

Science Granting Councils Initiative in Sub-Saharan Africa (SGCI)

THEME: FORESIGHT IN RESEARCH AND INNOVATION FOR DEVELOPMENT

Concept Note and Terms of Reference

EXECUTIVE SUMMARY

[The Science Granting Councils Initiative \(SGCI\)](#) invites concept notes from researchers/experts with proven experience and track records to write a state-of-the-art research paper on the theme: *“Foresight in Research and Innovation for Development.”* The assignment will be conducted between September 2022 and February 2023 (see the appended timetable). The available budget is US\$ 25,000 to cover project costs and fees. [The Scinnovent Centre](#) will enter into an agreement with the successful applicant and provide guidance, oversight and support towards the delivery of the paper and associated outputs.

This document provides guidelines on the concept for a research paper on the above topic. Applicants are expected to use this information only as a guide in developing their concept notes. Concept notes need not be limited to the points outlined below and originality/creativity will be among the key evaluation criteria

INTRODUCTION

Since 2015, the Science Granting Councils Initiative in sub-Saharan Africa (SGCI-1) has been supported by several funders, namely FCDO, IDRC, South Africa’s National Research Fund (NRF), the Swedish International Development Cooperation Agency (Sida), the German Research Foundation (DFG) and most recently the Norwegian Agency for Development Cooperation (Norad). The focus of the Initiative has been on strengthening the capacities of Councils to support research and evidence-based policies that can contribute to economic and social development. The Councils from 15 countries (**Box 1**) have been actively involved in the Initiative. Nigeria joined the Initiative with effect from mid-2021 bringing the total number of SGCI Councils to 16.

Box 1: SGCI participating countries

Kenya, Rwanda, Uganda, Tanzania, Ethiopia, Côte d’Ivoire, Burkina Faso, Senegal, Ghana, Zambia, Mozambique, Malawi, Namibia, Zimbabwe and Botswana and Nigeria

The SGCI initially focused on strengthening the ability of the Councils to: (a) manage research; (b) design and monitor research programs and formulate and implement policies based on the use of STI indicators; (c) support knowledge exchange with the private sector; and (d) establish partnerships among Councils and with other science system actors. In its current second phase, work with the Councils in these areas has deepened and broadened, with additional attention to research excellence, strategic communications/ uptake of knowledge outputs, and gender equality and inclusivity (**Box 2**). Councils have received funding to manage research calls and have drawn on their enhanced capacities to promote collaborative research projects and networking.

Box 2: SGCI-2 Themes

- Theme 1** – Strengthening the ability of Science Granting Councils in research management
- Theme 2** – Strengthen the capacity of Science Granting Councils to use of data and evidence in policy and decision making
- Theme 3** – Supporting the ability of Science Granting Councils to fund research and innovation
- Theme 4** – Supporting strategic communications, uptake of knowledge outputs and networking
- Theme 5** – Strengthening the capacities of Science Granting Councils in gender equality and inclusivity

PROJECT CONTEXT

The SGCI convenes Annual Forums (AFs) that bring together the staff of participating Science Granting Councils (SGCs) in sub-Saharan Africa and other stakeholders in the science community to network and share lessons and experiences. Masterclass sessions held during these forums are designed as executive learning events animated by the presentation of a commissioned paper on a cutting-edge theme relevant to the Councils’ mandates.

Science Granting Councils perform several key roles within their national science systems including disbursing and managing funds for research and innovation, setting research agenda and priorities, managing bilateral and multi-lateral STI cooperation agreements, promoting research uptake and utilization by the private sector and advising their governments on STI policies. These functions, though performed at the national levels, contribute to the regional and continental STI agenda and strategies. For example, the African Union Strategy on Science, Technology and Innovation (STI) emphasizes the need for Africa to develop the capacity to look into the longer-term future of science, technology, the economy and society with the aim of identifying the emerging technologies likely to yield the greatest economic and social benefits. This vision is contained in the Africa’s S&T Consolidated Plan of Action (CPA) developed in 2005.

Viewed as a common instrument for the implementation of the African Union strategy on STI, the CPA's vision was 'to set up a robust STI foundation for Africa's competitiveness and socioeconomic development, and a future in which innovation will become the main driver of socioeconomic transformation'. The CPA has been succeeded by the AU Agenda 2063 and its medium-term implementation strategy, (Science, Technology and Innovation Strategy for Africa STISA-2024)¹. STISA's mission is to "Accelerate Africa's transition to innovation-led knowledge-based economies".

Responding to the need to support the Councils to establish a common and longer-term futuristic vision for STI in the continent, the SGCI in consultation with the Councils, have identified 'Foresight in Research and Innovation for Development' as the theme for the 2022 Annual Forum and the Masterclass.

In the context of this paper, Foresight is defined as "... the process involved in systematically attempting to look into the longer-term future of science, technology, society and the economy with the aim of identifying the areas of strategic research and emerging generic technologies likely to yield the greatest economic and social benefits". In this sense, "strategic research" is defined as "basic research carried out with the expectation that it will produce a broad base of knowledge likely to form background to the solution of recognized current or future practical problems." In a similar manner, "generic technologies" is defined as a technology whose exploitation will yield benefits for a wider range of sectors of the economy or society.

Foresight is both a process and a tool/approach. As a process, it involves consultative procedures to ensure feedback to and from relevant stakeholders. It is premised on the belief that there are many possible futures and systematically explores these alternative futures. The usefulness of foresight studies to the Councils emanates partly from the process through which the forecasts are generated. The main aspects of the process can be summarized into the following:

- i) *Enhanced communication between the Councils and their stakeholders*: the foresight process brings together different stakeholders concerned with science, technology and innovation and facilitates communication amongst them. Stakeholder dialogues, focus group discussions, policy forums/seminars and workshops are some of the approaches that may lead to enhanced interaction amongst stakeholders.
- ii) *Concentration on the longer-term*: forces participants to focus on the longer-term goals. The process focuses on the long-term futures spanning two decades or more depending on each councils/country's planning cycle

¹ African Union Commission (2013). African Union Science, Technology and Innovation Strategy for Africa 2024.

- iii) *Coordination and priorities setting*: enables stakeholders to coordinate their R&D plans and make adjustments where necessary. Opportunities are presented for the different stakeholders to discuss their R&D plans and priorities and align them not only to the national agenda but also their organizational strategies
- iv) *Consensus building and harmonization*: helps stakeholders to make consensus on research priorities, creating a shared vision for the future
- v) *Commitment and buy-in*: generates a sense of co-ownership of and commitment to the results of the forecasting exercise

Similarly, Foresighting and scenario building are increasingly recognized as powerful instruments for establishing common views on future development strategies among policy-making bodies. As a tool/approach, foresight in research and innovation can help Councils in several ways, including: (i) direction-setting – establishing broad guidelines for STI policy; (ii) Determining priorities – identifying the most desirable lines of research as a direct input/guidance into funding decisions; (iii) consensus generation, either within the research community or externally amongst research funders, performers and users; (iv) advocacy for new research initiatives, or existing programmes; and (v) Communication and education/awareness amongst the research community e.g. about promising research opportunities.

WHY IS FORESIGHT IMPORTANT TO AFRICA'S SCIENCE GRANTING COUNCILS AND WHY NOW?

A report by the Rockefeller Foundation² concluded that “for decades, technology has been dramatically changing not just the lives of individuals in developed countries, but increasingly the lives and livelihoods of people throughout the developing world...” The report further noted that: “While there is little doubt that technology will continue to be a driver of change across the developing world in the future, the precise trajectory along which technological innovation will travel is highly uncertain.”

The UNCTAD 2021 Report³ on Technology and Innovation notes that technology assessments (TA) and foresight studies “can catalyse social, political, and inter-institutional debates on the pros, cons, and associated uncertainties across alternative directions”.

The UNCTAD Report further observes that “technology assessment and foresight were important tools for policymaking in the 1980s and 1990s, with many countries establishing technology assessment units in the parliament to inform legislation ... now there is an increasing interest in TA and it is crucial to revive and develop national capacities in TA and foresight so as to enable countries to identify and exploit the potential of frontier technologies for sustainable development.”

Foresight exercises can be used to bring together key agents of change and sources of knowledge, to explore possible scenarios and develop strategic visions and intelligence to shape the future.

POTENTIAL RESEARCH QUESTIONS

The conclusions of these reports raise a number of policy-relevant questions including the following:

- (i) What will be Africa’s future STI needs and priorities? What sort of capacities and resources will it need? What sort of institutions, organizations and policies will be required to deliver that STI vision?
- (ii) How will the global social, economic and political landscape affect the direction and pace of technological advancements in Africa? Where will critical technological advances come from? What will be the role of bilateral and multi-lateral scientific cooperation and technology transfer?
- (iii) How will the African economies look like and what sort of technologies/innovations will serve the social and economic agenda of the time?
- (iv) How should governments invest research, development and innovation (RDI) funds to address future social and economic needs?

² *Scenarios for the Future of Technology and International Development* (<https://www.nommeraadio.ee/meedia/pdf/RRS/Rockefeller%20Foundation.pdf>)

³ https://unctad.org/system/files/official-document/tir2020_en.pdf

- (v) How can foresight in research and innovation support the science granting councils (SGCs) in shaping the future of STI in Africa?

OBJECTIVES AND FOCUS

The overall objective of this commissioned paper is to support the Councils in using foresighting as a process and tool for determining future science, technology and innovation (STI) needs, priorities and investment decisions in Africa.

The paper should provide a generic guiding framework on the application of foresight into the activities of the Science Granting Councils (SGCs). Such a framework may serve to:

- (i) Clarify the inter-relationships between strategic planning and foresighting in STI
- (ii) Create understanding on how different tools/approaches/methodologies may be combined and applied in foresight studies,
- (iii) Provide a basis for designing new and innovative initiatives, processes and practices customized to specific SGC objectives.

SCOPE AND TERMS OF REFERENCE

1. Determine through foresight methodologies, the key emerging issues, trends, and how these may constitute opportunities for the development of STI in sub-Saharan Africa.
2. Through exemplar case studies drawn from Africa and internationally, capture strategic issues, identify and characterize possible future scenarios; and outline any obstacles and driving factors.
3. Develop a model tool/approach that can be customized by the Councils to develop national research and innovation roadmaps
4. Present and validate the findings during the Masterclass at the 2022 SGCI Annual Forum (AF). This will be convened by the SGCI (in collaboration with the relevant Councils/Commissions).

EXPECTED OUTCOMES

The paper should contribute to a growing pool of knowledge on STI foresight in Africa in general and specifically, on the organizational implementation of foresight within the SGCs. More specifically:

- A detailed outline of the future STI needs, issues and trends of the Sub-Saharan Africa (SSA) economies, with particular reference to those participating in the SGCI
- A model approach/tool to conducting foresight studies that can be customized at the national levels to develop national STI roadmaps
- A set of recommendations to benchmark cross-country activities/experiences, share lessons and guide manpower development in the region

APPROACH

Interested authors are invited to propose/spell out the methodology/ approach for delivering the paper. Such methodology or approach could draw from primary data, secondary data, as well as insights and experiences of practitioners and other experts. In particular, it should draw on data-insights and experiences based in sub-Saharan Africa.

EXPECTED OUTPUTS

In addition to the final masterclass paper which will be presented at the SGCI Annual Forum scheduled for December 4-9, 2022 in Cape Town, South Africa, the authors are expected to produce the following:

- I. Final research paper/report incorporating review comments by the Scinnovent Centre and its partners as well as participant views and observations after the Annual Forum
- II. At least one article published in an international peer-reviewed journal
- III. At least one policy brief emanating from the paper and the discussions at the Annual Forum

PROCESS AND TIMELINES

S/n	Deliverables	Timeframe	Remarks
1	Call for expressions of interest (Eoi)	15 th July 2022 (launch)	Closes on 15th August 2022 (four weeks). <ul style="list-style-type: none"> The Expression of Interest should not exceed two pages of an A4 paper, single spacing, font type - Times New Roman, and font size- 12. The CVs should demonstrate relevant experience from previous related assignments and publications around technology assessment, and the use of foresight in research and innovation, relevant to sub-Saharan Africa.
2	Selection and contracting of authors	By 31 st August 2022	Detailed CVs, annotated outline/table of contents and detailed work plan required by 15 th August, 2022
3	Submission of the 1st draft paper	30 th September 2022	Reviews by Scinnovent Centre/partners and revision by authors
4	Submission of the 2nd draft paper	15 th October 2022	Second round of reviews by Scinnovent Centre/partners and revision by authors
5	Submission of final draft paper	31 st October 2022	This version should be ready for circulation
6	Presentation of the paper during the 2021 Masterclass/AF	4 – 9 December 2022 ⁴	Draft final paper presented by lead author at the 2022 AF and additional input collected and incorporated into the masterclass paper
7	Submission of the final paper	February 2023	After inclusion of comments/additional input from stakeholders and revision of the draft final paper
8	Submission of draft article for publication in a peer-reviewed journal	February 2023	Journal to be selected in consultation with Scinnovent Centre; Manuscript preparation and publication is the responsibility of the author(s).
9	Submission of Policy Brief	February 2023	Authors in consultation with the Scinnovent Centre

⁴ Tentative dates

SUBMISSION OF EXPRESSION OF INTEREST (EOI)

An Expression of Interest (EOI) comprising: (a) an annotated outline of the proposed paper, (b) a detailed work plan and (c) detailed CV(s) of potential author(s). These documents should, at a minimum, provide a brief outline of the methodology proposed, a preliminary workplan, a preliminary division of labour in the proposed team and brief summary of relevant experience

The deadline for submission of the Expression of Interest, detailed CV(s), annotated table of content, and work plan is on or before **15 August 2022 by 6:00 pm East African Time**. All submissions should be sent to info@scinnovent.org with a copy to Bolo@scinnovent.org. Submissions received after this deadline will not be considered.

BUDGET

An estimated budget of up to **US\$25,000.00** has been ear-marked for this assignment. Applicants are highly encouraged to form teams that demonstrate relevant expertise and experience. Gender and inclusivity are key considerations. Please note that it is a requirement that the main author of the paper be available to present the paper during the Masterclass/Annual Forum event (4th – 9th December, 2022 in Cape Town, South Africa).

CONTACT ADDRESS

[The Scinnovent Centre](#) is leading the theme on Strategic Communications and Knowledge Uptake and to promote networking among Councils and with other science system actors. Should you require any additional information or clarification, contact Dr. Maurice Bolo on email: Bolo@scinnovent.org with a copy to info@scinnovent.org or telephone: +254 727 701 917 /+254 733 670 979 on or before **30th July 2022**



