

SELECTION OF A CONSULTANCY FIRM FOR A STUDY TO DEFINE THE ARCHITECTURE OF THE ECOWAS EARTH OBSERVATION SATELLITE (ECOSAT 1)

Date: January 31, 2022, to February 22, 2022

Client Institution: ECOWAS Commission

Type Expression of Interest (EOI)

TITLE :**SELECTION OF A CONSULTANCY FIRM FOR THE STUDY TO DEFINE THE ARCHITECTURE OF THE ECOWAS EARTH OBSERVATORY SATELLITE (ECOSAT 1)**

Space provides a unique opportunity for cooperation and sharing of infrastructure (including data) to proactively develop and manage strategic physical, human, economic and environmental sectors. Indeed, for many decades, space technologies have offered individual or cooperation opportunities (e.g. ESA, ARABSAT, etc.) between countries on commercial, scientific and technological level and also strategic advantages for those who control them. Thus, apart from military applications where they derive part of their continuous evolution, space technologies support the development of many sectors of human activity. The fields of environment, agriculture, communications and information technologies, broadcasting, are among the known historical beneficiaries of space applications.

In developed countries, new space science and technology applications are constantly being discovered and the spin-offs of space technology have led to progress in fields as diverse as medicine, material science and computers. Generally, space science technology applications help control epidemics, the management of natural resources and the environment, provide responses to natural disasters, weather forecasting, climate change mitigation and adaptation; agriculture and food security, peace and conflict-keeping missions, early warning, education and health services in rural and remote areas. In West Africa, as in most of the other African regions, space applications are more widely used in telecommunications, audio-visual communications, weather forecasting and air navigation sectors. However, their use can be further strengthened in agriculture and environmental management, which are very important economic sectors

2. In 2020, the ECOWAS Commission initiated a study to identify the needs of users of satellite data in the region as a basis for the design and manufacture of the first ECOWAS Earth Observation Satellite (ECOSAT 1). This study is part of the ongoing process of building the ECOWAS Earth Observation Satellite.
3. Duties and responsibilities of the Consultancy:

1. Due of the special nature of the assignment, this study will be entrusted to a (consulting firm, research firm, etc.) specialized public or private firm for development and research in the field of Space Sciences and Engineering. The firm should:
 - a- List the tools, instruments used in their activities and those available in the region;
 - b- List the software (proprietary and open) used or potentially adapted for big data and image processing in particular and any other need expressed by users;
 - c- List the materials to be used for the design, assembling and launch of ECOSAT 1;
 - d- Draw up a list of potential partners for the projects;
 - e- Present the architecture of ECOSAT-1
 - f- Propose a capacity building plan for regional stakeholders;
 - g- Define an overall cost of the project.
2. To this end, it should:
 - i. Organize and plan activities related to the study;
 - ii. Produce a technical report on the study;
 - iii. Produce a financial report on the study;
 - iv. Participate in the presentation of the report before the sponsoring department of the study and if possible before the ECOWAS Management Committee;
 - v. Participate in the validation of the final study report to stakeholders and experts in the field.

4. **PROFILE AND QUALIFICATIONS OF THE FIRM RESPONSIBLE FOR THE STUDY (30 points)**

3. Profile and main qualifications are as follows:

a. General knowledge and skills.

The firm responsible for the study must have the following required qualifications and experiences:

- Be a legal person with expertise of more than 15 years in the field of Technologies / Space Science and Space Engineering;
- Have a network of reliable technical partners at regional, continental and international levels;
- Demonstrate credibility and transparency skills;
- Know the official languages of the region (English, French and Portuguese).

b. Technical expertise

Due to its particular nature, this study requires special skills on the part of the firm to be recruited. To do this, the entity must comply with the following minimum provisions:

- Have carried out similar three (03) studies within the last 15 years.
- Have experience in the design, development, launch and operation of a Satellite at a national, regional or international level over the past 15 years.

- Have experience and the ability to implement technologies and capacity building programs at a national, regional or international level in space science research field and development, geomatics and space engineering.
- Have qualified personnel to carry out all the activities and be able to mobilize additional unforeseen skills if necessary.

I. COMPOSITION OF THE CONSULTANCY TEAM (70 points)

Conducting this study requires the mobilization of a team composed of at least:

a. A Specialist in Space Science (30 points)

- Have a Master / Degree of Engineering / in technologies / space science (*Remote sensing; Geographic Information System,*) or equivalent. A doctoral thesis would be an advantage;
- Have at least 15 years of experience in the field of space sciences and its applications;
- Have participated in carrying out two (2) similar studies as team leader and including at least one in the region or a region in Africa;
- Be bilingual with a good command of English or French. Knowledge of Portuguese would be an asset;
- Have a mastery of new information and communication technologies.
- Have additional skills in team management and in the mobilization of human and financial resources.

b. A Specialist in the design and manufacture of satellite systems technologies (20 points)

- Have at least a master's degree or Degree of Engineering / in *Mechanical / Electronic / Electrotechnical engineering / or Space / Satellite specialty*. A doctoral thesis would be an advantage;
- Have at least 10 years of experience in the design, build, and launch of earth observation satellite;
- Experience in design of mechanical and analytical software for satellite technology development;
- Have participated in carrying out a similar project at National and regional level;
- Have a command of at least one official language of ECOWAS and be able to work in a second official language of the region;
- Have mastery of computer tool.

c. A specialist in remote sensing applications / satellites (20 points)

- Have at least a Master's degree, Degree in *Mechanical / Electronic / Electrotechnical Engineering / or Space Specialty / Satellite / (remote sensing, Geographic Information System*. A doctoral thesis would be an advantage;
- Have at least ten (10) years of applied experience in the field;

- Have participated in carrying out a similar project at National and regional level;
 - Proficient in at least three (03) software (ARCGIS, ERDAS Imagine, IDRISI, QGIS, etc.) related to satellite image processing;
 - Have a command of at least one official language of ECOWAS and be able to work in a second official language of the region;
 - Have mastery of computer tool.
5. The ECOWAS Commission now invites eligible Consultants (Individual) to indicate their interests in providing these services. The interested Consultants must provide all information supporting their qualification to perform the services (Kindly attach detailed Curriculum Vitae that highlights the following: Curriculum and Certificates; Past Experiences of similar jobs over the past ten (10) years; Computer knowledge; knowledge of the area; language and any other information useful for the accomplishment of this project). **Please note that if individual consultants are proposed by firms, only the experience and qualifications of the individuals shall be used in the selection process, their corporate experience shall not be taken into account, and the contract, if given, will be signed with the proposed individual.**
6. The selection will be done on the basis of a comparison of curricula vitae and interviews and the selected Consultant will be invited for negotiation prior to the conclusion and signing of the Contract Agreement. **(Selection method: Individual Consultant). Please note that the selected consultant will be expected to submit all required reports in English or French or Portuguese.**
7. Interested consultants may obtain further information at the address below during office hours: **Monday to Friday from 9.00 am GMT+1 to 5.00 pm GMT+1.**
Procurement Division, Directorate of General Administration, ECOWAS Commission, Plot 101, Yakubu Gowon Crescent, Asokoro District, P. M. B. 401 Abuja Nigeria or by E-mail to the following addresses: sbangoura@ecowas.int, copy: cdeh@ecowas.int rkouakou@ecowas.int , procurement@ecowas.int
- NB:** The attention of interested Consultants is particularly drawn to **Article 117 of the ECOWAS Procurement Code (“Infringements by Candidates, Bidders and Awardees”)**, providing information on corrupt or fraudulent practices in competing for or executing a contract. In addition, please refer to the following specific information on conflict of interest related to this assignment as per **“Article 118 of the ECOWAS Procurement Code.**

Expression of Interest **(1 original and 3 copies)** must be delivered in sealed envelopes and clearly marked **“SELECTION OF A CONSULTANCY FIRM FOR A STUDY TO DEFINE THE ARCHITECTURE OF THE ECOWAS EARTH OBSERVATION SATELLITE (ECOSAT 1) ”**, to the address below latest by **February 22, 2022 at 11.00 am (GMT+1).**

The ECOWAS Tender Box is located in the Directorate of General Administration, Procurement Division, 1st Floor ECOWAS Commission, 101 Yakubu Gowon Crescent, Asokoro District, P. M. B. 401 Abuja Nigeria.

9. **Please note that electronic submissions are accepted and will be evaluated.**

10. This EOI is also published on the ECOWAS website <http://www.ecowas.int/doing-business-in-ecowas/ecowas-procurement>

Commissioner, General Administration & Conference