



# AFRICAN TECHNOLOGY POLICY STUDIES NETWORK PHASE IX STRATEGIC PLAN 2023-2028

STRATEGY

Strengthening Africa's  
Capabilities in Science,  
Technology and Innovation for  
Sustainable Development

<https://atpsnet.org/>



The African Technology Policy Studies Network (ATPS) is a trans-disciplinary network of researchers, private sector actors and policy makers promoting the generation, dissemination, use and mastery of science, technology and innovation (STI) for African development, environmental sustainability and global inclusion. ATPS intends to achieve its mandate through research, capacity building and training, science communication/dissemination and sensitization, participatory multi-stakeholder dialogue, knowledge brokerage, and policy advocacy.

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# LIST OF ACRONYMS AND ABBREVIATIONS

<b>ACCF</b>	African Climate Change Fund
<b>AfDB</b>	African Development Bank
<b>ATPS</b>	African Technology Policy Studies Network
<b>AU</b>	African Union
<b>AUC</b>	African Union Commission
<b>AWFST</b>	African Women Forum for Science and Technology
<b>AYFST</b>	African Youth Forum for Science and Technology
<b>CBOs</b>	Community-Based Organizations
<b>CGIAR</b>	Consultative Group on International Agricultural Research
<b>CM&amp;E</b>	Continuous Monitoring and Evaluation System
<b>CSOs</b>	Civil Society Organizations
<b>CSP</b>	Climate Sense Program
<b>EAC</b>	East African Community
<b>EATPS</b>	Eastern and Southern Africa Technology Policy Studies
<b>ECOWAS</b>	Economic Community of West African States
<b>EU</b>	European Union
<b>GALVmed</b>	Global Alliance for Livestock Veterinary Medicines
<b>GHGs</b>	Greenhouse Gases
<b>GIS</b>	Geographical Information Systems
<b>ICTs</b>	Information and Communication Technologies
<b>IDRC</b>	International Development Research Centre
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFPRI</b>	International Food Policy Research Institute
<b>IPR</b>	Intellectual Property Rights
<b>JICA</b>	Japan International Cooperation Agency
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MOU</b>	Memoranda of Understanding
<b>NEPAD</b>	New Partnership for African Development
<b>OFID</b>	OPEC Fund for International Development
<b>PAs</b>	Partnership Agreements
<b>PM&amp;E</b>	Participatory Monitoring and Evaluation System
<b>PVs</b>	Solar Photovoltaic system
<b>R&amp;D</b>	Research and Development
<b>RECs</b>	African Regional Economic Communities
<b>RBF</b>	Results Based Framework
<b>SADC</b>	Southern African Development Community
<b>SDGs</b>	Sustainable Development Goals
<b>SIDA</b>	Swedish International Development Agency
<b>SME</b>	Small and Medium Enterprises
<b>STC-EST</b>	Specialized Technical Committee on Education, Science and Technology
<b>STI</b>	Science, Technology, and Innovation
<b>STISA</b>	Science, Technology, and Innovation Strategy for Africa 2024
<b>ToC</b>	Theory of Change
<b>UNEP</b>	United Nations Environment Program
<b>USAID</b>	United States Agency for International Development
<b>WATPS</b>	Western Africa Technology Policy Studies

# Message from the Chairman



It is with great pleasure that I present to you the ATPS Phase IX Strategic Plan. This plan will guide ATPS priorities and programmes from 2023-2028. With my two years in service as a member of ATPS Board of Directors, I have observed consistent progress and impacts in the work of the ATPS in Africa and beyond. These progress and impacts range from the development of technologies and innovations for solving societal challenges to the facilitation of policy changes at national and regional levels for ensuring socioeconomic developments on the continent.

The current plan seeks to amplify the long-standing gains already made by the ATPS as the premier science, technology and innovation (STI) policy research think tank on the continent. To a large extent, the plan has accommodated the interests and aspirations of ATPS's stakeholders including donors, development partners, policymakers, researchers, private sector actors, the civil society, and the media at national, regional and continental levels.

Based on the stakeholders' interests, needs, and aspirations, the ATPS will in the coming five years focus on four thematic priority areas and five strategic programmatic objectives in line with its mission, vision and objectives.

The four thematic priority areas include: agriculture, food and nutrition; energy; climate change and environmental management; and health innovations. On the other hand, the five strategic programmatic objectives include: STI policy research, policymaking and advocacy; training, sensitization and capacity building; youth and gender empowerment; knowledge brokerage, management and commercialization; and intra-Africa and global collaboration and partnerships. I am convinced that with the caliber of the new ATPS structure and network system, there will be even more significant impacts in the coming years in STI development in Africa based on the interventions in this Phase IX Strategic Plan 2023-2028.

On behalf of the Board of Directors of ATPS, I wish to thank all those who contributed in the development of this plan. We sincerely count on your supports to enable us realize our overall goals and objectives in strengthening Africa's capabilities in STI for sustainable development on the continent.

**Prof. Crispus Kiamba**  
ATPS Board of Directors

# Message from the Executive Director



I am very excited to share the ATPS Phase IX Strategic Plan for 2023-2028. My excitement derives from the timeliness and opportunities provided by the plan which will enable African countries and institutions attain transformative developments through science, technology and innovation (STI). The plan combines both sectoral and programmatic strategic objectives in addressing Africa's STI challenges identified through participatory and consultative processes with the ATPS stakeholders. Most importantly, the plan mirrors the current African Union's Agenda 2063 and particularly the Science, Technology and Innovation Strategy for Africa (STISA) 2024, and the global Sustainable Development Goals (SDGs). This is necessary as these development agendas and goals currently drive transformations and desired changes at national, regional, continental, and global levels.

During this strategic phase (2023-2028), the ATPS work will focus primarily on four thematic/sectoral priority areas including agriculture, food and nutrition; energy; climate change and environment; and health while the strategic programmatic objectives will focus on STI policy research, policymaking and advocacy; training, sensitization and capacity building; youth and gender empowerment; knowledge brokerage, management and commercialization; and intra-Africa and global collaboration and partnerships.

The implementation of the programmatic objectives will be in such a way that it will cut across all the identified thematic priority areas. In order to achieve our objectives on the themes/sectors and programmes, we intend to work with like-minded institutions and partners in Africa and beyond. We will draw strengths and expertise from the ATPS Network spread across 30 countries (27 in Africa and 3 in the Diaspora – USA, UK and Australia) and from over 1500 network members spread across 51 countries and in 5 continents. This is the unique feature of the ATPS and we will capitalize on it to strengthen Africa's capabilities in STI for sustainable development.

I most humbly call on all our friends, donors, development partners, and the entire ATPS stakeholders to support our new strategic plan through core, thematic and programmatic supports to enable us make more impacts in STI research, policy and practice for sustainable development on the continent. We continually pledge to deliver the value for money on every initiative, programme or project entrusted unto us. This has been evident from the clean records and achievements of the new leadership at the ATPS. This leadership saw ATPS ranked for two consecutive years as the best Think Tank in Africa by the Global Go To Think Tank Index Report.

Prof. Nicholas Ozor  
Executive Director, ATPS



# EXECUTIVE SUMMARY

The current ATPS Strategic Plan Phase IX for 2023-2028 is born out of necessity to meet the dynamic nature of ATPS stakeholders' needs and aspirations as well as to realign the ATPS's strategic priorities and programmes with those of the continental and global development agendas. Through interactive, participatory and consultative processes, the needs and aspirations of the ATPS stakeholders from across its wide network were integrated into the plan. On November 29th 2023, the ATPS convened a Stakeholders' Forum in Nairobi, Kenya, to review inputs into the new strategic plan. This culminated to the stakeholders' dialogue and gave impetus to the harmonization of all inputs into one comprehensive plan.

Again, the current ATPS plan mirrors the African Union's Agenda 2063 that recognizes science, technology and Innovation (STI) as one of the major drivers and enablers for achieving development goals of the African Union and its Member States. To support the implementation of this Agenda, African countries have adopted a 10-year Science, Technology and Innovation Strategy for Africa (STISA-2024), which is part of the long-term people-centred African Union (AU) Agenda, underpinned by STI and necessary for achieving the continental sustainable development and economic transformations. The STISA-2024, which seeks to "accelerate Africa's transition to innovation-led knowledge-based economies", emphasizes the inevitability of Africa to build a credible knowledge-based economy by putting in place supportive technical and professional competencies, competitive research infrastructure base, flourishing innovations, and a conducive policy environment for STI. The Agenda further articulates that Africa's sustained growth, competitiveness and economic transformation will require sustained investment in new technologies and continuous innovation in areas such as agriculture, clean energy, education, health and bio-sciences. The current ATPS plan additionally mirrors the global Sustainable Development Goals (SDGs) that integrate economic, social and environmental aspects of development and recognize their interlinkages in achieving sustainable development in all its dimensions.

These goals are crystalized into 17 interlinked goals with their accompanying targets and indicators.

Having duly considered the above, it is therefore, our belief that the current ATPS Strategic Plan is 'smart', durable, and a forward-looking plan with great potentials to impact on socioeconomic developments in Africa at individual, institutional, national, regional, and continental levels. It is our hope that through the STI research, policy, and practice interventions earmarked in the ATPS plan a series of outcomes will be achieved. These outcomes include but not limited to improved research and development (R&D) expenditures especially on the priority sectors identified in this plan (agriculture, energy, climate change/environment, and health); evidence-based research that informs policy and decision-making in STI; improved capacity in STI research, policy and practice at individual, institutional and systemic levels; increased technological advancements and innovations for solving societal challenges of hunger, unemployment, poverty, climate change, diseases, energy access, social inequities, political instability and depleting natural resources; more youth and women empowered to sustain themselves; increased interactions and knowledge exchange between and amongst various stakeholders in the innovation system; more start-ups and entrepreneurs; and increased integration, collaboration and partnerships between and amongst STI institutions and African countries in general.

ATPS will work with like-minded institutions and partners in the implementation of its Phase IX Strategic Plan. Already, the ATPS has signed various Memoranda of Understanding (MOU) and Partnership Agreements (PAs) with many institutions in Africa and beyond for collaboration in the implementation of thematic priorities, programmes, and projects. We will continue to forge more partnerships that add value to our work as we implement the ATPS Phase IX Strategic Plan for 2023-2028.

## ATPS Sector Priority Areas

The ATPS Phase IX Strategic Plan for 2023-2028 has identified four strategic priority areas of focus during the period. These are: agriculture, food and nutrition; energy; climate change and environment; and health.

### **Sector Priority 1: Agriculture, Food and Nutrition**

### **Sector Priority 2: Climate Change and Environment**

### **Sector Priority 3: Energy**

### **Sector Priority 4: Health**

### **Sector Priority 5: Digital Economy & ICT**

### **Sector Priority 6: Creative Industries & Entrepreneurship**

### **Sector Priority 7: Education and Technology**

### **Sector Priority 1: Agriculture, Food and Nutrition**

ATPS plans to identify and promote appropriate technologies and innovations for improving productivity and resilience, reducing waste, and improving value addition along the agricultural value chain from farm to table. This is in line with STISA priorities 1, 4, and 6 and will also aid in achieving SDGs 1, 2, 3, and 12. The focus of attention will include innovations in the fields of farming systems and technologies, biotechnology (i.e. seed and livestock technology/genetics), yield enhancement and loss control (i.e. fertilizers and pest control), as well as social innovations such as farm information management systems and the use of Information and Communication Technologies (ICTs) such as smart mobile telephones and satellite data, Geographical Information Systems (GIS), etc. Already, the ATPS is out-scaling an award winning LandPKS mobile app technology developed in partnership with partners under the leadership of the USDA-ARS. The app enables farmers determine the potential of any given piece of soil through the climatic and soil information that the app provides instantly. In the new strategic plan, ATPS hopes to continue its work in out-scaling the LandPKS mobile app across Africa by building the capacity of extension agents and farmers on the use of the technology to support farm decision-making on productivity, land-use management and resilience. Food, nutrition and health outcomes will also form a critical and major focus for the ATPS in the coming years under the current strategy.

### **Sector Priority 2: Climate Change and Environment**

ATPS plans to strengthen its longstanding efforts in building climate change resilient capacities at individual, institutional, and systemic levels on the continent as expressed in SDGs 11, 12, 13, 14, and 15 and as strategized by the AU in STISA's priority goal 4. We will continue to promote our Climate Sense Program (CSP) launched in 2008 in partnership with the United Nations Environment Program (UNEP). CSP aims to:

- Make Sense of Climate Science through effective science communication;
- Make Sense of Climate Economics through policy analyses and translation of complex climate economics in ways that promote dialogue at all levels of African society;
- Make Sense of Climate Innovation through investment portfolio analyses and supporting the development of technologies and innovations for climate change adaptation, mitigation, and resilience; and
- Make Sense of Climate Change Politics and Policymaking through scenario analyses, training, and policies that support the development of sustainable technologies and innovations for adaptation such as renewable energy carriers and efficient stoves.

### **Sector Priority 3: Energy**

ATPS plans to promote renewable energy access and development on the continent. Lack of access to modern energy services (e.g. electricity and clean cooking facilities) and massive dependence on fossil fuels have hampered sustainable socioeconomic development even as the access to modern and reliable energy services is a critical human development priority. These plans are in line with the SDGs 3, 7, 11 and 13. Incidentally, the resource potentials of hydro, solar, wind and geothermal energy resources in Africa present huge supply side market opportunities for low carbon technology development and technology transfer. Available evidence shows that Africa has significant comparative resource advantage to take a lead in the global renewable energy markets if necessary policy environments and the right incentives are provided.



ATPS will champion this course of scaling up energy infrastructure to strengthen energy security and climate resilience on the continent by providing necessary incentive structures, capabilities, and enabling policy environment for it to happen.

#### **Sector Priority 4: Health**

Under the health sector, ATPS plans to integrate research programs on innovations and policies for sustainable health delivery and health risk prevention, including health technology policy studies, and social innovations for advancing health and wellbeing in communities. SDGs 3 and 6 cover these while SDG 9 emphasizes the use of technology to make the realization of the targets of this sector. ATPS will pay specific attention to the use of Information and Communication Technologies (ICTs) and social innovations for health delivery, risk prevention, and mitigation. Potential projects include Telemedicine, e-medicine using mobile telephone platforms and social networking sites, indigenous approaches to nutrition for health and wellness; mobile health diagnostics systems, etc. We intend to support research and development on emerging diseases on the continent. The organization will advocate for regulatory harmonization of the registration of pharmaceuticals and vaccines across regional blocs on the continent to ensure easy access and free trade across borders.

#### **Sector Priority 5: Digital Economy & ICT**

ATPS will leverage STI to drive the development of the digital economy sector in Africa by employing a multifaceted approach. Firstly, ATPS can conduct comprehensive research to identify the technological needs and opportunities within the sector, providing evidence-based insights to inform policy formulation and investment decisions.

Through strategic partnerships with governments, industry players, and academic institutions, ATPS can facilitate technology transfer, promote local innovation ecosystems, and foster collaborative initiatives to address key challenges such as digital infrastructure development and digital skills gaps. Additionally, ATPS can play a pivotal role in capacity-building efforts, equipping stakeholders with the necessary knowledge and skills to harness emerging technologies effectively. By advocating for enabling policies and regulations, facilitating knowledge exchange, and promoting inclusive innovation, ATPS can contribute significantly to unlocking the transformative potential of STI for driving sustainable growth and socio-economic development in the digital economy sector across Africa.

The Digital Economy in Africa aligns closely with the Sustainable Development Goals (SDGs), the Africa Strategy 2024, and other global development agendas. Firstly, by promoting digital inclusion, access to information and communication technologies (ICTs), and digital literacy, this sector contributes to SDG 9 (Industry, Innovation, and Infrastructure) by fostering technological innovation and enhancing infrastructure development. Additionally, it supports SDG 4 (Quality Education) by improving access to educational resources and enhancing digital skills training. Moreover, the emphasis on promoting entrepreneurship, job creation, and economic diversification within the digital economy sector aligns with SDG 8 (Decent Work and Economic Growth) and SDG 1 (No Poverty), contributing to poverty alleviation and inclusive economic growth. Furthermore, by fostering sustainable and inclusive development through technology-driven solutions, this sector contributes to the overarching goals of the Africa Strategy 2024, which seeks to promote economic transformation, social inclusion, and environmental sustainability across the continent. Lastly, the emphasis on leveraging STI for development aligns with broader global goals such as the African Union's Agenda 2063 and the Paris Agreement on climate change, highlighting the interconnectedness of regional and global development agendas in driving sustainable development outcomes in Africa.

#### **Sector Priority 5: Creative Industries and Entrepreneurship**

The inclusion of Creative Industries and Entrepreneurship as a priority sector within the ATPS strategic plan aligns with the organization's commitment to fostering innovation and economic growth through Science, Technology, and Innovation (STI). This sector presents a unique opportunity to leverage Africa's rich cultural heritage, artistic talent, and entrepreneurial spirit to drive sustainable development and inclusive growth. Key to this sector's strategic focus is its alignment with several Sustainable Development Goals (SDGs), notably SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 11 (Sustainable Cities and Communities). By promoting creative industries and entrepreneurship, ATPS aims to contribute to job creation, economic diversification, and the promotion of inclusive and sustainable industrialization.

ATPS can work on this priority sector by implementing a multi-faceted approach that encompasses research, capacity building, policy advocacy, and stakeholder engagement. This approach may include:

- **Research and Knowledge Generation:** Conducting research to understand the dynamics of creative industries and entrepreneurship in Africa, including identifying emerging trends, challenges, and opportunities. This research can inform evidence-based policymaking and provide insights into innovative business models and best practices.
- **Capacity Building and Skills Development:** Developing capacity-building programs to enhance the entrepreneurial skills and technical competencies of individuals and organizations operating within the creative industries. This may involve providing training workshops, mentorship programs, and access to resources such as funding and technology.
- **Policy Advocacy and Institutional Support:** Advocating for policies and regulations that promote the growth and sustainability of creative industries and entrepreneurship. ATPS can engage with policymakers, government agencies, and other stakeholders to advocate for supportive policies, incentives, and infrastructure investments.
- **Collaboration and Networking:** Facilitating collaboration and networking among stakeholders within the creative industries ecosystem, including artists, designers, entrepreneurs, investors, and policymakers. This can create synergies, foster innovation, and facilitate knowledge exchange and partnerships.
- **Incubation and Innovation Hubs:** Establishing incubation centers and innovation hubs to support the development and scaling of creative ventures and startups. These hubs can provide infrastructure, mentorship, access to finance, and networking opportunities to aspiring entrepreneurs and creative professionals.

Through these strategic interventions, ATPS can contribute to unlocking the full potential of Africa's creative industries and entrepreneurship ecosystem, driving economic growth, job creation, and sustainable development across the continent.

### **Sector Priority 6: Education and Technology**

In line with its core mission of promoting Science, Technology, and Innovation (STI) for sustainable development in Africa, ATPS recognizes the critical importance of investing in Education and Technology as a priority sector. Education and Technology are essential pillars for building human capital, fostering innovation, and driving socio-economic progress across the continent. This sector's strategic focus is aligned with several Sustainable Development Goals, particularly SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure). By prioritizing Education and Technology, ATPS aims to contribute to the achievement of universal access to quality education, as well as to foster the development and adoption of innovative technologies that can address Africa's development challenges.

ATPS can work on this priority sector through a range of strategic interventions aimed at leveraging technology to enhance education access, quality, and relevance. These interventions may include:

- **Digital Learning and Capacity Building:** Developing and implementing digital learning platforms, e-learning modules, and capacity-building programs to enhance access to quality education, particularly in remote and underserved areas. These initiatives can provide opportunities for lifelong learning, skill development, and professional training across various sectors.
- **Technology Integration in Education:** Promoting the integration of technology into formal and informal education systems to enhance teaching and learning outcomes. This may involve supporting the development and adoption of educational technologies, such as digital textbooks, interactive learning tools, and virtual reality simulations, to create engaging and interactive learning experiences.
- **STEM Education and Innovation:** Promoting Science, Technology, Engineering, and Mathematics (STEM) education to equip students with the knowledge and skills needed to thrive in the digital age. ATPS can support the development of STEM curriculum, teacher training programs, and extracurricular activities that inspire creativity, critical thinking, and problem-solving skills among learners.

- Research and Innovation in Education Technology (EdTech): Supporting research and innovation in EdTech solutions that address specific education challenges in Africa. This may involve fostering collaboration between researchers, entrepreneurs, educators, and policymakers to develop scalable and sustainable solutions that improve learning outcomes and educational equity.
- Policy Advocacy and Partnerships: Advocating for policies and investments that promote the use of technology in education and strengthen the education-technology ecosystem. ATPS can engage with government agencies, educational institutions, private sector stakeholders, and international partners to advocate for supportive policies, funding mechanisms, and partnerships to advance education and technology in Africa.

Through these strategic interventions, ATPS aims to harness the transformative potential of Education and Technology to empower individuals, enhance human capital development, and drive sustainable development across Africa. By investing in innovative solutions and fostering collaboration between stakeholders, ATPS seeks to create a future where every African has access to quality education and the opportunity to thrive in the digital economy.

## ATPS Programmatic Strategic Objectives

The ATPS Phase VIII Strategic Plan 2017-2022 has identified five strategic objectives for implementation under its programmatic objectives. These objectives cut across all the identified thematic priority areas of work. They are as follows:

**Strategic Objective 1: STI policy research, policymaking and advocacy**

**Strategic Objective 2: Training, sensitization and capacity building**

**Strategic Objective 3: Youth and gender empowerment**

**Strategic Objective 4: Knowledge brokerage, management and commercialization**

**Strategic Objective 5: Intra-Africa and global collaboration and partnerships**

### **Strategic Objective 1: STI Policy Research, Policymaking and Advocacy**

Under this strategic objective, we plan to build capabilities, structures, and conditions for the co-production of scientific knowledge, technologies, innovations, and policies across the identified priority sectors for sustainable development in Africa. The concept of co-production of knowledge (trans-disciplinarity) is strongly emphasized in the work of the ATPS to ensure proper contextualization and socialization of STI in the society for effective development, deployment, diffusion, commercialization and upscaling of innovations. AU also employs use of STI in addressing/implementing its priority areas as contained in STISA. We recognize that an STI-led development is a political endeavor and hence will work closely with the political class and policymakers to attract their goodwill towards STI issues on the continent.

### **Strategic Objective 2: Training, Sensitization and Capacity Building**

Under this strategic objective, we plan to enhance the skills and capacities of individuals and organizations in STI policy research, policymaking and policy implementation for sustainable development on the continent. Themes for training and capacity building/strengthening have been identified with the stakeholders comprising of researchers, policymakers, private sectors, civil society and the media. These themes will be continuously reviewed according to evolving needs and demands by the stakeholders. Such themes may include but not limited to STI policymaking/policy formulation processes, STI policy research methodologies, STI indicators and policy instruments, effective research-policy-practice linkages, effective science communication skills, entrepreneurship development, intellectual property issue, business development, green growth concepts and best practices, etc. ATPS has also developed standard manuals for conducting its capacity building trainings for its stakeholders on demand basis.

### **Strategic Objective 3: Youth and Gender Empowerment**

Under this strategic objective, we plan to nurture and harness the innovative potentials of African youth and women, since they constitute the largest segment of the African population. Investing in African youth and women (SDG 5) will definitely create wealth and ensure socio-political stability on the continent. In recognition of the powerful potentials of youth and women in the society, the ATPS has created platforms to empower the youth and women to attain their aspirations and potentials. These platforms include the African Youth Forum for Science and Technology (AYFST) and the African Women Forum for Science and Technology (AWFST).

### **Strategic Objective 4: Knowledge Brokerage, Management and Commercialization**

Under this strategic objective, we plan to broker the adoption, commercialization, and sharing of locally developed scientific knowledge, technologies, and innovations that could transform African society into an innovation-led, knowledge-based economy. Scientific knowledge will only be useful if it is translated into technologies and innovations useful for addressing societal needs. These are captured in SDGs 9, 10, and 11 as well as in STISA's priority 3. We will act as independent knowledge brokers to foster effective policies and incentives for technology cooperation between and among institutions and countries for socio-economic development. We will recognize both modern and indigenous technologies and innovations and promote their acceptability, deployment, and use.

### **Strategic Objective 5: Intra-Africa and Global Collaboration and Partnerships**

Under this strategic objective, we plan to develop new forms of intra-Africa and global partnerships within and amongst stakeholders interested in achieving the continental STI Agenda (AU's Agenda 2063) and the SDGs especially SDG 17. We will facilitate the culture of networking and mutual collaborations amongst STI stakeholders in Africa and internationally so as to foster rapid deployment of technologies and technology transfer systems. We will support the harmonization of policies across regional blocs in Africa so as to foster integration and free trade within the blocs and the entire continent at large. To achieve this objective, we will work closely with like-minded institutions, develop MOUs and PAs that will build trusts and achieve enduring results.

## **Performance Monitoring and Evaluation**

All the strategic objectives of the ATPS Phase IX Strategic Plan for 2023-2028 including the implementation activities, expected outputs and outcomes, along with the performance indicators will be continuously monitored for effectiveness and efficiency throughout the period. Formal monitoring and evaluation (M&E) systems will be put in place to track all planned projects. Such M&E systems will comprise of regular monitoring, periodic oversights, mid-term evaluation, up to end of project or plan evaluations. All M&E activities will aim at ensuring that planned activities are timely for the desired outputs and outcomes. Early changes are expected to be made to ensure that work schedules and outcomes align with designed and desired impacts and plan.

## **Resource Requirements**

We recognize that this plan will require enormous funding support to accomplish it. We will therefore heighten our efforts to mobilize resources from our traditional donors and new development partners including endogenous support from African governments and the private sector. In all, we will ensure value for money for every amount received.

The estimated amount to facilitate the implementation of the ATPS Phase IX Strategy is about US\$50 million over the next five years.

# 1 OVERVIEW OF THE ATPS



## OUR VISION

To use Science, Technology and Innovation (STI) as a means for achieving sustainable development in Africa.

## OUR OBJECTIVE

To build Africa's capabilities in science, technology, and innovation for sustainable development.

## OUR MISSION

To improve the quality of science, technology and innovation (STI) systems research, policy and practice by strengthening capacity for STI knowledge generation, dissemination, and use for sustainable development in Africa.



- Youth and Women Internship and Mentorship Program designed to facilitate and encourage graduates from Africa and the rest of the world to gain valuable international development work experience in STI;
- Youth and Women Post-Doctoral Fellowships and Staff Exchange Programs designed to support youth and women in their early careers to sharpen their skills in STI policy research and development work in Africa;
- Youth Social Innovation Camps are designed to enhance peer-to-peer innovation and entrepreneurship skills among young School leavers preparing them to become entrepreneurs and employers of labor rather than Job Seekers; and
- African Youth and Women in STI Congress is designed to convene African youth and women to chart a proactive way of harnessing their potential for sustainable development.

### **Knowledge Brokerage, Management and Commercialization**

- Convene international forums that brings together knowledge developers and knowledge users to interact, share, network, and jointly design sustainable solutions to Africa's key challenges through STI;
- Conduct sponsored studies on countries' readiness for client specified innovations and technologies;
- Facilitate the creation of enabling policy environments for the thriving of entrepreneurship development and promote the adoption of innovative technologies for solving Africa's key challenges;
- Liaise with other development partners to support local STI initiatives through innovation incubation programs, start-ups, and upscaling of innovations;
- Advocate for cooperation to enhance effective technology transfer between African countries and other developed economies.
- Intra-Africa and Global Collaboration and Partnerships
- Joint participatory Dialogues with science experts, policymakers, private sector actors, and civil society on selected STI issues;
- STI skills mobility programs to encourage staff sharing and short-term sabbaticals for leading STI experts in African universities and partner institutions globally;
- Professorial Chair in selected universities, government ministries, and private sector institutions for enhanced public-private sector partnerships to put research findings into use;
- International conferences/workshops/policy round tables for effective peer review, deployment, and up-scaling of STI policy research outputs and policy recommendations; and
- Public-Private Sector Partnerships Programs for linking STI policy research with industry actors and policymakers.

## **Our Customers/Partners**



Some of the partners with whom we have worked include African Union Commission (AUC), the African Development Bank (AfDB), New Partnership for African Development (NEPAD), African Regional Economic Communities (RECs), national governments, Universities and Higher Education Institutions; Private Sector Actors and Practitioners at the grassroots including youths and women, extension agents, farmers and community based organizations, as well as the media. We continue to provide services and value for money for our development partners and donors some of whom are listed below in **Table 1**.



# OUR HISTORY

In the 1980s, two distinct networks emerged in Africa: the Eastern and Southern Africa Technology Policy Studies (EATPS) and the Western Africa Technology Policy Studies (WATPS). In 1994, ATPS was established as a secretariat within the East and Southern Africa Regional Office of the International Development Research Centre (IDRC). In 2001 ATPS became an autonomous international organization with diplomatic status in Kenya and working on transdisciplinary STI themes for African development. Whilst retaining the STI focus, ATPS has moved towards a “knowledge for development” network for Africa. We implement our programs through members in National Chapters established in 30 countries (27 in Africa and 3 Diaspora Chapters in Australia, United States of America and the United Kingdom). The ATPS is unique in many ways: It is not only the premier STI institution in Africa; it is unique in the composition of its membership, institutional structures and implementation activities. Today ATPS is made up of over 1500 members spread across 51 countries in 5 continents. As the premier STI institution in Africa, it has successfully mainstreamed STI in African development policy dialogues and assisted many African countries to formulate STI policies as well as develop strategies for its implementation.

## Our Value Proposition

We execute our vision and mission statements by offering the following key services to our clients and partners, in both the public and private sectors:

### STI Policy Research, Policymaking and Advocacy

- Conduct sponsored studies to identify the STI policy environment of national, sub-regional, and regional governments;
- Undertake collaborative STI policy research that addresses specific policy gaps in selected countries and sectors;
- Facilitate the STI policy development process as well as the removal of policy barriers that prevent the uptake of innovations in African countries;
- Prepare bi-annual report on the status of STI capacity and policies in African countries; and
- Develop programs and train policymakers on the best practices and techniques for conducting effective policy research to gather and analyze data and evidence used as the basis for policymaking.
- Influence STI policy decisions at local, national, and regional levels through advanced policy influence techniques and approaches. The training also addresses how to identify and resolve conflicting policies as well as communicating science and technology to Parliamentarians and writing STI policy briefs.

### Training, Sensitization, and Capacity Building

Undertake training on a broad range of STI subjects identified with stakeholders including:

- STI policy research methodologies, policymaking/policy formulation processes, indicators, instruments, and linkages;
- Policy influencing approaches including how to write policy briefs
- Effective science communication skills;
- Support for science, technology, engineering and mathematics education in institutions of higher learning in Africa and through exchange programmes in other institutions abroad;
- SME business start-up development and Social entrepreneurship;
- Technology transfer and extension service systems;
- Intellectual property rights, access and benefit sharing; and
- Climate change adaptation, mitigation and green growth concepts and best practices; etc.

### Youth and Gender Empowerment

Through participation in ATPS's

- Youth and Women Innovation Challenge Program designed to identify STI initiatives by Africa's Youth and Women with potential for having commercial or social impacts, and are in need of support, financial and otherwise;
- Youth and Women Social Entrepreneurship Program designed to mobilize and build social entrepreneurship skills and support small social business start-ups in liaison with social entrepreneurship initiatives;

**Table 1: Scope of services offered to our customers and partners**

Customer Segments	Service Offering	Nature of relationship
<p><b>Governments</b> Regional, sub-Regional, National and Local Governments such as the AUC, AfDB, NEPAD, ECOWAS, SADC, EAC, National governments and Local/County authorities, etc.</p>	<p><b>Policy advocacy</b> - work with existing institutions to facilitate the development of STI policies and the formulation of integrated and coordinated policies for the adoption of technologies and innovations that leads to socio-economic transformations. The focus is on advocating foreffective translation of STI knowledge into suitable policies, governance conditions and institutions to enhance responsible innovation development and implementation.</p> <p><b>Knowledge brokerage</b> - bridge the gaps between and amongst the actors in the STI valorization chain: scientists, policymakers, private sectors, civil society, local communities, and the media. The aim is to encourage effective knowledge and technology sharing as well as provide independent assessment of country’s policy status and readiness for innovative technology adoption, deployment and upscaling.</p> <p><b>Capacity building</b> - upskilling at individual, institutional, and systemic levels for better understanding and deployment of STI at various levels in order to achieve sustainable development.</p>	<p>Client/ Partner</p>
<p><b>Private sector</b> Companies and businesses that are looking to establish or expand into Africa such as GALVmed, Dangote Group, etc.</p>	<p>Market scoping study - to identify a country’s policy environment, that could enable or constrain proposed business operations, Provide Status reports - on policies in the respective African countries for a proposed business,</p> <p>Policy advocates - to advocate for laws/policies that will facilitate a proposed business in the selected country(s),</p> <p>Country Ranking - for availability and sourcing of raw materials and the appropriate infrastructure, including manpower, required by a proposed business,</p> <p>Training and Sensitization (T&amp;S) - to enhance individual and organizational skills for the effective assimilation and adoption of the technology and innovations associated with an identified business,</p> <p>Youth and gender empowerment - liaise with partners to support youth and gender development programs that lead to the creation of jobs, wealth, and self-sufficiency.</p>	<p>Client</p>
<p><b>Multi-lateral and International Agencies such as</b> the UN Agencies, IFPRI, IFAD, CGIAR, OFID, etc.</p>	<p>Collaboration and Partnerships - Support and collaborate with multilateral and international agencies in identifying and fostering developmental initiatives in selected STI priority sectors including agriculture, food and nutrition; energy; climate change and environment; and health innovations.</p>	<p>Partner/ Client</p>
<p><b>Development Partners and Donor Agencies/Organizations such as</b> IDRC, Ford Foundation, Rockefeller Foundation, B&amp;MGF, Tony Elumelu Foundation, Carnegie Foundation, USAID, UK Aid, European Union, SIDA, JICA, Danida, Chinese Government, GIZ, etc.</p>	<p>Investments in STI Research, Policy and Practice for Greater Impacts - implement funded programs from development partners and donors for greater impacts in research, policy and practice in the selected priority areas including agriculture, food and nutrition; energy; climate change and environment; and health innovations. Such programs will be designed for mutual benefits of the donor and Africa and aimed towards achieving the Sustainable Development on the continent.</p>	<p>Partner/ Client</p>

## Our Approach

Our approach in the implementation of our strategy is to work together with our stakeholders and clients in identifying and designing sustainable solutions to Africa's key challenges using science, technology, and innovation interventions. In essence, we plan to work with the researchers, policymakers, private sector, civil society, media, and our development partners to co-produce knowledge that addresses Africa's problems using STI (transdisciplinarity). We will ensure that all our programs and interventions are:

- Fully embedded into Africa's social, economic, and political realities
- Effectively engage all relevant actors in the innovation system
- Implemented to achieve value for money at least cost administration ratios
- Achieving desired products and impacts on target beneficiaries and society at large
- Influencing and informing public policies based on cutting-edge STI interventions
- Increasing the capacity of ATPS stakeholders to perform their roles in STI developments
- Leading to the deployment of technological knowledge to address societal needs
- Brokering the sharing of knowledge and technology transfers within and outside Africa

## Our Achievements

Since our establishment in 1994 as the premier STI policy research network in Africa, the ATPS has continually impacted on Africa's STI development in many fronts.

**Facilitating the development of STI policies of regional and national governments in Africa:** through series of policy research and advocacy actions, the ATPS has facilitated the development of STI policies and strategies in many African countries including Nigeria, Ghana, Kenya, Benin Republic, Lesotho, Uganda, Tanzania, Malawi, Ethiopia, Cameroon, Liberia, Swaziland, and Zimbabwe among others. The ATPS contributed inputs towards the development and implementation of the Consolidated Plan of Action (CPA) of the African Union. As an accredited institutional member of the African Union Commission (AUC) the ATPS provides inputs to the Specialized Technical Committee on Education, Science and Technology (STC-EST) of the AUC. The ATPS also developed the first ever African Manifesto for Science, Technology and Innovation that provided a roadmap for attaining socio-economic development in African through investments in science, technology and innovation.

**Policy research, capacity building and outreach:** the ATPS has supported the conduct of policy research endeavours in over 30 countries in Africa in the areas of agriculture, energy, climate change and environment, health, intellectual property rights, etc. These research interventions have generated tremendous knowledge products for decision-making in those countries. The ATPS capacity building program has trained researchers, policymakers, private sector actors, the civil society, extension agents, farmers, the media and many more and enabled them to accomplish desired goals and objectives for sustainable development in Africa. We have commissioned and completed over 120 STI research projects; published over 500 research papers and reports including some global and regional reports; developed three training manuals on different areas of STI including STI policy manual, entrepreneurship training manual and Intellectual Property training manual; trained over 1000 different stakeholders of the ATPS; engaged over 3000 ATPS stakeholders in various events in Africa and beyond; conducted over 50 training workshops; signed over 25 MOUs; developed new project partnerships with other like-minded institutions across Africa and beyond; and launched 2 youth and gender programs - The Youth Innovation Challenge (Y I CAN) and Women Innovation Challenge (WE CAN) programs with 24 innovation challenge grants awarded among many others.

**Ranked as the Best Think Tank in Africa:** for many years now, the ATPS has consecutively been ranked by the Global Go To Think Tank Index Report as the best think tank in Africa for the last decade. The categories include:

- Best Think Tank Network in Africa;
- Best managed Think Tank (18th globally);
- Best Think Tank with the most Significant Impact on Public Policy in Africa;
- Think Tanks with the best use of the Internet;
- Best Trans-disciplinary Research Think Tank;
- Best institutional Collaboration involving Two or more Think Tanks;
- Best Policy Study/Report Produced by a Think Tank. ATPS Policy Paper titled "Mainstreaming Gender in the National Science, Technology and Innovation (STI) Policy of Kenya" (2nd globally);
- Second Best Science and Technology Think Tank;

- Top Think Tank with the Most Innovative Policy Ideas/Proposals (30th globally);
- Top Think Tank with Annual Operating Budgets of Less Than \$5 Million USD (8th globally);
- Best Advocacy Campaign Think Tank (18th globally); and
- Top International Development Think Tank (4th in Africa and 44th globally) among many other rankings.

**Positive Evaluation Assessment:** The latest external evaluation assessment of core funding support to the ATPS by the Ministry of Foreign Affairs, the Netherlands and published in 2012 scored the ATPS an “AAA Grade” on the average. The score was based on ATPS’s effectiveness and efficiency in all its programs. Responses were received from ATPS stakeholders in Africa and globally. Our annual audits have shown positive financial responsibility and continuous ability of the ATPS to meet its financial obligations.

# 2 ATPS PHASE IX STRATEGIC PLAN FOR 2023-2028

The ATPS Phase IX Strategic Plan, 2023-2028 will continue to build upon the numerous gains and achievements recorded during the previous years. We will continue to sustain our integrity and expertise in science, technology, and innovation (STI) policy research, policymaking, and implementation as well as capacity building, knowledge brokerage, youth and gender empowerment, and intra-Africa and global collaborations. These roles have earned us our position as the premier STI policy research network in Africa.

**During this strategic phase, ATPS's interventions will be implemented through a two-pronged approach:**

**I: Six Thematic/Sectoral Priority Areas including:**

1. Agriculture, Food and Nutrition
2. Energy
3. Climate Change and Environment
4. Health
5. Digital economy and ICT
6. Creative Industries and entrepreneurship

**II: Five Programmatic Strategic Objectives. These include:**

1. STI policy research, policymaking and advocacy
2. Training, sensitization and capacity building
3. Youth and gender empowerment
4. knowledge brokerage, management and commercialization
5. Intra-Africa and global collaboration and partnerships

Notwithstanding these priority thematic areas and strategic objectives of focus, ATPS will entertain and, where feasible and necessary, accommodate client-sponsored endeavors outside of the above listed areas and objectives. Such endeavor must however be within the STI mandate of the ATPS as stipulated in our vision and mission statements. brief description of the thematic and programmatic objectives as well as their specific objectives, strategies of accomplishment and outcomes is presented below:

## I. THEMATIC/SECTORAL PRIORITY AREAS

### Priority Sector 1: Agriculture, Food and Nutrition

There is no argument that Africa, in particular, is dealing with a worsening food security crisis. The new Sustainable Development Goal number two aims to “end hunger, achieve food security and improved nutrition, and promote sustainable agriculture”. To achieve this, it is critical to strengthen the link between agricultural productivity and improved nutrition in order to ensure that all people have access to sufficient and safe food all year round. African governments cannot continue to supplement with huge imports or depend on foreign food aid. With about 600 million hectares of uncultivated arable land (roughly 60 percent of the global total) Africa's path out of food crisis must first be through increased agricultural output and then intensification of production and value chain. Some of the challenges facing Africa's agricultural productivity include high cost of investment in equipment, input materials and infrastructure, all of which lead to higher cost of production and less competitive price, especially for products that can be imported. Other challenges leading to food insecurity include post-harvest losses and lack of value addition. All these challenges require STI intervention in order to achieve SDG 2 as well as SDGs 1, 9 and 12.

The AU's priority number one as provided in its STISA 2024 is to eradicate hunger and achieve food security. In January 2013, the Heads of State and Government of African Union, together with representatives of international organizations, civil society organizations, private sector, cooperatives, farmers, youths, academia and other partners, unanimously adopted a Declaration to end hunger in Africa by 2025. ATPS will therefore play an important role in contributing to the achievement of this goal. The participatory strategies employed by ATPS activities also align well with AU's strategies in ensuring that everybody plays their role.

This is also in line with SDG 17 which recognizes the importance of working together. The AU also notes that processing, conservation and distribution of agricultural products goes far beyond the framework of rural and agricultural development sectors and requires a concerted intervention of STI which is identified in the ATPS strategy.

ATPS' plan is to identify or facilitate the development of appropriate innovations for improving productivity and resilience, reducing waste and environmental pollution, and improving value addition along the agricultural value chain from farm to table. Thus, the focus of attention will include innovations in the fields of farming systems and technologies, biotechnology (i.e. seed and livestock technology/genetics), and yield enhancement and loss control (i.e. fertilizers and pest control), as well as social innovations such as farm information management systems and the use of Information and Communication Technologies (ICTs) (i.e. smart mobile telephones and satellite data, GIS, etc.). This aligns well with the 2030 SDG 2 targets of ending hunger and malnutrition, increasing access to food amongst the poor and indigenous people, doubling agricultural productivity and income as well as ensuring sustainable food production systems and implement resilient agricultural practices.

Already, ATPS is currently promoting the wide scale adoption of the LandPKS mobile app technology in Africa. The technology is a community driven app that enables users to instantaneously access climatic and soil information and interpret them in the context of local conditions and values, including crop preferences. Users are able to target investments on land for specific purposes such as specific crop choices for specific soils. With knowledge on annual average rainfall and temperature, aridity index, soil types, among others, farmers are able to plan their farming enterprises adequately to avoid losses due to climate variability and hence improve agricultural productivity and climate change resilience. See detailed description of the LandPKS in ANNEX 1. ATPS is also promoting another flagship project on “Linking Agriculture and Nutrition Value Chain for Improved Health Outcomes (LANHO)” and seeks supports for its implementation (ANNEX 2). ANNEX 3 also shows an initiative that are tapping into the latest technology and use of Artificial Intelligence (AI4AFS) to enhance food security and food systems in Africa. Table 2 shows the specific objectives, strategies for implementation and the expected outcomes from the implementation of the agriculture, food and nutrition thematic priority.

**Table 2: Scope of services offered to our customers and partners**

<b>Specific Objectives</b>	<b>Strategies</b>	<b>Expected Outcomes</b>
1. Undertake and support transdisciplinary research to generate new technologies and innovations for agriculture, food and nutrition	<ul style="list-style-type: none"> <li>• Commission transdisciplinary research studies in the selected fields</li> </ul>	<ul style="list-style-type: none"> <li>• More available and accessible technologies and innovations for enhancing productivity and nutrition</li> </ul>
2. Identify and deploy new disruptive technologies and innovations for increasing agricultural productivity and value addition	<ul style="list-style-type: none"> <li>• Research and scoping studies</li> <li>• Sensitization and Capacity building</li> <li>• Policy advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• Improved food production, processing and utilization</li> <li>• Favourable policy environment for investment</li> </ul>



## Priority Sector: Energy

In 2010 the McKinsey Global Institute (MGI) described the potential and progress of African economies as “lions on the move”. Today, despite the collapse of global commodity prices and political shocks that have slowed growth in North Africa, Africa’s economic lions are still moving forward. Overall, the continent achieved average real annual GDP growth of 5.4% between 2000 and 2010, adding \$78 billion annually to GDP (in 2015 prices) (MGI, 2016). Despite these projections of growth, energy supply has been below average across the continent. Africa faces high level of energy poverty with about 587 million of the population not having access to electricity while 657 million people rely on traditional biomass for cooking (IEA/UNDP/UNIDO, 2010). Lack of access to modern energy services (e.g. electricity and clean cooking facilities) and massive dependence on fossil fuels hamper sustainable socioeconomic development. Access to modern and reliable energy services is a critical human development priority and ensuring access to clean and sustainable energy is one of the major energy challenges in developing countries including African countries. In 2009, only about 31% of the Sub-Saharan African (SSA) population and 42% of the entire African population had access to electricity. Based on projections, about 57% of the Sub-Saharan African and African populations will have access to electricity by 2030 (IEA/UNDP/UNIDO, 2010).

These figures indicate that about two-third of Africans do not have access to electricity, and the poor living in rural/peri-urban areas form the greatest percentage of these people because they do not have access to the national grid and have been termed “off-grid” communities.

School children often cannot read after dusk, businesses cannot grow, clinics cannot refrigerate medicine or vaccines, and industries are idled hampering economic growth, jobs, and livelihoods. According to the AU, every year millions of Africans die of communicable and non-communicable diseases that are preventable and treatable as a result of weak and fragmented health systems and limited access to health services and technologies (particularly in rural areas) largely because of inadequate energy and energy infrastructure. This energy poverty and insecurity can be reduced or solved by promoting and providing low carbon energy to these areas thereby promoting “off-grid” electrification. Renewable energy such as solar photovoltaic system (PVs) can be used to accelerate “off-grid” rural electrification (targeting the poor) as well as to facilitate rural development, reduce GHGs emission and improve energy access in the entire region.

In this plan, we will deliberately promote the generation, dissemination and use of renewable energy resources in form of solar, biomass, geothermal, wind, and hydro in order to increase energy access, reduce energy poverty, reduce greenhouse gases (GHGs) emission, thereby attaining the Sustainable Development Goals (especially Goals 4, 7, 9, 12, 13) for the region. ATPS has been developing projects on “Promoting Pro-Poor Low Carbon Energy Access and Development in Sub-Saharan Africa (PloCEAD)” and is working with partners to support more initiatives. Solving this energy crisis especially in rural areas would significantly help achieve STISA priorities 2, 3, and 6 aimed at preventing and controlling diseases, communication and wealth creation respectively. **Table 3** shows the specific objectives, strategy for implementation and the expected outcomes from the implementation of the energy thematic priority.

**Table 3: Specific objectives and outcomes under the energy thematic priority**

Specific Objectives	Strategies	Expected Outcomes
1. Undertake and support transdisciplinary research to generate new technologies and innovations on renewable energy	<ul style="list-style-type: none"> <li>Commission transdisciplinary research studies in the selected field</li> </ul>	<ul style="list-style-type: none"> <li>More available and accessible technologies and innovations for enhancing energy options and access</li> </ul>

<p>2. Identify and deploy new disruptive technologies and innovations for increasing low carbon energy access in Africa</p>	<ul style="list-style-type: none"> <li>• Research and scoping studies</li> <li>• Sensitization and Capacity building</li> <li>• Policy advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• Increased awareness and access to energy options</li> <li>• Enabling policy environment for investment in renewable energy</li> </ul>
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### Priority Sector 3: Climate Change and Environment

Climate change now presents the most serious environmental threat to mankind especially on African continent that depends mainly on agriculture for their livelihood, income and employment. Agriculture receives the major share of the catastrophic consequences of climate change in the continent because of lack of resilience to manage climate change risks among relevant stakeholders. Uncertainties in weather patterns, rainfall, drought and flooding events have meant that rural farmers who implement their regular annual farm business plans risks total crop failure due to climate change impacts. Consequently, the low crop yield will lead to unavoidable shocks to the already fragile economies in African countries. Food prices are expected to rise, worsening the food insecurity and poor nutritional health conditions in the continent. The implication of this scenario for the attainment of the Sustainable Development Goals (SDGs) is obvious, especially in African countries where systems resilience is low. By resilience here, we mean the capacity over time of a system, organization, community, or individual to create, alter, and implement multiple adaptive actions. SDG 13 requires that every country takes action to combat climate change and its impacts. It is still possible, with political will and technological measures, to limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels— and thus avoid the worst effects of climate change.

The AU through STISA 2024 strategically targets this sector under priority 4, “protection of our space” and 5, “living together-build the society”. It provides a platform for Member States to cooperate and share the enabling infrastructure and data and jointly manage programmes of mutual interest such as disease outbreaks (tackled under health in this document); natural resources and the environment; hazards and disasters; weather forecasting; climate change mitigation and adaptation; marine and coastal areas, agriculture and food security; peacekeeping missions and conflicts.

ATPS endeavours to develop interventions that will jointly boost the resilience capacities of vulnerable people at local, regional and international levels to the impacts of climate change.

We will also engage in research programs on integrated management of natural resources (land, water, biodiversity, minerals, and ecosystem services) and fostering transitions to inclusive green growth in Africa.

During this strategic phase for 2023-2028, we will continue to promote programmes that aim to enhance climate adaptation and resilience as well as build the capacity of African countries to track NDC implementation. Other related initiatives such as promotion of locally-led adaptation amongst vulnerable communities including small-scale farmers (**ANNEX 7**) will also be supported if funds can be secured to do so. We will also:

- Make Sense of Climate Innovation through investment portfolio analyses and supporting the development of technologies and innovations for climate change adaptation, mitigation and resilience: We will support strategic research and innovations to harness the abundant natural resource potentials in Africa such as wind, hydropower, solar power and geothermal energy at both local and global markets that will reduce emissions and build adaptation and mitigation capacities on the continent. We will work with key partners to support Climate Innovation Incubation Centres, identify and support indigenous capacities through Climate Innovation Challenge Awards, Policy Advocacy for North-South and South- South technology sharing, etc. Attention will be paid to types of innovations and technologies that are culturally competent, economically adaptable and scientifically robust for use in Africa.

- Make Sense of Climate Change Politics and Policymaking through scenario analyses, training and policies that support the development of sustainable technologies and innovations for adaptation such as the renewable energy carriers and efficient stoves: We will train policy makers on climate change politics and policymaking and also equip them with necessary skills for negotiations at the global climate platforms.

ATPS is currently promoting a flagship project on “**Building the Capacity of Selected sub-Sahara African Countries to Effectively Measure Progress in their Nationally Determined Contributions’ (NDCs) Implementation Using Tracking Tools and Indexes**” and seeks further support and collaborations (ANNEX 4) to reach out to other African countries.

Already the African Development Bank (AfDB) has committed to supporting this project under their African Climate Change Fund (ACCF). **Table 4** shows the specific objectives, strategy for implementation, and the expected outcomes from the implementation of the climate change and environment thematic priority.

**Table 4: Specific objectives and outcomes under the climate change and environment thematic priority**

Specific Objectives	Strategies	Expected Outcomes
1. Undertake and support transdisciplinary research to generate new technologies and innovations for climate change adaptation, mitigation and resilience	<ul style="list-style-type: none"> <li>• Commission transdisciplinary research studies in the selected field</li> </ul>	<ul style="list-style-type: none"> <li>• More available and accessible technologies and innovations for building climate change resilience in Africa</li> </ul>
2. Identify and deploy new disruptive technologies and innovations for building climate change adaptation and resilience capacity	<ul style="list-style-type: none"> <li>• Research and scoping studies</li> <li>• Sensitization and capacity building</li> <li>• Policy advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• Increased awareness and capacity to adapt to the impacts of climate change</li> <li>• Appropriate climate change policies at national and regional levels</li> </ul>
3. Promote the ATPS NDC project that aims to build the capacity of countries to monitor and track their NDC implementation	<ul style="list-style-type: none"> <li>• Undertake research, policy and practice interventions</li> <li>• Train focal person to use the already developed NDC monitoring and tracking tools.</li> <li>• Collect NDC relevant data to develop NDC indexes for participating countries.</li> </ul>	<ul style="list-style-type: none"> <li>• More climate informed individuals and institutions capable of adapting to climate change impacts</li> <li>• Desired policies that boosts adaptation and resilience.</li> <li>• Improved implementation of the Paris Agreement</li> </ul>

## Priority Sector 4: Health

The recent outbreaks of diseases such as Ebola puts into focus the prevalence of infectious diseases in Africa. About 69% of deaths in sub-Saharan Africa are attributable to infectious diseases such as malaria, HIV/AIDS, and tuberculosis. There is a persistent weak healthcare system in most of the countries in Africa which has led to the failures in meeting the health care needs of the people on the continent.

To ensure healthy lives and promote well-being for all at all ages (SDG 3) there is need to focus on building better healthcare infrastructure and human capacity in line with SDG 8 and 9. It is known that Africa bears one-quarter of the global disease burden and yet has only 2% of the world's doctors. This is unacceptable, hence the need to take urgent steps to address the inadequate healthcare infrastructure and human capacity. The 2013 Abuja Special Summit on HIV/AIDS, Tuberculosis, and Malaria highlighted the need to utilize and build on our research capacities to produce new and effective medicines, diagnostic tools, vector control tools and vaccines, and to promote research, invention and innovation in traditional medicine and strengthening local health ecosystems, taking into account the socio-cultural and environmental situation of the people.

In addition, STISA reckons that establishing greater coordination both among health stakeholders and other related sectors contributing to the development of science and technology and building governance structures to promote ethics and research integrity, increases public trust in research. This will require a collaborative effort (SDG 17) among various actors to promote and implement key policies and programmes on primary health care, as well as disease prevention and control.

During this strategic phase for 2023-2028, the ATPS shall focus mainly on leveraging digital technologies to support the health systems;

improving knowledge, skills and resources; and creating collaboration and consensus among key stakeholders. We shall engage in research programs on innovations and policies for sustainable healthcare delivery and health risk prevention. Mobile phones have been particularly beneficial where infrastructure is limited in delivering better healthcare to the society. In Uganda for instance, it is reported that around 27,000 government health workers use a mobile health system called mTRAC to report on medicine stocks across the country. Other similar initiatives exist to ensure easy delivery of medicines in remote areas using technologies and drones. Our focus will also be deployed on training healthcare professionals to ensure that they possess the requisite knowledge and skills for healthcare delivery. We will also promote effective partnerships between public and private sectors (SDG 17) in joint delivery of efficient healthcare systems. Above all, we shall engage with the policymakers to influence decisions that will lead to increased investment in the healthcare systems in Africa.

The threat posed by animal diseases to animal production and the indirect effects on human health is also of our strategic interest during this phase. According to the World Organisation for Animal Health (OIE), more than 90% of the diseases recorded occur in Africa, the treatment and control of which invariably involves, in part, the administration of veterinary medicines. The use of these veterinary medicines for the control and management of animal diseases in Africa is, however, constrained by issues relating to veterinary drug misuse, the presence of substandard and counterfeit veterinary drugs in the market, and inadequate policies and its implementation among others.

**Table 5** shows the specific objectives, strategy for implementation and the expected outcomes from the implementation of the health innovations thematic priority.

**Table 5: Specific objectives and outcomes under health thematic priority**

Specific Objectives	Strategies	Expected Outcomes
Undertake and support transdisciplinary research to generate new technologies and innovations for efficient healthcare delivery system	Commission transdisciplinary research studies in the selected field	More available and accessible technologies and innovations for improved healthcare delivery system in Africa
Identify and deploy new disruptive technologies and innovations for improving healthcare system in Africa	<ul style="list-style-type: none"> <li>• Research and scoping studies</li> <li>• Sensitization and capacity building</li> <li>• Policy advocacy</li> </ul>	<ul style="list-style-type: none"> <li>• Increased awareness and capacity to access and use innovations and technologies for improved healthcare system in Africa</li> <li>• Adequate infrastructure for achieving healthcare improvement in Africa</li> <li>• Appropriate healthcare policies at national and regional levels for efficient healthcare system in Africa</li> </ul>

**Priority Sector 5: Education and Technology**

The recognition of education as a fundamental driver of human development and the understanding of technology's transformative potential in enhancing educational access, quality, and relevance across Africa made ATPS make Education and technology as an emerging key priority area for ATPS in the strategic plan for 2023-2028. Investing in education and technology is imperative for fostering human capital development, enhancing innovation, and driving sustainable development. Quality education equips individuals with the knowledge, skills, and competencies necessary to thrive in today's rapidly evolving world. By integrating technology into education, ATPS aims to bridge the digital divide, expand learning opportunities, and empower learners to participate effectively in the knowledge economy. ATPS recognizes the pivotal role of science, technology, and innovation (STI) in advancing education and technology initiatives.

Through research, capacity building, and policy advocacy, ATPS aims to harness STI to develop innovative solutions that address educational challenges, promote digital literacy, and facilitate technology-enabled learning experiences. ATPS is already engaged in various initiatives aimed at promoting education and technology in Africa. These initiatives include research projects on educational technology adoption, capacity-building programs for educators on digital teaching methodologies, and policy advocacy efforts to integrate technology into education policies. The **Table 6** below shows the specific objectives, strategies for implementation and the expected outcomes from the implementation of the education and technology thematic priority.

**Table 6: Specific objectives and outcomes under the education and technology thematic priority**

Specific Objectives	Strategies	Expected Outcomes
1. Enhance Digital Literacy and Skills Development	<ul style="list-style-type: none"> <li>Develop and implement digital literacy programs, training workshops, and online resources to enhance educators' and students' digital competencies.</li> </ul>	<ul style="list-style-type: none"> <li>Increased digital literacy rates among educators and students.</li> </ul>
2. Foster Innovation in Education Technology (EdTech)	<ul style="list-style-type: none"> <li>Facilitate collaboration between researchers, entrepreneurs, educators, and policymakers to develop and scale innovative EdTech solutions tailored to African contexts.</li> </ul>	<ul style="list-style-type: none"> <li>Increased adoption and integration of innovative EdTech solutions in educational institutions.</li> </ul>
3. Improve Access to Quality Education through Technology	<ul style="list-style-type: none"> <li>Develop and deploy technology-enabled learning platforms, such as online courses, mobile applications, and digital libraries, to reach remote and marginalized populations.</li> </ul>	<ul style="list-style-type: none"> <li>Expanded access to quality education for underserved communities through technology-enabled learning platforms.</li> </ul>
4. Strengthen Policy and Institutional Support for Education Technology	<ul style="list-style-type: none"> <li>Engage with policymakers, education stakeholders, and international partners to advocate for supportive policies, funding mechanisms, and capacity-building initiatives to promote the integration of technology into education systems.</li> </ul>	<ul style="list-style-type: none"> <li>Enabling policy environment and institutional support for the integration of technology into education systems.</li> </ul>



## Priority Sector 6: Creative Industries and Entrepreneurship

Creative industries and entrepreneurship emerge as pivotal priority areas for ATPS in its strategic plan for 2023-2028. Recognizing the immense potential of Africa's creative sector and entrepreneurial ecosystem, ATPS seeks to harness these forces to drive economic growth, foster innovation, and promote inclusive development across the continent. Investing in creative industries and entrepreneurship is vital for unlocking Africa's economic potential, creating jobs, and empowering communities. The creative sector, encompassing areas such as arts, culture, media, and entertainment, represents a rich source of cultural heritage and artistic talent that can be leveraged to drive economic diversification and social inclusion. Entrepreneurship, on the other hand, serves as a catalyst for innovation, enterprise development, and wealth creation, enabling individuals to realize their economic aspirations and contribute to sustainable development.

ATPS recognizes the critical role of STI in advancing creative industries and entrepreneurship.

By fostering an enabling environment for innovation, supporting the development of creative and technological skills, and promoting the adoption of digital technologies, ATPS aims to catalyze the growth and competitiveness of creative enterprises and startups. ATPS is actively engaged in initiatives aimed at promoting creative industries and entrepreneurship in Africa. These initiatives include research projects on creative economy development, capacity-building programs for entrepreneurs in the creative sector, and policy advocacy efforts to support the growth of creative enterprises.

ATPS has been designing programmes aimed at enhancing youth skilling, supporting innovation, youth employment and entrepreneurship. ANNEX 6 provides an example of such a programme. The ATPS seeks funds to strengthen the programme to support more youth and marginalized groups to venture into profitable initiatives. The **Table 7** below shows the specific objectives, strategies for implementation and the expected outcomes from the implementation of the creative industries and entrepreneurship thematic priority.

**Table 7: Specific objectives and outcomes under the creative industries and entrepreneurship thematic priority**

Specific Objectives	Strategies	Expected Outcomes
1. Foster Innovation and Creativity in the Creative Sector	<ul style="list-style-type: none"> <li>Facilitate collaboration between creative professionals, technology innovators, and researchers to develop and implement innovative solutions that enhance the competitiveness and sustainability of creative enterprises.</li> </ul>	<ul style="list-style-type: none"> <li>Increased adoption of innovative practices and technologies in the creative industries.</li> </ul>
2. Support Entrepreneurship Development in Creative Industries	<ul style="list-style-type: none"> <li>Provide tailored entrepreneurship training, mentorship, and access to finance for aspiring entrepreneurs in the creative sector, with a focus on building business acumen and fostering sustainable growth.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthened entrepreneurial ecosystem and increased support for creative startups and SMEs.</li> </ul>

3. Promote Cultural Heritage Preservation and Cultural Entrepreneurship	<ul style="list-style-type: none"> <li>• Develop initiatives to preserve and promote Africa's rich cultural heritage, including traditional arts, crafts, and indigenous knowledge, while also supporting cultural entrepreneurs in monetizing these assets in sustainable and socially responsible ways.</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced preservation and monetization of Africa's cultural heritage assets.</li> </ul>
4. Advocate for Policy and Regulatory Reforms to Support Creative Industries	<ul style="list-style-type: none"> <li>• Facilitate collaboration between researchers, entrepreneurs, educators, and policymakers to develop and scale innovative EdTech solutions tailored to African contexts.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved policy and regulatory environment conducive to the growth of creative industries and entrepreneurship.</li> </ul>

## Priority Sector 7: Digital Economy and ICT

Recognizing the transformative power of digital technologies in driving economic growth, enhancing productivity, and promoting inclusive development, ATPS seeks to leverage ICT to harness the opportunities of the digital economy for Africa's socio-economic advancement. Investing in the digital economy and ICT is imperative for unlocking Africa's potential for innovation, entrepreneurship, and economic diversification. The rapid proliferation of digital technologies, including mobile connectivity, cloud computing, artificial intelligence, and blockchain, presents unprecedented opportunities for leapfrogging traditional development pathways and accelerating progress towards achieving the Sustainable Development Goals (SDGs). By embracing the digital economy and ICT, ATPS aims to empower individuals, businesses, and governments to harness the benefits of digitalization and drive sustainable development across Africa.

ATPS recognizes the pivotal role of STI in advancing the digital economy and ICT initiatives. By fostering an enabling environment for innovation, supporting research and development in emerging technologies, and promoting digital skills development, ATPS aims to catalyze the adoption and diffusion of ICT innovations across various sectors of the economy. ATPS is actively engaged in initiatives aimed at promoting the digital economy and ICT in Africa. These initiatives include research projects on digital transformation, capacity-building programs for policymakers, and policy advocacy efforts to promote digital inclusion and connectivity. Table 8 below shows the specific objectives, strategies for implementation and the expected outcomes from the implementation of the digital economy and ICT thematic priority.

**Table 8: Specific objectives and outcomes under the digital economy and ICT thematic priority**

Specific Objectives	Strategies	Expected Outcomes
1. Expand Digital Infrastructure and Connectivity	<ul style="list-style-type: none"> <li>• Advocate for investments in broadband infrastructure, digital connectivity initiatives, and regulatory reforms to promote competition and reduce the digital divide.</li> </ul>	<ul style="list-style-type: none"> <li>• Improved access to affordable and reliable digital infrastructure and connectivity across Africa.</li> </ul>

2. Promote Digital Inclusion and Skills Development	Develop and implement digital literacy programs, training workshops, and capacity-building initiatives to equip individuals with the skills and knowledge needed to participate effectively in the digital economy.	Enhanced digital literacy and skills development opportunities for individuals, businesses, and governments.
3. Foster Innovation and Entrepreneurship in the Digital Economy	<ul style="list-style-type: none"> <li>Support the development of digital innovation ecosystems, incubation centers, and startup accelerators to nurture digital entrepreneurs and promote the development and adoption of locally relevant digital solutions.</li> </ul>	<ul style="list-style-type: none"> <li>Increased innovation and entrepreneurship in digital technologies and applications.</li> </ul>
4. Strengthen Policy and Regulatory Frameworks for the Digital Economy	<ul style="list-style-type: none"> <li>Engage with policymakers, government agencies, and industry stakeholders to advocate for policy reforms, incentives, and infrastructure investments that promote the growth, sustainability, and inclusivity of creative enterprises and startups.</li> </ul>	<ul style="list-style-type: none"> <li>Enabling policy environment and regulatory frameworks conducive to the growth and development of the digital economy.</li> </ul>

## II. PROGRAMMATIC STRATEGIC OBJECTIVES

### Programmatic Objective 1: STI Policy Research, Policymaking and Advocacy

*“Building capabilities, structures, and conditions for the co-production of scientific knowledge, technologies, innovations, and policies across the identified priority sectors for sustainable development in Africa”*

The ATPS STI policy research, policymaking, and advocacy will focus on generating knowledge to inform and influence policy decisions in the selected and allied sectors. If scientific research is to have any meaningful impact in terms of guaranteeing development gains in Africa, the results must inform and shape policies and programmes as well as contribute towards solving practical societal problems. However, the process of realizing this goal is complex involving multiple actors that often have different world views. Their values and ways of processing and using evidence are very different.

For instance, the language of the researcher and that of the policymaker or practitioner are so different that unless decoded might not make much sense to one another. As a result, research-based evidence is often only a minor factor when policies for development are formulated and practices are shaped. On the other hand, the research sector believes that it is only when the products and processes of research efforts are applied that sustainable development can be achieved. Likewise, tacit knowledge from the practitioners rarely reaches the researchers or those that make decisions. This lack of agreement and poor communication between the development actors has created wide gaps between them hence limiting the realization of development gains. The AU through its STISA 2024 has therefore made communication (Physical & Intellectual Mobility) priority number 3. According to the AU implementation of major infrastructure projects must incorporate sustainable knowledge management systems design as well as requisite human skills and competencies.

While most of this knowledge has traditionally come from outside the continent, African institutions must take responsibility for integrating robust and sustainable knowledge production systems in major physical and digital infrastructure programmes.

ATPS has over two decades of experience working with relevant stakeholders in the co-production of knowledge that informs policies and decision-making as well as contributing in solving societal problems at various levels.

During this strategic phase, we will continue to facilitate the development of relevant policies and decision-making across the selected and allied sectors using research evidence and work with the relevant stakeholders to design frameworks/strategies for implementation, monitoring, evaluation and reporting. Table 6 shows the specific objectives, strategy and expected outcomes from the implementation of the STI Policy research, policymaking and advocacy programmatic objective.

**Table 9: Specific objectives and outcomes under the STI Policy research, policymaking and advocacy programmatic objective**

Specific Objectives	Strategies	Expected Outcomes
1. Undertake STI policy research and capacity building in selected sectors to generate evidence-based knowledge for policy and decision-making	<ul style="list-style-type: none"> <li>• Commission STI policy research studies in selected and allied sectors</li> <li>• Collaborate with other institutions to generate more research evidence</li> <li>• Strengthen capacities of stakeholders to undertake policy research, policymaking and policy implementation activities</li> </ul>	<ul style="list-style-type: none"> <li>• More available research evidence to inform policies and decision-making at various levels</li> <li>• Improved capacity of relevant stakeholders to conduct, formulate and implement policies for sustainable development in the selected sectors</li> </ul>
2. Influence policies and policymaking at various levels	Undertake policy advocacy campaigns	More policies formulated to support sustainable development in selected sectors

## Programmatic Objective 2: Training, Sensitization and Capacity Building

*“Strengthening individual and institutional STI skills and knowledge for achieving sustainable development”*

The training, sensitization and capacity building programme is designed to improve and share the knowledge and skills of relevant stakeholders at individual and organizational levels in different aspects of STI policy research, policymaking and implementation. Compared to the rest of the world, Africa’s capabilities to generate, deploy and use STI for development opportunities remain very low. The consequence of this is the persistent low production of scientific outputs such as publications, patents, and other scientometrics.

One of AU’s strategic objective under STISA 2024 is to protect knowledge production (including inventions, and indigenous knowledge) by strengthening Intellectual Property Rights (IPR) and regulatory regimes at all levels. It is also AU’s strategic objective to improve technical competencies and institutional capacity for STI development. There is need therefore to upskill these stakeholders including researchers, policymakers, private sector, civil society, and the media to enable them utilize the new STI knowledge for enhancing their socioeconomic conditions and livelihoods.

During this phase, the ATPS will undertake broad range of training, sensitization and capacity building interventions based on demand and needs of our stakeholders. This will include but not limited to STI policymaking/policy formulation processes, STI policy research methodologies, STI indicators and policy instruments, effective research-policy-practice linkages, effective science communication skills, writing STI policy briefs, STI journalism and writing for the fourth estate,

entrepreneurship development, intellectual property rights issue, social entrepreneurship, technology transfer system, business development, climate change, and green growth concepts and best practices among many others. Our target trainees range from school children to parliamentarians and senior policymakers in Africa. Table 9 shows the specific objectives, strategy and expected outcomes from the implementation of the training, sensitization and capacity building programmatic objective under the current ATPS strategy.

**Table 10: Specific objectives and outcomes under the training, sensitization and capacity-building programmatic objective**

<b>Specific Objectives</b>	<b>Strategies</b>	<b>Expected Outcomes</b>
1. Develop series of STI training manuals	<ul style="list-style-type: none"> <li>• Identify hotspots for training interventions through scoping studies</li> <li>• Collaborate with partners to develop training manuals as may be necessary</li> </ul>	<ul style="list-style-type: none"> <li>• Readily available and accessible training manuals to aid sustained STI capacity building in Africa</li> <li>• Increased collaborations with other STI actors within and outside Africa</li> </ul>
2. Undertake training, sensitization and capacity building for relevant stakeholders on STI related issues	<ul style="list-style-type: none"> <li>• Undertake capacity needs assessments prior to mounting STI training programs</li> <li>• Collaborate with like-minded institutions to implement STI training programs</li> <li>• Monitor and evaluate all training programs</li> </ul>	<ul style="list-style-type: none"> <li>• More suitable training interventions that meet the needs of stakeholders accomplished</li> <li>• More stakeholders become aware and improve their capacity to deploy STI knowledge and skills for socioeconomic development</li> <li>• Increased ability to meet stakeholders’ STI needs through training and capacity building</li> </ul>

## Programmatic Objective 3: Youth and Gender Empowerment

*“Nurturing and harnessing the innovative potentials of African youth and women”*

The youth and gender empowerment programme aims to provide platforms for investing in African youth and women to be able to effectively harness their enormous potentials, create wealth and maintain socioeconomic and political stability on the continent. The Africa youth bulge and the concomitant high rate of unemployment coupled with the irking gender disparities have continued to pose serious challenges that needs to be urgently addressed in Africa as outlined by SDG 5. Over 35% of African population is between the ages of 15 and 35 years thereby making Africa the most youthful continent. About 10 million young African youth arrive each year on the labour market where unemployment has risen up to 50% in many countries with dire consequences for social insecurity, crime rates, and political unrests. It therefore becomes imperative to empower the African youth and women, if we are to bring lasting peace and socioeconomic developments on the continent. Under this programme, the ATPS will support investments in African youth and women to enable them reach their full potentials and not only contribute meaningfully to socioeconomic development on the continent but also reduce social and political ills usually being propagated by them.

In pursuance of this objective, the ATPS initiated two platforms in 2005 and 2007 respectively to target the youth and women in Africa by empowering them with skills, knowledge, capital and linkages required to enable them be adequately self-reliant and contribute to the society. It is AU's priority number 6 under STISA 2024 to create wealth to accelerate Africa's transition to an Innovation-led, Knowledge-based Economy, our Human Resources must be empowered with the necessary skills. It is necessary to promote creativity and innovative technologies to locally process the continent's abundant natural resources, and to create more wealth and jobs for the youth and women on the continent. The programmes called the African Youth Forum for Science and Technology (AYFST) and the African Women Forum for Science and Technology (AWFST) seek to provide a vehicle through which young people and women can express their ideas, contribute their expertise, and collectively participate in policy and decision-making processes as well as harness the opportunities presented by agriculture, science and technology to address their own challenges. We will continue to solicit for supports from development partners to sustain and improve on these programmes as they have already generated tremendous outcomes and impacts since their inceptions. Table 10 shows the specific objectives, strategy and expected outcomes from the implementation of the youth and gender empowerment programmatic objective.

**Table II: Specific objectives and outcomes under the youth and gender empowerment programmatic objective**

Specific Objectives	Strategies	Expected Outcomes
1. Promote the African Youth Forum for Science and Technology (AYFST) and the African Women Forum for Science and Technology (AWFST) programmes	<ul style="list-style-type: none"> <li>• Mobilize youth and women and empower them to harness opportunities in agriculture, energy, environment and health for development</li> <li>• Support regional knowledge sharing and cooperation among youth and women</li> <li>• Provide targeted training and capacity building programmes in specialized STI areas</li> <li>• Offer fellowships, internships and mentoring services</li> <li>• Reward and celebrate African youth and women inventors and innovators</li> </ul>	<ul style="list-style-type: none"> <li>• Increased youth and women participation in STI with improved capacity to undertake research, policy and practice for sustainable development</li> <li>• Increased opportunity for knowledge sharing, networking and collaboration among African youth and women</li> <li>• Increased ability of African youth and women to innovate and solve societal challenges</li> </ul>



<p>2. Support African youth and women in science, technology, engineering and mathematics (STEM) education, research and investment</p>	<ul style="list-style-type: none"> <li>• Offer a number of scholarships annually to African youth and women in STEM education and research</li> <li>• Offer supports to youth and women with innovative ideas to start up business ventures</li> <li>• Provide supports for innovation incubation programmes and links to venture capital</li> </ul>	<ul style="list-style-type: none"> <li>• Production of quality STEM graduates to support industrial growth</li> <li>• More jobs created to absorb young graduates</li> <li>• Increased capacity to manage businesses</li> </ul>
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#### Programmatic Objective 4: Knowledge Brokerage, Management and Commercialization

*“Brokering the commercialization and sharing of scientific knowledge, technologies and innovations for sustainable development”*

This programme aims to ensure that there is effective and efficient process of identification, sharing, deployment and diffusion of appropriate scientific knowledge, technologies and innovations to improve the well-being of the African people. This is in line with SDGs 8, 9, 10 and 11 targets of sustained, inclusive and sustainable economic growth, promote inclusive and sustainable industrialization and foster innovation, reducing inequality within and among countries and making cities and human settlements inclusive, safe, resilient and sustainable. It is designed to bridge the gap between the STI valorization chain – the scientists, policymakers, private sector actors, civil society actors, and the local communities. The proactive engagement of all stakeholders in the research, policy and practice arenas ensures effective targeting of efforts, ownership of results and enhanced valorization.

By valorization here, we mean the translation of scientific outputs into tangible social designs, institutional designs, technologies, and products to aid poverty alleviation and sustainable development. Scientific knowledge will mean little for sustainable development unless they are translated into appropriate technologies and inclusive innovations that could be commercialized and scaled up.

The ATPS will continue to play its longstanding role as the independent STI knowledge broker, manager and advocate in Africa. We will bring together knowledge producers and knowledge users and create conducive environment for dialogue that will foster effective policies and incentives for cooperation between and amongst individuals, institutions and countries from across the public, private, and civil society actors. Table 11 shows the specific objectives, strategy and expected outcomes from the implementation of the knowledge brokerage, management and commercialization programmatic objective.

**Table 12: Specific objectives and outcomes under the knowledge brokerage, management, and commercialization programmatic objective**

Specific Objectives	Strategies	Expected Outcomes
<p>1. Create platforms to increase and strengthen collaboration and networking between and among STI actors for development</p>	<ul style="list-style-type: none"> <li>• Organize annual stakeholders’ meetings, roundtables, fora and dialogue on topical STI issues of national and regional interests</li> <li>• Develop innovation incubation and start-up programmes in the selected sectors including agriculture, energy, environment and health</li> </ul>	<ul style="list-style-type: none"> <li>• Increasingly networked science system actors that could translate STI knowledge into products and services</li> <li>• Opportunities for the creation of more jobs and wealth on the continent</li> </ul>

<p>2. Produce knowledge products to enhance knowledge sharing among actors</p>	<ul style="list-style-type: none"> <li>• Publication and dissemination knowledge products such as journal articles, policy briefs, research papers, working papers, issue papers and newspapers customized to the different stakeholder categories</li> <li>• Training on how to produce quality STI knowledge products</li> </ul>	<p>Well-informed African society that is capable of utilizing new knowledge products to better their living conditions</p>
<p>3. Offer technology cooperation services between international investors and Africa countries and institutions</p>	<ul style="list-style-type: none"> <li>• Undertake scoping studies on specific client needs to inform investment decisions</li> <li>• Facilitate bilateral agreements for technology transfer and cooperation between African countries and international investors</li> <li>• Conduct trainings for personnel working in the interface of technology management</li> </ul>	<p>A mutually beneficial technical cooperation between African countries and international investors</p>

#### Programmatic Objective 4: Knowledge Brokerage, Management and Commercialization

*“Developing new forms of intra-Africa and global partnerships within and amongst stakeholders for achieving Sustainable Development Goals (SDGs) in Africa”*


This programme aims to facilitate the culture of networking, symbiotic collaboration and partnership within and amongst STI stakeholders in Africa and internationally in order to foster innovation, technology development and deployment, and innovation diffusion in Africa. The program also aims to broker partnerships within and between government ministries and policymakers, academic disciplines and institutions, civil society organizations (CSOs), community based organizations (CBOs), private sector actors, and science experts within and between African countries, cultures, languages, regions, and internationally. The ultimate goal of this program is to encourage a more coordinated effort rather than the current ad hoc and sometimes conflicting interventions towards STI research, policy and practice in Africa. The Sustainable Development Goal (SDG) Goal 17 identifies the need to revitalize the global partnerships for sustainable development. These partnerships should be inclusive and built upon principles and values, a shared vision, and shared goals that place people and the planet at the center.

Under this programme, the ATPS will continue to foster partnerships with leading local, national and international agencies and institutions. We will seek to harness the transformative power private resources in delivering on sustainable development objectives. We will ensure that each partnership brings in comparative advantages required to achieve targeted objectives. Such partnerships will be guided by consortium agreements, memorandums of understanding, and or contracts depending on the nature of the partnerships established. Already, ATPS has established national chapters in 27 African countries and three chapters in the diaspora including USA, UK and Australia. Our aim is to influence STI capacity building in research, policy, and practice in these countries at least cost and as well create a platform for Africans and friends of Africa in the diaspora to contribute to STI development on the continent. We also aim to cover the entire continent and other strategic regions in the world by 2030. Other key strategic partnership exists between the ATPS and other regional, continental and global organizations such as the Regional Economic Communities (RECs), African Union Commission (AUC), NEPAD, AfDB, AFREXIMBANK, and the UN bodies among others. **Table 10** shows the specific objectives, strategy and expected outcomes from the implementation of the Intra-Africa and Global Collaboration and Partnerships programmatic objective.

**Table 13: Specific objectives and outcomes under the Intra-Africa and Global Collaboration and Partnerships programmatic objective**

Specific Objectives	Strategies	Expected Outcomes
<p>1. Revitalize the ATPS national chapters in 27 African countries and 3 diaspora chapters to effectively promote STI research, policy and practice in their respective countries</p>	<ul style="list-style-type: none"> <li>• Secure core funding supports from development partners to support the ATPS National Chapters</li> <li>• Continually engage the ATPS National Chapters in the programmes of the ATPS and in forums at national, regional and continental levels</li> </ul>	<ul style="list-style-type: none"> <li>• Increased visibility and impacts of the ATPS at the national, regional and continental levels</li> <li>• Better engagement of the national chapters that will lead to more meaningful impacts at various levels</li> </ul>
<p>2. Mobilize financial resources to promote STI development in Africa</p>	<ul style="list-style-type: none"> <li>• Partner and collaborate with like-minded institutions and organizations in Africa and beyond to raise funds to implement programmes on STI development with particular interest in agriculture, food and nutrition security; energy; environment and climate change; and health innovations</li> <li>• Sign partnership agreements, and MOUs to promote partnerships and collaborations with other institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Improved well-being of the African people through development interventions and supports</li> <li>• Increased partnerships and collaboration between and among like-minded institutions.</li> </ul>
<p>3. Support the implementation of the AU's Agenda 2063 and particularly the STISA 2024</p>	<ul style="list-style-type: none"> <li>• Create awareness on the STISA 2024 among relevant institutions and agencies in Africa and beyond</li> <li>• Partner with the AUC, its bodies and other pan-African STI organizations to develop and implement programs/projects focusing on the priority areas of STISA 2024 which aims to accelerate Africa's transition to an innovation-led, knowledge-based economy</li> </ul>	<p>Achieve the Africa we all want - An integrated, prosperous and peaceful Africa driven and managed by its own citizens and representing a dynamic force in the international arena.</p>

# 3 MONITORING AND EVALUATION (M&E)



ATPS will incorporate relevant M&E tools including the Results Based Framework (RBF), Theory of Change (ToC), LogFrame, Participatory Monitoring and Evaluation System (PM&E), and Continuous Monitoring and Evaluation System (CM&E) to track and monitor each project or program that it undertakes in order to ensure full compliance with grant agreements and ATPS's standing policies and procedures in attaining targeted objectives. The application of each tool or a mixture of the tools depends on its effectiveness and efficiency for the project or program.

In addition to the overall regional coordination, monitoring and evaluation of all ATPS programs by the Secretariat, the National Chapter Coordinators will provide on-the-ground coordination, monitoring and evaluation of national activities. All thematic research programs will continually be coordinated by a team of dedicated international experts in the respective areas of focus. These Resource Persons provide external supervision and monitoring of the implementation and science quality of ATPS programs, delivery of required quality of STI outputs and policy outcomes. In addition, the ATPS International Responsible STI Advisory Committee will provide continuous peer review of the quality of outputs produced.

The ATPS Board, which provides strategic guidance on all ATPS activities, meets twice each year to monitor progress towards stated program objectives, and approves planned activities and budgets. The general membership of the network also meets biennially to review activities of the Network and prioritize programs based on perceived needs of African countries and STI policy stakeholders. For review of financial statements and expenditures, the ATPS engages internationally accredited audit firms to conduct its annual audit in accordance to International Standards of Auditing.

# 4 RESOURCE REQUIREMENTS

The ATPS Secretariat office is comprised of highly qualified international and local staff with expertise in STI related areas for effectively achieving the vision, mission and objectives of the ATPS. The Secretariat constantly reviews its staffing needs to keep up with growing demands and expectations in order to meet the forecasted objectives during any Strategic Phase period. In addition to the growing strength and expertise of the staff complement at the regional secretariat, the ATPS relies on over 1,500 STI experts in its active membership for program implementation spread across 51 countries in 5 continents. This devolved program implementation strategy reduced cost of program administration significantly. The ATPS Mid-Term Evaluation report lauded the ability of the Network to consistently maintain its administrative costs at below 10% of total program costs for all its programs and still delivering effectively on its mandate.

For sustained impact, the ATPS needs to increase its funding portfolio to meet the growing demands and expectations by stakeholders. The ATPS invites development partners, donors, national/regional governments, and friends of Africa to support the ATPS Phase IX Strategy through the provision of core funding, thematic or programmatic funding, and or collaborations and partnerships on our thematic and programmatic priorities. The estimated amount to facilitate the implementation of the ATPS Phase IX Strategy is about US\$50 million over the next five years. This includes the cost of implementing risk management activities and operations evaluations (such as monitoring and evaluation, feedback mechanisms, and contingency planning).

## **Financing Requirements**

This section gives an overview of the financing requirements for the ATPS Phase IX Strategic Plan 2023-2028. The funding required for this Plan is determined by the envisaged activities within the plan period. Costs for envisaged activities are derived from actual estimates based on 2023 values adjusted for projected inflation in Kenya. Each program activity with financial implications form budget units as specified in **Table 11**. **Table 14** also shows the summary of the proposed budget across the main thematic/sectoral priorities of the Plan.

**Table 14: Specific objectives and outcomes under the knowledge brokerage, management, and commercialization programmatic objective**

S/N	THEMES/SECTORS	(Figures in US Dollars)						Subtotal
		2023	2024	2025	2026	2027	2028	
1	Agriculture, Food and Nutrition							
	1.1 Undertake and support transdisciplinary research to generate new technologies and innovations for agriculture, food and nutrition	178,609.68	893,048.40	893,048.40	1,116,310.50	893,048.40	669,786.30	4,465,242.00
	1.2 Identify and deploy new disruptive technologies and innovations for increasing agricultural productivity and value addition	148,841.40	476,292.48	595,365.60	744,207.00	744,207.00	446,524.20	2,976,828.00
	Subtotal	327,451.08	1,369,340.88	1,488,414.00	1,860,517.50	1,637,255.40	1,116,310.50	7,442,070.00
2	Energy							
	2.1 Undertake and support transdisciplinary research to generate new technologies and innovations especially on renewable energy	186,051.75	558,155.25	744,207.00	930,258.75	744,207.00	558,155.25	3,721,035.00
	2.2 Identify and deploy new disruptive technologies and innovations for increasing low carbon energy access in Africa	99,227.60	421,717.30	545,170.07	496,138.00	620,172.50	372,103.50	2,480,690.00
	3.1 Undertake and support transdisciplinary research to generate new technologies and innovations for climate change adaptation, mitigation and resilience	217,060.38	868,241.50	824,829.43	868,241.50	824,829.43	651,181.13	4,341,207.50



	3.2 Identify and deploy new disruptive technologies and innovations for building climate change adaptation and resilience capacity	130,236.23	520,944.90	520,944.90	442,803.17	651,181.13	416,755.92	2,604,724.50
	3.3 Promote the ATPS Climate Sense Program (CSP)	69,459.32	364,661.43	347,296.60	434,120.75	399,391.09	243,107.62	1,736,483.00
	Subtotal	416,755.93	1,753,847.83	1,693,070.93	1,745,165.42	1,875,401.65	1,311,044.67	8,682,415.00
4	Health							
	4.1 Undertake and support transdisciplinary research to generate new technologies and innovations for efficient healthcare	37,210.35	272,875.90	297,682.80	260,472.45	320,626.01	210,858.65	1,240,345.00
	4.2 Identify and deploy new disruptive technologies and innovations for improving healthcare system in Africa	61,303.30	294,062.84	198,455.20	212,197.88	260,472.45	196,208.43	1,240,345.00
	Subtotal	98,513.65	566,938.74	496,138.00	472,670.33	581,098.46	407,067.08	2,480,690.00
	5.1 Enhance Digital Literacy and Skills Development	57,200.35	185,639.20	350,728.35	332,465.50	232,657.95	275,365.50	1,158,691.35
	5.2 Foster Innovation in Education Technology (EdTech)	101,184.00	595,365.60	399,391.09	446,524.20	117,000.00	198,455.20	1,857,920.09
	Subtotal	735,944.33	1,275,902.46	1,717,588.54	1,472,443.63	897,366.15	1,067,625.52	6,891,505.13
6	Creative Industries and Entrepreneurship							
	6.1 Foster Innovation and Creativity in the Creative Sector	211,325.30	51,851.00	213,700.00	120,369.50	372,103.50	99,227.60	1,068,576.90
	6.2 Support Entrepreneurship Development in Creative Industries	990,25.50	102,524.40	150,487.30	295,367.05	146,272.07	100,300.69	893,977.01
	Subtotal	752,266.70	731,877.34	692,891.30	1,096,831.28	1,150,769.64	599,708.10	5,123,369.86

7	Digital economy and ICT							
	7.1 Expand Digital Infrastructure and Connectivity	127,256.35	250,265.00	290,502.00	175,600.37	258,365.12	100,900.78	1,202,889.62
	7.2 Promote Digital Inclusion and Skills Development	138,000.00	214,250.00	181,140.00	314,471.20	279,247.10	200,902.70	1,355,011.00
	Subtotal	918,553.68	1,169,869.18	1,436,930.15	961,037.87	1,375,079.84	757,277.18	6,645,738.90
8	Monitoring and Evaluation							
	6.1 Program Management Unit	80,000.00	182,000.00	199,000.00	213,700.00	236,270.00	129,449.00	1,040,419.00
	6.2 National Chapter Coordination	95,000.00	140,000.00	151,000.00	167,300.00	183,030.00	158,731.00	895,061.00
	Subtotal	238,000.00	414,000.00	470,400.00	490,440.00	534,484.00	350,031.00	2,497,355.00
6	Administration							
	6.1 Administration - 10% of program costs	136,600.00	508,400.00	543,740.00	599,519.00	599,261.90	411,471.20	2,798,992.10
	TOTAL EXPENDITURE	3,909,364.72	8,770,048.98	9,828,549.99	10,125,021.78	10,015,096.54	6,950,794.00	48,763,860.99

# Funding Strategy

The ATPS funding strategy is broken down into four major components:

**a) Core funding to cover overhead and non-program costs:** This will include financial support that covers basic “core” organizational and administrative costs of ATPS, including salaries of full-time staff, facilities, equipment, communications, and the direct expenses of day-to-day work that will enable us achieve stated objectives. It can also include financial supports that will cover thematic/programmatic priorities that have been identified by the ATPS based on stakeholder needs and donor priorities as a result of our expertise and longstanding experience in deploying science, technology and innovation for Africa’s sustainable development.

**b) Endowment Fund:** As ATPS is a non-profit organization, we will solicit from African governments, development partners and donors to invest and establish endowment funds for the ATPS. Such capital will enable ATPS fulfill its mission in a more sustainable way. The ATPS Board of Directors have committed its members to proactively participate in fundraising for ATPS activities, especially with regard to lobbying African governments for the establishment of an endowment fund for the ATPS during the Phase VIII implementation period. The ATPS hopes that the recent identification of the ATPS as a leading Think Tank and Resource for STI policy research and policy formulation and implementation by the African Union Commission will enhance the interest and commitments by African Member States in committing funding to ATPS activities.

**c) Funding support for specific programs:** ATPS will continue to request for funding supports for specific thematic or programmatic priority areas of the Phase IX Plan from donors, development partners and governments. This will be in form of direct requests for funding submitted to donors or in response to calls for proposals made by donor agencies. In each case, ATPS will endeavor to work and collaborate with like-minded institutions and partners within and outside Africa in the submission of proposals and implementation of projects to draw synergy and ensure complementarity of actions towards sustained impacts.

**d) Client-sponsored sector specific projects:** ATPS will welcome client-sponsored sector specific projects and consultancies aimed at achieving high impact results from mostly private companies, selected donor agencies, and governments. Such projects and consultancies can include sponsored research and policy scoping studies aimed at introducing new products, investments, and technologies into African markets and business environments.

# 5 STRATEGIC PLAN ASSESSMENT

A SWOT analysis of the ATPS, based on the last evaluation report of the organization on the effectiveness and efficiency of its implementation activities was conducted in

liaison with the Ministry of Foreign Affairs, the Netherlands. Results of some of the SWOT analysis are presented in Table 13 below:

**Table 15: SWOT Analysis of the ATPS**

STRENGTHS	WEAKNESS
<p><b>Well Established Networking Structure:</b> ATPS is the only African organization dealing with STI policy issues with well-established and visible networking structures in 27 African countries and 3 Chapters in the Diaspora (Australia, UK and USA).</p> <p><b>Institutional effectiveness:</b> Adequate management frameworks in place and which are being used effectively and transparently.</p> <p><b>Programme Cost Effectiveness:</b> Able to achieve research and policy outputs, outcomes and impacts at least costs</p> <p><b>International Status and Good Profile:</b> Excellent institutional profile in Africa and beyond with full diplomatic status in Kenya</p> <p><b>Institutional Partnerships:</b> Excellent linkages and good partnerships with institutions in Africa, Europe, America and Asia allowing it access to knowledge communities in other continents for implementation and peer review of its research and policy intervention initiatives</p> <p><b>Strong Leadership and Selfless Commitment to STI Policy Research:</b> Strong leadership and selfless commitment by the ATPS Board, Secretariat and national chapter coordinators</p> <p><b>Trans-disciplinary and Multi-sector Membership:</b> Members have trans-disciplinary training and backgrounds including the academia, policy makers, private sectors, civil society, and the media</p> <p><b>Good Record of Achievements:</b> History of remarkable achievements in the area of STI knowledge generation, disseminating STI research outputs and influencing STI policy in Africa. Consistently ranks as the best think tank in Africa for many years.</p>	<p><b>Coverage of sub-Saharan Africa:</b> ATPS is yet to establish national chapters in all the sub-Saharan African countries. Members want to see ATPS national in all SSA countries to help in influencing intra- and interregional cooperation in STI policy making and implementation on the continent</p> <p><b>Core Institutional Funding:</b> There is lack of core institutional funding to support administrative costs at the Regional Secretariat and National Chapter levels</p> <p><b>Staff Work Load and Pro-Bono Work by National Chapter Coordinators:</b> excessive work load at the Regional Secretariat and the pro-bono work done by National Chapter Coordinators. The current Secretariat Management staff are overworked</p> <p><b>Institutional and Systems Support to National Chapters:</b> Deriving from the lack of adequate core funding is inadequate institutional and systems support for the national chapters. This limits the ability of some national chapters to respond effectively to STI policy needs in their countries</p> <p><b>Program Funding:</b> Lack of adequate resources to fund programs to address STI policy needs of member countries identified by national chapters</p> <p><b>National Government Support:</b> Budget constraints in many African countries often hinder support to national chapters by national governments. The significant support received from the governments of the Federal republic of Nigeria and the Republic of Kenya remain very critical in building African ownership of the ATPS programs and activities. Other African governments are encouraged to support the ATPS activities both regionally and locally.</p>

<p><b>Stakeholder Engagement:</b> Able to convene diverse stakeholder engagements in STI research, policy and practice in Africa.</p> <p><b>Ability to Facilitate STI Policy Development:</b> Able to inform and facilitate STI policy changes at the pan-African level and in many member countries, e.g. Nigeria, Lesotho, Ghana, Uganda, Tanzania, Ethiopia; convene STI parliamentary committees in some countries, e.g. in Kenya.</p> <p><b>Ability to contribute to Global STI Debates:</b> Able to contribute to the development of global and regional reports and strategies such as the UNESCO Science reports, UNEP-IRP Water Decoupling Report; the AUC Climate Change Strategy; the AfDB Green Growth Strategy; Africa Capacity Report; and the OECD Green Growth Best Practices Report among others.</p>	
<p><b>OPPORTUNITIES</b></p>	<p><b>THREATS</b></p>
<p><b>Interest in STI:</b> There is increasing interest in STI policy research in developing countries</p> <p><b>Strengthening Funding Portfolio:</b> Existing potential funding opportunities at the National Chapter levels not effectively harnessed due to low participation of national chapters in fundraising at the national levels. The ATPS is developing a strategy to build capacity of National Chapter Coordinators in fundraising from their national governments to support the impressive fundraising efforts of the Regional Secretariat Management.</p> <p><b>Awareness by African Governments:</b> The recent recognition of the ATPS as a leading Think Tank and Resource for STI policymaking and implementation in Africa by the African Union Commission is a positive step in this direction</p> <p><b>Potential to Expand the Network:</b> ATPS has the potential to expand to all countries in Africa</p> <p><b>Potential to Expand Donor Base:</b> There is potential to expand the funding base for ATPS to include other big donors from across the world</p>	<p><b>Funding Gaps:</b> The move towards thematic research funding by some Donors has led to diminishing core institutional funding. This is placing constraints on core STI policy advocacy work that ATPS can undertake</p> <p><b>Increased Competition for Funding:</b> There is a growing competitiveness in obtaining donor funding</p> <p><b>Research Granting Procedures:</b> The length of time it takes for some donors to approve research grants often limit ATPS' ability to respond to STI policy needs of member countries in a timely manner.</p> <p><b>Changes in Donor Priorities:</b> Some donor program priorities often change over time. As a result, ATPS' program priorities focus on Africa's development challenges may sometimes not be in alignment with the new program priorities of some former donors.</p>



# RISK MANAGEMENT STRATEGY

We recognize and anticipate both operational and strategic risks that may undermine the implementation of the ATPS Phase VIII Strategic Plan 2017-2022. Two key potential risks have been identified to include: resource mobilization and brand/reputational risks.

**Resource mobilization risk** emanates from the difficulty in mobilizing adequate resources to meet planned activities due to factors such as changes in donor program priorities and focus; donor fatigue and competition for donor funding. It will also include risks due to changes in governments that may affect the prioritization of STI and line ministries with whom ATPS works.

**Mitigation:**

- Diversification of funding sources whenever feasible, even for the same project. ATPS will continue to strengthen existing donor partnerships while exploring new ones. This will also include charging fees for training programs on STI policy research, policymaking and implementation at Africa-wide level;
- Donor focus analysis and competition profiling
- Strengthening of ATPS national chapters to raise funds at the national levels to sustain their operations;
- Liaising with national governments to finance ATPS work on STI capacity building; and
- Building the capacity of ATPS research team to develop bankable proposals for funding the thematic and programmatic areas of work in the current plan.

**Brand/reputational risk** emanates from low visibility of ATPS activities and failure to effectively manage ATPS image, reputation and relationship with its stakeholders such as donors, partners and clients.


**Mitigation:**

- Development and implementation of a comprehensive communication strategy that incorporates inclusive stakeholder engagement plan, public relations strategy as well as a robust media engagement plan.

Other operational risks will be managed through continuous monitoring and evaluation of all ATPS activities. The ATPS Board of Directors will continue to provide important oversight to the overall organization's risk management. In addition to an external annual audit of financial statements, ATPS will continue to review and audit its internal controls and processes to ensure that the internal policy framework is robust enough. This is necessary to provide reasonable assurance regarding the effectiveness and efficiency of operations while at the same time safeguarding the company's assets.



# 7 CONCLUSION



The new ATPS Phase IX Strategic Plan 2023-2028 aims to “Strengthen Africa’s capabilities in science, technology and innovation for sustainable development” and is born out of necessity to refocus and realign the ATPS priorities alongside key developmental goals (SDGs and Africa’s Agenda 2063 including STISA 2024) in order to meet the growing needs and aspirations of Africans at individual, institutional, local, national, regional and continental levels. The Plan has identified four key sectors that will be of strategic priority in the next five years. These include: agriculture, food and nutrition security; energy; climate change and environment; and health. The Plan also identified five key programmatic priority areas that will be cross-cutting on the sectors to include: STI policy research, policymaking and advocacy; Training, sensitization and capacity building; Youth and gender empowerment; Knowledge brokerage, management and commercialization; and Intra-Africa and global collaboration and partnerships. The plan has also identified specific objectives, strategies for accomplishing it and expected outcomes under each of the thematic/programmatic priority areas.

Through this plan, ATPS has sought to articulate its vision for the continent, and its mission to contribute to poverty alleviation through science, technology and innovation research, policy and practice.

The centre piece of the mission is the strong belief that in Africa’s current predicament, bridging the knowledge, technological and innovation capacity gaps between Africa and the rest of the world is the foundation for inclusive growth and sustained economic prosperity.

The plan builds on the achievements and strengths of the ATPS Network and critical analyses of experiences gained in the implementation of the previous plans. In setting the strategic objectives and priorities for the Phase IX Strategy, ATPS has taken a participatory approach recognizing the importance of the “strategic planning process” for ownership, buy-in and effective program implementation for achieving the desired outcomes. The operational management of the plan will remain dynamic and reflexive in responding to the emerging priorities in the fast changing STI policy space in Africa and globally.

We recognize that achieving the desired outcomes of this strategy will require significant investments in terms of Overseas Development Assistance (ODA), government supports, and private sector investments. We invite both traditional and new partners to support the new ATPS Phase IX Strategic Plan 2023-2028 through core grants, thematic/programmatic grants, and consultancies to enable us achieve our stated objectives.

# ANNEXES: DESCRIPTION OF ATPS FLAGSHIP PROJECTS

## ANNEX 1: Improving Agricultural Productivity and Resilience to Climate Change Using the LandPKS Mobile Technology

### Rationale

The LandPKS mobile app is predicated on the lack of easily accessible, timely and accurate climatic and soil information to inform farm decision-making on production and management at site-specific locations. Besides, the failure of soil maps and other remote-sensing estimates to characterize soils at finer scales begs for suitable technologies that can produce better results. African farming system is characterized by inadequate extension agents to provide advisory services to farmers (1:2500 in Africa and 1:400 in Europe) and hence new

technologies that could complement the services of the extension agents to farmers will go a long way in improving agricultural productivity. These are the reasons why LandPKS was developed. It is the first of its kind in providing accurate soil and climatic information at site-specific locations and can be used anywhere. With improved mobile phone access and internet penetration in Africa, LandPKS is surely a one stop shop for supporting farmers' decision-making in agriculture.

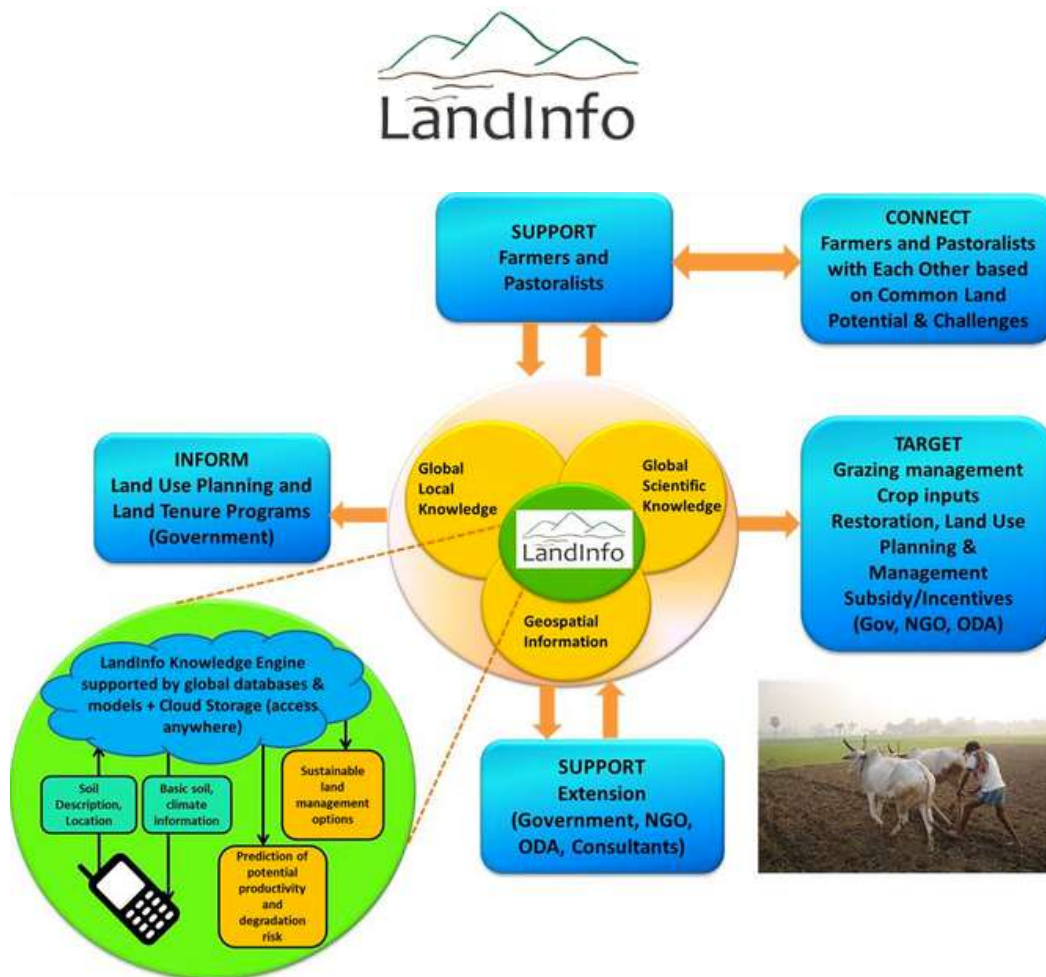


Figure 1: Graphical representation of the LandPKS mobile application

## **Description**

The LandPKS app is a community-driven app that enables users to instantaneously access climatic and soil information and interpret them in the context of local conditions and values, including crop preferences. Users are able to target investments on land for specific purposes such as specific crop choices for specific soils. With knowledge on annual average rainfall and temperature, aridity index, soil types, among others, farmers are able to plan their farming enterprises adequately to avoid losses due to climate variability and hence improve agricultural productivity and climate change resilience.

### **Target Beneficiaries of LandPKS**

Farmers, farmer associations, extension agents, agripreneurs, land-use planners, land investors and policymakers.

### **LandPKS Field Example**

- User wants to select a site with the highest potential to support a specific crop production
- Phone identifies GPS location
- User enters point-specific data on soil characteristics, land use, and topography; phone automatically uploads to the “cloud”
- User data integrated with global and local soil and climate databases

- Relevant climatic information including rainfall and temperature distribution, estimates on soil water storage, aridity index, average annual rainfall amounts, the growing season length, and the soil type uploaded to the phone almost instantaneously
- User selects appropriate soils for specific crops for production using our soil-crop suitability matrix or advisory from extension agents

### **Key Outcomes**

- Farmers obtain the highest crop yields from any soils based on their access to accurate soil and climatic information which is provided by the LandPKS mobile app in-situ
- Increased yield means more income for the farmers

### **Request for Supports and Collaboration**

The ATPS solicit for supports and collaboration from development partners and donors to enable us upscale and out scale the LandPKS mobile app technology across Africa through 1) awareness creation, 2) capacity building/training of farmers and extension agents on how to use LandPKS and 3) policy advocacy to mainstream LandPKS into other agricultural development initiatives.

## ANNEX 2: Linking Agriculture and Nutrition Value Chain for Improved Health Outcome (LANHO)

**Project Summary:** The new Sustainable Development Goal number two aims to “end hunger, achieve food security and improved nutrition, and promote sustainable agriculture”. To achieve this, it is critical to strengthen the link between agriculture, nutrition and health in order to ensure that all people, particularly vulnerable people in low and middle income countries, have access to sufficient and safe food all year round. Identifying ways of ensuring that agriculture is nutrition-sensitive so that agricultural programs lead to improved nutrition and health outcomes becomes of critical importance. This enables policymakers to be able to translate nutritional knowledge into agricultural policies and programs for improved health outcomes by supporting (through policy) interventions that utilize nutritional knowledge for appropriate food production systems. Through this, the current global concerns on how to link agriculture and nutrition to improve health outcomes can be adequately addressed.

**Project Aim:** This project enables policymakers to answer the ‘so what?’ question when informed of food and nutritional deficiencies in their constituents’ markets and households. It aims to produce a simulation model that will enable nutritionists and agriculturists to work together to determine technically and financially viable optimal mixes of food commodities that the markets should provide, at district, county, or country levels, to enable households to provide their population with better diets for improved nutrition and health outcomes. With this knowledge the policymakers will be able to formulate enabling agricultural policies and programs that will encourage farmers to produce the required qualities and quantities of the desired food commodities. Specifically, the study aims to develop a tool that will enable efficient translation of knowledge about nutritional deficiencies into policies that will result in food with the right proportions of nutrients being available in any target markets and households. This study will generate unique knowledge that will be useful in the determination of hidden hunger and malnutrition in vulnerable populations particularly children and women. It will enable nutritionists, health

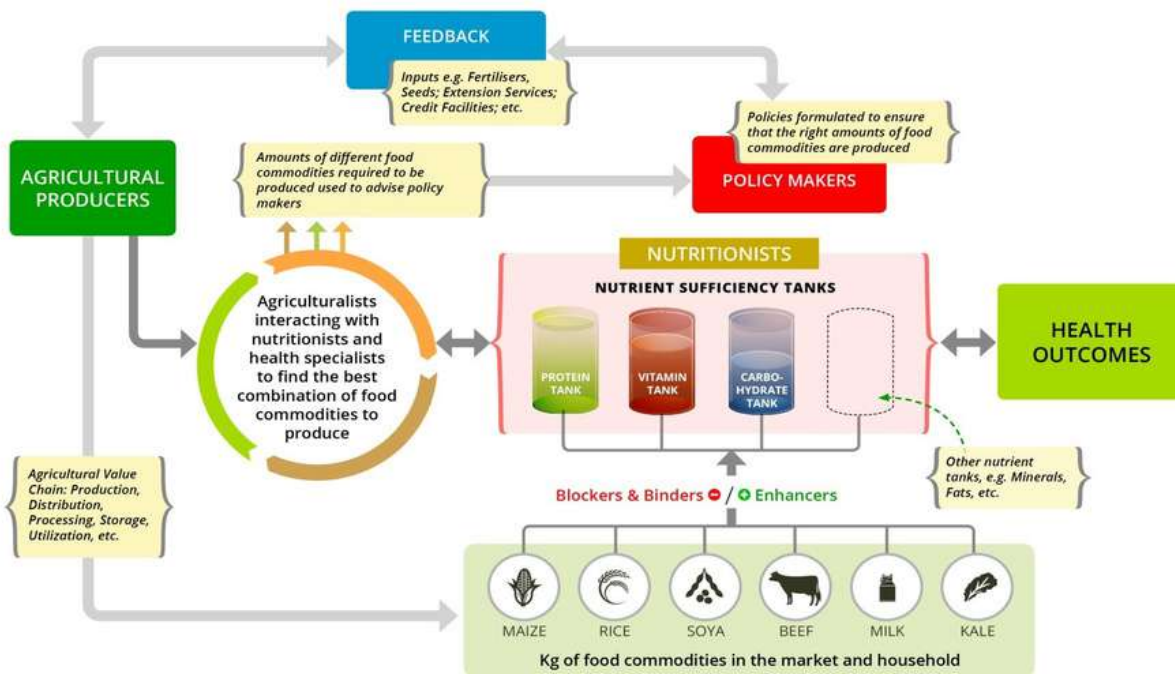
specialists, agriculturists, and policymakers to work together to address nutrient deficiencies, beyond just insufficient calories, to include essential micronutrients especially from animal-source foods that are required for safe pregnancies and proper physical and cognitive development of their children.

The simulation model, which will be built by a unique collaboration of nutritionists, agriculturists, health specialists and mathematicians using the Wolfram System Modeller, will:

- For a unit (kilograms) of a food commodity determine the related quantities, in appropriate dietary units of selected dietary components e.g. energy, protein, calcium, vitamin A, iron, zinc, etc.
- From the quantities (kilograms) delivered to the market and on household table, find the total availability of macro and micronutrients. The initial crude totals of available nutrients and micronutrients will be refined by taking into account the positive and negative interactions between foods when combined. The totals will be further adjusted to account for the way commodities are stored, processed and or cooked.
- Using the recommended daily requirements for any target population to: (i) determine the total requirements for each nutrient, (ii) determine the total market and household requirements for the corresponding number of people.
- Determine the gaps for each macronutrient and micronutrient between what is required and what is presently available.
- Use optimisation techniques to produce a first-attempt at determining what additional or new food commodities should be produced, or made available, to fill the nutritional gaps of the target population. This will be adjusted to account for food preferences of particular markets due to religion, custom or demographic composition.

Study Design: The framework for this study is illustrated in Figure 1, and shows the pathways from determination of the quantities (weights) of food commodities in any particular market and household leading to the quantities of particular

nutrients that feed into the so-called 'nutrient sufficiency tanks'.



**Figure 2: Nutrition and Health-Driven Agricultural Policy Generator**

Summary of interactions in the nutrition and health-driven agricultural policy generator

- The nutrient sufficiency tanks will show how much of each nutrient is still needed to meet the nutritional requirements of any target population (adult population, children, lactating mothers, gender, age groups, and people with special nutritional needs, etc.) in a county, district or country.
- The nutritionists will then be able to use the model outcome to determine how the tanks could be filled using increased amounts of the different food commodities.
- These amounts will then be provided to the agriculturalists who will determine if the increases are technically and financially viable.
- Where the amounts are found to be non-feasible, the agriculturalists and the nutritionists will work together and re-run the model to derive a feasible best outcome with all the nutrition tanks filled as much as possible.
- The policymakers will be informed of the amounts of extra food products required to adequately fill the sufficiency tanks. This will enable them make informed policy decisions on the best interventions to apply to ensure that farmers produce the extra amounts of the food products required or seek for other alternative food supply options including food imports to ensure better health outcomes for the target population.

**Expected Outputs:**

- A user-friendly food and nutrition tool which has the potential to be widely adopted by policymakers wishing to ensure that their constituents are able to meet the Estimated Average Nutrient Requirements (EAR) within realistic constraints such as affordability and availability of the food items.
- A model that provides feedback mechanisms between and amongst human nutritionists, food producers, and policymakers for better health outcomes in any target population. This does not exclude information from food distributors, processors, marketers and consumers. The model will enable the users to understand the implications of choice of any diet on the nutrient requirements of any target population.
- A research tool that can enable university students in mathematics, nutrition, health sciences and agriculture to learn how to model real life situations and link the theory they learn in school to local, district and or national food production and policy decisions.

**Expected Outcomes:**

- A sustainable diet and healthy society for all the targeted populations in the selected countries. This will lead to reduced hospital visits due to illnesses and therefore increased savings, improved maternal and child health, reduced malnutrition, reduced nutrient related diseases such as obesity, over-weight, rickets, and osteoporosis among many others.
- Increased collaboration among agriculturists, nutritionists, health workers, and policymakers in ensuring sustainable diet for any targeted population. This will be one of the first time the quadruple stakeholders will be working together to achieve better health outcomes.
- Increased transdisciplinary research and development in institutions of higher learning dealing with issues of agriculture, food, and nutrition security.

**Scope of Study:** The study is planned to be conducted in four selected countries in sub-Saharan Africa. Priority consideration will be given to countries with high records of malnutrition but an agrarian economy, high population growth, gender inequality, and other political issues. Different target populations and districts/counties/states will be targeted in the four countries depending on records of nutrient deficiencies for the particular target populations.

**Partnerships and Collaborations:** The ATPS is partnering with leading scientists and institutions on the continent to ensure that all the expected outputs are delivered timely and make the desired impacts.



## ANNEX 3: Managing Organization (Hub) for Responsible Artificial Intelligence for Agriculture and Food Systems (AI4AFS) Innovation Research Network in Africa

### Project Summary

Africa's population is expected to reach about 2.6 billion by 2050. This will require an increase in agricultural and food production by up to 70% to fit the need of the population, a serious challenge for the agriculture and food systems. Such requirement, in a context of resource scarcity, climate change, COVID-19 pandemic, and very harsh socioeconomic conjecture, is difficult to attain without the intervention of emerging technologies and innovations such as artificial intelligence (AI) to leapfrog the transformations required in the sector. This project is part of the innovation stream of the Artificial Intelligence for Development Africa (AI4D Africa) program dedicated to a future where Africans across all regions create and use artificial intelligence to lead healthier, happier, and greener lives. AI4D Africa is co-funded by the Swedish International Development Agency and Canada's International Development Research Centre. AI4D Africa is a four-year, CAD 20 million, partnership between Canada's International Development Research Centre (IDRC) and Sweden's government agency for development cooperation (Sida). The program is dedicated to a future where Africans across all regions use AI to lead happier, healthier and greener lives.

### Project Objective

The overall objective of this initiative is to advance the responsible development, deployment, and scaling of homegrown AI research and innovations to tackle pressing challenges in agriculture and food systems in Africa. This will be accomplished through setting-up, managing, and supporting an innovation research network on AI for agriculture and food systems. This network will consist of 6-10 innovation research projects that will develop, deploy, test, and seek to scale responsible and homegrown artificial intelligence research and innovations:

- a) Deepen understanding of how to develop, deploy, and scale responsible AI innovations for sustainable AFS in Africa;
- b) Build the capacity of African innovators and researchers to develop, deploy and scale responsible AI applications in AFS; and
- c) Inform African and international AI policy and practice.

### Expected Outcomes:

- a) African researchers/ innovators enabled through research infrastructure and conducive environment to engage and lead in AI4AFS
- b) Enhanced AI4AFS research networks with potential to generate new AI research and innovations for tackling pressing AFS challenges in Africa
- c) More inclusive policies and strategies for sustaining transformative change in AI4AFS based on societal felt needs

**Scope of the project:** The Hub is planned to be conducted in selected countries in sub-Saharan Africa.

**Partnerships and Collaborations:** The ATPS, Icipe and Kumasi Hive (Consortium) (The Hub) will establish and host a network consisting of 6-10 innovation research projects that will develop, deploy, test, and seek to scale responsible and African-led artificial intelligence research and innovations. This research will deepen our understanding of how to develop, deploy, and scale responsible AI innovations for sustainable agriculture and food systems in Africa. The project will also seek to use these lessons learned to inform African and international AI policy and practice conversations.

## ANNEX 4: Building the Capacity of Selected sub-Saharan African Countries to Effectively Measure Progress in their Nationally Determined Contributions' Implementation Using Tracking Tools and Indexes

### **Project Description/ Background**

Numerous attempts have been made globally to regulate climate-induced challenges through mitigation and adaptation measures. The three most potent Conventions, Protocols, and Agreements that come into mind include the United Nations Framework Convention on Climate Change (UNFCCC) of 1994, the Kyoto Protocol of 1997, and the Paris Agreement of 2015. From the Rio summit of 1992 to the Paris Agreement in the Conference of Parties (COP) 21, they all aim at reducing greenhouse gas (GHG) emissions. However, the coming into force of the Paris Agreement, a legally binding treaty based on the Party's voluntary submissions was seen as a major milestone towards bringing years of near deadlock negotiations to a conclusion and progressive global responsibility by all aimed at combating the rising GHGs. The Nationally Determined Contributions (NDCs), with conditional and unconditional commitments, are key by-product of the Agreement and require all the countries to spell out their intended actions to address climate change over 5-year periods in terms of adaptation, mitigation, and means of implementation as well as opportunities arising therefrom and sustainable development co-benefits for the continent. Despite the Paris Agreement providing little guidance on what and how climate change adaptation would be included in the NDCs, most African NDCs highlight a number of cross-cutting strategies to address their mitigation ambitions as well as their adaptation needs. This is purblind considering the continent is already dealing with increased severity and frequency of climate risks and hazards due to its geographical positioning, overreliance on climate-sensitive production sectors such as agriculture, tourism, resource, and infrastructure deficit, and the limited adaptive capacity of the people.

### **Key Objectives and Activities**

This project, therefore, seeks to utilize the key product from this pilot study (monitoring and tracking tools) already developed and validated in eight (8) African countries to build the capacity of focal persons/champions in twelve (12) selected SSA countries to effectively measure their NDCs implementation progress using the tracking tools and Indexes.

1. Identify and train strategic NDCs implementation champions/ focal persons in sixteen selected SSA countries;
2. Work with the trained champions/ focal persons to deploy the NDC tracking and monitoring tools and generate indexes for the target countries; and
3. Promote and advocate for the use of the NDC implementation tracking tools and index for decision-making and in fostering compliance with the Paris Agreement in SSA.

### **Expected Outputs and Outcomes**

- a) Increased capacity of countries to collect and utilize the NDC data, using tracking tools and indexes to make informed policy and programmatic decisions.
- b) Progressive increased ambitions and compliance to the Paris Agreement and achievement of the NDC targets brought about by increased buy-in and strategic partnerships with relevant stakeholders in SSA countries.

## ANNEX 5: Strengthening the National Research and Innovation Funding Agencies in West Africa – SRIFA

### Project Description/ Background

The Science Granting Councils (Councils) play critical and strategic roles in supporting research and innovation that contribute to the social and economic development of any country. The Councils are charged with the responsibility of research funding, quality assurance, policy and decision-making, knowledge exchange, and training/capacity building of the science system actors to ensure that outputs from the research and innovation endeavours are used to inform policy and practice. Given this important role, and in view of the dynamic nature of research and innovation developments, their capacity to perform these responsibilities to achieve desired goals needs to be continuously strengthened. Compared to other regions in Africa, only a few countries in West Africa have established agencies responsible for research and innovation funding. The Science Granting Councils Initiative (SGCI) in sub-Saharan Africa (SSA) is providing support that will strengthen the national research and innovation funding agencies in West Africa. This project aims to strengthen the national research and innovation funding agencies where they already exist (Burkina Faso, Senegal and Côte d'Ivoire) to improve their performances as well as support the development of institutional frameworks/mechanisms for the development of new research and innovation funding agencies in countries where they do not currently exist (Ghana, Nigeria and Sierra Leone).

This project will be implemented by African Technology Policy Studies Network (ATPS) and its partner, the African University of Science and Technology (AUST) working together in a joined-up approach with other Collaborating Technical Agencies (CTAs) to provide the requisite training and technical support to strengthen the national research and innovation funding agencies or their equivalents in the six participating West African countries.

### Key Objectives and Activities

The overall goal of this project is to provide training and technical support that will strengthen the national research and innovation funding agencies

in six selected West African countries namely, Burkina Faso, Côte d'Ivoire, Ghana, Nigeria, Senegal and Sierra Leone. Specifically, the project aims to:

- a) Identify the needs/areas for support in the six participating countries, with subsequent activities to be undertaken (taking into account other activities under SGCI-2);
- b) Improve how science granting councils function in Burkina Faso, Côte d'Ivoire and Senegal by aligning strategy, structure, resources and management processes (e.g., in project monitoring, financial reporting and communicating research results); and
- c) Develop organizational frameworks (e.g., policy, legislative, financial, administrative, and institutional) to create science granting councils in the three countries where they do not yet exist (Ghana, Nigeria and Sierra Leone).

### Expected Outputs and Outcomes

- a) In-depth understanding of the statuses of research and innovation funding ecosystems in the six participating countries in terms of the relevant policies and institutions; key actors, their roles, linkages, power and influence as well as their needs for more effective Councils where they exist.
- b) Institutional frameworks for the establishment of new research funding agencies or its equivalents where they do not exist.
- c) Effective and improved delivery of services of the Councils and new research funding agencies that are established through robust institutional frameworks and mechanisms.
- d) Improved interaction and knowledge sharing and experiences between and among community of practice (COP) through the ATPS web-based ICE platform
- e) Increased capacity of the Councils to effectively deliver on their mandates, especially on research and innovation funding.
- f) Establishment of new funding agencies in Ghana, Nigeria and Sierra Leone, with institutional frameworks and mechanisms for the effective functioning in place.
- g) Stakeholders in the countries acquire capacities to effectively run the agencies as well as engage in high-level policymaking processes.

## ANNEX 6: Technological Innovation Development in Africa to Enhance Employability, Entrepreneurship and Job Creation (TIDE)

### Project Description/ Background

The youth are Africa's greatest asset. Africa's youth population is rapidly growing and expected to double to over 830 million by 2050 (AfDB, 2016). If properly harnessed, this increase could support increased productivity and stronger, more inclusive economic growth. Unfortunately, majority of the youth do not have stable economic opportunities. Of Africa's nearly 420 million youth aged 15-35, one-third are unemployed and discouraged, another third are vulnerably employed, and only one in six is in wage employment (AfDB, 2016). While 10 to 12 million youth enter the workforce each year, only 3.1 million jobs are created, leaving vast numbers of youth unemployed (Ibid). These conditions have been exacerbated by the COVID-19 pandemic. Addressing the youth unemployment challenges in Africa will require sustainable solutions that can be achieved through effective policy interventions and the strengthening of institutions. Unfortunately, Africa as a whole lacks robust policies and plans on science, technology and innovation (STI), which slows down its progress in attaining industrialization and economic development (Ozor, 2020). This is because policies and institutions embedded in STI development have shown to have the greatest potentials to accelerate job creation (African Union Commission, 2014). To make effective policies the use of evidence is paramount (Bowen & Zwi, 2005). Besides, there is no sufficient documentation of technological innovations especially by the youth and women that could be supported for commercialization.

It is against this backdrop that the TIDE project proposes to review the STI policy and institutional landscape/ecosystem in selected sub-Saharan African countries namely: Ethiopia, Ghana, Kenya, Nigeria, Rwanda, Senegal, Uganda and Zimbabwe; with a view to understanding their statuses, what works (successes), what doesn't work (failures) and why (reasons for successes or failures). The findings and lessons learned from the three years research and intervention activities is aligned with the implementation of Afreximbank's Private Sector Development Strategy.

### Key Objectives and Activities

The specific objectives of the TIDE project are to:

- a) Conduct a review of the science, technology and innovation (STI) policy and institutional landscape in selected SSA countries with a view to understanding the statuses, what works, what doesn't work and why;
- b) Undertake a stakeholder analyses and mapping along the countries' priority technological innovation value chains with a view to understanding the key actors, their roles, linkages, contexts, capacities, interests, power and influence;
- c) Facilitate knowledge sharing and policy engagement among stakeholders with a view to developing a stakeholder engagement strategy/action plan within and among countries; and
- d) Empower young graduate innovators/entrepreneurs through the TICA programme with a view to enabling them scale up their innovations, start new businesses, support livelihoods, and create more jobs in their communities.

### Expected Outputs and Outcomes

1. A deeper understanding of the science, technology and innovation (STI) policy and institutional landscape in selected SSA countries.
2. Increased knowledge sharing and policy and stakeholder engagement.
3. Empowered young graduate innovators/entrepreneurs through the TICA programme with a view to enabling them scale up their innovations, start new businesses, support livelihoods, and create more jobs.

## ANNEX 7: Strengthening the Capacity of the Extension System to use Proven Knowledge and Technologies to Sustain Equitable Locally Led Adaptation Among Smallholder Farmers (SCALE)

### Project Description/ Background

If the smallholder farming communities in Africa are to continually adapt to the impacts of climate change as well as sustain their lives and livelihoods, more systematic and easily accessible knowledge and information sharing from credible sources are required. This proposed project, therefore, seeks to strengthen the capacity of the extension system, as a knowledge broker, to transfer proven knowledge, information, and technology to farmers to boost their productivity and resilience, especially in the face of climate change challenges. Most importantly, the project seeks to integrate equitable and inclusive locally led adaptation strategies into the extension system to ensure that the knowledge, information, and technology generated are demand-driven, co-designed, and sustained by the local people. Activities to be undertaken under the project are divided into three work packages namely to: conduct situational analyses and needs assessment of the key actors, their roles, and linkages in the extension systems; co-design and implement targeted capacity strengthening and technical support interventions based on the identified needs of the actors; and create platforms for knowledge sharing, networking, and collaboration between and amongst key actors in the extension system. It is expected that through the series of interventions that will be undertaken under this project, the capacity, and linkages of the key actors within the extension system, particularly the extension agents and contact farmers will be strengthened to ensure sustained transfer of proven knowledge, information, and technology to smallholder farming communities, thereby increasing their productivity and resilience. All interventions will be designed to be gender-responsive, equitable and inclusive.

### Key Objectives and Activities

The overall goal of the proposed SCALE project is to strengthen the capacity of the extension system to use proven knowledge and technology to sustain equitable and locally led adaptation among smallholder farmers and farming communities in Nigeria and Senegal.

Specifically, the proposed SCALE project aims to:

a) Enhance the effectiveness and sustainability of the extension system in major agroecological zones of the focus countries by mapping and analysing the key actors, their roles, and linkages to identify opportunities for improving efficiency, collaboration, and coordination in the extension system;

b) Strengthen the extension system by understanding the needs of the key actors in the extension system and identifying areas of intervention prior to providing targeted capacity strengthening and technical support interventions to enhance their agricultural productivity and climate change resilience;

c) Strengthen the extension system by reviewing and documenting proven LLA knowledge and technologies that support gender equality and social inclusion (GESI) for eventual deployment to the smallholder farming communities;

d) Contribute to sustainable, equitable, and inclusive LLA among smallholder farming communities in the focus countries by strengthening the capacity of the extension system actors to co-generate, co-transfer, and utilize (research, extension, farmers) proven knowledge and technology effectively; and

e) Contribute to increased agricultural productivity and climate-resilient development by enabling inclusive policies and practices, knowledge sharing, exchange, and collaborations on equitable LLA through a digital platform.

### Expected Outputs and Outcomes

i. An understanding of the key actors within the extension system that can promote equitable and inclusive LLA for better targeting of project interventions, collaborations, and co-production.

ii. Greater opportunities for designing training and technical support interventions that meet the needs of the extension workers and other knowledge brokers within the extension system.

iii. Improved alignment of extension activities with the needs and priorities of farmers, resulting in improved agricultural productivity and sustainability in the face of climate change

iv. Increased opportunities for accelerating proven LLA among smallholder farmers based on new knowledge and technology on LLA best practices. Increased ownership and knowledge among extension workers and small holder farmers to use proven knowledge and technologies in LLA that are equitable and inclusive to accelerate adaptation and boost agricultural productivity.

v. Accelerated LLA development and implementation among smallholder farmers based on new knowledge received from extension workers.


vi. Increased opportunities for reviewing and revising training and technical support approaches and addition to the knowledge economy for improved delivery and impact Effective and continuous knowledge exchange and sharing on equitable and inclusive LLA among smallholder farmers, extension workers and researchers during and beyond the project's lifetime.

vii. A one-stop-shop for knowledge exchange that is non-discriminatory and recognizes the principles of GESI being implemented.

viii. Strengthened relationships, improved policy & practice, and increased collaborations & networks leading to more effective implementation of GESI-LLA initiatives.

ix. Efficient and effective project implementation and management to achieve desired objectives and goals.





The African Technology Policy Studies Network (ATPS) is a trans-disciplinary network of researchers, private sector actors, and policymakers promoting the generation, dissemination, use, and mastery of science, technology, and innovation (STI) for African development, environmental sustainability, and global inclusion. ATPS intends to achieve its mandate through research, capacity building and training, science communication/dissemination and sensitization, participatory multi-stakeholder dialogue, knowledge brokerage, and policy advocacy.

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