Policy Brief

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Evaluating Public Policies in Africa: insights from the Science, Technology, and Innovation Strategy for Africa 2024 (STISA-2024)

CONTEXT

In 2014, the African Union (AU) adopted the Science, Technology and Innovation (STI) Strategy for Africa 2024 (STISA-2024). STISA-2024 places STI at the centre of Africa's social and economic development, and positions STI firmly within the AU's longer-term Agenda 2063. STISA-2024, as the first of Agenda 2063's incremental strategies, contribute towards Africa's broader development aspirations by delivering positive impact across critical sectors such as agriculture, energy, environment, health, security and water.

2019 will mark the halfway point in STISA-2024's lifecycle – an opportune time to take stock of its achievements so far, identify areas of underperformance, and use these learnings to inform the next five years of its implementation. Although the strategy's original timeline did not incorporate a mid-term evaluation (only a final evaluation in 2024), stakeholders' support for an interim evaluation or review is now growing. Relatedly, stakeholders recognise the need for a framework to underpin the monitoring and evaluation (M&E) of the implementation of STISA-2024. One reason for the weaknesses in evaluation of STI policies in Africa, but also public policies in general, has been ascribed to the lack of a framework.

In August 2017, the African Observatory for Science, Technology and Innovation (AOSTI) and the Science Policy Research Unit (SPRU) at the University of Sussex, convened a workshop with the aim of developing an M&E framework for STISA-2024. The workshop brought together M&E experts, policymakers and academics, to exchange views and experiences of monitoring and evaluation of STI policies and programmes in the African context. Their objective was to initiate the development of an operational framework for monitoring, evaluating and reporting on the implementation of STISA-2024. This policy brief collates the key insights gathered – and recommendations generated – from this workshop.

Why do STI or public policies in Africa need an M&E framework?

- The absence of an M&E framework at the inception of Africa's Consolidated Plan of Action (CPA) made it difficult to demonstrate the achievements and the contributions of the CPA, as STI policy framework, in addressing Africa's challenges.
- While there are some regional efforts to collate STI data and build related indicators, a wide gap persists between the demand and supply of data and indicators for M&E in Africa.
- A working M&E framework will enable invaluable evidence-based learning: early successes can be identified and replicated; and emergent or potential failures can be closely monitored, mitigated or rectified. Both positive and negative findings can inform and improve the success rate of subsequent implementation.
- Since the launch of STISA-2024 in 2014, the Sustainable Development Goals (SDGs) have come into effect, reinforcing the relevance of M&E for facilitating evidence-based, transparent and accountable decision-making.
- A robust, relevant and clearly-defined framework with a core set of appropriate, adaptable indicators will allow for both contextual and comparative evaluation.
- An M&E framework is essential for identifying, collecting and analysing relevant data for STISA-2024. Therefore, it is important for countries, Regional Economic Communities (RECs) and policy institutions across Africa to develop robust M&E frameworks for public policies and programmes.
- A mid-term evaluation could not only give a re-energising boost to existing stakeholder interest and implementation, but also attract additional funding and new actors, thus furthering support for STISA-2024 or public policy implementation efforts.

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The African Observatory of Science, Technology and Innovation (AOSTI)

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ABOUT STISA-2024

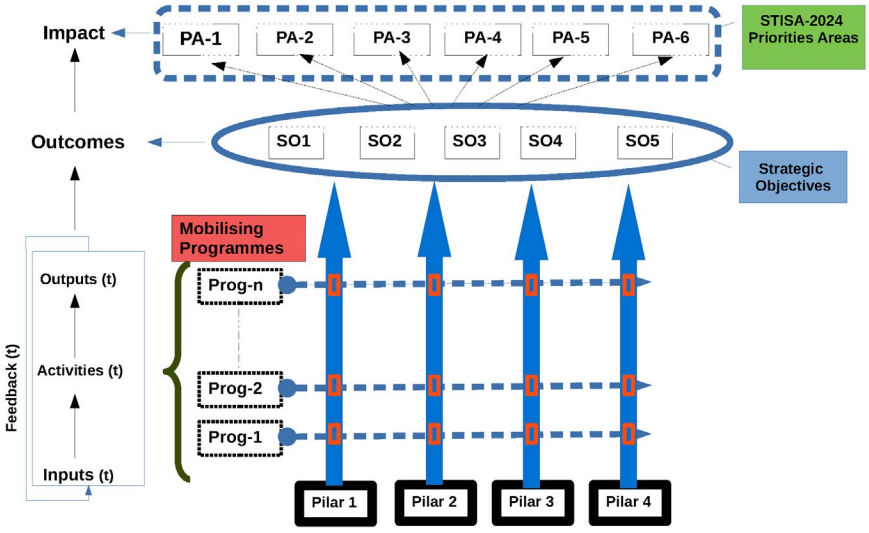
STISA-2024 outlines a set of multi-stakeholder and sector "priority areas" deemed essential to building an integrated and prosperous Africa, alongside five complementary "strategic objectives". Four foundational "pillars" underpin these ambitions, which aim to ensure that all actors are prepared and able to implement the strategy successfully (see Table 1 and Fig. 1).

In addition, STISA-2024 calls for the design and implementation of "flagship programs", and the streamlining and adaptation of existing CPA programs – all of which will be coordinated to ensure that the respective programmes are mutually-reinforcing. On this backdrop, STISA-2024's implementation takes place at three levels: national, regional and continental; utilising the three main operational blocks (see Table 1).

Table 1: STISA-2024 Main Operationalisation Blocks

Priority areas	Pillars	Strategic Objectives
PA1: Eradication of Hunger & Achieving Food Security	PA-1: Building &/or upgrading research infrastructures	SO1: Enhance effectiveness of STI in addressing / implementing priority area
PA2: Prevention & Control of Diseases	PA-2: Enhancing professional & technical competencies	SO2: Improve technical competencies and institutional capacity for STI development
PA3: Communication (Physical and Intellectual Mobility)	PA-3: Promoting entrepreneurship & innovation	SO3: Promote economic competitiveness by fostering innovation, value addition, industrial development & entrepreneurship
PA4: Protection of our Space	PA-4: Providing enabling environment for STI development in Africa	SO4: Protect knowledge production by strengthening IPR and regulatory regime
PA5: Live Together - Build the Society		SO5: Facilitate STI policy reforms, harmonization, science diploma
PA6: Wealth Creation		

Fig 1. Conceptualisation of the Relationship between STISA-2024 Pillars (Flagship Programs), Strategic Objectives, Priority Areas



Mapping STISA to the Results Chain model

KEY CHALLENGES TO DEVELOPING AN M&E FRAMEWORK IN AFRICA: LESSONS FROM STISA-2024

- As some results, impacts and outcomes from STI policies and programmes are long-term – and often not confined to one institution, sector, or geographic region – it is important that a robust M&E framework adequately addresses **attribution.** That is, the extent to which impacts can be attributed to the implementation of STISA-2024.
- STISA-2024 combines science, technology, and innovation policies into one strategy – each of which uses different policy instruments and measurement metrics. This raises issues of **complexity** that must be mitigated in an M&E framework in order to ensure that such a framework is adaptable and practical to use.
- The implementation of STISA-2024, and its M&E framework, is **dependent on** factors such as **participation and capabilities.** Sufficient awareness, capacity and commitment from Member States and RECs is therefore crucial in the development, legitimisation and implementation of an Africa-wide M&E framework.
- In order to sustain M&E activities and achieve meaningful results, **funding must be sufficient and reliable.**

These challenges illustrated by STISA-2024 M&E framework typify not only STI policies but also many other public policies in Africa. It is imperative that an M&E framework considers and effectively addresses such challenges in order for it to be robust and practical.

EMERGENT THEMES AND PERSPECTIVES FROM THE WORKSHOP

Participants of the workshop discussed different perspectives on data collation and their suitability for incorporation into the STISA-2024 M&E framework. The predominant themes that emerged from the discussions can be outlined as follows:

The development of a relevant, flexible framework. AOSTI's draft model for the M&E Framework – based on result value chain scenarios (input-output-outcome-impact) – was unanimously agreed to be the most appropriate structure (see Fig 2). Developed to help address the complexity of this multi-dimensional, impact-oriented strategy, the model can be adapted to map any of the priority areas, strategic objectives or pillars of STISA-2024 or by extension, other public policies with similar components. In addition, the model may also be used for any specific policy contexts or scenarios. Furthermore, the model can serve in mapping the priority areas, strategic objectives or pillars to the impacts from policy. Nested building blocks at each level of the value chain articulate the policy aims and help to evaluate the extent to which STISA-2024 objectives may have been achieved.

The definition of appropriate indicators (qualitative and quantitative). Mindful of aligning with the SDGs and greater Agenda 2063 ambitions, participants considered the relevance and success of indicators already in use by participating organisations. AOSTI demonstrated the importance of bibliometric indicators as a subset of the STI indicators, presenting the work of three Regional Economic Communities (RECs) to highlight policies that could increase scientific production in Africa. In addition, AUDA (AU Development Agency, formerly NEPAD, i.e. New Partnership for Africa's Development), presented a set of STI indicators for STISA-2024. Other projects, like the innovation system of central African states and UNESCO's GO SPIN, contributes to the production of useful M&E performance indicators, alongside the application of best practices from the Kenya National Bureau of Statistics and advice from M&E Africa Ltd.

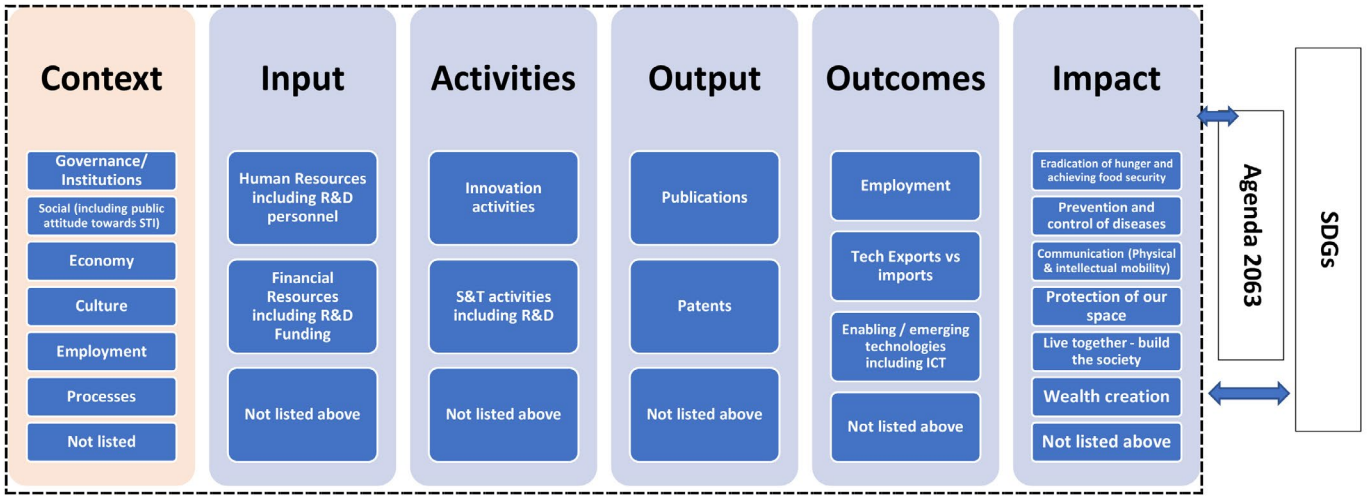
Learning by doing (as a way of addressing complexity). The M&E of STISA-2024 Phases 1 and 2 (first four years) offer a "learning by doing phase," from which a full M&E framework can be developed, for use in the remaining duration. A computerised system (as suggested by the SADC) would enable real-time tracking of performance and documentation of results, facilitating more immediate learning and decision-making from the data gathered.

Harmonising the language of discourse. Given that there are currently several on-going regional initiatives with M&E components on the African continent, participants highlighted that the term "M&E" has multiple definitions and interpretations. So as to facilitate coordination and comparability between initiatives, it was agreed that the language of discourse for the STISA-2024's M&E should be harmonised. Producing a supplementary user manual would provide a core set of relevant definitions, concepts, methods of data collection and analysis, dissemination and interpretation, to facilitate use of the framework.

Resourcing the implementation of STISA-2024. Outlining a lack of funding stability as a core challenge to the sustainability of the M&E activities, participants discussed the difficulties surrounding reliance on donors' funds. It was proposed that the M&E project could be differentiated from the main implementation of the strategy, and packaged to attract relevant funding.

Areas for future work. These include: 1) developing capacity to understand the complexity and systemic nature of innovation processes; 2) mastering techniques to evaluate large STI strategies, policies and programmes; and 3) assessing the roles of institutions in policy evaluation. In order to achieve STISA-2024's transformative ambitions, SPRU will continue to work with AOSTI in strengthening STI policy formulation, implementation, M&E, governance and capacity-building, through for instance insights from the Three Frames Approach and other research endeavours.

Fig 2. Example of nested blocks in STISA M&E value-chain



Elements in this diagram are not necessarily linked in a linear fashion

RECOMMENDATIONS FOR DEVELOPING AN M&E FRAMEWORK BASED ON INSIGHTS FROM STISA-2024

- The fresh insights from STISA-2024 suggest that **an M&E Framework in Africa should be based on a result value chain model** (Fig 2 above). The results value chain model is based on an input-output-outcome-impact approach and can be adapted to map any of the priority areas, strategic objectives or pillars to the impact position, and used for any specific policy contexts or scenarios.
- Regional strategies differ in their goals and scopes, and therefore **a set of core indicators should be designed** to harmonise the reporting mechanisms to AUC/AOSTI. STISA-2024's M&E framework should utilise existing regional infrastructure which already collects such data, including the ASTII initiative (African Science Technology and Innovation Indicators) coordinated by AUDA.
- **AOSTI should commence M&E as soon as possible; the first four years of STISA-2024 implementation should be considered a pilot phase.** By trialling an initial set of indicators, evidence produced and gathered will inform the further development of the framework and its indicators.
- In order to achieve success, the **STISA-2024 M&E framework must have sufficient support and participation from all institutions involved, RECs and member states.** It is strongly recommended that all RECs adhere to the STISA-2024 initiative and that communication on STISA-2024 remains open between RECs and member States. AOSTI will sustain the implementation of the STISA-2024 M&E initiative, and specifically the M&E Working Group. AOSTI (with support from SPRU) will design a roadmap that outlines the project budget with short, medium, and long-term milestones.
- **It is important to align the implementation of STISA-2024 to other relevant frameworks, such as the Three Frames Approach** in its concern for social and environmental challenges facing Africa. While remaining in line with the mission of STISA-2024 – to "accelerate Africa's transition to an innovation-led, knowledge-based economy" – the M&E framework should also ensure its core indicators align with the SDGs and the broader innovation aspirations of Agenda 2063.
- **A manual should be produced alongside the STISA M&E**, in order to harmonise the language of discourse. This would provide a core set of relevant definitions, concepts, methods of data collection and analysis, dissemination and interpretation, to facilitate use of the framework.
- **The STISA-2024 M&E framework project should be packaged to attract relevant funding, actors and stakeholders.** Possible funding sources include the African Development Bank, the European Commission, the Mo Ibrahim Foundation, RECs, and the African Union Commission (AUC).

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