

**EXPRESSION OF INTEREST
FOR
Engaging Turnkey Solution Provider for Creation & Management of
FarmerZone™ Platform**



LAST DATE OF SUBMISSION OF BIDS: 03 NOVEMBER 2018



DEPARTMENT OF BIOTECHNOLOGY

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Newspaper Advertisement



Expression of Interest

IIT Mandi under the FarmerZone™ Programme of the Department of Biotechnology, Ministry of Science & Technology invites EoI(s) from IT firms/Solution providers to procure turnkey solutions for creation, management and maintenance of FarmerZone™ cloud platform.

Detailed EOI available on www.farmerzone.in/EoI. Submissions to be made by email to tenders@farmerzone.in latest by 1800 hrs on 3rd November, 2018

Abbreviations and Definitions

EOI: Expression of Interest

DBT: Department of Biotechnology

SOW: Scope of Work

IPR: Intellectual Property Rights

API: Application Programming Interface

1. Background

1.1 Introduction of the Project

FarmerZone™ is the Department of Biotechnology's (DBT) vision for a cloud service that will offer curated data solutions leading to improved farm productivity and market connectivity for smallholder farmers. FarmerZone™ will serve as a multi-purpose window for dissemination of farm-level information to farmers from dealing with climate change and weather prediction, to matters of land, soil, water, seed and market linkages serving as a single platform for collecting, curating and analyzing data and distributing it as need-based solutions.

It aims to eliminate the data silos that currently inhibit the sharing of agricultural information, by incentivizing all key actors in the smallholder agriculture value chain to share their resources in a mutually beneficial model. The platform will work on getting relevant quality data related to agriculture into the cloud, developing sentinel sites to help link with farmers. This will be the authoritative platform for agri advisories in India.

Figure 1 shows the FarmerZone™ ecosystem. This includes data providers, the platform operators, providers of AI-based advisories, agri-experts, agri-industry and of course the farmers themselves.

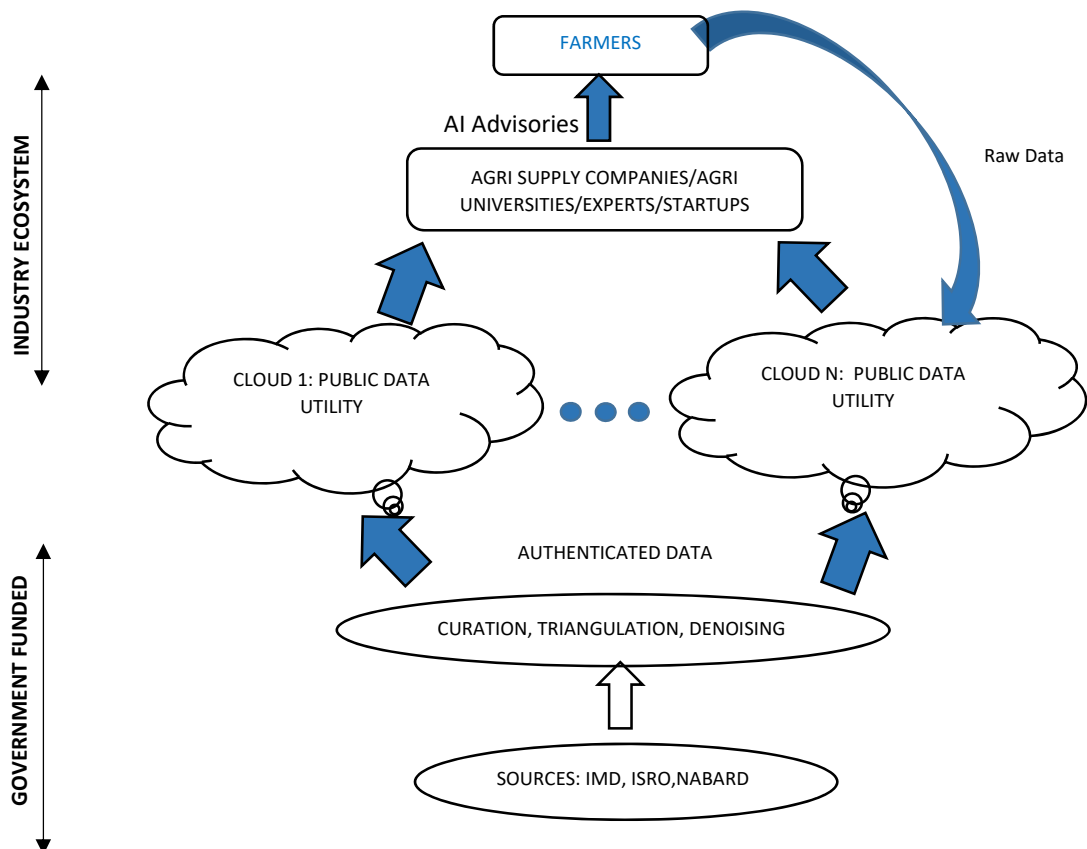


Figure 1: FarmerZone™ Ecosystem

An indicative multi-tier architecture has been proposed for the FarmerZone™ platform as given below:

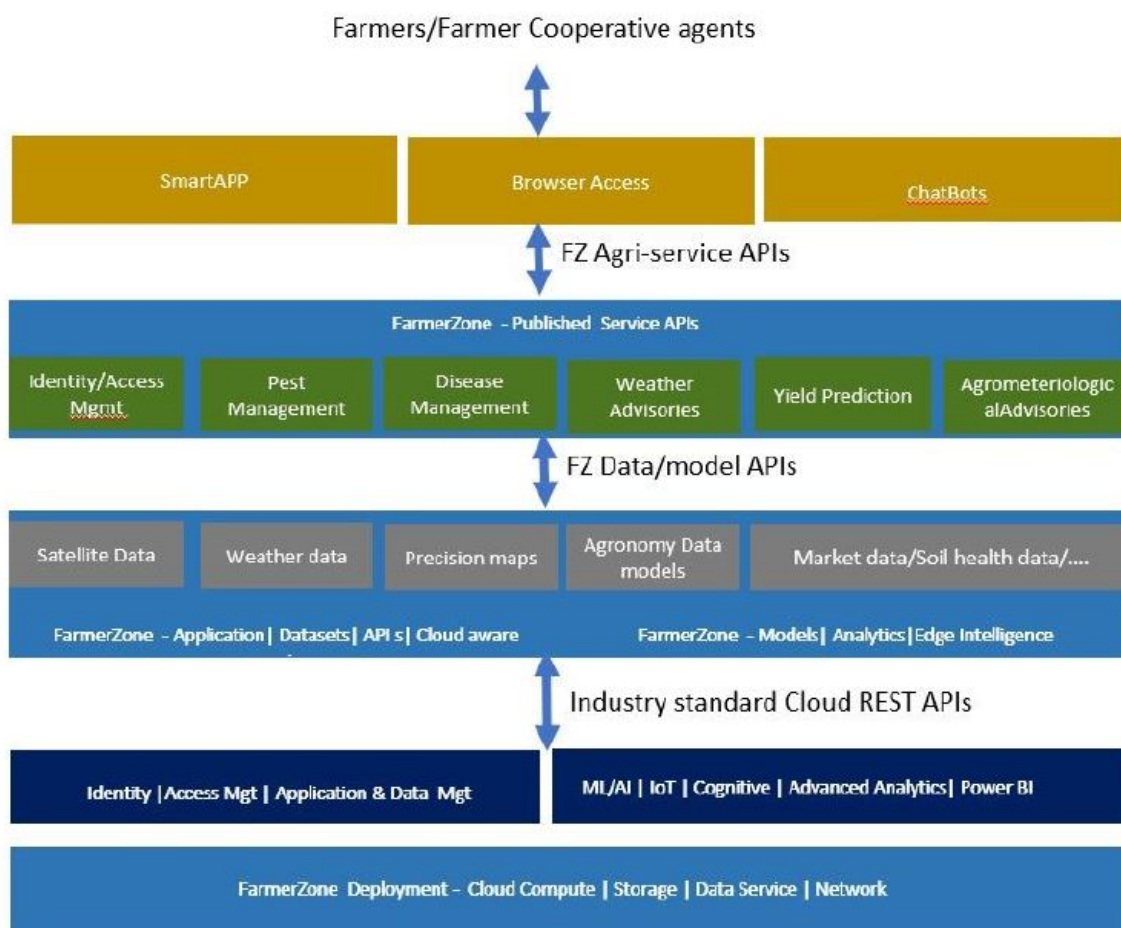


Fig 2: Indicative Data Architecture for FarmerZone™

1.2 FarmerZone™ Sentinels

FarmerZone™ is beginning with the formation of Sentinels across crops and geographies in India to demonstrate rigorous tools of data collation, analysis and delivery to smallholder farmers. Each Sentinel Site operates independently in a key agro-ecological region with the goal of ingesting data created by these sites into the central FarmerZone™ that serves as the India-wide Cloud Service. The sentinels are to be driven by a consortium of agricultural stakeholders to achieve the following outcomes:

- Collate agri-data from National and International resources.
- Create crop/region-specific forecasting models to deliver solutions across India and build national and international capacity in crop specific modelling and algorithm development.
- Demonstrate models of farm-level informal and formal data collection that help in developing Farmer-specific solutions on FarmerZone™

- Test and pilot weather and climate risk data modelled as close to farm level as possible
- Demonstrate the efficacy and efficiency of information delivery channels to farmers including affordability, access and user interactivity.
- Demonstrate the impact of information delivery on farmer income and farm productivity.
- Lead to the creation of centers of Excellence in Digital Agriculture across India.

The first approved Sentinel for FarmerZone™ is for the Potato Crop in India. This Sentinel is being coordinated by the Indian Institute of Technology Mandi (IIT Mandi) with domain expertise from the Central Potato Research Institute (CPRI), Shimla, and technical & management support from IORA Ecological, Delhi. The Sentinel is supported by national and international institutions including: Microsoft Research India, Sangha Group, the National Institute of Agricultural Botany (NIAB) UK, KISAN HUB, Global Open Data for Agriculture and Nutrition (GODAN), Penn State University, USA and Vertiver.

2. Scope of Work

The scope of work of the chosen bidder (hereinafter referred to as “Technology Partner”)

- (i) Implementation of the multi-tiered FarmerZone™ architecture including layers integrating Agri-service providers and data/ model providers (as per the basic architecture decided by the partners)
- (ii) The implementation will include full lifecycle, from development to testing, deployment, monitoring and maintaining APIs, dashboards etc.
- (iii) Design & Implementation of the data ware house containing historical data from multiple databases
- (iv) Maintain the data repositories keeping provision for allowing multiple data entry at different times during the phase of the project
- (v) Creation and provisioning of metadata for the seamless data layers/ data assets of FarmerZone™ platform, allowing FarmerZone™ to build incremental value as it enhances its offering
- (vi) Allow multiple agencies to provide data and models and assist in hosting on the FarmerZone™ cloud to be accessed by authenticated users or subscribers
- (vii) The service provider is expected to design solutions, automate/code algorithms provided by technical expert group and allow for dynamic usage of data
- (viii) The pilot crop for implementation will be potato for which full-scale advisories are expected to be deployed. The FarmerZone™ design will include provisions to dynamically add crops and advisories through the data/model layer (ref: architecture above)
- (ix) Develop a multi-lingual FarmerZone™ mobile app to deliver advisories to farmers and relevant stakeholders. Hindi and English versions are mandatory and more languages may be added. Provision of access to advisories to other service providers through the Agri Services API (ref: architecture above). The app functionality should be optimized for working offline.

- (x) Feature enhancement, bug fixing, up gradation, migration analysis and technical query support

3. Intellectual Property Rights (IPR)

DBT being the initiator of FarmerZone™ owns Intellectual Property Rights including but not limited to, the trade mark FarmerZone™ and/or its formatives, service marks, domain names and related rights. The Bidders will not claim any rights whatsoever in any of trademark, copyright, content etc.

Any plans, ideas, written methodology, research work and outputs for implementation of the multi-tiered FarmerZone™ architecture delivered to FarmerZone™ by the successful bidder as part of this Award of Work shall be the sole and exclusive property of DBT and the awarded party may not be able to use the said intellectual property except with DBT's explicit permission in writing.

As part of the Award of Work, the successful bidder will have to enter into an IPR agreement with FarmerZone™.

4. Instructions to Bidders

4.1 Bidding Process

The bidding exercise will be a two-stage process with the EOI being the first stage. Thereafter, only the shortlisted bidders will be invited to share the financial proposal based on detailed Scope of Work, Time Schedule and other contractual requirements.

4.2 EOI Submission

The EOI is to be submitted by email to tenders@farmerzone.in only in pdf format latest by 1800 hrs on November 03, 2018. EOIs in hard copy and email submitted to any other address shall not be accepted.

Bidders shall submit a Technical Proposal and Solution based on EOI SOW, requirements and data provided and the required information in the prescribed formats.

Consortium bidding is allowed

The EOI submitted shall be strictly as per the formats and requirements specified in this EOI and any deviation may result in the rejection of the Bidder's EOI proposal.

Bids shall be submitted only in English.

4.3 Submission Requirements

Interested firms/companies are required to submit an Expression of Interest (EOI) along with Technical Proposal, documents in support of PQC and information required as per following Annexures to this EOI:

1. Organisational contact details as per Format 1
2. Experience in related fields as per Format 2
3. Response to technical queries as per Format 3
4. Financial strength of the company as per Format 4
5. Declaration as per Format 5

4.4 Completeness of response

- a. Bidders are advised to study all instructions, forms, terms, requirements and other information in the EOI documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the EOI documents with full understanding of its implications.
- b. The response to this EOI should be full and complete in all respects. Failure to furnish all information required by the EOI documents or submission of a proposal not substantially responsive to the EOI documents in every respect will be at the Bidder's risk and may result in rejection of its proposal.

4.5 EOI proposal preparation costs & related issues

- a. The Bidder is responsible for all costs incurred in connection with participation in this process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by the FarmerZone™ to facilitate the evaluation process, unless explicitly specified to the contrary.
- b. FarmerZone™ will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- c. This EOI does not commit FarmerZone™ to award a contract or to engage in negotiations. Further, no reimbursable cost may be incurred in anticipation of award or for preparing this EOI, unless explicitly specified to the contrary.
- d. All materials submitted by the Bidders will become the property of FarmerZone™ and may be returned completely at its sole discretion.

4.6 Responses to queries and issue of corrigendum

- a. Please address any queries to info@farmerzone.in latest by 1700 Hrs on 26.10.2018. The Nodal Officer notified by the FarmerZone™ will endeavor to provide timely response to all queries. However, FarmerZone™ makes no representation or warranty as to the completeness or accuracy of any response made in good faith.

- b. At any time prior to the last date for receipt of bids, FarmerZone™ may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the EOI document by issuing a corrigendum.
- c. The corrigendum (if any) & clarifications to the queries will be communicated to all Bidders through email.
- d. Any such corrigendum shall be deemed to have been incorporated into this EOI.
- e. In order to afford prospective Bidders reasonable time in which to take the corrigendum in to account in the preparation of their bids, FarmerZone™ may at its discretion, extend the last date for the receipt of EOI Bids.

4.7 Right to terminate the EOI process

- a. FarmerZone™ may terminate the EOI process at any time without assigning any reason. FarmerZone™ makes no commitments, expression or implied that this process will result in a business transaction with anyone.
- b. This EOI does not constitute an offer by the FarmerZone™. The Bidder's participation in this process may result in FarmerZone™ short listing the Bidder to submit a complete technical and financial response at a later date.

5. Evaluation

5.1 Stage-I: Pre-qualification Criteria (PQC)

No.	Basic Requirement	Specific Requirement	Documents Required
1	Legal Entity	Should be a company registered under the provisions of the Indian Companies Act, 2013 or a partnership firm registered under the Indian Partnership Act, 1936 or the Limited Liability Partnerships Act, 2008. Registered with the service tax authorities. Should have been operating for the last three years.	- Certificate of incorporation / Partnership deed - Service tax registration - Certificate of commencement of business (if applicable)
4	Sales turnover	Minimum 50 Crores	Certificate from the statutory auditor
5	Net worth	Minimum 250 Crores	Certificate from the statutory auditor

6	Technical capability	Bidder must have successfully completed at least Three projects of similar nature not less than the amount equal to Rs. 1 Crore	Work order + Self certificate of completion
7	Certifications	ISO Certification details OR Certification by any other governing standards body	Copy of Certificate
8	Debarment		Self-Certified letter that the bidder (or any of its successor) is not in the active debarred list published by: a) Central Public Procurement Portal; and b) procuring Ministry /department
9	Power of attorney in favour of the lead member	In case of consortium, the members shall submit a power of attorney in favour of the lead member	Power of attorney

5.2 Stage-II: Shortlisting Criteria & Process

All bidders who meet the PQC as given in 5.1 above will be shortlisted and ranked based on the criteria given below against their detailed Technical Proposal. A maximum of top 4 ranked bidders will then be subsequently contacted for a final financial proposal based on a detailed SOW and other contractual requirements.

Specific requirements	Evaluation criteria	Weightage
Proposed Approach	Evaluation done on: 1. Feasibility 2. Technologies proposed 3. Demonstration of robustness of the proposed solution	40%
Bidder's experience in "Similar" projects (for which work order / completion certificates can be provided)	Based on qualitative assessment on: 1. Technologies used 2. Scale of implementation 3. Learning on Issues 4. Client References	30%

Bidder's competence	Based on qualitative assessment focused on: 1. Research work/centres of excellence 2. Patents 3. Assets in the given project's domain	30%
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5.3 Evaluation Process

- a. FarmerZone™ will constitute a committee to evaluate the responses of the Bidders in response to this EOI document.
- b. The Committee constituted by the FarmerZone™ shall evaluate the responses to the EOI and all supporting documents & documentary evidence. Inability to submit requisite supporting documents or documentary evidence, may lead to rejection of the Bidder's EOI proposal.
- c. Each of the responses shall be evaluated to validate compliance of the Bidders according to the pre-qualification criteria, forms and the supporting documents specified in this EOI document.
- d. The decision of the Committee in the evaluation of responses to the EOI shall be final. No correspondence will be entertained outside the evaluation process conducted by the Committee.
- e. The Committee may ask for meetings with the Bidders to evaluate its suitability for the assignment FarmerZone™ reserves the right to reject any or all proposals.
- f. FarmerZone™ will shortlist Bidders who meet the pre-qualification criteria mentioned in this EOI.
- g. Any attempt by a bidder to influence the bid evaluation process may result in the rejection of its EOI proposal.

6. ANNEXURES

FORMAT 1	
Organisational Contact Details	
Name of Firm :	
Type of Registration of firm:	
Year of Registration of firm:	
Registered Address :	
Contact Address:	
Telephone :	
Contact Address:	
Mobile Number:	
Fax:	
Email:	

Signature of the applicant

Full name of the applicant

Stamp & Date

FORMAT 2

Experience in Related Fields

S.NO.	ITEMS	PARTICULARS
1	Experience & details of work done in Agriculture domain	
2	Experience of similar Multi-Tier/Multi-Partner Cloud Architecture based system implementation	
3	Work done with any Govt/Public sector Undertaking (Publically funded) /Autonomous/universities/R&D Organization) in data system deployment	

FORMAT 3

Technical Proposal

S.NO.	ITEMS	PARTICULARS
1	Detailed implementation plan, based on the draft API document, feedback on whether the API listing needs to be amended/ modified to achieve the goals of FarmerZone™	
2	Proposed UI/UX Process flow for app and portal	
3	Details of presentation of the technology solutions, models, cloud services that the bidder proposes to use.	
3	Tentative cost of the annual maintenance of the platform specifying the scope of work and time period.	

FORMAT 4		
Financial Strength of the Firm		
Annual turnover for last three Financial Years		
	Years	Turn Over
1.		
2.		
3.		

Note: Please attach auditor's certificate (certified copy) in support of your claim.

Signature of the applicant
 Full name of the applicant
 Stamp & Date

FORMAT 5

DECLARATION

We hereby confirm that we are interested to work with FarmerZone™ and all the information provided herewith is genuine and accurate to the best of our knowledge. We also confirm that our firm has not been black listed or has any litigation or any conflict of interest that may impact on the delivery of services.

Authorized Person's Signature:

Name and Designation:

Date of Signature:

Note: This declaration is to be furnished on the letter head of the organization