

AFRICAN SCIENTIFIC RESEARCH AND INNOVATION COUNCIL (ASRIC)

SCIENTIFIC AND INNOVATION COMMITTEE

CONCEPT NOTE

9-13th September 2019, Abuja

1.0 BACKGROUND AND INTRODUCTION (ASRIC AND BUREAU)

The realisation of the establishment and inauguration of the African Scientific Research and Innovation Council (ASRIC) in 2018 and the ushering in of its Bureau, marked a new chapter in realization of the Africa Dream, the 2063 The Africa We Want. It also ushered in high expectations and trust in Africa's scientific human capital to be able to deliver on Africa's Aspirations and specifically ASPIRATION 1. "We are determined to eradicate poverty in one generation and build shared prosperity through social and economic transformation of the continent" (AGENDA 2063 The Africa We Want) leading to a prosperous Africa based on inclusive growth and sustainable development anchored upon a well-educated and skilled citizenry and driven by science, technology and innovation (ST&I) to realise her aspirations.

Therefore, ASRIC's ST&I programmes are largely based on Africa's aspirations as are well translated and prioritised in the Science Technology and Innovation Strategy for Africa (STISA-2024) which through a thorough consultative process identified six priority areas which the Scientific and Innovation Committee expanded on at the inaugural Congress meeting of ASRIC in 2018 and reported to the First Bureau Meeting in March 2019.

2.0 RATIONALE

ASRIC has a broad mandate to promote research and innovation to address Africa's socio-economic development challenges. In order to execute the mandate, it is important for the Scientific and Innovation Committee to identify and mobilize African research excellence. This requires an aggressive awareness program aimed at bringing scientists to the same level of knowledge of the tools and opportunities available to them through the AU's scientific research and technology agenda. This will be achieved by strategic assessment of the knowledge and needs in countries that are science under resourced. The ASRIC Bureau should devote more resources in such areas compared to the more scientifically resourced countries on the continent. Program activities that will be developed will strategically be linked to the objective on creating collaboration among key stakeholders in scientific, innovation and technological sector. The involvement of industry players will result in more structured linkages between the African scientific community with the productive sector of the economy.

Mobilization of African research excellence should result in collaboration and strengthening of national and regional STI research councils and scientific academies. Therefore, cardinal to achieving collaboration is the need for scientists and other key role players to meet and know each other or to know about opportunities and programmes that are available to them. While there are some science stakeholders that have very good knowledge of ASRIC and the AU's scientific institutions and programmes, the opposite is also true that there are many that do not

know or understand the functions of ASRIC. It is very clear from interactions with some different science key players in Africa that ASRIC and its functions are not well known or understood. Under such a scenario, it is difficult to deliver ASRIC's mandate of mobilizing Africa's scientific human capital. To address this challenge, a stakeholder awareness program aimed at increasing ASRIC's visibility must be developed. This program should strategically take advantage of different institutions programmes of activities such as conferences and meetings whether physical or electronic. A recent meeting between the ASRIC Bureau members led by the Chairperson and the Network of African Science Academies (NASAC) Board and the Academy of Science of South Africa (ASSAf) Board is such a good model that can be used because it is cost-effective. Similar meetings will be organized for RECS, research councils and the African Academy of Sciences (AAS) and the International Science Council (ISC), Africa Regional Office. ASRIC Chairperson will lead the meetings for such meetings with specific assigned roles of Vice-Chairpersons. It is envisaged that ASRIC will meet the cost of participation of Bureau members. However, where ASRIC calls for such meetings, it is expected to meet full cost of invited stakeholders.

A good set of well implemented flagship projects that meet the needs of different countries and has visible impacts on communities will greatly contribute to the visibility of ASRIC. Therefore, it is important that deliberate awareness programme is agreed/developed and undertaken. This is part of ASRIC's visibility creation program that will lead to better and more representative participation of scientists on the continent.

3.0 OBJECTIVES

Objectives, activities, outcomes, responsibility allocation and proposed timeframe for implementing activities is summarised in Table below while detailed text follows after the Table.

Objectives	Activities	Expected Outcome	Responsibility	Timeframe (Start)
Mobilize African research excellence	African researchers present papers at 2 nd Congress	African scientists show case their research outputs	ASRIC Committees and sub-committees and ASRIC Secretariat	4 th Quarter 2019
Develop flagship projects	Identification and prioritization of flagship projects	Flagship projects developed	ASRIC Committees and sub-committees and ASRIC Secretariat	1 st Quarter 2020
Develop TORs for sub-committees	Developing TORs	TORs developed	ASRIC Committees and sub-committees and ASRIC Secretariat	1 st Quarter 2020
Raise/Increase visibility of ASRIC	<ul style="list-style-type: none"> • Developing visibility strategy • Contacting 	Visibility strategy developed	ASRIC Committees and sub-committees and ASRIC	4 th Quarter 2019 (starting with carefully selected participants to the

	RECs and AU-HQ structures		Secretariat	2 nd Congress
Influence Policy through research	Producing policy briefs/notes	Policy briefs produced on research-policy nexus	ASRIC Committees and sub-committees and ASRIC Secretariat	3 rd Quarter 2020
Strengthening linkages between researchers and industry	Identifying institutions and industry for partnerships	Research institutions and industry identified and partnered	ASRIC Committees and sub-committees and ASRIC Secretariat	4 th Quarter 2020

3.1 The Six objectives for the Committee are closely linked to each other to ensure consolidation of outcomes and sustainability of the programmes. The Objectives are to;

3.1.1 Mobilize African research excellence,

3.1.2 Identify flagship projects (within the six STISA 2024/Agenda 2063 and SDGs- leveraging international resources under SDGs to implement some flagship projects),

3.1.3 Reconstitute Committees and Sub-Committees to clearly define their Modus Operandi (more structured way of operation is needed and to be achieved through; developing TORs for Sub-Committees, generating work programmes, meetings-physical-virtual plat-forms etc),

3.1.4 Raise the visibility of ASRIC on the continent (ASRIC is not equally known across the continent. Use the RECs platforms to engage with national policy makers and scientists, science bodies and academies, AU meetings of Heads of State/ Ministers of Science and Technology, Commissioners- etc),

3.1.5 Build and sustain intra continental and international collaboration in research, innovation continental research-policy nexus, and

3.1.6 Develop strategies for establishing or strengthening linkages between research and innovation institutions and industry to ensure African scientists research product is taken up by industry to solve problems faced by Africa.

3.2 Activities

3.2.1 Mobilizing African research excellence

African researchers show case their research ouputs at the 2nd ASRIC Congress

3.2.2 Identifying and prioritizing flagship projects

3.2.3 Developing TORs for Committees and Sub-Committees

3.2.4 Developing visibility strategy for ASRIC

3.2.4.1 Identifying and contacting responsible science portfolio managers in RECs for information exchange meetings

3.2.4.2 Engaging with AU Commissioners

3.2.4.3 Applying for inclusion of ASRIC in AU's science and technology meetings and well as attendance in AU's Heads of Government Annual Meetings

3.2.5.1 Building and sustaining continental research-policy nexus and boost intra-Africa and international collaboration in research and innovation,

3.2.5.2 Identifying and supporting key strategic partners such as science academies bodies, research institutions, science advocacy NGOs and institutions

3.2.6.1 Developing strategies for establishing and strengthening linkages between research and innovation institutions

3.2.6.2 Promoting African research products and capabilities to ensure African scientists research product is taken up by industry to solve problems faced by Africa.

3.3 Expected outcomes

3.3.1 African scientists show case their research outputs at the 2nd ASRIC Congress and input in the identification and developing flagship projects

African scientists show case their research outputs at the 2nd ASRIC Congress.

3.3.2 Flagship projects within the STISA 2024 prioritized and aligned/matched to relevant/related SDGs. Utmost seven flagship projects prioritized.

3.3.3 Criteria for membership to Committees and Sub-Committees revised and TORs and modalities for meetings developed for Sub-Committees (Minimum of one combined physical meeting of Committees and Sub-Committees- maximum number of members six per committee or 24-36 people per meeting).

3.3.4 ASRIC as a continental organ for implementing Africa's science, technology and innovation led development is known in every country by its citizens including political, industry, NGOs and scientific community

3.3.5.1 Science academies and science advocacy specialized NGOs are identified and supported to influence and harmonize products of scientific research and policy –

3.3.5.2 Committees and Sub-Committees develop pragmatic ways of linking scientists within and outside Africa for collaboration on research.

3.3.6.1 Strategies and linkages between African research and innovation institutions on one hand and industry are established and strengthened

3.3.6.2 African scientists's research product is taken up by industry to solve problems faced by Africa.

4.0 FLAGSHIP PROJECTS

A flagship project is a project that builds or strengthens the capacity of African institutions to solve a problem or strengthens and stimulates the capacity to generate research outputs that are used to solve an identified problem for Africa. A flagship project can be a model for replication in many other countries with similar problems and will be developed from the six priority areas identified in STISA 2024. The priority areas are; eradication of hunger and ensure food and nutrition security; prevention and control diseases and well-being; communication (physical and intellectual mobility); Protecting our space (including climate change); creating Wealth (entrepreneurship and market driven research); and cross-cutting research.

Flagship, will contribute to raising both the visibility of ASRIC and the awareness of the problems and scientific and technological solutions available to bring about positive developmental change to the people of Africa. The projects must be visible and have long-term positive impact on the development of Africa.

4.1 Criteria for selecting or developing a flagship project

The Bureau at its 1st meeting in March 2019 set out the criteria as follows;

- 1) A project that addresses any of the priority areas of STISA 2024 (as articulated in the 1st Congress of ASRIC) and has commonalities in majority of the countries;
- 2) It has inclusiveness and impact on the country, region and continent;
- 3) Should be proposed or adopted by more than 3 research institutions from different Member States;
- 4) To address community needs or market demands;
- 5) It brings immediate and long-term sustainable solutions to issues of urgent attention.

Recommendation

The Scientific and Innovation Committee of ASRIC recommends additional two/three items to the criteria that;

- 1) It builds or strengthens the capacity of African institutions to solve a problem or.
- 2) It strengthens and stimulates the capacity to generate research outputs that are used to solve an identified problem for Africa.
- 3) It (flagship project) can be a model for easy replication in many other countries with similar problems.

The Committee requests that the additional criteria be adopted in accordance with the its decision on the matter at its 1st meeting in March 2019 in Abuja.

4.2 Proposed flagship projects

Flagship programs will be developed under the six priority areas identified under STISA 2024. However, flagship projects will take shape after the Second ASRIC Congress whose Theme is, “Freeing Africa From Poverty, Hunger And Diseases”. Therefore, the flagship programmes will be developed according to the following priority areas:

i) Eradicate Hunger and ensure Food and Nutrition Security

This is a cross cutting priority area that should birth some flagship programs that include the development of a scientific driven productive agriculture sector that leads to increased yields and reduced losses, adaptable to climate change and high in nutrition. Realizing the negative effects of hunger and malnutrition, related health conditions and diseases such as stunting and obesity are priority areas for intervention.

ii) Prevent and Control Diseases and Ensure Well-being

Africa is plagued by many health and disease-causing pathogens or agents including old and emerging diseases that require a cadre of well-trained scientists and health/medical personnel capable of understanding and managing endemics and epidemics. Research into innovative technologies is cardinal. The following research areas form good candidates for developing flagship programs; technologies for improving quality of water, sanitation and preservation of water where ASRIC should encourage adapting the best technologies for the African context, the application of telemedicine (eHealth) in medical diagnosis, methods to combat common diseases (and other “neglected” diseases) like malaria, asthma, cholera and other diarrheal diseases, methods of integrating traditional medicine with orthodox or modern medicine, improving access to affordable or generic drugs and methods/communication methods to improve health literacy and education as well as development of best strategies to control proliferation of counterfeit drugs.

iii) Communication (Physical & Intellectual Mobility)

Africa is lagging behind in this sector and needs capacity building. Hence priority should be capacity building in human capital in education systems; tertiary and research institutions. Research programs areas should include methods to or of; allocating sufficient/efficient ICT resources, improving linkages across borders seaports and airports, reducing costs of land miles, application and use of emerging technologies (Digitalization, artificial intelligence, bigdata...) to improve access to data and information and reducing costs of land miles.

iv) Protect our Space (including climate change)

This priority area speaks to developing aspirational programs that will make Africa take charge of her space and natural resources but also take lead in finding solutions to her challenges as well as shape international discourse in global change matters or issues. Programs related to Earth Observation and Monitoring Systems of Africa’s natural resources should be part of future flagship programs.

v) Live Together – Build the Society.

vi) Create Wealth (Innovate and Develop Technology)- the corner-stone is the creation of a knowledge-based economy driven by educated and skilled human capital. Flagships program will ensure Africa's institutions are capacitated to produce human resource capable to undertake research, innovate and develop technology. Institutions of higher learning especially universities should be strengthened and equipped to link products of research and innovations to industries.

Ultimately, the identification and implementation of the program will result in strong collaborative outcomes among African scientists. The actual flagship programs will be firmed after the Scientific Session of the Second Congress.

5.0 FUNDING FOR FLAGSHIP PROGRAMS

Traditional AU funding models are the first models to be used. However, considering the gravity and urgency of the need to act now, other funding models shall be used. In order to explore these other funding sources, the AU should inject seed funds that can be used by the Committees of the Bureau to engage in fund-raising. The ASRIC Secretariat will host the seed fund and its administration. At national levels, the contact persons will work under the coordination of the ASRIC Secretariat through and with the five Chairs of Committees of respective regions to sell flagship programs. In this regard, ASRIC Secretariat will use its administrative systems to facilitate the coordinated activities by various Chairs to sell the flagship programs that will be implemented by relevant national structures and institutions. It is envisaged that in countries with national science academies, the respective national academies will serve as national contact points for ASRIC Secretariat. In countries without national science academies, it is envisaged that the national research councils or agencies responsible for scientific research will be contact or coordination points/centers.

6.0 MODEL FOR IMPLEMENTING FLAGSHIP PROGRAMS

Flagship programs will reflect national and regional priorities within the STISA 2024 priority areas and implementation will be guided by a strong and clear collaborative and coordinated approach. Implementation of flagship programs will be characterized by strong and competent leadership at national and regional levels with the support of ASRIC Secretariat. Further, the implementation of flagship programs is the responsibility of all Committees of ASRIC as is the case for other programs developed by the other two committees (Communications and Resources Mobilization).

7.0 TIMEFRAME FOR DEVELOPING AND IMPLEMENTING FLAGSHIP PROGRAMS

The Committee envisages that within Third Quarter 2019, Draft Framework will be developed and fine-tuned after the Second Congress with final Draft by First Quarter 2020.

8.0 ROLE OF THE ASRIC SECRETARIAT

ASRIC Secretariat will play overall coordination of program implementation and will lead in identification of possible sources of funding for programs and activities of the committees and sub-committees.

9.0 ACKNOWLEDGEMENT

This Concept Note has largely been developed from the key AU Documents (Agenda 2063 The Africa We Want, The STISA 2024, Work of the First Congress, Documents Developed and Adopted by the First Bureau Meeting, Second Congress Preparatory Documents (Concept Note) Submitted by the ASRIC Secretariat, collective input of the co-Chairs and input of Arona Diedhiou, Kenneth Yongabi and Madu B. Galadima that constituted the Secretariat for the Science and Innovation Committee.

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