



2023 - 2027  
**STRATEGIC  
PLAN**

Transformed lives  
through science



The African  
Academy of Sciences

**The African Academy of  
Sciences**

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## Acronyms and Abbreviations

AAS - African Academy of Sciences  
AAU - Association of African Universities  
AESA - Alliance for Accelerating Excellence in Science in Africa  
APTI - African Post-doctoral Training Initiative  
ARISE - African Research Initiative for Scientific Excellence  
ARUA - African Research Universities Alliance  
AU - African Union  
BMGF - Bill and Melinda Gates Foundation  
COMA - Connecting Minds Africa  
CPE - Community and Public Engagement  
DFID - Department for International Development  
ECR - Early Career Researchers  
EU - European Union  
FCDO - Foreign, Commonwealth and Development Office  
GSDR - Global Sustainable Development Report  
MAC - Membership Advisory Committees  
MoU - Memorandum of Understanding  
NASEM - National Academies of Sciences, Engineering, and Medicine  
NEPAD - New Partnership for African Development  
NIH - National Institute of Health  
RISE - Regional Initiative in Science and Education  
SDGs - Sustainable Development Goals  
SIDA - Swedish International Development Cooperation Agency  
STEM - Science, Technology, Engineering and Mathematics  
STI - Science, Technology and Innovation  
STISA - Science, Technology, and Innovation Strategy for Africa  
UN - United Nations (Organisation)  
UNEP - United Nations Environment Programme  
UNESCO - United Nations Educational, Scientific and Cultural Organisation  
UN-HABITAT - United Nations– Human Settlements Programme  
UNIDO - United Nations Industrial Development Organisation  
US–ONR - United States–Office of Naval Research  
WHO - World Health Organisation  
WMO - World Meteorological Organisation

## Foreword

Over the years Science, Technology and Innovation (STI), in all its integrated dimensions has transformed the world enormously. This constant transformation continues and presents opportunities for rapid growth and development for African countries. However, such opportunities can only be exploited through knowledge-intensive research and innovation, which address Africa's contextual challenges. As one of Africa's greatest heroes, President Kwame Nkrumah said in his speech at the foundation summit of the Organisation of African Unity (OAU)<sup>1</sup> in Addis Ababa, Ethiopia, in 1963, *"It is within the possibility of **science and technology** to make even the Sahara bloom into a vast field with verdant vegetation for agricultural and industrial developments."* STI indeed has immense possibilities for the economic and societal transformation of Africa.

Discussions that led to the development of *The African Academy of Sciences Strategic Plan 2023–2027* began in 2022, under the guidance of the then Governing Council. At that time, the tenure of the council was approaching its end. The initial outline of the Strategic Plan was presented at the General Assembly meeting in December 2022.

In July 2023, a new Governing Council was elected which promptly assumed full responsibility for finalising and fine-tuning this Strategic Plan in readiness for its subsequent implementation. Thus, the entire Strategic Plan had to be revised to include input from the new Governing Council. Consequently, the timeline for the development and completion of the plan had to be extended to the period before the end of 2023. Similarly, the starting time for implementation was set to commence in early 2024. We anticipate that discussions on the preparation of the next Strategic Plan (2028–2032) will commence in 2026, one year before the expiry of this Strategic Plan. This will allow AAS to adopt and subsequently commence the implementation of the plan in 2028.

This Strategic Plan was also prepared in the midst of change arising from an audit review carried out in 2023. The audit report made recommendations on the workings of AAS both within and in the wider external environment to enhance effectiveness and impact. The Strategic Plan will guide the Academy in implementing its programmes which are in support of growing capacities for sciences in Africa. The programmes of the Academy are in line with the following:

1. Sustainable Development Goals (SDGs).<sup>2</sup>
2. The broad African continental policy priorities occasioned by African Continental Free Trade area.<sup>3</sup>
3. To tackle the challenges of global pandemics, climate change (including the impact of global warming and the biodiversity crisis<sup>4</sup>) and acquiring a visionary global perspective.



“

**The Strategic Plan addresses Africa's needs and – if well implemented – will contribute to achieving the global vision of sustaining the world's systems. Such systems include human societies, economies, and the environment.**

Professor Lise Korsten, President, AAS

”



Specifically, this Strategic Plan advances the African Union Agenda 2063<sup>5</sup> which describes the “Africa We Want.” The first aspiration of Agenda 2063 is to have a prosperous Africa founded on inclusive growth and sustainable development. These ideals, in our view, are underpinned by science, technology and innovation. In reviewing the external situation, this Strategic Plan examines the role of the Academy in the context of several key frameworks, among them the African Union Agenda 2063.”

Agenda 2063 is Africa’s blueprint and master plan for transforming itself into a global powerhouse in the future. This aspiration is in line with the mandate of the Academy. The effort to develop this *Strategic Plan (2023–2027)* was informed by among others, the global commitment of Africa to the SDGs and the Paris Agreement.<sup>6</sup> The purpose is to curtail climate change by 2030. The Strategic Plan addresses Africa’s needs and – if well implemented – will contribute to achieving the global vision of sustaining the world’s systems. Such systems include human societies, economies, and the environment.

The **vision** of AAS is *Transformed lives through Science*. Its renewed **mission** is to *Leverage on science, technology and Innovation for sustainable development*. Finally, the **values** that will drive the implementation of the mission to attain the vision are *integrity, diversity, excellence, empathy, collaboration and fairness*.

A review of the 2018–2022 Strategic Plan shows that the Academy improved in its internal control systems, to enhance accountability and efficiency in service delivery for donor confidence. The result is that the Academy now has the reputation of being a leader in research and innovation in Africa and beyond.

The Academy will also take advantage of potential opportunities in emerging digital technology and Artificial Intelligence (AI) to grow science for sustainable development in Africa. For example, there is a need to continue growing the AAS brand internationally to achieve wider visibility, cultivate relationships and interact through partnerships for joint action and diversify funding opportunities. It is time that AAS asserted its function as an agent for science diplomacy in Africa. AAS should also bolster its role as an advisory think tank. That way, it will be able to broaden its reach to development priorities on the African continent as articulated by stakeholders. These include development institutions in Africa, partnerships with the United Nations (UN) and other multinational agencies and bodies in order to take advantage of the available opportunities and deliver in one accord.

In this AAS Strategic Plan (2023–2027), the programmes focus on six areas; environment and climate change, health and wellbeing, natural sciences, policy and governance, and social sciences and humanities. Similarly, it has six cross cutting areas: education and life-long learning, youth, gender and inclusivity, digital transformation, sustainability, capacity building in STI, and science diplomacy.

Join us as we continue this journey because AAS has the opportunity to lead the world and transform lives through Science, Technology, and Innovation!

**Prof Lise Korsten**

President

The African Academy of Sciences

1 Now African Union (AU).

2 In 2015, SDGs were adopted by UN member-states to replace the Millennium Development Goals (MDGs).

3 An ambitious trade pact to form the world’s largest free trade area.

4 This refers to an increased rate at which animals or plants become extinct.

5 <https://au.int/en/agenda2063/overview>

6 A legal binding international treaty on climate change adopted in 2015.

## Acknowledgements



This African Academy of Sciences (AAS) Strategic Plan 2023–2027 has been made possible through the support, dedication and active involvement of many people. We acknowledge the role of the Working Group led by the Executive Director, Dr Peggy Oti-Boateng, Dr Rowland Opisa, Dr Nkem Khumbah along with the entire secretariat. Their unwavering commitment, expertise, and collaborative efforts have been instrumental in the drafting of this robust strategic framework. Their dedication to thorough research, insightful analysis, and innovative thinking has helped craft a Plan that reflects our collective aspirations. In addition, the Plan also gives a clear path that will guide our future endeavors.

I also wish to express our gratitude to the Governing Council. The guidance and oversight you provided throughout the drafting process was invaluable. You ensured that the Strategic Plan adheres to legal standards and best practices.

Lastly, I would like to thank our Fellows and all stakeholders. Your input and insights have been informative and further helped to enrich the document and ensure its comprehensiveness. This will indeed create ownership of the document by all and give the AAS the support it needs during the implementation process.

### **Dr Peggy Oti-Boateng**

Executive Director

The African Academy of Sciences

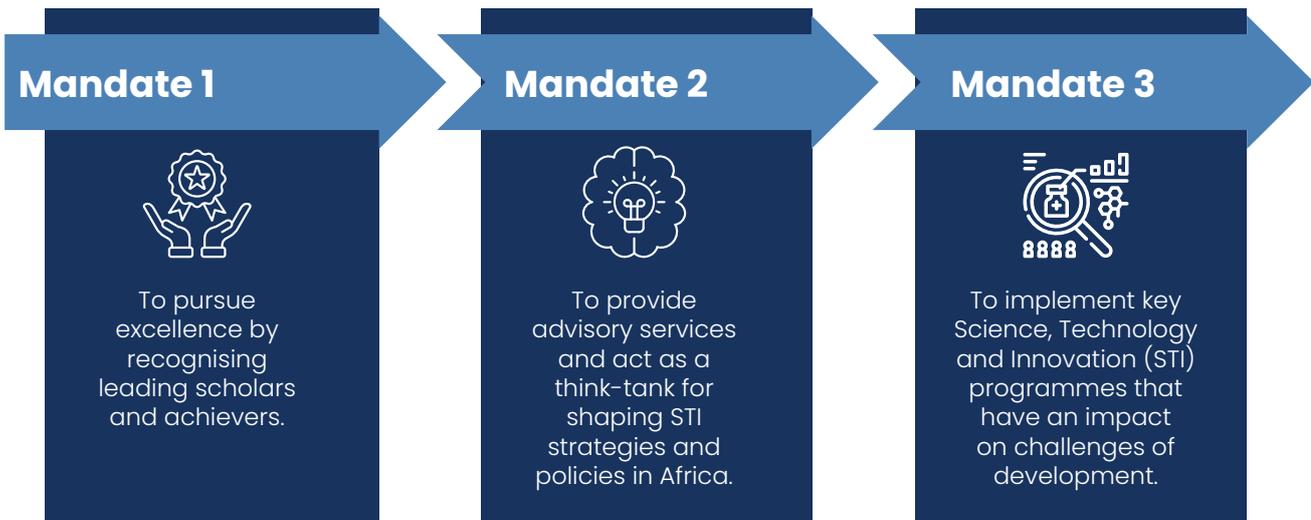


## Executive Summary

The African Academy of Sciences (AAS) was established in 1985, with its headquarters in Nairobi, Kenya. It is registered under certificate number OP.218/051/9341/334. The Academy is an independent, non-aligned; pan-African and Africa-led organisation, with diplomatic affiliation to the African Union (AU).

## Our Tripartite Mandate

The AAS has a tripartite mandate which focuses on



This Strategic Plan (2023–2027) is anchored on the vision, renewed mission and core values of AAS. The vision is *Transformed lives through Science*, while the renewed mission is *Leverage on Science, Technology and Innovation for sustainable development*. AAS's values that will guide the staff in implementing the mission to attain the vision are *integrity, diversity, excellence, empathy, collaboration and fairness*.

The development of this Strategic Plan (2023–2027) began in 2022, under the guidance of the then Governing Council (2020–2023). A new Governing Council was elected in 2023 which continued with the task. The process started with a review of the Strategic Plan 2018–2022. The first step taken was a situational analysis to diagnosis the operating environment of AAS. The analysis was followed by developing an overall organisational strategy.

### The Strategic Plan (2023–2027) is centred around three broad operational themes stated as follows;



**People:** providing an enabling environment for learning and growth.



**Partnerships:** key focus on nurturing strategic partnerships.



**Excellence:** supporting the best people, places, and programmes to undertake relevant research.

The second step was the development of the Results Based Management framework, which defined the main functions of AAS and the priorities within the areas identified. In essence, the purpose of this step was to aid in defining the main objective of AAS. Developing an Operations Matrix or plan of action was the final step. This Strategic Plan (2023–2027) covers all activities at the department level and the projects that will enable AAS to achieve its purpose. This last step includes a detailed description of the AAS objectives, the measurable indicators, the activities, the timelines, and the outcomes.

The third mandate is achieved through the Alliance for Accelerating Excellence in Science in Africa (AESA). AESA is a new platform for setting the agenda in STI and funding. AAS recognises the need to continue advancing this science-led development agenda. In addition, it aspires to emerge as a leader in science. Part of its strategy is to integrate science and development, particularly to achieve the Sustainable Development Goals (SDGs). Applying STI in achieving SDGs is the roadmap to realising the impact of science in Africa and beyond.

## Executive Summary

In the period under review, AAS faced two major challenges. First, there was 50% staff attrition. The second was the separation of two key funding partners. Despite these major systemic challenges, a review of the Strategic Plan 2018–2022 reveals that AAS fulfilled its obligations and streamlined its internal control systems. This has ensured accountability and enhanced efficiency in service delivery. The rebuilding and restructuring efforts have since enhanced donor confidence and the reputation of AAS as a *pan-African research and innovation leader on the African continent and beyond*.

AAS desires to retain its position as a leader in science on the African continent and the globe, through its mission and vision. To achieve its new obligations, AAS has set out three strategic objectives:

1. To ensure the provision of an enabling environment that cultivates capacity, capability in learning and enhances growth in science, technology and innovation for sustainable development for “The Africa we want.”
2. To nurture, expand and build partnership engagements and enhance the AAS brand visibility to transform STI in Africa and address challenges in development, and leverage available opportunities.
3. To support the best people, institutions, and programmes in STI to undertake relevant research and foster knowledge sharing and skill development in the digital age.

In this Strategic Plan (2023–2027), the roadmap adopted by AAS is clearly outlined. Successful implementation of the plan will jolt AAS into asserting its pan-African leadership ‘think thank’ advisory role in science and being a major player in scientific research for sustainable development. As a matter of priority, the focus will be on emerging global disruptions, Africa’s priorities, and socio-economic development needs. Africa’s priorities, and socio-economic development needs. This will be based on five focus areas, which are summarised as follows:

### AAS strategy five focus areas

- 1 Policy and governance
- 2 Natural sciences
- 3 Environmental and climate change
- 4 Health and wellbeing
- 5 Social sciences and humanities.

The progress and achievement of these strategic objectives and their impact on STI is imperative for sustainable development in Africa. This progress will be monitored and evaluated through well-defined qualitative and qualitative key performance indicators (KPIs) with targets within specified time frames.

AAS will also take advantage of potential opportunities in emerging technologies and imperatives such as digital technology and Artificial Intelligence (AI) for growing science for sustainable development in Africa. In addition, it will provide foresights for the future of education in science and technology.

The aim of this Strategic Plan 2023–2027 is to advance the mission of AAS and its tripartite agenda of promoting excellence, acting as a think tank, providing advisory services and strengthening capacity of STI in Africa. The main purpose of the plan is to address the following issues:



To expand research funding and impact on scientific knowledge and innovation in Africa.



To foster collaboration among scientists and researchers in Africa and worldwide for knowledge sharing and resource mobilisation.



To increase public engagement with science by promoting science literacy, communication and science diplomacy in Africa and globally.



To support science and innovation related policy development in Africa by providing evidence-based research and recommendations to policy and decision makers.



To improve science infrastructure in Africa by supporting initiatives that support access to equipment, facilities and resources for researchers and learners.



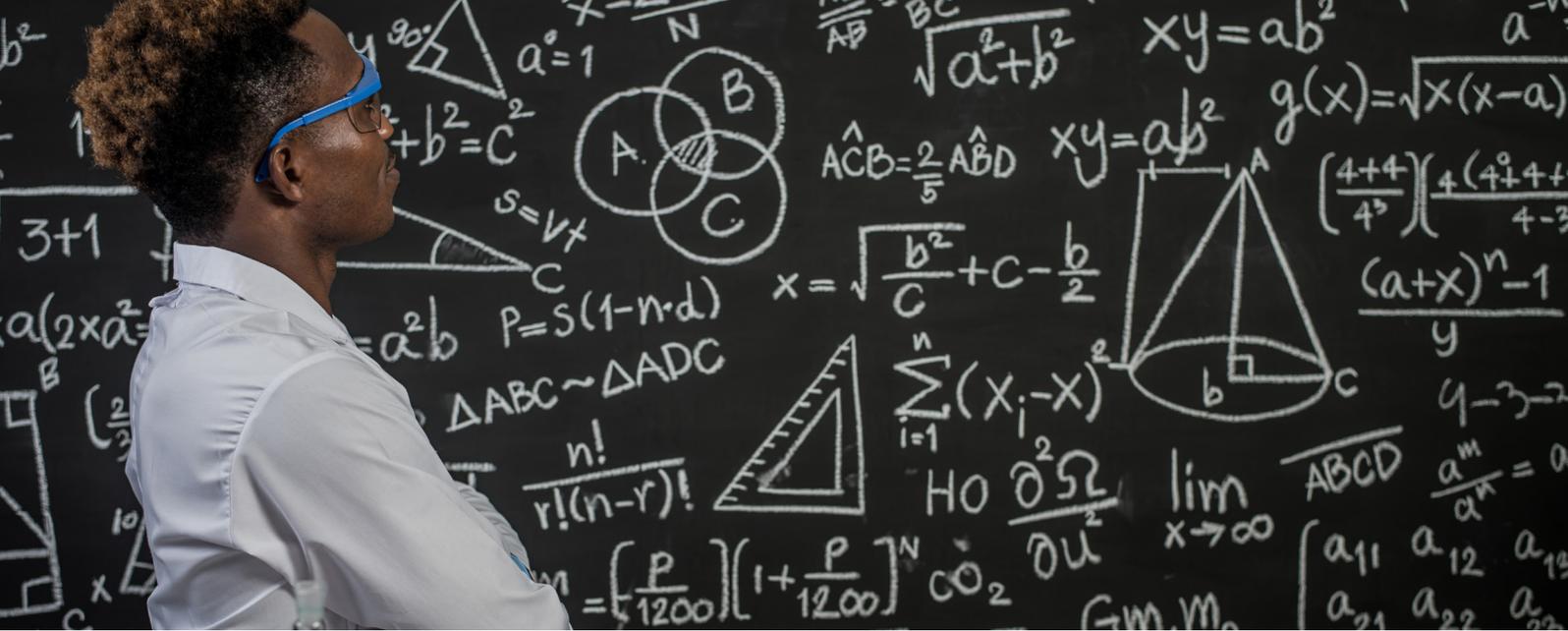
To increase diversity by promoting gender equity and opportunities for the underrepresented in science-related fields and geographical coverage of AAS work.



To foster innovation in Africa by supporting research and development initiatives that lead to discoveries and inventions with the potential to impact on economic growth and social development in Africa.

# Section 1





## Background Information

Science, Technology, and Innovation (STI) are the main drivers of development and growth in the world today. In 2013, the African Union (AU) embarked on a mission to deliver the “Africa We Want” through an ambitious development plan dubbed Agenda 2063. If the plan is successfully implemented Africa, has the potential of attaining advanced socio-economic development and prosperity.

### 1.1 The context

Science, technology, and innovation are at the epicentre of Africa’s socio-economic development and growth. This is envisioned in the AU’s Science, Technology, and Innovation Strategy for Africa 2024 (STISA-2024<sup>7</sup>). The strategy is based on four mutually reinforcing pillars: building and upgrading research infrastructure; enhancing professional and technical competencies; promoting entrepreneurship and innovation; and providing an enabling environment for STI development in Africa.

While some progress has been made towards enhancing Africa’s research and innovation landscape, Africa still produces less than 1% of the world’s scientific publications. Africa is home to 17.89% of the world’s population. In addition, it carries 25% of the world’s disease burden. Yet it has only about 125 researchers to one million people, which is far from the global average of 1,368 and 4,069 in the European Union (EU). These worrying statistics confirm the need for more commitments and investments in science in Africa. Such investments will not only sustain the gains made but also help move Africa closer to the rest of the world in terms of capacities for research and innovation.

The advancement in STI is knowledge intensive. There are new knowledge frontiers emerging rapidly. Therefore, Africa must put efforts in the development of STI knowledge-intensive capacity to leapfrog. That includes investment in science infrastructure and the application of STI in national development across the African continent. African needs the 21<sup>st</sup> century skills in STI to transform its natural resources into value added products to accelerate industrialisation on the continent. AAS<sup>8</sup> commits to enhancing STI capacity and capability to ensure that all people benefit from the application of STIs, as outlined in its Strategic Plan, irrespective of their location.

### Africa’s context in Numbers



**<1%**

Percentage of the world’s scientific publications produced in Africa



**25%**

Percentage of the of the world’s disease burden in the African continent



**17.89%**

Africa is home to 17.89% of the world’s population

7. <https://bit.ly/33SKApp>

8. <https://aasciences.africa/>

## 1.2 The changing African scientific landscape

In the last few decades, the scientific landscape on the African continent has greatly advanced. There has been an increase in institutions conducting a diverse array of the much-needed scientific research. This, together with increased talent and growth in African scientific expertise, has resulted in a very good local innovation landscape. Such innovations will aid the continent in advancing its development. AAS and its partners have been central to this growth, transforming lives in Africa through STI.

Two years into implementing the Strategic Plan 2018–2022, Covid-19 shocked the whole world. This unprecedented global pandemic slowed economic growth and the scientific prowess gained before 2020. This epidemic made many organisations realise that for a policy to be effective, it should be based on scientific evidence. The Covid-19 pandemic has magnified the depth of structural inequalities in societies. It has made the international community to question the sustainability of the progress made in research and development, STI, gender and digital transformation.

In Africa, the pandemic has also unearthed and aggravated major enduring challenges such as climate change, sustainable development and economic growth, population growth, social transformation, and democratic governance. In addition, new challenges became apparent. These include access to science and health information, especially on emerging pathogens such as the Covid-19 virus, digital transformation, and technological advances.

A number of factors further increase or aggravate existential and systemic challenges in scientific research in Africa. For example, the growing inequalities in investment and opportunities in Africa, industrialisation, the climate crisis, and the digital divide. In such circumstances, the early and mid-career scientists, especially women, are the most at risk. The Covid-19 pandemic also exacerbated access to science infrastructure, research funding opportunities, advancement in career prospects and institutional support to early and mid-career researchers.

The future actions by AAS must consider mid and early career researchers and women as priority groups in the organisation. Thus, AAS will pursue a strategic mentorship programme in all areas related to its mandate and at all levels of action. The programme will not only address the priority group as beneficiaries but will also engage with them as change-makers, knowledge brokers, and partners.

Unlocking the full potential of STI to tackle societal needs, environmental challenges and industrialisation requires robust STI systems with inclusive STI policies, and a well-balanced portfolio of policy instruments. Many African countries have recognised the importance of inclusive and gender transformative STI policies as well as actions targeting



**AAS will support the development of new approaches for the formulation of science policies. The support will focus on developing closer linkages between academia and industry. The aspiration should be participatory in STI governance systems that promote a culture of science and innovation. Besides, it must foster the links between science, policy, and society so as to advance knowledge societies. AAS will work closely with the African Union Commission for Education Science, Technology, and Innovation (AUC-ESTI) to accelerate the implementation of STISA**

gender equality in STI. These are essential in supporting scientific research and technological innovation. In addition, they are the ingredients needed for the advancement of science, making evidence-based decisions, and innovation. Such policies are also helpful in advancing the agenda of the African Union Commission (AUC) for Science, Technology and Innovation Strategy for Africa (STISA, 2024) and the delivery of SDGs. Notwithstanding, the STI policy design and governance capacities in many African countries are very weak. It is therefore essential to strengthen STI policy systems and foster STI to achieve the “Africa We Want” agenda and realise the SDGs.

AAS will aim to strengthen its second mandate as a think tank and advisory body on science policy to both countries and various institutions. It will continue to advocate for governments to invest in creating STI-enabled societies. Some of the strategies that can be used include coming up with effective national science policies and robust systems to govern science. AAS will support the development of new approaches for the formulation of science policies. The support will focus on developing closer linkages between academia and industry. The aspiration should be participatory in STI governance systems that promote a culture of science and innovation. Besides, it must foster the links between science, policy, and society so as to advance knowledge societies. AAS will work closely with the African Union Commission for Education Science, Technology, and Innovation (AUC-ESTI) to accelerate the implementation of STISA (2024). Key aspects of this implementation are evaluating the objectives, assessing the outcomes, and the impact of STISA (2024). It is within this context that the academy will support the formulation and implementation of STISA (2034).

### 1.3 Science response to Africa's priorities, needs, adaptation and resilience



#### Climate change and socio-economic issues

In the face of geo-political conflicts, the impact of climate change and socio-economic challenges are affecting the African continent and beyond. AAS is an active player in this area. It participates in rapid initial response, post-disaster assessment and recovery, and needs assessment. Another focus area is Africa's response to mitigating climate change, adaptation, and enhanced resilience building. AAS will adapt its strategy while leveraging its networks to contribute to emergency actions and also engage in long-term recovery and development processes.

The Academy's overall objective is to support integrated policies and operational actions that lead to recovery within its mandate. These actions include strengthening institutional capacities for risk prevention, reduction, and response; and where appropriate, encouraging the creation of regional coalitions. This can be done in consultation and with the cooperation of the participating institutions. Stronger systemic approach to crisis preparedness and response will open opportunities for action, awareness-raising and innovative partnerships with new actors.



#### Knowledge systems

Knowledge systems, as a knowledge sector, is a holistic conceptualisation specifying sets of knowledge institutions and actors, knowledge producers, knowledge users and knowledge enablers. It also describes their interrelationships (Jana C. Hertz, et al. 2020). Conceptions around indigenous knowledge systems include 'traditional knowledge systems', 'endogenous knowledge systems' and 'classical knowledge systems'. A focus on indigenous knowledge systems implies an archaeology and re-appropriation of those *knowledges* that were not allowed to 'be'. The purpose here is to enhance our human understanding, and develop, protect, and promote them. There is an urgent call in Africa for developing appropriate protocols, codes of conduct, and terms for any dialogue and integration between science and local and indigenous knowledge towards transformational change.

AAS will pursue the goal of bridging the knowledge gaps and tapping into indigenous knowledge streams. The aim being to enhance our understanding of the existing knowledge systems while also contributing to correcting of the detachment. Eventually, there will be movement from familiar ecology and loss of linkages to existing indigenous knowledge on the African continent. This will happen through the Community and Public Engagement (CPE) initiative. In CPE, researchers and grant awardees play a key role in engaging communities as part of a two-way interaction between scientists and non-scientists/non-specialist publics. Such an engagement is about science, research and innovation with the intention of providing opportunities for mutual learning and benefit from scientific knowledge.



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### 1.3 Science response to Africa's priorities, needs, adaptation and resilience



#### Public health dimensions

Public health plays various roles in communities. For example, it protects the health of a community through prevention methods rather than treatment. Some of the strategies include promoting healthy lifestyles, preventing, and responding to infectious diseases, and improving the health of people and the community at large. Specific measures include disease and injury prevention research, infectious disease detection, prevention and response.

Africa has large and diverse health infrastructure needs.<sup>9</sup> Health crises are emerging as a major source of shocks and fragility in Africa. Such crises expose serious shortcomings in the national health systems of individual countries. When the surveillance and testing capacity is overwhelmed, it is hard to uncover the health challenges people face across Africa. Despite recent progress, child and maternal mortality rates remain high in many African countries. With 17.89% of the world's population, Africa accounts for 50% of global deaths from communicable diseases. Poor health outcomes reflect a lack of access to quality health services.

Many African countries spend on average, less than 1% of their GDP on research and development (R&D).<sup>10</sup> This is significantly less than the global average of 1.7% and the AU's target of at least 1%. Africa also has less than 100 researchers per million people. Part of the reason for this is the aggravated and persistent brain drain. Some of the most talented researchers change to other sectors of the economy or migrate to work on other continents.

To fill the gap left, AAS, through its two flagship programme initiatives, supports public health early career researchers to help them fill the void. The first initiative is the African Research Initiative for Scientific Excellence (ARISE<sup>11</sup>) and the second is the African Post-doctoral Training Initiative (APTI). The early career researchers carry out STI projects in public health and biomedical research. These aspects of research are in line with Africa's development needs and priorities. In the end, they provide an avenue for the knowledge products generated from the programme to inform policy dialogues and decisions. This current strategy seeks to strengthen and upscale these good practices and innovation for wider reach on the continent.

9. See the Human Capital, Youth and Skills Development Department, Strategy for Quality Health Infrastructure in Africa, 2022-2030 revised version report (AHVP/AHHD, 2022),

10. See United Nations Educational, Scientific and Cultural Organisation (UNESCO) Science Report 2021, The Race Against Time for Smarter Development.

11. <https://aasciences.africa/Programmes/ARISE>

## 1.4 Alignment to Sustainable Development Goals

Through the research products, innovations and practices of early career researchers and programme interventions, ARISE aligns and contributes to the realisation of SDGs in various ways, as indicated below:

- 1 Providing indirect employment opportunities to 45 early career researchers and over 300 PhD and MSc researchers in Africa to help alleviate poverty (SDG #1: End poverty in all its forms everywhere).
- 2 Enhancing partnerships between researchers and industry players (SDG #17: Partnerships for the goals).
- 3 Encouraging a competitive, gender level playing field for female researchers (SDG #5: Achieve gender equality and empower all women and girls).
- 4 Providing a research platform for the development of solutions to scientific innovations, clean water and clean energy (SDG #6: Water and sanitation and SDG #7: Affordable and clean energy) respectively.
- 5 Providing opportunities for novel industry innovations (SDG #9: Industry, innovation and infrastructure).
- 6 Encouraging solutions to the climate crisis (SDG #13: Climate action).
- 7 Developing strong research management frameworks in African research institutions (SDG #16: Peace, justice and strong institutions).
- 8 Fostering partnerships for joint research and knowledge sharing to build the critical mass of knowledge producers (SDG #17: Partnerships for the goals).

As noted on the right, AAS has been implementing programmes in six priority STI areas: climate change, health and wellbeing, Science, Technology, Engineering and Mathematics (STEM), water and sanitation, food security and nutritional wellbeing, and sustainable energy. The strategy will contribute towards advancing AAS as a resolute, diverse, and excellent research leader and knowledge producer on the African continent. Its objectives are geared towards supporting research for sustainable development and recovery from the impact of the global crisis that was Covid-19, notably, the restriction of movement of people. There was limited movement of people across borders and less physical meetings. The internal political and governance dynamics brought to the fore the vulnerabilities of societies and economies. Covid-19 also had an asymmetrical impact on the fragility of the research management sectors in pan-African institutions.

## SUSTAINABLE DEVELOPMENT GOALS



## 1.5 What needs to change?

No doubt African countries are striving to advance green transition, digital agendas and socio-economic development. However, if they are to progress towards the AU's Agenda 2063 and achieve the SDGs, they need to ensure that there is convergence and coherence of some national policies related to higher education, industrialisation and STI.



### Policy alignment

The national and regional STI policies must be aligned to ensure the strategic direction is forward looking. All the policies should strive to achieve the same overarching development targets. A well-balanced portfolio of policy instruments ensures effective implementation. At present, the policies in place tend to contradict and even undermine one another, making it harder for individual countries to achieve the SDGs.



### Data governance

Another condition is for countries to improve their methods of data collection and analysis. In Africa, data is not collected regularly on research intensity, the share of GDP devoted to R&D (SDG #9.5.1; Research and development expenditure as a proportion of GDP), and researcher density (SDG #9.5.2: Researchers (in full-time equivalents) per million inhabitants). Very few African countries report on such data. This is a concern, and the aim of AAS is to enhance the capacity of its fellows and other actors in building the capacity of research institutions and countries in data governance. The objective here is to ensure collection of reliable and comprehensive data regularly. Such data will inform the formulation of evidence-based STI policies and their implementation and monitoring. AAS will also seek to create a data repository and pursue the UNESCO recommendation on Open Science.<sup>12</sup>



### Optimised systems

One of the key lessons learnt from the health crisis caused by Covid-19 is the need to accelerate advancements of socio-economic solutions. This was a wakeup call. Such solutions include digitisation of services and activities for continuity of operations and reorganising the AAS systems, including the Governing Council, the secretariat, and partners. AAS now has an opportunity to mobilise like-minded sector players regionally and internationally. This can take place around pertinent issues to build better and faster by advancing mutual long-term structural commitments.



### Science influence

The global appreciation of science as a fulcrum for socio-economic development and a vehicle for reducing human existential risks, is an opportunity for AAS to strengthen its mission. The Academy will focus on its priorities such as transformative action to leverage resources. This is only possible through research excellence and thought leadership in science, technology, and innovation. Through this strategy, it is imperative that the Academy must promote sustainable development. It should leverage its coordination function to ensure its actions are coherent.

Such a move will also foster interdisciplinary approaches that favour scientific research and innovation. This will apply to learners, early and mid-career researchers and the general science community in Africa, in all their fields of competence. In the long term, AAS aspires to be the voice for science in Africa, providing foresight for science for sustainable socio-economic, industrial and environmental transformation.

<sup>12</sup> The recommendation affirms the importance of open science as a vital tool to improve the quality and accessibility of both scientific outputs and process to bridge the STI gap.

## 1.5 What needs to change?



### Looking forward

Given the many significant opportunities and emerging challenges, Africa can benefit enormously with the right institutional leadership. These opportunities and challenges have been created by globalisation, advancement in Science, Technology, and Innovation (STI), enhanced awareness, and consensus on the role of scientific research in sustainable development. With AAS's track record and convening power, the academy is well positioned and poised to take advantage of these opportunities. Indeed, they will be a game changer in supporting African researchers, learners pursuing higher education and communities. Some of the issues they need to address include emerging challenges in health and wellbeing, food security, gender issues, and unequal access to opportunities.

Other contemporary issues include funding for research and innovation, and effects of climate change on the environment and society. Other key priority areas include impact assessment and solutions to frontier technologies and the digital divide, as well as socio-economic issues. The fragility of support systems for research done by mid-early career researchers in Africa, African universities and research institutions remains a challenge.

To embrace the opportunities and meet these contemporary challenges, AAS will draw on its convening power, expertise, and experience in the fields where it has competence. This will strengthen both the interdisciplinary approach and unity of action. AAS will promote innovative thinking and action in the face of the new divides. It will think and act in the face of the new divides on the African continent and the world. No doubt, it will resolutely pursue its transformative action through its tripartite mandate. The overall goal is to leverage on science, technology, and innovation to promote sustainable development.

AAS has built a strong brand as a leader as it continues to enjoy a strategic partnership with the AU. This is in addition to a framework agreement on collaboration with the AU's technical arm, the New Partnership for African Development (NEPAD). In 2015, AAS and NEPAD created the Alliance for Accelerating Excellence in Science in Africa (AESA). AESA is a science and strategic platform that fosters development in science, excellence, and innovation to address the continent's health and development challenges. The Bill and Melinda Gates Foundation (BMGF), the Wellcome Trust, the UK Department for International Development (DFID), and NEPAD provided an initial grant to establish AESA. In addition, they are partnering with the platform on various initiatives. The AAS Strategic Plan 2023–2027 outlines a strategy for an African science-led development. AAS will strengthen the STI ecosystem in Africa through the AESA platform using the lessons learnt from implementing this joint activity.

### This Strategic Plan reiterates that the tripartite mandate of AAS is to do the following:



Recognise excellence through its highly prestigious fellowship and award schemes.



Provide advisory services and act as a think tank for shaping Africa's strategies and policies.



Implement key STI programmes aimed at addressing development challenges in Africa.

AAS recognises the need to continue advancing the development agenda through applying science and technology. It aspires to emerge as a leader in integrating science and development, particularly to achieve the UN SDGs. This is the only way science can have an impact on development in Africa.

To achieve this, the academy recognises the need for diverse, vibrant, and motivated people. The people should work in an enabling learning environment and maximise on the use of technology. Such an eco-friendly campus should have cloud-based systems. AAS Fellows<sup>4</sup> and grantees will be at the frontline in raising the profile of AAS on the continent. The idea is to have the grantees emerge as the most influential world class scientists in Africa. In addition, AAS will actively engage African countries, philanthropists, the private sector, and other strategic partners in resource mobilisation. Such support will enable it to achieve its ambitious strategic agenda with and on behalf of the Academy Fellowship.

The renewed mission of the Academy will be fully integrated into its programmes with reinforced monitoring. This implementation of this Strategic Plan is also an opportunity to achieve our vision of *Transformed lives through science* by taking advantage of the resulting synergies. Enhanced coordination will accelerate the move towards achieving the objectives set in AU's Agenda 2063. Such initiatives are taken by the Academy to augment the development frameworks of African countries, especially in the specific region. The idea is to work through a broader interdisciplinary and integrated approach to sustainable development in Africa.

All activities of the Academy will be underpinned by its commitment to operational excellence in good governance, human resources, financial and business management.

# Section 2



## About the African Academy of Sciences

The African Academy of Sciences (AAS) is an independent, non-aligned; pan-African and Africa-led organisation, with diplomatic affiliation to the African Union (AU). One of the approaches it uses to achieve its mandate is to form strategic partnerships on the African continent and globally. Established in 1985 by Fellows,<sup>13</sup> it is registered in Kenya with its headquarters in Nairobi. AAS is certified as an organisation equivalent to a US public charity.

### 2.1 Aims

The aim of the Academy is to *drive sustainable development in Africa through science, technology, and innovation*. The constitution of AAS sets out the principal objectives of the Academy and its membership. It also states the definitions of the organs of AAS such as the General Assembly, the Governing Council, and the Secretariat staff and it outlines their specific functions. The constitution guides the managerial, financial, and operational functions and responsibilities of the Academy.

The aim of the Academy is to advance its mission through the following activities:

- 1 Expanding research funding to have an impact on scientific knowledge and innovation in Africa.
- 2 Fostering collaboration among scientists and researchers in Africa and worldwide for knowledge sharing and resource mobilisation.
- 3 Increasing public engagement with science by promoting science literacy and communication and science diplomacy in Africa and globally.
- 4 Supporting science and innovation-related policy development in Africa by providing evidence-based research and making recommendations to policy and decision makers.
- 5 Improving science infrastructure in Africa by supporting initiatives that support access to equipment, facilities and resources for researchers and learners.
- 6 Fostering innovation in Africa by supporting research and development initiatives that lead to discoveries and inventions with the potential to impact on economic growth and social development in Africa.

<sup>13</sup> The Fellows play an oversight role in the management of the Academy.





## 2.2 The mandate

An important aspect of the AAS mandate is to implement scientific research and the programmes necessary to support Africa's development. AAS has a portfolio of more than 15 programmes, reinforcing its position as Africa's foremost scientific research organisation benefitting from grants. Over the years, the Academy has built a strong leadership brand. It enjoys a strategic partnership with the AU through a Memorandum of Understanding (MoU). And it has a framework agreement in collaboration with the African Union technical arm – the New Partnership for African Development, NEPAD (AUDA-NEPAD).

As indicated in Section 1, the Academy and NEPAD created the Alliance for Accelerating Excellence in Science in Africa (AESA), in 2015. AESA is a science and strategic platform that fosters scientific development, excellence, and innovation. Its purpose is to address the continent's health and development challenges. The Bill and Melinda Gates Foundation (BMGF), the Wellcome Trust, the UK Department for International Development (DFID), and NEPAD provided an initial grant to establish AESA. Since then, they have partnered with the platform on a range of initiatives, mainly up to 2021.

AESA's key objective is to mobilise the continent's scientific leaders and innovators. Other objectives include training the next generation of African researchers, building African investment in local research, and managing large-scale grant programmes. It also serves as a scientific think tank for the continent. Since the establishment of AESA, many of the programmes provide a ladder for scientists to progress from *early career scientists* to *senior researchers, innovators* and eventually become *Fellows*. This is based purely on the recognition of their work.

One of the key successes of AESA platform is the development of an AAS-led research brand the Development of Excellence In Leadership Training And Science (DELTAS) programme with support for Wellcome Trust, other donors and scientists. DELTAS brought together world class African researchers across 54 lead and partner institutions investing in research infrastructure and offering fellowships and mentorship. (Reference)

The AESA concept has also given rise to a strategic partnership between AAS and the European Commission. The result is the creation of the AAS-AU-African Research Initiatives for Scientific Excellence (ARISE). This is pilot programme with a grant of EUR 25 million planned for the period 2021-2027. The grant will be used to train early career scientists in global health, green transition, innovation and technology and capacities for science and higher education. The trainees will be drawn from 38 countries in Africa.



## 2.3 Funding

The Academy is currently supported by global funders. It is also developing new partnerships while nurturing existing strategic partnerships with both African countries and other countries outside Africa. Other funders include philanthropists, the private sector, institutions that fund development and multilateral agencies, high net worth individuals, family foundations, among others. The purpose here is to increase and diversify the number of partners to ensure sustainability. The US National Institute of Health (NIH), BMGF and AAS co-implement a multi-million African Post-doctoral Training Initiative (APTI). The purpose of APTI is to broaden and strengthen the science base of Africa's public health. The programme involves a two-year placement at NIH and another placement in the grantee's home country.



## 2.4 Programmes

The Academy has been implementing programmes in six priority STI areas; climate change, health and wellbeing, Science, Technology, Engineering and Mathematics (STEM), water and sanitation, food security and nutritional wellbeing, and sustainable energy. AAS nominates and elects individuals who have excelled in their fields of expertise as *Fellows*. It also awards prizes to recognise scientists in Africa who have contributed to developing their fields of specialisation. The programmes that recognise excellence are the *Fellowships*, the *Affiliates*, and the *Olusegun Obasanjo prize*.<sup>14</sup> AAS has so far honoured more than 700 leaders and achievers in science from 44 countries across the globe.

AAS utilises its membership pool, which consists of a community of Africa's leading scientists, to engage with governments and policy makers on the continent. The membership comprises individuals who have reached the highest level of excellence in their field of expertise. In addition, they must have made contributions to the advancement of their field of specialisation on the continent.

In realising this mandate and to promote inclusion while maintaining *quality science*, the approaches are continuously being refined. AAS has twin objectives; first, to shape and revolutionise the promotion and development of Science, Technology, and Innovation (STI) on the continent. The second is to ensure that "no institution or researcher is left behind" as it accelerates the advancement of STI on the continent.

<sup>14</sup> Named after Former President Olusegun Obasanjo of Nigeria.

## 2.5 Projecting the future

This Strategic Plan covers the period 2023 to 2027. It builds on the previous Strategic Plan 2018–2022. It has been developed to guide AAS from 2023 to 2027 at national, regional, and continental levels, as per the AAS mandate. The process of developing this Strategic Plan involved several stages; consultations with the AAS Governing Council members, the secretariat staff, Fellows, and Partners, as well as the review of relevant AAS policy and programme documents, and both internal and external assessments.

The Strategic Plan has been developed to ensure there is growth and development of AAS and its programmes. The underlying objective is to support the growing of capacities in sciences in Africa in line with the AU Agenda, and achievement of the UN Sustainable Development Goals (SDGs). The other goal is to tackle the challenges brought about by global pandemics, climate change (including the impact of global warming and the biodiversity crisis). The plan guides AAS towards acquiring the status of a visionary Africa and having a global perspective on issues. In developing the plan, a comprehensive Strategic Planning Framework was used.

There are four key steps when using this framework as outlined below:

- 1 A diagnosis of the operating environment and situational analysis with emphasis on achievements, opportunities, threats, and development of an overall organisational strategy.
- 2 Looking forward as to where the organisation aims to be in the next five years and beyond. This is done with a more systemically integrated global and Africa perspective. The purpose is to strengthen partnerships for resource mobilisation and network dimensions into existing and new programmes.
- 3 The organisation results-based management framework. This defines the organisation's main areas of work and the priorities within the priority areas identified in the policy framework to aid in defining the main objectives of the organisation.
- 4 An operational matrix or plan of action covers all department-level activities and projects that will enable AAS to achieve its purpose. It includes a detailed description of objectives, measurable indicators, activities, timelines, and outcomes.



The aim of the Strategic Plan 2023–2027 is to systematically build on the successes of previous Strategic Plans. The key goal is to spur the tripartite mandate of the Academy by internationalisation and networking to achieve the following:

1. Expand research funding so that it can have an impact on scientific knowledge and innovation in Africa.
2. Foster collaboration among scientists and researchers in Africa and worldwide for knowledge sharing and resource mobilisation.
3. Increase public engagement with science by promoting science literacy and communication, and science diplomacy in Africa and globally.
4. Support science and innovation-related policy development in Africa by providing evidence-based research and recommendations to policy- and decision makers.
5. Improve science infrastructure in Africa by supporting initiatives that support access to equipment, facilities and resources for researchers and learners.
6. Foster innovation in Africa by supporting research and development initiatives. These initiatives will in turn lead to discoveries and inventions with the potential to impact on economic growth and social development in Africa.
7. Encourage innovation and entrepreneurship among African scientists and researchers on one hand and the entrepreneurs through knowledge sharing and advancing links between science, local and indigenous knowledge.
8. Increase diversity by promoting gender equity and other forms of diversity with emphasis on improvement in gender balance among researchers supported by the Academy. The Academy will pursue gender transformative programmes and increase the number of underrepresented groups in science-related fields and its geographical coverage.
9. Mainstream science diplomacy through the use of scientific debates and interactions amongst stakeholders and nations. Such interactions will address the challenges facing Africa and help build constructive knowledge-based international partnerships.
10. To stay connected with AAS Fellows, 15 Associates, and Honorary Fellows by engaging them in the Academy's think tank and advisory programmes. In addition, provide opportunities for them to become advocates for AAS, critical global citizens motivated to act as change agents in their networks to enhance the AAS brand and visibility.

With lessons learnt from the previous Strategic Plan (2018–2022), this Strategic Plan seeks to reduce risks and threats to the organisation and promote good governance at all levels through capacity building of the members. Any training will focus on members of the organs of AAS such as the Governing Council and its associated Advisory committees, the Secretariat and where possible, some partners. The Secretariat needs regular capacity strengthening and training to manage AAS and ensure success. One example of such training is in science diplomacy, which is essential in terms of preparing staff to make good judgements in the face of new and emerging challenges of our times.

This Strategic Plan outlines the Academy's vision, mission, values, situational analysis, performance review and forecasts, strategic drivers, and cross-cutting areas of action. In addition, it summarises a well-defined results-based management approach to periodic assessments of the progress of the implementation of the Strategic Plan.

One of the core mandates of the Academy is to recognise and reward excellence to Fellows and Affiliates in diverse disciplines, gender, and country representation. The aim of this reward system is to amplify the work of AAS so as to gain more inroads in Africa and "harness science in development to enable more Africans lead better lives!"

In future, the Academy reaffirms its commitment to the following objectives:

- 1 To continue growing talent in STI on the continent.
- 2 To provide high quality research input and thought leadership as a voice for science in Africa.
- 3 To enhance the capability of its staff and build the requisite internal/operational capacity.
- 4 To live its core values such as promoting excellence, developing more inclusivity and diversity, transparency and integrity, innovation, and sustainability.



# Section 3

## Situational Analysis and Review of Previous Strategic Plan

This section presents the situational analysis and the review of the previous strategic plan. These two processes informed the preparation of this Strategic Plan.

### 3.1 Situational analysis

The situational analysis of AAS entailed the review of its historic achievements – both internal and external – by assessing them from a number of perspectives. These included its beneficiaries, products and brand, staff, internal operating environment, and its financial sustainability. This was followed by the evaluation of the impact it has had in living its vision, mission, and core values. The evaluation was conducted on the organisation's performance based on the projections contained in the Strategic Plan 2018–2022.

This analysis enabled management and stakeholders to identify the strengths of the organisation and opportunities for further development. Factors that influenced its performance were identified, including present weaknesses and handling risks and threats. The comprehensive situational analysis

of AAS provided evidence of the activities within the organisation and its operating environment. The information was used to determine the vision, mission and values of the organisation and the direction in which it should move.

The situational analysis of the AAS Strategic Plan 2018–2022 involved a reflection on the organisation's performance. This was based on the period of implementation of the strategy, analysing contributions from both internal and external factors and an assessment of its performance in the focal areas. The process involved reviewing documentation such as progress reports during the life of the Strategic Plan. Under review was also the participation of the Governing Council, the Fellows, Affiliates, and the AAS Secretariat, and partners.

#### 3.1.1 Key issues and lessons learnt

The first step in the situational analysis was to use the result-based management tool to evaluate how AAS performed in undertaking its objectives as specified in the previous Strategic Plan. From this assessment the following key issues/ revelations from the 2018–2022 Strategic Plan were identified:

1. A major limitation was that the structure of the Strategic Plan was based on Strategic Themes, rather than Strategic Objectives with clear indicators and criteria for measurement. This made it difficult to assess achievements of the Operational Plans since there were no clearly defined measurable targets during the five-year period.
2. Only the Strategic Theme on Partnership had some indicators and quantity measures. For the remaining two strategic themes of *Excellence* and *People*, the units of assessment were more qualitative than quantitative, making it difficult to assess tangible progress or change.
3. Implementing the Strategic Plan was more challenging due to poor cascading to the respective departments.
4. There have been major staff changes since the previous Strategic Plan was developed. With the limited institutional memory resulting from the staff changes, it is difficult to track or assess the milestones achieved by the Academy in implementing the 2018–2022 Strategic Plan.
5. There was no record of periodic assessment or implementation results of the Strategic Plan 2018–2022.

#### In the build-up to the preparation of this Strategic Plan (2023–2027), the following resolutions were adopted:

- 1 The Strategic Plan (2023–2027) should have a baseline to measure progress of implementation. Measuring progress will ensure a clear alignment between organisational and departmental plans which will then be cascaded to departments. Individual departments would then align their operational plans with the Strategic Plan.
- 2 Quantitative measures such as measurable indicators and targets will be incorporated in the Strategic Plan at both the organisational and departmental levels.
- 3 The measures of achievement will be tracked using an effective Monitoring and Evaluation (M&E) framework.
- 4 The Academy will have regular and or periodic strategy performance review sessions during both phases: development and implementation.

## 3.2 Reviewing previous targets and making 2023–2027 projections

This section presents a performance review on the success and failures of the 2018–2022 Strategic Plan. The review is based on the activities of AAS during the implementation period and feedback from stakeholders, partners, and the secretariat. In addition, it looks at the strengths and opportunities, and weaknesses and threats of the plan.

### 3.2.1 Key achievements and highlights

The achievements, strengths and opportunities realised within the 2018–2022 period are outlined below. Some of the projects are either partly or to some extent fully realised.

#### Partnerships

**1** One of the main objectives of the Strategic Theme Partnership was to increase and diversify the number of funding partners. The projected measure of success was partnerships with at least nine African governments and four international donors. Although there were no implementation results on all the indicators, it is evident that Academy was leading and driving the establishment of meaningful collaborations. Some of the strategies the Academy used included clearly defining the partnerships, their objectives, and the need to jointly develop programmes.

This is commendable because in this period, the Academy successfully fostered partnerships with three major funders, out of the projected four. The first two partnerships were with the African Union (AU) and the European Union (EU) to promote AESA and RISE. The third partnership was for funding APTI through collaborative efforts between ARISE and the Bill and Melinda Gates Foundation.

Although the projected measure of success was support from at least nine African countries and four international donors, the Academy succeeded in attracting support from only three donors. However, there was no support from any African country. So, there is need to continuously harness more collaborations from existing networks while exploring new working partnerships with institutions such as the African Research Universities Alliance (ARUA).

**2** AAS sought to increase its revenue base by US\$ 20 million from donations by governments, and US\$ 30 million from international funders, the private sector, and philanthropists. There was US\$ 30 million increase in donations from the private sector, which is commendable, with no funding from any African country. This revenue base, however, reduced by over 60% in 2021 and 90% in 2022 because of the exit by two major funders – Welcome Trust and the Swedish International Development Cooperation Agency (SIDA).

**3** The second objective under partnership was to strengthen engagement with partners and other

stakeholders. Although there was no specified measurable indicator, there is evidence that indicates that strategic partnerships were forged with the African Union Commission on Education Science, Technology, and Innovation (AUC-ESTI). This partnership supported the research of early career researchers through the AU-AESA programmes. The objectives of AU-AESA include the following:

- To produce world-class scientific research to address African health and research priorities.
- To nurture mentorship, leadership and equitable collaboration in science, and engagement with public and policy stakeholders.
- To cultivate professional environments that can manage and support scientific research.

**4** AAS strengthened engagements with existing partners, including EU, AU, AAU, and African institutions of higher learning and research. Through collaborations, it was able to develop new partnerships. Amongst the gains and achievements made in the 2018–2022 Strategic Plan was the approval of a US\$ 25 million grant under AU-EU-AAS partnership agreement. The grant was for the ARISE Pilot programme to train 45 researchers from across 38 African countries. The broad aim was to support Research and Development (R&D), strengthen governance and the weak accountability systems. AAS promoted agenda-setting through the AESA platform. It continues to champion the alignment of Africa's STI programmes to the AU's STISA (2024) and Agenda 2063. AAS facilitates membership and participation of African researchers in forums both at the continental and global levels. It also has a working group of global experts to enhance visibility of young researchers and AAS. At the 2022 world Science Forum, AAS convened 'The AAS' broad base pan-African network of scientists. The aim was for them to provide their expertise in policy engagement and in workshops. Among the key topics were food security, public health, climate change and sciences and STI capacity building.

## Excellence

Under the strategic theme Excellence, the Developing Excellence in Leadership, Training and Science (DELTAS) supported Africa with a US\$ 100 million programme grant. The grant supported the African-led development of world-class researchers and scientific leaders in Africa, stretching over a period of five years (2015–2020). In addition, it supported 11 collaborative teams headed by world-class researchers. It spanned 54 lead and partner institutions from across the continent investing in research infrastructure and offering training fellowships and mentorship programmes. The DELTAS programme was however discontinued in 2021 because of the exit of major donors.

## People

- 1 It was difficult to assess progress made in the implementation and the effectiveness of the proposed objectives to achieve the results for **strategic theme on people**. This is because the indicators were not pitched at the strategic level nor measurable quantitatively. The majority seem administrative, covering the tasks managers do daily as part of their jobs.
- 2 AAS initiated programmes in the development of research capacity so as to increase and diversify partners. The current partners include ARISE, APTI and AESA-RISE. The Academy has successfully mobilised governments to contribute to the AAS Endowment Fund and support scientific research across Africa.
- 3 AAS strengthened engagements with existing partners, including EU, AU, AAU, and African institutions of higher learning and research. Through collaborations, AAS was able to develop new partnerships with the National Academies of Sciences, Engineering, and Medicine (NASEM) and the United States–Office of Naval Research (US–ONR). The enhanced Partnership with AU for mainstreaming scientific policies in Africa resulted in improved collaborations with governments, government agencies and funders.

## Fellows and Affiliates

- 1 There was over 30% growth in the number of fellows and affiliates (from 400 to 576). This is in line with ensuring structured growth and a learning culture to attract and retain the best talent. This was the result of a robust campaign championed by the secretariat to select and recruit competent and eminent scientists for the AAS Fellows and Affiliates programme. However, the growth in the number of new Fellows and Associates was not commensurate with the number of Fellows in good financial standing. Less than 30% were paying their annual subscription fee. The Academy continues to recognise excellence by identifying qualified people and facilitating their nomination as AAS Fellows on merit through a call process. The renewed focus will be to enhance diversity of gender and underrepresented disciplines such as social sciences, recruitment of younger Fellows, and having more women Fellows with a focus on an Africa-wide representation in the AAS membership Fellows.
- 2 For the first time, 118 inductees were crowned as Fellows and Affiliates. They were inducted into the Academy in an illustrious event during the 12th General Assembly in Cape Town, South Africa, in December 2022, on the margin of the world science forum.<sup>16</sup> This initiative enhanced the visibility of the Academy on the global stage, especially with representatives from 21 countries across the globe present to be feted. High-level delegations present included representatives from the Ministry of Science, South Africa, the South Africa Academy of Sciences (SAAS), the American Association for the Advancement of Science, the International Science Council, UNESCO, among other high-level representatives from higher institutions of learning. This initiative is believed to have spurred growth and visibility of the AAS Fellows and Affiliates portfolio in Africa and around the globe.

## Visibility

- 1 The publishing of the AAS online Newsletter which had stalled resumed. Since then, it plays a key role in enhancing the research management gains and visibility of the Academy. It has an average of over 100 visits per month.
- 2 AAS enhanced its visibility online. It now shares its successes, knowledge products, progress, and highlights of activities. Partners, collaborators, stakeholders, and potential collaborators can now access relevant information about the Academy on its website. The wider visibility of AAS has also been achieved in the media. It had over 695 media engagements at the end of 2022, including 154 YouTube videos, 93 blogs and case studies, 28 newsletters downloads, 300 media mentions, 73 press releases and announcements and 47 media interviews. The website has a dedicated Frequently Asked Questions (FAQs) section that provides prompt feedback. It has greatly improved interaction with the public on the goals and achievements of AAS.

16. <https://worldscienceforum.org/>

### 3.2.2 Early career researchers mentorship

Periodic mentoring programmes were held for early career researchers and young scientists with the participation of AAS Fellows as mentors. An annual conference for young scientists (the 'meeting of brains' concept), was organised for young scientists. The regular well-structured and competitive internships were provided to young scientists in

all the five thematic programme areas. Science leadership and science communication training were conducted for the 60 grantees from the respective ARISE, APTI and AESA-RISE fellowship programmes in December 2022. The main aim was to hone scientific leadership skills among the researchers and improve their science communication skills.

### Research grant support and training

- 1 Attainment of 98% recruitment rate of student trainees across programmes, with recruitment at MSc and PhD levels, exceeding 116% and 159%, respectively. This demonstrates AAS's successful implementation of value-for-money strategies.
- 2 A combined total of 60 Early Career Researchers (ECRs) were awarded Fellowships in the various programmes. The ECRs were from 38 African countries and 41 African host institutions of higher learning. This included African universities and research institutions. This result confirmed the diversity of partners and mid-level to ECRs AAS can attract and award while also directly expanding its footprint by increasing its presence in several countries on the African continent. Direct outputs from the engagements included research products, meaning knowledge products such as case studies and blogs have been shared with the media and governments through set media-sharing platforms.

### Administrative support

At least two Regional Offices have engaged with the secretariat in coming up with activities for the Affiliates and Fellows. Others have been active on some sub-committees of the Governing Council. This has proved influential in managing activities and Academy objectives through the set committees. However, more should be done to enhance the programmes being driven by Fellows and associates at regional levels.

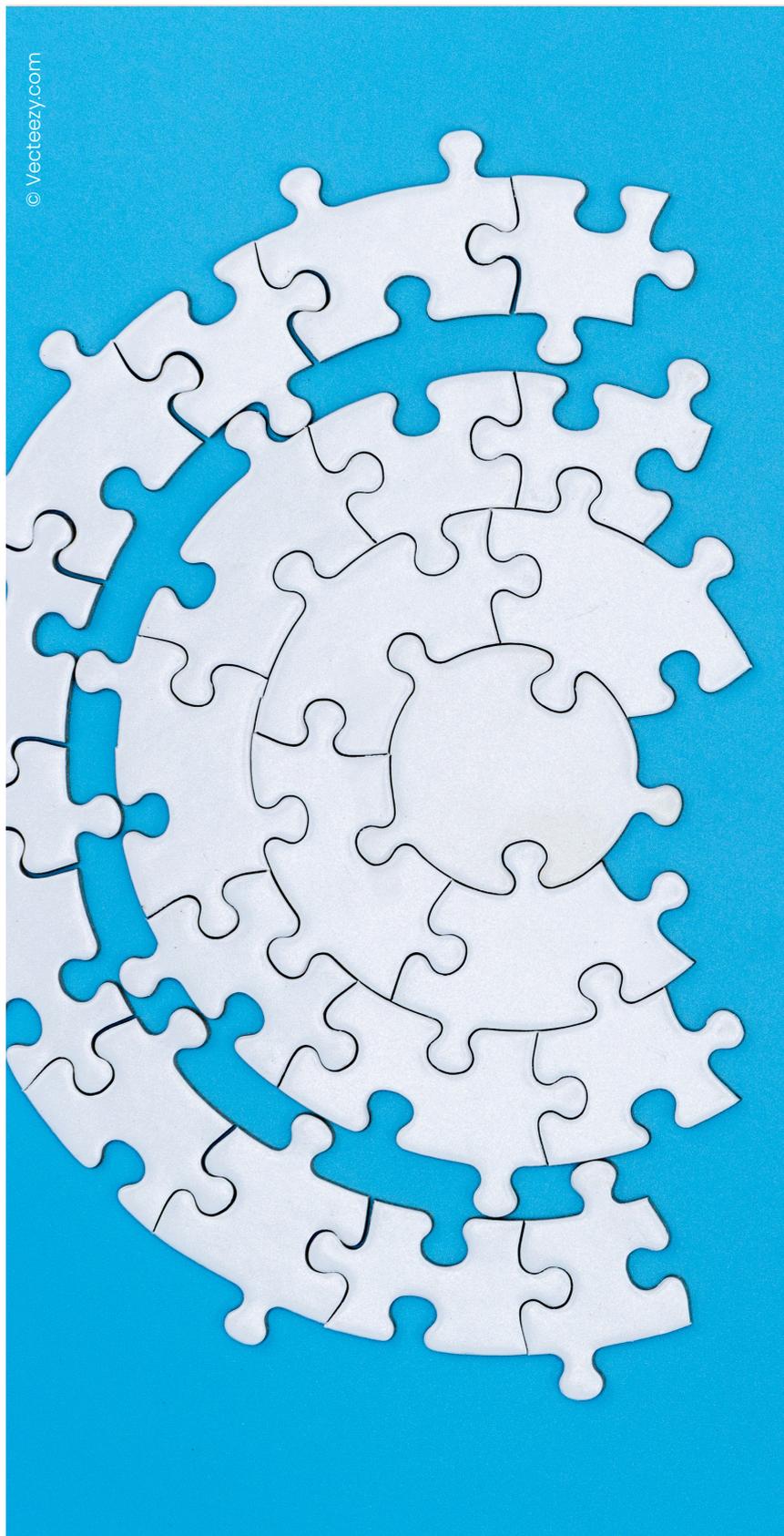
### Knowledge products

The total publication record of 1496 indicates improved scientific outcomes and achievements from the investments of the past few years. Over 1127 research networks mobilised to support the African-led development of world-class researchers and scientific leaders in Africa. This was done through the Developing Excellence in Leadership in Science (DELTAS-Africa) project raising multi-million dollars.



### 3.2.3 Strategic Plan 2018–2022: Unfinished business

Among the opportunities the Academy missed is the chance to make an impact and the weaknesses elicited during the 2018–2022 period. Some of them are outlined below:



- 1** The planned establishment of fixed regional offices instead of moving with Vice Presidents to the virtual offices has not materialised. It needs to be initialised to enhance regional representation and the reach of the Academy to all corners of the African continent.
- 2** The systemic disruptions experienced meant that the Academy fell short in engaging the AAS Fellows more actively in the activities of the Academy. The result is the failure to enhance the potential of the Academy's resources in tapping the best talent on the African continent.
- 3** Since the AAS Journal, *Discovery, and Innovation*, could not be revived, a new means of getting a journal for the Academy should be explored, including establishing an AAS open publication platform.
- 4** The Academy experienced limited engagement and the establishment of an expert committee comprising Africa and Diaspora groups on Enhancing Region- and Issue-Specific Competencies and Guidance in Sustainable Energy in Africa and the Diaspora. This should be revived.
- 5** The Academy has since planned on identifying experts among AAS Fellows and others in Africa and the Diaspora on *Food Security and Nutritional Wellbeing*. Such experts should be well versed in food security and nutritional wellbeing to constitute the AAS Expert Committee.
- 6** Due to the systemic disruptions experienced in the 2018–2022 period, the Academy did not update, maintain or generally make a functional tool for identifying potential Fellows and potential participants in various activities. This should be revisited.



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### 3.3 Threats



There were two major types of threats to the existence and effective functioning of AAS. These were experienced during the implementation of the Strategic Plan 2018–2022. First, the external threat of the Covid-19 pandemic significantly disrupted the work of AAS. Based on the lessons learnt, the Academy has had to adapt and mitigate similar disruptions. Examples are hybrid approaches to working environments and employing alternative virtual avenues of engagement in meetings such as webinars and periodic in-person meetings.

Second, there was an internal threat from within the Academy. A section of staff members exited and set up a parallel organisation, replicating the functions of AAS. That meant competing for the same funders as AAS, given their previous affiliations and networks. The Academy is now better structured to pre-empt such actions in

future and better manage the human resources in pursuit of its mandate. Indeed, to enhance its oversight capacity, improve management effectiveness, and prevent similar disruptions from recurring, the Governing Council resolved to reorganise the Academy's organisational structure to enhance better coordination and due diligence.

In 2022, the Governing Council appointed a substantive Executive Director and a programme manager. These changes have brought about a positive response from funders and partners willing to continue working and collaborating with the Academy in its areas of competence. A new lean and effective organisational structure to enhance efficiency was initiated for consideration in December 2022.

## 3.4 Opportunities



### Fostering partnership with United Nations agencies

Africa is poised to be the most demographically dynamic region of the world in the 21st century. In addition to being the region with an enviable youngest demographic dividend, it will also be the source of virtually all labour force in the world as its population grows. This population is projected to double by 2050. Adjusting to these demographic realities will require sustained and enhanced economic growth. Such growth should bring about economic, social, and environmental challenges. In the same period, the UN estimates that no other continent will be impacted as severely by climate change. In the prediction, it cites limited adaptive capacity as the primary factor.

When adopting this 2030 Agenda, the UN positioned science, technology, and innovation (STI) as the key means of implementing the SDGs. Meeting these goals will require well-trained scientists, engineers,

and medical professionals. To be effective, these professionals should bring to the table the latest scientific knowledge and technology to bear. Some of the problems that need solutions include societal challenges, developing new products and solutions, improving processes and services, and proactively identifying and taking advantage of opportunities and foresight.

Therefore, AAS should reposition itself to leverage resources and partnerships to co-implement its work such as research and capacity building work in STI. AAS can also perform other tasks such as public health, food security, and climate change through partnerships with UN specialised agencies. UNESCO, the World Health Organisation (WHO), the United Nations Environment Programme (UNEP), the World Meteorological Organisation (WMO), the United Nations Industrial Development Organisation (UNIDO), among others can come in handy. Such collaboration can help enhance the regional and global impact, effectiveness, and visibility of AAS.



### Open science

Open science is a set of principles and practices that aims to make scientific research from all fields of science more accessible to everyone. The goal being to benefit all scientists and society at large. The UNESCO recommendation on open science aims to ensure two things; first, that scientific knowledge is accessible. The second reason is that the production of that knowledge itself is inclusive, equitable and sustainable. AAS must promote science that is more accessible, inclusive, and transparent. When scientific research and innovation is available for everyone to share, this will accelerate the benefits of scientific advancement and transform lives in Africa and beyond. As the voice for science in Africa, AAS has the opportunity and the convening power to implement the Open Science concept in Africa.

As new risks emerge, new actions must be taken, and new opportunities seized. This Strategy provides a framework for fostering commitments to long-term investments in various sectors of the economy. For instance, we have the higher education sector, industry, health, food security and clean energy. This ensures that scientific excellence is well recognised and rewarded. This can be harnessed through a variety of actions such as; reaffirming the value of scientific excellence

to manage resources and ecosystems in Africa sustainably; promoting open solutions, particularly in science, and protecting access to information in the digital age. IT may also require ensuring that scientific innovations and the digital revolution are developed on an ethical basis. Inclusive participation in the discussion about the social impact and ethical challenges related to science and technology is key to helping individuals acquire relevant knowledge and abilities. Support should be given to the status and recognition of professions in fields where AAS has competence.

This calls for **innovative thinking** and greater investment in early to mid-year level researchers, especially women in Africa. Notably, this should be in areas relevant to AAS's mandate for instance skills related to STEM and innovation. The others are enhancing scientific dialogue and exchange among young researchers in Africa – based on good practices of ARISE; encouraging and strengthening scientific collaboration and the transfer of techniques and approaches across disciplines within and beyond the African region and empowering young scientists, engineers, and medical professionals to assume leadership roles in their fields and beyond. Using these strategies presents a great opportunity for AAS to advance its mission.

## 3.4 Opportunities



### AAS Young Academy

AAS utilises its membership pool, which consists of a community of scientists, to engage with governments and policy makers on the continent. The membership comprises individuals who have attained the highest level of excellence in their expertise and have contributed to advancing knowledge in the field on the continent. To grow the pool of ECSs and the list of bona fide Fellows of the Academy, AAS will establish a system of grooming potential ECSs through targeted mentorship schemes. Creating an opportunity for nominating young academy fellows will boost the numbers. It will also groom the next generation of Fellows – especially in the context of Africa's growing youth demographic dividend.

Special attention will be on diversifying the membership to include many more Fellows and Affiliates from non-English speaking countries. More focus should especially be on Francophone and Lusophone speaking countries, as well as the diaspora, to reduce the language gaps.



### Digital transformation

Global events over the last few years, especially the advancements in scientific research and virtual technologies accelerated by the Covid-19 pandemic, are effectively transforming global economies, work, and life into virtual modes. This is a significant advantage for societies with a more advanced digital skilled workforce and infrastructures. Africa aims to achieve its overall development goals, within a global context in which digitisation has led to new requirements in terms of knowledge and skills. These include advanced competencies in Artificial Intelligence (AI), big-data science, cyber security, and research in applied basic sciences. The World Bank estimates in 2020 reveal that digitally transforming Africa could cost between US\$ 80 and US \$100 billion over ten years. The biggest challenge is putting in place policies and institutions that encourage the private sector to invest in digitisation as opposed to mobilising only public resources. The AAS will provide leadership in this emerging core area of applied science and digital transformation in Africa. The overall purpose is to shape the policies, investments and practices that can enable optimal progress in digitisation.





## Urbanisation and competitiveness

Africa's population is currently the fastest growing in the world, with concurrent urbanisation, resulting in the rise of megacities. Several studies indicate that by the turn of this century, thirteen of the world's 20 biggest megacities will be in Africa, with Lagos, Nigeria, being the world's largest megacity at almost 90 million people. Other sprawling African cities include Cairo, Egypt, Kinshasa, DRC and Abidjan, Cote D'Ivoire.

The rise of megacities presents complex challenges as well as a promise for the continent's future. One of the most pressing challenges associated with the rapid urbanisation is the need for enhanced and more robust infrastructure such as transportation, energy, sanitation, and other utilities. There is also need for overall urban planning and modelling to ensure that these urban centres can adequately support the growing population and maintain a high quality of life for their residents.

On the other hand, progress in science and technology for Africa is more than just laboratory and field research. It means individual nations and corporations developing the capabilities and competencies to innovate and commercialise technology from the research community. It also means differentiating and enhancing national and regional economic competitiveness as well as strengthening the continent's ability to harness trade and bilateral instruments for complementary technology transfer.

These successes would ensure that the overall STI activities serve to advance the aspiration of economic development and the goals relating to the desired quality of life for Africans. AAS will partner with institutions that prioritise innovation and competitiveness, to provide support to urban planners as well as economic and trade policy makers. The purpose is to leverage on science and technology tools and harness opportunities presented by rapid urbanisation and international trade.

An examination of the long-term outcomes and the impact of the Covid-19 pandemic reveal that the occurrences have disrupted the implementation of many of the SDGs.<sup>17</sup> In some cases, they have destroyed what took many decades to build. The most affected are the countries that have not invested in science and technology. For many African countries to recover completely from Covid-19, they require a coordinated and comprehensive recovery effort based on sound data. The science must be guided by the national and continental STI agenda.

AU Agenda 2063 has prioritised STI as a key enabler for achieving sustainable development on the continent. It emphasises STEM education as a foundation. AU Agenda 2063 also highlights the urgent need to reinforce and enhance capacity in STI in Africa, and also develop capacity and capability in the application of STI for development. The Agenda has in mind products, processes, and partners. Of particular importance is the application of STI in different disciplines. The most visible are water security, research, climate change, governance and capacity building, engineering, protection of biodiversity and sustainable management of its natural resources for the benefit of all. In this Strategic Plan, AAS will pursue working closely with AUC in joint programming to advance its aspirations and those of the AU.

These cross-cutting areas will allow for synergies and multi-sectoral approaches throughout the implementation of the tripartite mandate of the Academy. This will directly or indirectly contribute to the strategic objectives, outcomes and the operational themes that form the basis of this Strategic Plan. With this framework of action, AAS can provide an integrated response to complex issues in the sciences. This will reinforce synergies and the development of programming skills and resource mobilisation in cross-cutting thematic areas of action. This is how AAS can assert its tripartite mandate as a think tank and play its advisory role.

17. Sustainable Development Goals | United Nations Development Programme (undp.org)

## 3.4 Opportunities



### Science diplomacy

Science diplomacy is not a new concept. Yet it has never been more important as it is now, especially in Africa. Many of the challenges that define the 21st century – from climate change and food security to poverty reduction and peace building in conflict situations – have scientific dimensions. No one country can solve these problems on its own. The tools, techniques and tactics of foreign policy need to adapt to a world of increasing scientific and technical complexity. Africa is no exception. As the former UK Prime Minister Gordon Brown said, *“Many of the challenges we face today are international and – whether it’s tackling climate change or fighting disease – these global problems require global solutions . . . That is why it is important that we create a new role for science in international policy making and diplomacy . . . to place science at the heart of the progressive international agenda.”*

Despite this call for science in international policy making and diplomacy, science diplomacy is still a fluid concept. But it can be applied usefully to the role of science, technology, and innovation in three dimensions of policy. These are summarised by *The Royal Society New Frontiers in Science Diplomacy* | January 2010, as follows:

- a. Informing foreign policy objectives with scientific advice (science in diplomacy)
- b. Facilitating international science cooperation (diplomacy for science)
- c. Using science cooperation to improve international relations between countries (science for diplomacy).

Strengthening the full dimension of science diplomacy in this Strategic Plan provides a great

opportunity for AAS to broker new or different types of partnership. This will also bolster the interests and motivations of its scientific and policy think tank communities. Eventually, the AAS community will be able to collaborate with the best researchers, access better research facilities, and mobilise new sources of funding. AAS will then achieve its goal of *transformed lives through science*. AAS offers potentially useful networks and channels of communication that can be used to support wider policy goals that are clearly defined, to avoid the undue politicisation of science.

Science diplomacy needs support and encouragement at all levels by the science community. AAS over the years has provided opportunities and career incentives for early to mid-career scientists to engage with policy debates from the earliest stage of their careers. There is much more to learn from related debates over science communication and public engagement by scientists. Such engagements could be with multi-stakeholders such as multilateral agencies and other Academies and networks.

AAS will proactively harness science diplomacy to strengthen scientific interactions among scientists from different African countries. These interactions will be informed by scientific evidence and reinforced by practical scientific partnerships. This is the only way to address the common challenges facing Africa and to build constructive, knowledge-based international partnerships and peace building for “The Africa we Want.” One such initiative will be facilitating international science cooperation (diplomacy for science). AAS will use science cooperation for various purposes, for example, to improve relations between countries (science for diplomacy), in peace building and conflict resolution, in the river Nile conflict among others.





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### Climate Finance

Climate change poses an escalating threat to Africa. Increasing temperatures, rising sea levels, altered precipitation patterns, and extreme weather events are jeopardizing human health, food security, water availability, and socio-economic development across Africa. The State of the Climate in Africa 2022 report<sup>17</sup>, coordinated by the World Meteorological Organization (WMO), and the Sixth Assessment Report of the Intergovernmental Panel on Climate Change underscore these challenges. The economic and social costs of inaction are staggering, threatening to reverse decades of progress and push millions further into hardship. To address this crisis, African nations and the global community must work together to invest in climate adaptation, resilience building, and a just transition to clean energy sources. The African Union continental Green Recovery Action Plan (2021-2027) and the Climate Change and

Resilient Development Strategy and Action Plan (2022-2032) express the need to mobilize finance in pursuant of the adaptation and mitigation targets defined in the Paris Agreement, Kyoto Protocol and country's national adaptation and mitigation plans of actions. Various climate finance instruments are available to help African countries transition to low carbon and climate resilient future. However, African countries express the frustrations in accessing these funds due to limited capacity.

AAS will have the opportunity to leverage on its wide array of climate scientists and network of subject matter experts in agriculture, environment, water, energy etc. to strengthen collaboration with various climate finance mechanisms, and their respective programs and all points in Africa to develop comprehensive capacity building and strengthening programs and organise proposal writing workshops to enhance African countries' access to climate finance.

17. [https://library.wmo.int/viewer/67761/download?file=i330\\_State-of-the-Climate-in-Africa-2022\\_en.pdf&type=pdf&navigator=1](https://library.wmo.int/viewer/67761/download?file=i330_State-of-the-Climate-in-Africa-2022_en.pdf&type=pdf&navigator=1)



# Section 4

## Vision, Renewed Mission, Core Values and Strategic Objectives

This Strategic Plan was formulated amidst the rapidly changing science paradigms, both in Africa and globally. After various discussions with its stakeholders, the Academy decided to reposition its strategic objectives and align them to various international policy documents. These include the global United Nations development agenda 2030; the Sustainable Development Goals (SDGs); the Africa Agenda 2063, and the Science, Technology, and Innovation Strategy for Africa (STISA) 2024/2034.



### 4.1 Vision: Transformed lives through science

The Academy requires a vision and a renewed mission to enable it to leverage opportunities in making science work for sustainable development and to transform people's lives in Africa. The framing of the vision, renewed mission, core values and strategic objectives were guided by these international imperatives. The ultimate desire is for the Academy to create the enabling environment to reinvigorate scientific research excellence and innovation leadership. Such leadership will enhance growth for sustainable development for the "Africa we want." Similarly, it will nurture and foster strategic partnerships to transform STI systems for sustainable development of the continent. Lastly, it will support the best people to do their best in applying science in Africa.

From different discussions on the evolving changes in science and its interconnectivity with technology and innovation, it is important to illustrate the holistic meaning of science. Thus, the vision statement *Transformed lives through Science* is strategic in exploring opportunities – both in Africa and around the globe. The goal is to address Africa's emerging issues and priorities amidst the evolving global research and scientific landscape. This is a step towards the realisation of the Agenda 2063 mantra of "The Africa we want."

The key focus area for AAS's interventions as a pan-African institution is the African continent. Nonetheless, the new vision of AAS for the period 2023–2027 defines how the organisation can deliver on its mandate. Its objectives are closely related to the stipulation of Agenda 2063 of the AU and in particular, STISA 2024/2034. AAS adds value to scientific research. Its unique comparative advantage is in the way the organisation works in Africa. It has also harnessed the opportunities in the United Nations 2030 Agenda.



### 4.2 Mission: Leverage on science, technology, and innovation for sustainable development

The new framing is to leverage on science, and technology to transform lives in Africa: not only with resources but with innovations and evidence-based policies and strategies. AAS's new mission statement for the period 2023–2027 is designed to show AAS's new commitment of leveraging on STI for sustainable development at regional and international cooperation. The main strategies are through collaboration, harnessing the organisation's unique comparative advantage to identify opportunities, addressing emerging challenges and priorities while also seizing the opportunities the African continent and the world have today on the research and science landscape.

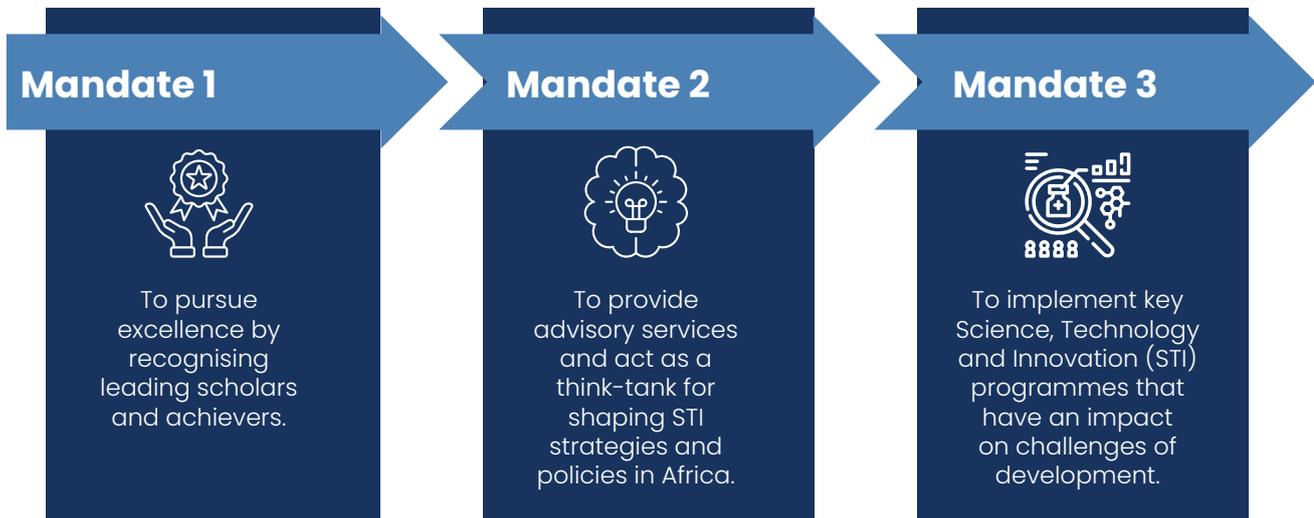


# Section 5

## The Tripartite Mandate

As a pan-African science Academy situated in Africa, AAS strives to achieve its vision and renewed mission through its tripartite mandate.

The mandate of the Academy is as follows:



This tripartite mandate defines how the Academy can deliver on its renewed mission as a pan-African research leader closely affiliated to the AU. The Academy is a special organisation adding value to its comparative advantage in the way the AU works and how it delivers its mission. Part of the strategy is to promote international research partnerships and the development of a robust research ecosystem in Africa.

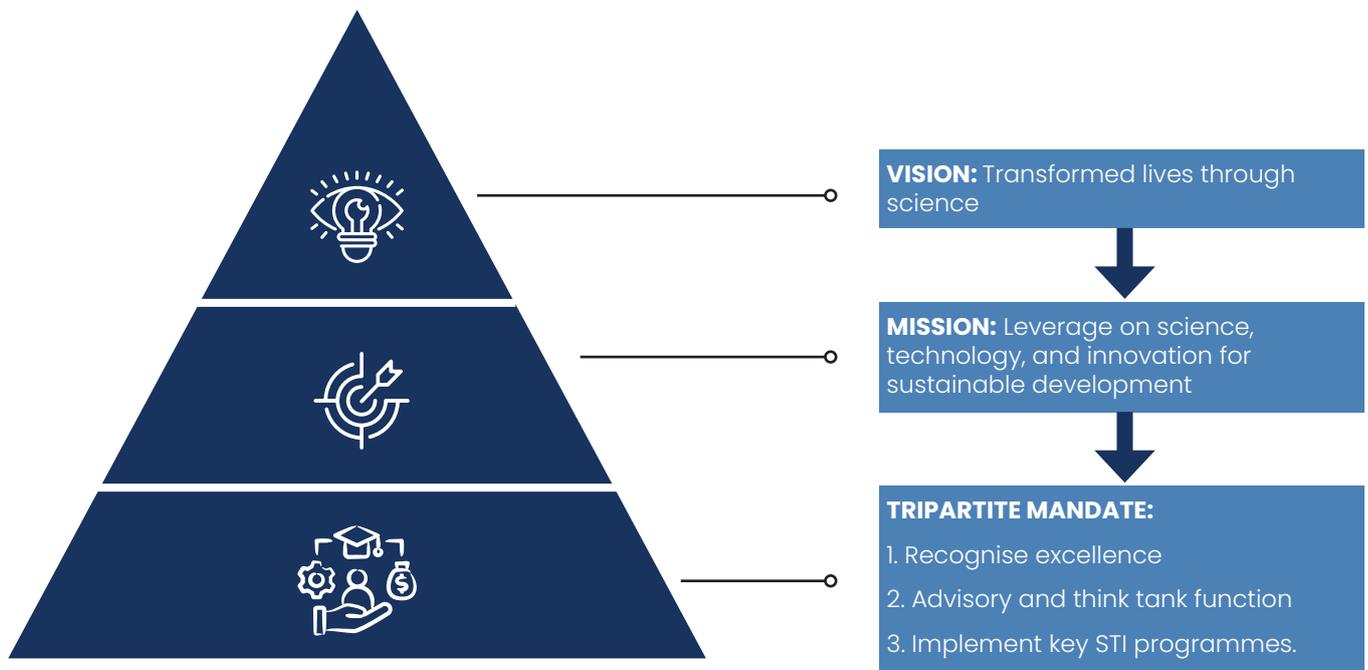


Figure 1: Vision, renewed mission, and the tripartite mandate: The Interlinkage

## 5.2 Guiding principles and core values

To broaden and strengthen Africa's science base. This will be through open and direct funding for young African researchers. The purpose is to enable them to contribute to knowledge-based and innovation-led continental transformation of Africa. These young researchers are expected to pursue the following core values:



### Integrity

Cultivating respect, transparency, and accountability.



### Diversity

Through inclusivity and pan-African focus



### Excellence

Through recognition of excellence and support of innovative ideas for impact



### Empathy

Because we value people.



### Collaboration

Through networks and partnerships and **fairness** in executing research obligations.

## 5.3 Thematic focus areas

Three of the broad operational themes for the AAS for 2023–2027 from which the strategic objectives are derived are as shown below:



**Our People:** focuses on provision of an enabling environment for learning and growth.



**Partnerships:** focuses on nurturing strategic partnerships.



**Excellence:** focuses on supporting the best people, institutions, and programmes to undertake relevant research.

Figure 2: Thematic focus areas

## 5.4 Strategic objectives

The main strategic objectives of the Strategic Plan (2023–2027) are as follows:

1

To create an enabling environment for learning and sustainable development.

2

To build partnerships and enhance AAS's brand visibility so as to transform STI in Africa.

3

To support STI research and knowledge sharing in the digital age.



# Section 6

## Policy Direction

This Strategic Plan 2023–2027 will guide the work of the Academy until the end of 2027. It builds on the Academy’s activities and achievements, while reflecting on the lessons learnt in implementing the previous Strategic Plan (2018–2022). It also responds to the evolving African and global context within which science academies operate.



### 6.1 Strategic themes and strategic objectives

The Strategic Objectives of this Strategic Plan (2023–2027) focus on three themes; Our People, Partnership and Excellence. These three themes seek to provide concrete solutions for the accelerated realisation of the Agenda 2063 and Sustainable Development Goals (SDGs). The purpose is to lay a foundation for a shared ambition to meet the demands of the present and the future.

The Strategic Objective is the desired impact that is envisaged by AAS in implementing the plan towards the achievement of the vision, mission, and values in the next five years. In implementing the plan, outcomes, outputs, qualitative and quantitative results derived from activities in operationalising the plan are specified as a roadmap to achieving the overall goals. The performance of the strategy in achieving the prescribed results and impact or outcome is assessed with key performance indicators that are specific, measurable, achievable, realistic and time bound (SMART) with targets.

The current Strategic Objectives must be stretched to go beyond the existing position. They must be ambitious, dynamic, and inspiring so as to deliver the desired impact. The Strategic Objectives under

the three themes; *Our People, Partnership and Excellence* are shown in Figure 4. The outcomes and outputs are mapped to show how they blend into the strategic themes and strategic objectives that enable the organisation to achieve its vision, mission, and values.

This Strategic Plan outlines the prospective scientific and organisational priorities of AAS and related activities between 2023 and 2027. It has been prepared in consultation with AAS members and adopted by the General Assembly in December 2022. However, the assembly recommended further revision by the Governing Council in 2023.

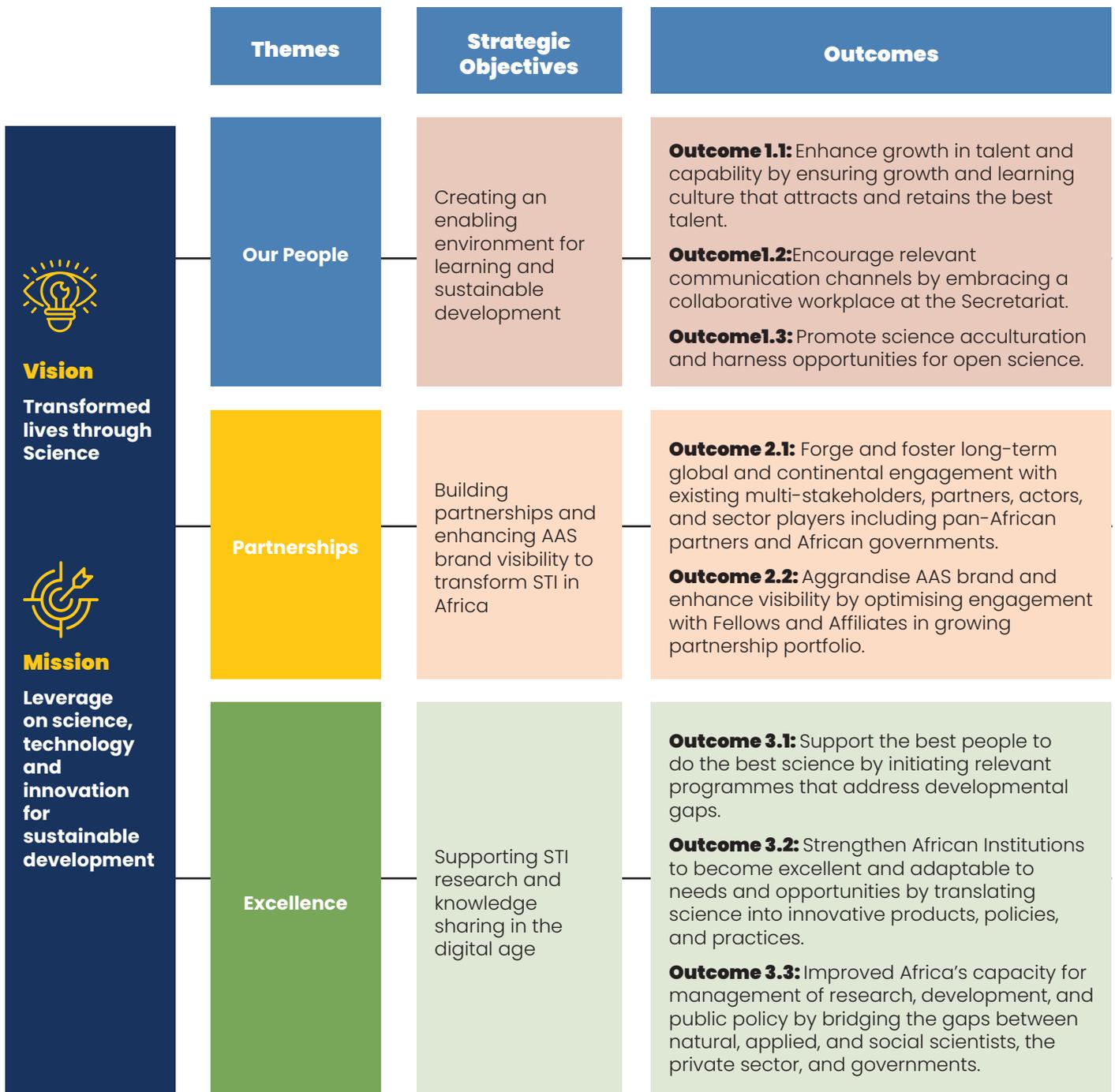
### 6.2 Strategic drivers

The strategic drivers enable AAS to identify the outcomes the organisation will focus on. The strategic objectives outline what the organisation will work towards and the tools to facilitate realisation for achieving its vision, mission, and values.

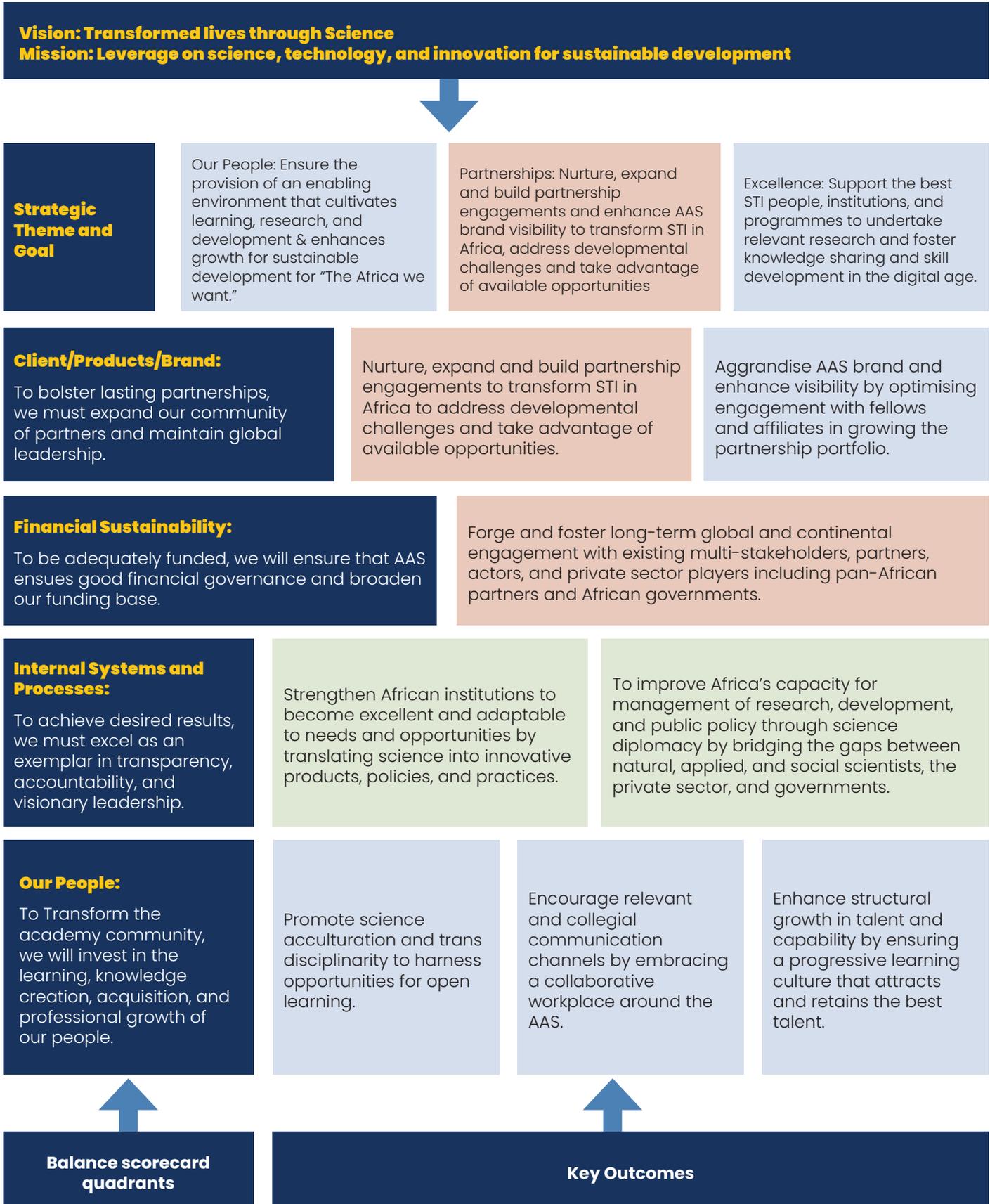
The Governing Council will, in collaboration with the management team, perform its strategic oversight role. This includes monitoring the implementation and delivery of results based on measurable targets and indicators. These objectives will allow for synergy of actions throughout the organisation.



Figure 3: Strategic drivers (2023–2027): Schematic representation



**Figure 4: Theory of change**





# Section 7

## Results-Based Management: The Implementation Plan

The implementation of this 2023–2027 Strategic Plan is Africa-led. It seeks to address the issues that limit the attainment of the Academy's strategic objectives. These objectives are summarised in the three themes: Our people, Partnerships, and Excellence. This section presents these operational themes, strategic objectives, and the corresponding expected outcomes.

### 7.1 Operational themes

The three broad strategic themes of the Academy for 2023–2027 are as follows:



**Our People:** focuses on provision of an enabling environment for learning and growth.



**Partnerships:** focuses on nurturing strategic partnerships.



**Excellence:** focuses on supporting the best people, institutions, and programmes to undertake relevant research.

### 7.2 Strategic Objectives

The Strategic Objective outlines the goals or impact desired results or possible outcomes of the strategic themes. These are framed by the outputs/objectives, key performance indicators (KPIs) activities, who is responsible, budget and time frame which outlines the strategic framework. The RBM Implementation plan/strategic matrix will be preceded by a short narrative under each strategic objective to put the development of the outputs and the key performance indicator in context.





### 7.3 Strategic Plan result matrix

#### 7.3.1 Our People

**Strategic Objective 1: Ensure an environment that cultivates learning and enhances growth for sustainable development for “The Africa we want”.**

For Africa to benefit from its population growth and the enviable demographic dividend, it is important to create an enabling environment that cultivates the development of learning skills especially among the youth. Adjusting to these demographic realities will require sustained and enhanced economic growth, bringing together solutions to socio-economic and environmental challenges.

To transform the Academy community, AAS will invest in the learning, knowledge creation, acquisition, and professional growth of the people. The Academy will also foster innovation in Africa by supporting research and development initiatives that lead to discoveries and inventions. In such cases, the KPIs will include the following:

- a) The number of patents filed or granted in research supported by the Academy.
- b) The number of new products or technologies developed in AAS-supported research.
- c) The impact of those innovations on economic growth and social development in Africa.

In the same period, the UN has estimated that no other

continent (except Africa) will be impacted as severely by climate change. The primary factor cited is the limited adaptive capacity that Africa has. Overcoming this challenge will require well-trained scientists, engineers, and medical professionals. These are the experts who will bring the latest scientific knowledge and technology to bear on important societal challenges.

In addition, they will develop new products and solutions, improve processes and services, and proactively identify and take advantage of opportunities and foresight. By expanding research funding, the Academy will aim to consequently increase the funding it provides to African researchers. The KPIs will include the total amount of funding provided each year, the number of research projects supported, and the impact of the projects on scientific knowledge and innovation in Africa.

Providing opportunities for individuals to carry out research in science is a human right. This increases diversity in terms of the breadth and depth of the topics covered. Gender equality also increases diversity in research. The Academy will aim to increase research in science-related fields by promoting gender equity and other forms of diversity throughout Africa. The KPIs will include improvements in gender balance among researchers supported by AAS; increase in the number of underrepresented groups in science-related fields and the geographical coverage of AAS work.



### 7.3.2 Partnerships

**Strategic Objective 2: Nurture, increase diversify the number of funding partners and build partnership engagements and enhance AAS brand visibility to transform STI in Africa to address developmental challenges and take advantage of available opportunities.**

The Academy will establish unprecedented and innovative forms of cooperation and partnerships, which are close to the visions or goals of the diverse actors and partners. To bolster lasting partnerships, that will expand its community of partners and maintain global leadership in research in the sciences. To attract adequate funds, the Academy will broaden its funding base and also ensure prudent financial governance.

In working towards a strengthened, universal, and inclusive multilateralism, the aim of AAS is to advance its mission through the following objectives:

1. To expand research funding to impact on scientific

knowledge and innovation in Africa;

2. To foster collaboration among scientists and researchers in Africa and worldwide for knowledge sharing and resource mobilisation;
3. To improve science infrastructure in Africa by supporting initiatives that support access to equipment, facilities and resources for researchers and learners;
4. To foster innovation in Africa by supporting research and development initiatives that lead to discoveries and inventions with the potential to impact on economic growth and social development in Africa.

The Academy will leverage potential opportunities arising from emerging digital technology and artificial intelligence to grow the use of science in Africa for sustainable development. It will also foster partnerships and collaborate with new partners especially the United Nations agencies to enhance the Academy's global visibility and programme effectiveness.

### 7.3.3 Excellence

**Strategic Objective 3: Support the best STI people, institutions, and programmes to undertake relevant research and foster knowledge sharing and skill development in the digital age.**

Supporting the best researchers to carry out empirical research in science requires investment in scientific infrastructure. The Academy aims to improve scientific infrastructure in Africa by supporting initiatives that improve access to the existing equipment, facilities, and resources for researchers. To achieve desired results, the Academy must embrace transparency, accountability, and visionary leadership. KPIs will include the number of infrastructure projects supported by the Academy, and improvements in research capacity and productivity. Of course, this will be weighed against the projects carried out and visible increased collaboration among researchers as a result of improved infrastructure.

To grow more talent and innovation requires knowledge sharing and fostering innovation through collaboration and partnerships among scientists and researchers. AAS could foster innovation in Africa by supporting research and development initiatives that lead to discoveries and inventions. KPIs will include the number of patents filed or granted as part of AAS-supported research the number of new products or technologies developed due to AAS-supported research, and the impact of those innovations on economic growth and social development in Africa. Support policy development: AAS could support policy development related to science and innovation in Africa by providing evidence-based research and recommendations to policymakers. KPIs will include the number of policy briefs or reports produced by AAS, the number of policymakers reached by those reports, and the impact of AAS recommendations on policy decisions.

## 7.4 Cross-cutting areas of action

This Strategic Plan outlines cross-cutting areas of action. The themes of these areas are interlinked with the Strategic Objectives and will eventually contribute to measuring the outcomes. The cross-cutting areas of action highlighted in this Strategic Plan (2023–2027) are in line with the critical gaps, challenges, and opportunities of our time. They also represent the Organisation’s contribution to the resolution of major regional or global issues within its specific mandate and across its fields of competence, through action where it has a unique comparative advantage. These cross-cutting areas of action include the following:

1. Higher education and life-long learning
2. Science Technology and Innovation (STI)
3. Youth gender and inclusivity
4. Open science
5. Digital transformation (AI, big-data, and cyber security)
6. Space science and urbanisation
7. Science diplomacy
8. Sustainability

In the period of implementing this Strategic Plan (2023–2027), the Academy will continue to explore and foster science, technology, and innovation. The main goal is to pursue Science, Technology, and Innovation Strategy for Africa

(STISA) 2024 and beyond and the SDGs targets.

In partnership with the AU Commission and African Ministers for Science and Technology (Specialised Technical Committee on Education, Science and Technology), the Academy will support implementation of Science, Technology, Engineering and Mathematics (STEM) education in Africa. The Academy will work in cooperation with other agencies and partners and in line with the African Strategy on STI (STISA).

This will be achieved by developing innovative modes of supporting research management. In return, this will enhance interest in science among the youth in universities and higher institutions of learning in Africa. In the end, this strategy will strengthen programmes relating to basic and engineering sciences by fostering the uptake and application of STEM.

These cross-cutting areas will allow the Academy to take advantage of the synergies of action when implementing its tripartite mandate, whether directly or indirectly. The success will contribute towards achievement of the strategic objectives, outcomes and the operational themes that form the basis of the Strategic Plan. This 2023–2027 framework for action is designed to allow the Academy to provide an integrated response to complex issues in the sciences and in the process reinforce synergies and programming skills development and resource mobilisation in cross-cutting thematic areas of action.



## 7.5 Result-Based Management (RBM) Matrix

The result-based management plan plays a key role in the Academy's progress. It helps the management to oversee the Academy by assessing the results of the objectives throughout the life of the Strategic Plan. Similarly, it is a reference document that is referred to periodically or regularly. Under each expected outcome, the result -based management plan gives the indicators, and guides the activities, and targets for each Strategic Objective, as shown in the table below.

### Theme: Our People

**Strategic Objective 1:** Ensure provision of an enabling environment that cultivates learning and enhances growth for sustainable development for "The Africa we want."

**Outcome 1.1:** Enhance structure growth in talent and capability by ensuring a growth and learning culture that attracts and retains the best talent.

**Outcome 1.2:** Encourage relevant communication channels by embracing a collaborative workplace around the Academy.

**Outcome 1.3:** Promote science acculturation and harness opportunities for open science.

Outputs	KPIs	Activities	Baseline	Target
1.1.1 Supportive and relevant policies related to science and innovation in Africa that enhance growth in talent and capability encouraging relevant communication channels and promote science acculturation.	<ul style="list-style-type: none"> <li>Number of relevant policy briefs/reports related to science and innovation in Africa through evidence-based research and recommendations to policymakers</li> </ul>	<ul style="list-style-type: none"> <li>Develop and review corresponding policies/reports, including training.</li> </ul>	<ul style="list-style-type: none"> <li>Number of policies/reports to be established.</li> </ul>	<ul style="list-style-type: none"> <li>At least one policy brief for each of the thematic areas every year.</li> </ul>
1.1.2 Identified road-map of under-served regions/countries for enhanced attention and support.	<ul style="list-style-type: none"> <li>Number of underrepresented groups in science-related fields and the geographical coverage of AAS work regions/countries.</li> <li>Number of communication tools and channels developed.</li> </ul>	<ul style="list-style-type: none"> <li>Surveys/Mapping and listing of underrepresented countries.</li> <li>Setting up of engagement platforms and activities</li> </ul>	<ul style="list-style-type: none"> <li>Survey/mapping on AAS coverage to be carried out.</li> <li>14 African countries not in any current AAS programme mainstream at least two social media engagement platforms per year.</li> <li>3 major social media platforms</li> </ul>	<ul style="list-style-type: none"> <li>At least one survey/mapping per country per year</li> <li>At least two additional countries per year.</li> <li>Develop, establish or mainstream at least two social media engagement platforms per year.</li> </ul>
1.1.3 Increase diversity by aiming to increase science-related fields by promoting gender equity and other forms of diversity throughout Africa	<ul style="list-style-type: none"> <li>Improvements in gender balance among researchers supported by AAS.</li> <li>Improvement in diversity across the AU linguistic classification.</li> </ul>	<ul style="list-style-type: none"> <li>Hosting of Scientific conferences, webinars encouraging and engaging female scientists to partake.</li> <li>Data collection on distribution of programme beneficiaries across AU linguistic demographics.</li> </ul>	<ul style="list-style-type: none"> <li>70% male, 30% female grantees</li> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>At least an aggregate of 40% female beneficiaries of AAS programmes.</li> <li>At least two linguistic classifications across Lusophones and Francophones</li> </ul>

## Theme: Partnerships

**Outcome 2.0:** Nurture, expand and build partnership engagements to transform STI in Africa to address developmental challenges and take advantage of available opportunities.

**Outcome 2.1:** Forge and foster long-term global and continental engagement with existing multi-stakeholders, partners, actors, and sector players including pan-African partners and African governments.

**Outcome 2.2:** Aggrandise AAS brand and enhance visibility by optimising engagement with fellows and affiliates in growing partnership portfolio.

Outputs	KPIs	Activities	Baseline	Target
2.0.1 Increased AAS public engagements in regional and global initiatives with relevant Partnerships established.	<ul style="list-style-type: none"> <li>Number of initiatives reached through public outreach programs supported by AAS</li> </ul>	<ul style="list-style-type: none"> <li>Public engagement sessions (webinars, conferences, scientific meetings)</li> </ul>	<ul style="list-style-type: none"> <li>100 people reached in one webinar in 2022.</li> <li>One scientific conference organised in 2022</li> </ul>	<ul style="list-style-type: none"> <li>At least 3,000 people reached through public engagements virtually or in person per year.</li> </ul>
2.1.1 Fostered collaboration by AAS with other scientific organisations, in Africa and globally.	<ul style="list-style-type: none"> <li>Number of collaborative projects initiated or supported by AAS</li> </ul>	<ul style="list-style-type: none"> <li>Nurturing and strengthening current and future collaborative projects</li> </ul>	<ul style="list-style-type: none"> <li>One collaborative project by ONR</li> </ul>	<ul style="list-style-type: none"> <li>At least three collaborative joint projects initiated per year.</li> </ul>
	<ul style="list-style-type: none"> <li>Number of partnerships formed with scientific organisations and other regional and global partners.</li> </ul>	<ul style="list-style-type: none"> <li>Nurturing and strengthening partnerships</li> </ul>	<ul style="list-style-type: none"> <li>One partnership agreement signed by UNESCO</li> </ul>	<ul style="list-style-type: none"> <li>At least five partnership agreements signed with regional and global partners a year</li> </ul>
2.1.2 Aggressive fund mobilisation embarked upon to increase funding support to early and mid-career African researchers.	<ul style="list-style-type: none"> <li>Total amount of funding mobilised each year to support Early and Mid-Career African researchers</li> </ul>	<ul style="list-style-type: none"> <li>Aggressive mapping and prospecting of the funding ecosystem for fund mobilisation in addition to submitting proposal responses to 'request for applications'.</li> </ul>	<ul style="list-style-type: none"> <li>US\$ 6 million per year</li> </ul>	<ul style="list-style-type: none"> <li>At least US\$ 9 million targeted per year</li> </ul>
	<ul style="list-style-type: none"> <li>Number of Early and Mid-career scientific research projects supported</li> </ul>	<ul style="list-style-type: none"> <li>Mounting regular and frequent calls for grant applications to increase the number of applicants across gender and linguistic demographics.</li> <li>Mentoring and on-boarding of successful grantees/candidates to ensure research opportunities' uptake</li> </ul>	<ul style="list-style-type: none"> <li>55 research projects as of 2022.</li> </ul>	<ul style="list-style-type: none"> <li>At least 20% increase over the baseline in the number of research projects funded per year.</li> </ul>
2.1.3 Forge collaborations with African governments and regional bodies to advance Africa's continental scientific agenda.	<ul style="list-style-type: none"> <li>Number of collaborations forged with African Governments and regional bodies.</li> </ul>	<ul style="list-style-type: none"> <li>Proactively engaging with African Governments and regional bodies</li> </ul>	<ul style="list-style-type: none"> <li>Two African Governments as of 2022</li> </ul>	<ul style="list-style-type: none"> <li>At least two African Governments and one regional body per year</li> </ul>

## Theme: Partnerships

**Outcome 2.0:** Nurture, expand and build partnership engagements to transform STI in Africa to address developmental challenges and take advantage of available opportunities.

**Outcome 2.1:** Forge and foster long-term global and continental engagement with existing multi-stakeholders, partners, actors, and sector players including pan-African partners and African governments.

**Outcome 2.2:** Aggrandise AAS brand and enhance visibility by optimising engagement with fellows and affiliates in growing partnership portfolio.

Outputs	KPIs	Activities	Baseline	Target
2.2.1 Increased influence and public engagement by promoting STI diplomacy and policy advisory throughout Africa at different stakeholder levels.	<ul style="list-style-type: none"> <li>Number of policy engagements with Governments, private sectors, and civil society leaderships.</li> </ul>	<ul style="list-style-type: none"> <li>Develop and implement Science, Technology, and Public Policy (STPP) Programmes for Governments, private sectors, and civil society leaderships.</li> <li>Strengthening AAS active participation at key regional and global high-level scientific and policy meetings/forums.</li> </ul>	N/A	<ul style="list-style-type: none"> <li>At least one programme developed per year for capacity development in STPP programmes for Governments, private sectors, and civil society leaderships.</li> <li>AAS should be present in at least four key regional and global high-level policy meetings/forums.</li> </ul>
2.2.2 Increased public engagements by promoting science communication.	<ul style="list-style-type: none"> <li>Number of people reached through public outreach programs supported by AAS</li> </ul>	<ul style="list-style-type: none"> <li>Hosting of Scientific conferences, webinars, and seminars.</li> </ul>	<ul style="list-style-type: none"> <li>One conference as at December 2022</li> </ul>	<ul style="list-style-type: none"> <li>At least two webinars per year, and 1 scientific conference per year.</li> </ul>
2.2.3 Rebranding AAS to strengthen the identity and visibility of the Academy.	<ul style="list-style-type: none"> <li>Number of media interactions across the media platforms</li> </ul>	<ul style="list-style-type: none"> <li>Engagement with multimedia stakeholders to showcase AAS' results and activities</li> </ul>	<ul style="list-style-type: none"> <li>695 media engagements (154 YouTube videos, 93 blogs and case studies, 28 newsletters, 300 media mentions, 73 press releases and announcements and 47 media interviews)</li> </ul>	<ul style="list-style-type: none"> <li>At least 30% increase over the baseline each year of media engagements (YouTube videos, blogs and case studies, newsletters, media mentions, press releases and announcements and media interviews)</li> </ul>
2.2.4 Increased engagements with fellows and affiliates in growing partnership	<ul style="list-style-type: none"> <li>Number of fellows and affiliate engagements</li> </ul>	<ul style="list-style-type: none"> <li>Hosting of fellows and affiliate meetings/ events</li> </ul>	<ul style="list-style-type: none"> <li>1 meeting during the general assembly</li> </ul>	<ul style="list-style-type: none"> <li>At least one fellow and affiliate meeting/event annually.</li> </ul>
2.2.5 Increased fellows and affiliates portfolio	<ul style="list-style-type: none"> <li>Number of new fellows and affiliates enrolled into the fellows and affiliate scheme.</li> </ul>	<ul style="list-style-type: none"> <li>Engaging in an aggressive membership drive for Fellows and Affiliates to increase diaspora, gender and demographic representation, and develop innovative initiatives to increase retention.</li> </ul>	<ul style="list-style-type: none"> <li>727 (466 fellows; 261 affiliates)</li> </ul>	<ul style="list-style-type: none"> <li>20% increase in the number of new fellows and affiliates per year.</li> <li>At least 50% increase in the diaspora membership per year.</li> <li>At least two programmes implemented to strengthen the membership community</li> </ul>

## Theme: Excellence

**Outcome 3.0:** Support the best STI people, institutions, and programmes to undertake relevant research and foster knowledge sharing and skill development in the digital age.

**Outcome 3.1:** Support the best people to do the best science by initiating relevant programmes that address developmental gaps.

**Outcome 3.2:** Strengthen African Institutions to become excellent and adaptable to needs and opportunities by translating science into innovative products, policies, and practices.

**Outcome 3.3:** Improved Africa's capacity for management of research, development, and public policy by bridging the gaps between natural, applied, and social scientists, the private sector, and governments.

Outputs	KPIs	Activities	Baseline	Target
3.0.1 Improved scientific infrastructure in Africa by AAS supporting initiatives that improve access to, equipment, facilities, and resources for researchers	<ul style="list-style-type: none"> <li>Number of research infrastructure established/supported by AAS</li> </ul>	Activity reporting and monitoring field visits, among others	45 infrastructure projects	At least 20% increase over the baseline on infrastructure projects per year.
	<ul style="list-style-type: none"> <li>Number of collaborations among researchers as a result of improved infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Activity reporting and monitoring field visits, among others.</li> </ul>	<ul style="list-style-type: none"> <li>45 reported collaborations reported by grantees</li> </ul>	<ul style="list-style-type: none"> <li>At least 20% increase over the baseline on collaborations per year.</li> </ul>
	<ul style="list-style-type: none"> <li>Number of African host institutions benefiting from hosting African researchers supported by AAS</li> </ul>	<ul style="list-style-type: none"> <li>Activity reporting, monitoring field visits etc.</li> </ul>	<ul style="list-style-type: none"> <li>41 host institutions</li> </ul>	<ul style="list-style-type: none"> <li>At least 10% increase over the baseline on host institutions per year.</li> </ul>
3.1.1 Commissioned research programmes addressing Africa's developmental needs and priorities.	<ul style="list-style-type: none"> <li>Number of programmes initiated to address critical developmental gaps across Africa.</li> </ul>	<ul style="list-style-type: none"> <li>Commissioning of relevant programmes</li> </ul>	<ul style="list-style-type: none"> <li>Two programmes (ARISE and APTI)</li> </ul>	<ul style="list-style-type: none"> <li>At least two programmes per year.</li> </ul>
3.1.2 Emerging research leaders addressing Africa's developmental gaps in health, food security and climate change across Africa with focus on women	<ul style="list-style-type: none"> <li>Number of researchers with the capacity to publish and lead locally relevant and high-quality research to impact health, food security and climate change science, policy, and practice in Africa produced.</li> </ul>	<ul style="list-style-type: none"> <li>Relevant training and capacity researchers on requisite skills</li> </ul>	<ul style="list-style-type: none"> <li>35 researchers reported to be confident at baseline</li> </ul>	<ul style="list-style-type: none"> <li>At least 50 researchers by mid-2025</li> </ul>
3.2.1 Fostered innovation in Africa by AAS through supporting research and development initiatives that lead to discoveries, inventions and commercialisation	<ul style="list-style-type: none"> <li>Number of patents filed or granted as part of AAS-supported research</li> </ul>	<ul style="list-style-type: none"> <li>Implement capacity building programmes for researchers to enhance their understanding of patenting processes, innovations, and discoveries.</li> </ul>	<ul style="list-style-type: none"> <li>2 patents filed by end of 2022</li> </ul>	<ul style="list-style-type: none"> <li>At least one patent filed per year.</li> <li>At least two research commercialised per year by grantees or grantee institutions.</li> </ul>
	<ul style="list-style-type: none"> <li>Number of new products or technologies developed due to AAS-supported research</li> </ul>	<ul style="list-style-type: none"> <li>Developing training programmes and strategies for researchers to enhance research policy, product, and process commercialisation.</li> </ul>	<ul style="list-style-type: none"> <li>2 innovative technologies reported at end of 2022</li> </ul>	<ul style="list-style-type: none"> <li>At least 5 innovations developed and/or commercialised by AAS programme beneficiaries per year.</li> </ul>

## Theme: Excellence

**Outcome 3.0:** Support the best STI people, institutions, and programmes to undertake relevant research and foster knowledge sharing and skill development in the digital age.

**Outcome 3.1:** Support the best people to do the best science by initiating relevant programmes that address developmental gaps.

**Outcome 3.2:** Strengthen African Institutions to become excellent and adaptable to needs and opportunities by translating science into innovative products, policies, and practices.

**Outcome 3.3:** Improved Africa's capacity for management of research, development, and public policy by bridging the gaps between natural, applied, and social scientists, the private sector, and governments.

Outputs	KPIs	Activities	Baseline	Target
3.3.1 Programmes launched to advance Africa's capacity for management of research.	<ul style="list-style-type: none"> <li>Number of programmes launched for institutions and early career researchers to enhance capacity in research management</li> </ul>	<ul style="list-style-type: none"> <li>Surveys to elucidate gaps between natural, applied, and social scientists, the private sector, and governments.</li> <li>Develop programmes to address the identified gaps.</li> </ul>	NA	<ul style="list-style-type: none"> <li>Conduct at least one continental survey in two years.</li> </ul>
3.3.2 Implement programs to bridge the gap between various fields of research	<ul style="list-style-type: none"> <li>Number of programmes targeted for multi-stakeholders to bridge the gap (researchers, governments, and private sectors)</li> </ul>	<ul style="list-style-type: none"> <li>Initiate and implement programmes and activities for multi stakeholders to enhance capacity for management of research, development, and public policy by bridging the gaps between natural, applied, and social scientists, the private sector, and governments.</li> </ul>	<ul style="list-style-type: none"> <li>Social Sciences Humanities and Arts (SSHA)</li> </ul>	<ul style="list-style-type: none"> <li>At least one programme to replicate the good practices from the SSHA programme by 2025.</li> </ul>
3.4.1 International cooperation enhanced through widening the circle of science diplomacy	<ul style="list-style-type: none"> <li>Number of new or existing scientific communities engaged in science diplomacy to enhance political relations</li> </ul>	<ul style="list-style-type: none"> <li>Organize national and regional Workshops to create the platform for dialogue between multi stakeholders and scientific communities to identify projects and processes to further mutual interest and resolutions</li> </ul>	<ul style="list-style-type: none"> <li>More than three</li> </ul>	<ul style="list-style-type: none"> <li>Increase the baseline by 50% a year</li> </ul>
3.4.2 Opportunities and career incentives for early and mid-career scientists and diaspora scientists to engage with policy processes in science diplomacy promoted	<ul style="list-style-type: none"> <li>Number of policy dialogues and opportunities created for young scientists and scientists in the diaspora</li> </ul>	<ul style="list-style-type: none"> <li>Organize debates over science communication and public engagements by scientists in evidence-based science to inform policy.</li> <li>Provide scientists with opportunities to become science ambassadors; Diaspora scientists</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>At least two policies emanating from these meetings a year</li> </ul>
3.4.3 Collaborative research partnership between scientists in the Nile basin countries strengthened through science diplomacy	<ul style="list-style-type: none"> <li>Number of scientists and countries working together to resolve the Nile River conflict.</li> </ul>	<ul style="list-style-type: none"> <li>Mapping the changing landscape for science in the Nile River conflict to identify practical opportunities for collaboration to inform policy and conflict resolution.</li> <li>Facilitate scientific workshops and a symposia for scientists in the 12 Nile River Basin countries to present scientific papers to ascertain the benefits derived from the use of the Nile River (e.g. tourism, food security, transport, energy etc.) to elucidates need for equitable partnership through science diplomacy.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>At least four out of the twelve countries in the Nile River working together by 2024 and beyond.</li> <li>At least one scientific meeting a year</li> </ul>
3.4.4 Globally competitive African centres of excellence strengthened through the climate fund mechanisms to address Africa's needs, priorities, and opportunities on climate change.	<ul style="list-style-type: none"> <li>Number of meetings with African centres of excellence engaged in climate network spaces.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate periodic meetings with relevant stakeholders on progress of the networks.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>At least one regional meeting by 2025</li> </ul>
	<ul style="list-style-type: none"> <li>Number of capacity building and strengthening programmes initiated in Africa.</li> </ul>	<ul style="list-style-type: none"> <li>Initiate capacity building and strengthening programmes in Africa</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>	<ul style="list-style-type: none"> <li>At least one programme by 2025</li> <li>At least one African Country accessing Green Climate Fund</li> </ul>

## 7.6 Departmental operational plans

The departmental operational plan will play a key role during the implementation of the Strategic Plan. In fact it is the tool that will be used to measure progress in achieving the set objectives. Assessing the results of the operational objectives throughout the life of the Strategic Plan is important to ensure that the Academy is on the right path. In addition, it is a living document that should be referred to and updated regularly. Aligning the departmental objectives with the overall organisational objectives, as shown in the table below is desirable.

Department Goals						
Programmes	Strategy & Partnerships	HR & Operations	ICT	Finance	Legal and Compliance	Communications
Support the best people, institutions, and programmes to undertake relevant research	Nurture, expand and build partnership engagements to transform STI in Africa	<ul style="list-style-type: none"> <li>Nurture a culture that focuses on people and systems across AAS</li> </ul>	Support and Maintain systems and processes for efficiency and effectiveness	Achieve AAS financial sustainability through donor engagement & sourcing enhanced funding	Support and implement effective legal and organizational compliance with domestic and international laws, policy, and best	<ul style="list-style-type: none"> <li>Enhance the visibility of Africa's science and scientists practices</li> </ul>
Department Objectives						
<ul style="list-style-type: none"> <li>Initiate relevant programmes that address Africa's development challenges, including food and nutrition security, water security, clean energy, and climate resilience.</li> <li>Strengthening African institutions to become excellent and globally competitive and to support cutting-edge basic research.</li> <li>Contextualize translation of science into products, policies, and practices.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening global engagement with key Pan-African partners, African governments partners and other stakeholders.</li> <li>Diversifying funders and partners collaborations for enhanced sustainability.</li> <li>Strengthening the AAS brand for enhanced visibility and relevance.</li> <li>Optimize the engagement with Fellows and Affiliates in growing the partnership portfolio.</li> </ul>	<ul style="list-style-type: none"> <li>Initiate robust recruitment processes to attract and retain the right talent and ensure provision of attractive packages and a conducive working environment.</li> <li>Enhance organisational effectiveness and efficiency in its undertaking through creating a conducive working environment and supportive structures.</li> <li>Initiate and coordinate programmes that enhance absorption of institutional policies and culture to encourage institutionalism among the secretariat and partners.</li> <li>Enhance the organizational pan-African image and culture through open recruitment across the five AU African regions and ensure diversity and inclusivity in the Academy's operations.</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced and / or upgraded system operationalization and functionality.</li> <li>Strengthening organisational security systems against cyber security risks.</li> <li>Continuous improvement and maintenance of organisation's social media and website content for enhanced organisational visibility and external interactions.</li> <li>Continuously review and upgrade AAS operative platforms (finance, community business, outreach) to enable and support mass fundraising, fluid, and customized business operations.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen financial systems to enhance adherence to AAS and global financial requirements.</li> <li>Strengthening internal Control and Risk Management and processes through robust internal financial security systems.</li> <li>Enhanced accountability and fiduciary responsibilities to donors &amp; partners through open and transparent systems and processes.</li> <li>Enhanced organisational operational effectiveness through efficient procurement and payment processes to both AAS and partners.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening of organisational legal systems to alleviate and control legal risks.</li> <li>Strengthen policy management across the organization through legal advisory channels.</li> <li>Enhancing good governance practices at the secretariat and Governing Council arms through legal advisory and interpretation of policies.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a robust communication strategy to showcase AASs' programme outcomes and impact stories.</li> <li>Increase visibility of the AAS brand as a pan-African driver and thought leader of STI in Africa.</li> <li>Showcasing the impact of science in transforming lives in Africa through AAS' programme achievements.</li> <li>Engage The Academy's diverse internal audiences and external key stakeholders to popularize AAS' brand</li> </ul>

# Section 8



## Conclusion

This Strategic Plan (2023–2027) was prepared at a time when many changes were taking place both within the Academy and in the wider external environment. The strategy will guide the Academy as it implements its programmes in support of growing capacities of sciences in Africa – in line with the Sustainable Development Goals (SDGs). It is also an aid in tackling contemporary issues in the world today. Challenges such as global health pandemics, climate change (including the impact of global warming and the biodiversity crisis) need urgent solutions. The Academy, with its visionary global perspective will catalyse development in Africa by aligning its activities to the Africa Agenda 2063 and its STISA 2024 and beyond.

The process of preparing this Strategic Plan (2023–2027) brought together the Governing Council, Fellows, Affiliates, secretariat staff, stakeholders, and other actors. It captures well their ideas and aspirations on use of science in Africa. The Strategic Plan will therefore guide the Academy in prioritising efforts and allocating resources. Likewise, the Academy will use it to align all its stakeholder's efforts to achieve its goals and objectives. This is the only way in which they can achieve its stated vision.

The Strategic Plan also provides a roadmap and a guide for action-oriented and result-based management of the Academy's activities for the next five years. The roadmap is well elucidated in the Result-based Management (RBM) framework at all the three levels: General Assembly, Governing Council, and the Secretariat. Each department will develop its operational level plan that feeds into this "master plan".

Strategic planning is an on-going process – not a one-time

meeting or event. Therefore, this Strategic Plan must be used as a roadmap for all activities of the Academy. The implementers should reflect upon the plan regularly and align all activities according to the changing environment. This Strategic Plan is critical in determining the Academy's direction. So, it should help direct the energies of Fellows, Governing Council, all staff, and stakeholders on the Academy to ensure they are all working towards a common goal and that they are contributing to the growth of the Academy.

A monitoring, evaluation and learning framework (MEL) must be developed from this document to help in tracking implementation of the plan. MEL is a continuous management tool that is necessary to assess if progress is being made in achieving expected results. Such a tool is also important because it can help spot and overcome bottlenecks in implementation. The Governing Council and staff are able to highlight any unintended effects (positive or negative) from the implementation of the plan and act in good time. The key components of this MEL framework have been developed in the Result-Based Management (RBM) approach in this plan. It is upon the staff to outline them in more detail in their MEL framework, depending on their tasks.

The implementation of the plan must be reviewed regularly at all leadership levels (Senior Management and Governing Council). After review, adjustments should be made in the implementation process where necessary. By consistently tracking progress against defined objectives and implementing corrective actions where necessary, the leadership can ensure that they are steering the Academy towards the stated vision and renewed mission as outlined in this Strategic Plan.



## Section 9

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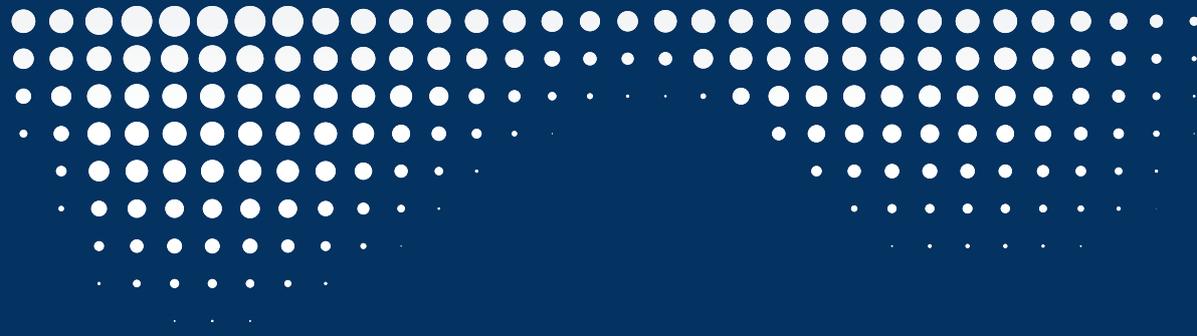
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