



SANBA
South African National Blockchain Alliance

Expression of Interest (EOI)

For

Identification and customisation of a blockchain platform for ILIMA, a farm-to-fork solution for emerging farmers and producers

EOI No. SANBA 8031/31/03/2021

Date of Issue	17 March 2021
Closing Date	31 March 2021 at 16h30
Submission of EOI	tender@csir.co.za
Enquiries	E-mail: tender@csir.co.za
Last Day of Enquiries	23 March 2021
CSIR business hours	08h00 – 16h30
Category	Engineering

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SECTION A – TECHNICAL INFORMATION

1 INTRODUCTION

The Council for Scientific and Industrial Research (CSIR) is one of the leading scientific research and technology development organisations in Africa. In partnership with national and international research and technology institutions, CSIR undertakes directed and multidisciplinary research and technology innovation that contributes to the improvement of the quality of life of South Africans. The CSIR's main site is in Pretoria while it is represented in other provinces of South Africa through regional offices.

2 BACKGROUND

The South African National Blockchain Alliance (SANBA) was launched in 2020 to address gaps in the existing blockchain ecosystem in the country. It is hosted within the CSIR and funded by the DSI. It aims to do the following:

- To create an umbrella body with the buy-in of all the ecosystem players in South Africa, to ensure better coordination and community support.
- To work together as “Team South Africa” (business, government, civil society and academia) for the short-to-medium-term in a pre-competitive and collaborative environment that will benefit all.
- To share resources, skills and knowledge to benefit the whole blockchain ecosystem in the country by creating a network effect.
- To use the ecosystem approach to open up new opportunities by linking the traditional R&D players from universities and research organisations to market and commercialisation opportunities and vice-versa.
- To facilitate the transfer of knowledge, open discussions and execution of business cases to government in order to support service delivery in the country.
- To create a trusted, legitimate body, consisting of representatives of government, academia, business & civil society to work together towards widespread blockchain adoption.

SANBA has four main objectives:

1. Connecting academia, civil society, business and government into a pre-competitive collaboration space to support research, development and innovation in blockchain technology and its application in these sectors.
2. Facilitating skills development, advocacy and education on “all things blockchain”.
3. Catalysing blockchain adoption in all sectors of South Africa.
4. Leveraging the blockchain ecosystem as a lobbying platform to tackle issues blocking blockchain adoption in the country.

There is an urgent need for compelling use cases of blockchain in South Africa in order to leverage this technology for the future. A vibrant blockchain startup environment is emerging in the country and excellent work is being done by the South African Reserve Bank and others in the financial services environment. However, there are also exciting opportunities for blockchain solutions beyond the traditional cryptocurrency space.

CSIR's Smart Mobility cluster addresses challenges and opportunities associated with transport and freight logistics; transport equipment; transport infrastructure; and passenger transport services in support of different industrial clusters. By improving the ease of doing business through enabling industrial sectors from the perspective of logistics and supply chain management, the overall competitiveness of the economy can be improved.

A digitised, connected and robotised logistics system, including the underlying infrastructure, has the potential to maximise the efficiency and productivity associated with transport and logistics for a spatially inefficient country such as South Africa, with raw materials nodes located disproportionately far from areas of value addition and consumption. In addition to traditional transport engineering and management sciences, such a system requires the development and application of new capabilities in human enhancement technologies, advanced robotics, artificial intelligence, Internet of Things, and satellite technology.

As part of this offering, the End-to-End logistics capability focuses on the national logistics system, and the sector-level supply chains that deliver goods to markets. It invests in the development of methods and technology to enhance the detection, prediction and management of the multimodal flow of consignments in the supply chain. One of the key research themes is the application of technologies in support of supply chain integration and collaboration, and the establishment of information platforms in support of collaborative decision-making. Blockchain technology is applied as a means of facilitating supply chain integration, visibility, and traceability, with a specific focus on integrating emerging players into established supply chains.

In particular, there is an opportunity to develop a farm-to-fork solution for emerging farmers and producers, by using the unique benefits that blockchain technology brings to this space.

The CSIR, in collaboration with SANBA, has embarked on the development of “ILIMA”, a farm-to-fork supply chain management platform that will embed provenance (traceability), food safety, sustainability, smart logistics and other CSIR food, agricultural and biomanufacturing processes into it. The platform will be developed over the next 3 years.

3 INVITATION FOR EXPRESION OF INTEREST

Expressions of interest are hereby invited from providers who have developed the tools, skills and services and/or a customisable supply chain management platform on a recognised blockchain network. The provider should be in a position to offer development services for the Minimum Viable Product (MVP), to be ready to demo in May 2021. This MVP should provide a mobile app for farmers and producers to interact with the platform. The MVP is expected to demonstrate the following:

- Linking small scale farmers, food producers and/or SMEs to wholesaler/retailers
- Food Traceability capabilities
- Embedded sustainability information

In addition, the provider should specify skills development and handover plans for South African developers to take over development of the platform in the longer term.

Indicative pricing to be included.

4 EOI SPECIFICATION

All proposals are to be submitted in the format specified in this this document. However, applicants are welcome to submit additional / alternative information over and above the originally specified format.

The responses should include the following information:

1. The blockchain network:
 - Support for Smart Contracts
 - Support for Digital Assets / Tokenization

- Scalability (for the use case specified), decentralisation and security
- Modular architecture
- Support for a permissioned network

2. The blockchain platform:

- A solution that can be tailored and/or can be used in supply chains (please include examples and links to existing applications)
- Hosting options (e.g. managed cloud hosting or hosting on premises)
- A testnet and/or technical sandbox environment
- Professional support packages
- Seamless private key management
- Description of the data storage model
- Indication whether there is a turnkey food supply chain management system available that can be customised
- Indication whether there is a turnkey mobile application available that can be customised
- API's for extensibility

3. Reference sites and solutions to be indicated, with customer references if available.

4. A skills development plan to be included, showing how a South African team will be upskilled to take over the longer term development activities.

5. Partnering and possible joint funding strategies, if deemed an option.

5 FUNCTIONAL EVALUATION CRITERIA

5.1 The evaluation of the functional / technical detail of the EOI will be based on the requirements listed in the table below:

Requirement	Acceptance Criteria	Weight	Score
Recognised blockchain network	Support for Smart Contracts; Support for Digital Assets / Tokenization; Scalability (for the use case specified), decentralisation and security; Modular architecture; Support for a permissioned network	20%	
“Plug and play” Blockchain platform	An existing platform that contains tools and services that can be easily tailored for the MVP and future supply chain use cases	40%	
Reference sites	One or more good, high profile example(s) of supply chain implementations, particularly in food supply chains	20%	
Skills development plan	Coherent and “do-able”, demonstrating knowledge of the South African blockchain development environment	10%	
Partnering and possible joint funding strategies	Willingness to partner with the CSIR and SANBA to develop the solution, using innovative business models.	10%	
TOTAL		100%	100

Proposals from providers with functionality / technical points of less than the pre-determined minimum overall percentage of 70% and less than 50% on any of the individual criteria will be eliminated from further evaluation. Each criterion will be scored out of 10 – 1 being the least and 10 being the maximum.

6 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

- Submission after the deadline;
- Proposals submitted at incorrect location

7 NATIONAL TREASURY CENTRAL SUPPLIER DATABASE REGISTRATION

Before any negotiations will start with the winning bidder it will be required from the winning bidder, if South African, to:

- be registered on National Treasury’s Central Supplier Database (CSD). Registrations can be completed online at: www.csd.gov.za;
- provide the CSIR of their CSD registration number.

SECTION B – TERMS AND CONDITIONS

8 VENUE FOR PROPOSAL SUBMISSION

All proposals must be submitted at: tender@csir.co.za

9 PROGRAMME

The program, as currently envisaged, incorporates the following key dates:

- Issue of documents: 17 March 2021
- Last date for enquiries: 23 March 2021
- Closing / submission Date: 31 March 2021

10 SUBMISSION OF PROPOSALS

- 10.1 All proposals are to be clearly marked with the EOI number on the subject line.
- 10.2 Proposals submitted by companies must be signed by a person or persons duly authorised.
- 10.3 The CSIR will award the contract to qualified tenderer(s)' whose proposal is determined to be the most advantageous to the CSIR, taking into consideration the technical (functional) solution and, if South African, B-BBEE.

11 DEADLINE FOR SUBMISSION

Proposals shall be submitted at the address mentioned above no later than the closing date of 31 March 2021 during CSIR's business hours. The CSIR business hours are between 08h00 and 16h30.

Where a proposal is not received by the CSIR by the due date and stipulated place, it will be regarded as a late tender. Late tenders will not be considered.

12 EVALUATION PROCESS

12.1 Evaluation of proposals

All proposals will be evaluated by an evaluation team for functionality and, if South African, B-BBEE. Based on the results of the evaluation process and upon successful negotiations, the CSIR will approve the awarding of the contract to successful applicants.

13 VALIDITY PERIOD OF PROPOSAL

Each **proposal** shall be valid for a minimum period of eighteen (18) months calculated from the closing date.

14 APPOINTMENT OF SERVICE PROVIDER

14.1 Tenderers who score the highest total number of points during the evaluation process will be added to the CSIR supplier database.

14.2 Successful responders who have the requisite expertise, will be given the opportunity to respond to a Request for Quotation (RFQ).

15 ENQUIRIES AND CONTACT WITH THE CSIR

Any enquiry regarding this EOI shall be submitted in writing to CSIR at tender@csir.co.za with ***“EOI No.: SANBA 8031/31/03/2021 - Identification and customisation of a blockchain platform for ILIMA, a - farm-to-fork solution for emerging farmers and producers”*** as the subject.

Any other contact with CSIR personnel involved in this EOI is not permitted during the EOI process other than as required through existing service arrangements or as requested by the CSIR as part of the EOI process.

16 MEDIUM OF COMMUNICATION

All documentation submitted in response to this EOI must be in English.

17 COST OF EOI

Tenderers are expected to fully acquaint themselves with the conditions, requirements and specifications of this EOI before submitting proposals. Each tenderer assumes all risks for resource commitment and expenses, direct or indirect, of proposal preparation and participation throughout the EOI process. The CSIR is not responsible directly or indirectly for any costs incurred by tenderers.

18 CORRECTNESS OF RESPONSES

18.1 The tenderer must confirm satisfaction regarding the correctness and validity of their proposal and that all prices and rates quoted cover all the work/items specified in the EOI. The prices and rates quoted must cover all obligations under any resulting contract.

18.2 The tenderer accepts that any mistakes regarding prices and calculations will be at their own risk.

19 VERIFICATION OF DOCUMENTS

19.1 Tenderers should check the numbers of the pages to satisfy themselves that none are missing or duplicated. No liability will be accepted by the CSIR in regard to anything arising from the fact that pages are missing or duplicated.

19.2 Electronic copy of each proposal must be submitted.

20 ADDITIONAL TERMS AND CONDITIONS

20.1 A tenderer shall not assume that information and/or documents supplied to CSIR, at any time prior to this request, are still available to CSIR, and shall consequently not make any reference to such information document in its response to this request.

20.2 Copies of any affiliations, memberships and/or accreditations that support your submission must be included in the tender.

20.3 In case of proposal from a joint venture, the following must be submitted together with the proposal:

- Joint venture Agreement including split of work signed by both parties;
- The original or certified copy of the B-BBEE certificate of the joint venture;
- Proof of ownership/shareholder certificates/copies; and
- Company registration certificates.

- 20.4 An omission to disclose material information, a factual inaccuracy, and/or a misrepresentation of fact may result in the disqualification of a tender, or cancellation of any subsequent contract.
- 20.5 Failure to comply with any of the terms and conditions as set out in this document will invalidate the Proposal.

21 CSIR RESERVES THE RIGHT TO

- 21.1 Extend the closing date;
- 21.2 Verify any information contained in a proposal;
- 21.3 Request documentary proof regarding any tendering issue;
- 21.4 Give preference to locally manufactured goods;
- 21.5 Appoint one or more service providers, separately or jointly (whether or not they submitted a joint proposal);
- 21.6 Award this EOI as a whole or in part;
- 21.7 Cancel or withdraw this EOI as a whole or in part.

22 DISCLAIMER

This EOI is an expression of interest only and not an offer document. Answers to this EOI must not be construed as acceptance of an offer or imply the existence of a contract between the parties. By submission of its proposal, tenderers shall be deemed to have satisfied themselves with and to have accepted all Terms & Conditions of this EOI. The CSIR makes no representation, warranty, assurance, guarantee or endorsements to tenderer concerning the EOI, whether with regard to its accuracy, completeness or otherwise and the CSIR shall have no liability towards the tenderer or any other party in connection therewith.

DECLARATION BY TENDERER

Only tenderers who completed the declaration below will be considered for evaluation.

EOI No.: SANBA 8031/31/03/2021: Identification and customisation of a blockchain platform for ILIMA

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / proposal specifications stipulated in the EOI No.: SANBA 8031/31/03/2021 at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the CSIR during the validity period indicated and calculated from the closing date of the proposal.

I confirm that I am satisfied with regards to the correctness and validity of my proposal; that the price(s) and rate(s) quoted cover all the services specified in the proposal documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this proposal as the principal liable for the due fulfilment of this proposal.

I declare that I have no participation in any collusive practices with any tenderer or any other person regarding this or any other proposal.

I accept that the CSIR may take appropriate actions, deemed necessary, should there be a conflict of interest or if this declaration proves to be false.

I confirm that I am duly authorised to sign this proposal.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES	
1
2
DATE:	