



AIMS

African Institute for
Mathematical Sciences
NEXT EINSTEIN INITIATIVE

The Secretariat
District Gasabo, Secteur Kacyiru
Cellule Kamatamu Rue KG590 ST
Kigali, Rwanda

Call for Proposals: Final Evaluation of the Skills for Employability Program at AIMS Senegal

4 June 2021

1. Background

1.1 African Institute for Mathematical Sciences

The African Institute for Mathematical Sciences (AIMS) was founded in 2003 in Muizenberg, South Africa to provide a world-class scientific environment for young Africans, designed to stimulate reflection, problem-solving, knowledge sharing and independent thought. AIMS has since expanded across Africa - now counting five Centres of Excellence in South Africa, Senegal, Ghana, Cameroon and Rwanda. AIMS has evolved into Africa's largest network for innovative post-graduate education, research, and public engagement in mathematical sciences.

AIMS has graduated over 2,000 young African women and men from its Master's in Mathematical Sciences program and expanded its academic offering to include a Co-operative Education (Co-op) Master's in Mathematical Sciences and Africa's first Master's in Machine Intelligence.

Complementing the rigorous academic training received by AIMS Master's students, the AIMS Work Integrated Learning program has facilitated over 230 work placements in the private, public and non-profit sectors, providing students and graduates with valuable exposure to the work environment and an opportunity to apply their skills in mathematical sciences to real-life challenges faced by industry.

AIMS has proven to be a global leader in research in fundamental and applied sciences with a growing research department across the network (including Research Chairs, Research Master's and PhD candidates, and Post-Doctoral Fellows) that collaborates closely with government, industry, and both local and international scientists.

1.2 Skills for Employability

The Skills for Employability (SFE) program is a five-year CAD 8.5 million program at AIMS Senegal funded by Global Affairs Canada (GAC), which comes to an end in 2021. The program aimed to address the needs of knowledge-based industries emerging in Francophone Africa by providing highly-skilled training in STEM and improving the transition to employment for graduates. The SFE's key activities included:

- **Post-AIMS Business (PAB) certificate:** A two-month training course for young African graduates from Francophone universities and AIMS alumni to prepare them for the labour market by developing critical skills in business and entrepreneurship, complemented by a three-month internship
- **Massive Open Online Courses (MOOCs)** in job readiness and leadership development offered free of charge through the African Virtual University (AVU) Virtual Classroom to post-graduate students from the mathematics departments of 13 partner universities¹ across Francophone Africa.

¹ Université d'Abomey-Calavi (Benin), Université Lumière de Bujumbura (Burundi), Université de Ouagadougou (Burkina Faso), Institut des Sciences de Ouagadougou (Burkina Faso), Université de Douala (Cameroun), Institut Supérieur Pédagogique de La Gombe (République Démocratique du Congo), Université des Sciences, des Techniques et des Technologies de Bamako (Mali), Ecole Normale Supérieure de Bamako (Mali), Université d'Antananarivo



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- **AIMS Co-operative Master's in Mathematical Sciences** at AIMS Senegal
- **Industry-focused forums in mathematics** that convene mathematicians and industry representatives to jointly tackle real-life challenges faced by industry in Francophone Africa
- **Strategic partnerships with academic institutions and private sector** firms, including women-owned and led businesses
- **Women in Science** events

The ultimate outcome of the SFE program was to increase the economic prosperity across Francophone Africa by building job-readiness skills and increasing the employment opportunities for AIMS alumni and graduates in mathematics and sciences from the 13 partner universities across Francophone Africa, with a particular focus on women.

The program expected to reach the following beneficiaries:

- 200 AIMS Co-op Master's graduates from AIMS Senegal
- 320 Post-AIMS Business Certificate graduates
- 6,500 students completing the MOOC courses through the AVU Virtual Classroom

2. Purpose of the Evaluation

AIMS is seeking an independent consultant or small team to undertake a final evaluation of the SFE program. The final evaluation is both an important learning and accountability exercise for AIMS to assess the evidence of impact of the SFE program and provide insights into future programming at AIMS to support students' transition to employment, entrepreneurship and strengthened partnerships with industry.

The final evaluation will be guided by the OECD DAC Criteria for Evaluating Development Assistance² to meet the following objectives:

- Assess the results achieved by the SFE Program;
- Document the evidence of impact of the SFE Program; and
- Make practical recommendations for future programming by AIMS to support the successful transition of students to employment, entrepreneurship and strengthened partnerships with industry.

3. Evaluation Questions

The final evaluation of the SFE Program seeks to answer the following questions: Did the SFE program deliver what it intended? How well did it do it? And what impact did the SFE program have on its target beneficiaries? The insight and evidence generated through this process is expected to inform recommendations to AIMS regarding future programming. Key questions below have been developed to help guide the evaluation and they will be further detailed and refined during the inception phase:

1. Did the SFE Program deliver what it intended?

- In light of the program's objectives to address the misalignment of higher education and the needs of industry in Francophone Africa, produce highly skilled graduates with relevant training in math and science of pertinence to industry, and

(Madagascar), Université Al Aasrya de Nouakchott (Mauritanie), Université Abdou Moumo (Niger), Université Cheikh Anta Diop de Dakar (Sénégal), and Université Gaston Berger de Saint Louis (Sénégal)
2 <http://www.oecd.org/dac/evaluation/49756382.pdf>



increase the transition to employment of graduates in math and science across Francophone Africa – did the program deliver what it intended to do? To what extent were the intended **outputs** achieved?

- To what extent were the immediate, intermediate and ultimate outcomes achieved?

2. How well did it deliver the program?

- How effectively was the program managed?
- How adequate were the monitoring & evaluation mechanisms?
- How appropriate were the program delivery modalities?

3. What impact did the SFE program have on its target beneficiaries?

- To what extent has the SFE program produced change and what were the key contributing factors?
- What was the specific impact of the SFE Program on the graduates themselves?
- What has been the trajectory of the program graduates' post-AIMS and what influence did the Program have on this?

4. Considering the findings above, what recommendations would you have for future programming in the following areas?

- Expanding a Work Integrated Learning program across the AIMS Network.
- Ensuring greater alignment of AIMS academic programs with the needs of industry and the labour market.
- Ensuring greater access to higher education in mathematics and science and increasing the employment opportunities for young African women.

4. Scope of the Evaluation

The evaluation will focus exclusively on the SFE program implemented at AIMS Senegal, from its inception in 2016 to present, within the broader context of the Pan-African AIMS network.

The evaluation will be carried out entirely remotely.

5. Approach and Methodology

The final evaluation of the SFE Program will require a variety of data collection and analysis tools and methodologies for both qualitative and quantitative data to ensure a comprehensive evaluation exercise. The data collection could include, but is not limited to, interviews, focus group discussions, surveys, and a desk review of secondary data including program reports, work plans, budgets, proposal, Performance Measurement Framework and other sources. To ensure reliability and credibility, the evaluators are expected to triangulate data from various sources. A gender-sensitive lens should be applied to the evaluation design including all data collection, analysis and reporting.

While this is the *proposed* approach to the evaluation, as envisaged by AIMS, applicants are invited to show innovation and creativity in their proposal and draw from their own experience and expertise, while ensuring alignment with the purpose of the evaluation.

6. Phases and Timeframe

AIMS envisages the following key phases to the evaluation:

Phase	Activity	Timeframe
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Phase	Activity	Timeframe
Inception	<ul style="list-style-type: none"> • Kick-off call with Evaluation Team and AIMS. • Desk research to better understand the background and context of the program and the evaluation. • Virtual inception meeting. • Inception Report including proposed approach, methodology, data collection tools and final report outline 	2 weeks
Data Collection	<ul style="list-style-type: none"> • This could include, but is not limited to, interviews, focus group sessions, and surveys with key stakeholders and beneficiaries, including AIMS staff, lecturers, tutors, students and alumni; SFE Program partners including employers and host country government representatives; and GAC staff 	5 weeks
Data Analysis & Triangulation	<ul style="list-style-type: none"> • Synthesis and analysis of data and information collected • May include follow-up interviews where necessary 	3 weeks
Report Writing	<ul style="list-style-type: none"> • Draft Evaluation Report for review, consideration and feedback by AIMS 	3 weeks
Learning Workshop with AIMS	<ul style="list-style-type: none"> • The evaluation team will present their findings, conclusions and recommendations to AIMS staff to provide an opportunity for AIMS to review, discuss, and validate the findings. 	1 week
Submission of the Final Evaluation Report	<ul style="list-style-type: none"> • Based on the feedback and insight gathered at the Learning Workshop, the Evaluation Team will revise the draft report and submit a final report of the final evaluation. 	1 week

The proposed timeframe is somewhat flexible but the assignment must be completed by September 2021 at the latest.

7. Deliverables

The selected consultant(s)/firm will be expected to produce the following deliverables:

- Inception report** detailing the proposed approach to the final evaluation. The inception report will demonstrate the consultants/firm's understanding and interpretation of the purpose and objectives of the evaluation and include a detailed work plan, approach methodology, and draft outline for the final evaluation report.
- Draft Evaluation Report** presenting the consultants/firm's analysis, findings, conclusions, and recommendations.
- Delivery of a Learning Workshop**
- Most Significant Change stories** – Brief human interest stories that demonstrate the tangible impact of the SFE Program – *the number and focus will be determined during inception phase.*
- Final Evaluation Report** incorporating feedback from the Learning Workshop.

The final report shall be both in French and English.

8. Management of the Evaluation

The AIMS Director of Monitoring & Evaluation will be responsible for overseeing and managing the evaluation and reviewing and approving all deliverables, with support from the Associate Director of Evaluation and Program Performance and the Acting Director, SFE Program. AIMS will compile all relevant reports and documents on AIMS and the SFE Program; ensure access to



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relevant student and alumni databases; provide contact information for all key stakeholders; and undertake any necessary introductions of the evaluators to stakeholders, as required.

9. Requirements

AIMS invites applications from firms or individual consultant(s) with relevant expertise, experience, and skills to successfully undertake the evaluation as described above. Applicants must demonstrate significant experience in designing and evaluating complex Pan-African programs, ideally in the fields of higher education, STEM, transition to employment, and/or Work Integrated Learning. The team must be highly competent in monitoring & evaluation tools, methodologies and approaches; data collection and analysis; communication (verbal and written); and report writing. The team must have sound project management skills to stay organized and deliver high quality deliverables on time. Applicants must be fluent in both English and French.

10. Submission of Expression of Interest

Applicants meeting the above criteria are invited to submit an Expression of Interest to: MEL@nexteinstein.org cc: Charles.Kimpolo@nexteinstein.org with the **Subject: SFE Final Evaluation EOI** by **04 July 2021**.

The EOI must not exceed ten (10) pages and must include the following:

- **Technical Proposal** detailing how the team meets the requirements above; understands and interprets the purpose and objectives of the evaluation; proposed approach and methodology; the team's unique added-value or comparative advantage; and a brief summary of past assignments of relevance.
- **Financial Proposal** detailing the breakdown of costs, including daily rates of payment per consultant/team member, number of days per phase, and estimated expenses (all in USD). **The budget must not exceed US \$50,000.**
- **CVs** of all proposed team members.
- **Contact information for two references** who can attest to the firm/consultants' experience and expertise as it relates to this evaluation.
- **Two reports of recently completed evaluations** of a similar nature.

The Call for Proposals can also be found on the AIMS website [here](#). Any questions received will be answered and posted here as well.