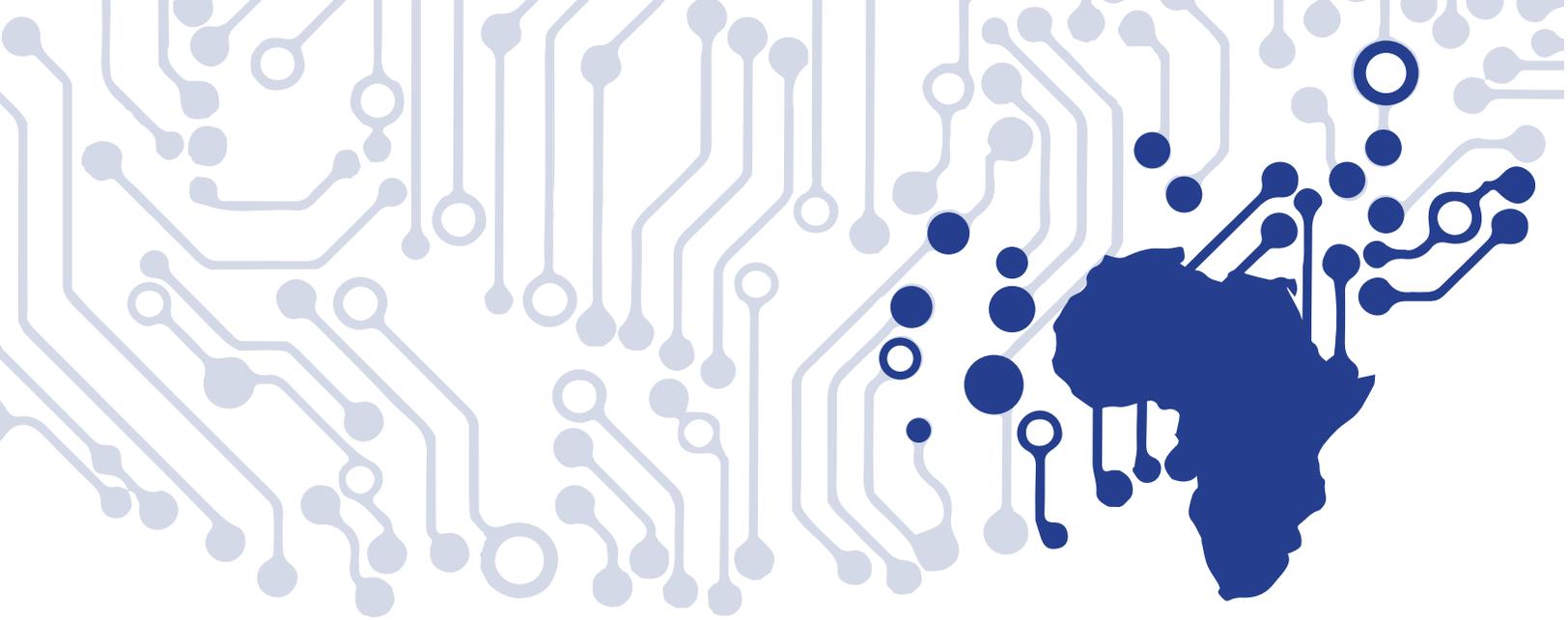
Performance Measurement and Evaluation

Implementing a robust evaluation framework is crucial for measuring performance and ensuring accountability. This includes establishing clear metrics to measure the success of each indicator. The evaluation framework should be regularly reviewed to ensure it is effective in measuring performance and ensuring accountability.

Conclusion

The study has successfully evaluated the current practices in designing National AI policy strategic plans and provided actionable recommendations to address the opaqueness gap. By adopting an informed approach, ensuring transparency, and observing contextual best practices, African states can formulate robust National AI strategies that are well-aligned with national priorities, ensuring effective implementation and meaningful outcomes in AI development, deployment and regulation.





This study was made possible by a grant provided by the International Development Research Center (IDRC). We thank the organization for their continued support.



Canada



© 2024 by Centre for Intellectual Property and Information Technology Law (CIPIT). This work is licensed under a Creative Commons Attribution – NonCommercial – ShareAlike 4.0 International License (CC BY NC SA 4.0). This license allows you to distribute, remix, adapt, and build upon this work for non – commercial purposes, as long as you credit CIPIT and distribute your creations under the same license: <https://creativecommons.org/licenses/by-nc-sa/4.0>