

**National Bank for Financing Infrastructure and Development
(NaBFID)**

राष्ट्रीय अवसंरचना वित्तपोषण और विकास बैंक (नैबफिड)

(संसद के अधिनियम के माध्यम से स्थापित एक अखिल भारतीय विकास वित्तीय संस्था)

(An All India Development Financial Institution established through an act of Parliament)

**REQUEST FOR EXPRESSION OF INTEREST FOR ONBOARDING
SYSTEM INTEGRATOR FOR DESIGN, SUPPLY, INSTALL,
BUILD, IMPLEMENT, INTEGRATE, CUSTOMIZE AND
MAINTAIN LOAN ORIGINATION SYSTEM, RISK
MANAGEMENT SYSTEM, EWS, LOAN SYNDICATION SYSTEM,
DATA PLATFORM, AND DEDICATED PRIVATE CLOUD**

Ref: NaBFID / IT/ EOI / 2023-01 dated: 06.09.2023

Issuing Office and Address:

**National Bank for Financing Infrastructure and Development (NaBFID),
7th Floor, SIDBI Building,
Swavalamban Bhavan,
Plot No. C-11, G-Block,
Bandra-Kurla Complex, Bandra (East)
Mumbai – 400051**

प्रश्नों के लिए, कृपया संपर्क करें:

ईमेल आईडी: rfp@nabfid.org

For queries, please contact :

Email id : rfp@nabfid.org

**Last date and time for receipt of filled in application
September 27, 2023 up to 1600 hrs.**

Schedule of Events

SI No.	Particulars	Remarks
1.	Coordinates for correspondence	<p>Email ID: rfp@nabfid.org</p> <p>Address: NaBFID, SIDBI BLDG, Swavalamban Bhavan, C-11, G-Block, Bandra-Kurla Complex, Bandra (East), Mumbai – 400051</p> <p>राष्ट्रीय अवसंरचना वित्तपोषण और विकास बैंक (नैबफिड) सिडबी, स्वावलंबन भवन, सी 11, जी ब्लॉक, बांद्रा-कुर्ला कॉम्प्लेक्स, बांद्रा पूर्व, मुंबई - 400051</p>
2.	Bid Document Availability including changes/amendments, if any to be issued	<p>EOI may be downloaded from NaBFID's website: https://nabfid.org/tenders</p>
3.	<p>Last date for requesting clarification</p> <p>स्पष्टीकरण का अनुरोध करने की अंतिम तिथि</p>	<p>Up to 4:00 PM on 15th September 2023</p> <p>All communications regarding points / queries requiring clarifications shall be given by email to rfp@nabfid.org</p> <p>स्पष्टीकरण की आवश्यकता वाले बिंदुओं / प्रश्नों के संबंध में सभी संचार ईमेल rfp@nabfid.org द्वारा दिए जाएंगे</p>
4.	<p>Pre - bid Meeting (physical / online meeting)</p> <p>बोली पूर्व बैठक (भौतिक बैठक)</p>	<p>On 20.09.2023 from 4:00 PM to 5:00 PM on Microsoft Teams portal/App.</p>

	.	
5.	Clarifications to queries raised at prebid meeting will be provided by the Bank.	On or before 22.09.2023
6.	Last date and time for Bid submission	27.09.2023 upto 4.00 pm
7.	Address for submission of Bids	<p>For email submission: rfp@nabfid.org</p> <p>ईमेल सबमिशन के लिए: rfp@nabfid.org</p> <p>For physical submission: NaBFID, SIDBI BLDG, Swavalamban Bhavan, C- 11, G-Block, Bandra-Kurla Complex, Bandra (East),</p> <p>भौतिक जमा करने के लिए: राष्ट्रीय अवसंरचना वित्तपोषण और विकास बैंक (नैबफिड) सिडबी, स्वावलंबन भवन, सी 11, जी ब्लॉक , बांद्रा-कुर्ला कॉम्प्लेक्स, बांद्रा पूर्व, मुंबई - 400051.</p>
8.	Date and Time of opening of Technical Bids	<p>5:00 PM on 27th Sept 2023</p> <p>Authorized representatives of Bidders may be present during opening of the Technical Bids. However, Technical Bids would be opened even in the absence of any or all of the Bidder representatives.</p> <p>तकनीकी बोली खोलने के दौरान बोलीदाताओं के अधिकृत प्रतिनिधि उपस्थित हो सकते हैं। हालांकि, तकनीकी बोलियां एक या सभी बोलीदाताओं के प्रतिनिधियों की अनुपस्थिति में भी खोली जाएंगी।</p>

Part 1

S.N.	INDEX
1.	INVITATION TO BID
2.	BACKGROUND
3.	DISCLAIMER
4.	DEFINITIONS
5.	ELIGIBILITY AND TECHNICAL CRITERIA
6.	COST OF BID DOCUMENT
7.	CLARIFICATIONS AND AMENDMENTS ON EOI/PRE-BID MEETING
8.	CONTENTS OF EOI DOCUMENTS
9.	BID PREPARATION AND SUBMISSION
10.	DEADLINE FOR SUBMISSION OF BIDS
11.	MODIFICATION AND WITHDRAWAL OF BIDS
12.	BIDDING PROCESS/ OPENING OF TECHNICAL BIDS
13.	CONFLICT OF INTEREST
14.	CODE OF INTEGRITY AND DEBARMENT/BANNING
15.	GOVERNING LANGUAGES
16.	APPLICABLE LAW
17.	NOTICES
18.	OTHER TERMS & CONDITIONS

Part 2

APPENDIX	INDEX
A	BID FORM
B	BIDDER'S ELIGIBILITY CRITERIA
C	TECHNICAL CRITERIA/SCOPE OF WORK
D	BIDDER DETAILS
E	PRE-BID QUERY FORMAT
F	FORMAT FOR SUBMISSION OF CLIENT REFERENCES

1. INVITATION TO BID

National Bank for Financing Infrastructure and Development (herein after referred to as ‘**NaBFID/the Bank**’), having its office presently only in Mumbai. This Request for Expression of Interest (hereinafter referred as EOI) is issued by the Bank for onboarding System Integrator for the next phase of Digitization at NaBFID

The Bank proposes to invite EOI from eligible Bidders wishing to be considered for short listing for participating in bidding process for the next phase of Digitization at NaBFID

- i. Bidder shall mean any entity (i.e. juristic person) who meets the eligibility criteria given in **Appendix-B** of this EOI and willing to provide the advisory services required by the Bank through Request for proposal (hereinafter referred as RFP) process in pursuant to this EOI. The interested Bidders who agree to all the terms and conditions contained in this EOI may submit their Bids with the information desired in this EOI. Consortium bidding is not permitted under this EOI.
- ii. Address for submission of Bids, contact details including email address for sending communications are given in Schedule of Events of this EOI.
- iii. The objective of this EOI is for onboarding System Integrator for the next phase of Digitization at NaBFID. This EOI document shall not be transferred, reproduced or otherwise used for purpose other than for which it is specifically issued. This document aims to provide information to potential bidders regarding the tender form, procedure, and time schedule for submission of bids. This shall also include the instructions regarding corrigendum or addendum issued by the institution, if any, should be seen by the bidders on institution’s website before submitting their offer, else, it shall be presumed that their offer is based on corrigendum or addendum issued by the institution in this regard.
- iv. As a general rule, all eligible bidders shall be entitled to a fair opportunity to bid for provision of goods, works, services and consultancy assignments required by the Institution. However, the Institution may exclude suppliers, contractors and vendors from tendering for procurement opportunities in the Institution on the following grounds:
 - a. Past unsatisfactory record of the bidder(s) with the Institution.
 - b. A bidder or any of its successors is / will be providing consulting services related to procurement of the goods, works, services and consultancy assignments, and their inclusion would result in unfair competition and/ or conflict of interest.
 - c. The bidder or any of its successors in question has either been debarred by the Institution for having been engaged in *fraudulent¹ or corrupt practices²* or is shown to be barred on the *e-procurement portal of the Government of India (CPPP – Central Public Procurement Portal)*
 - d. Any other reason deemed fit by the Competent Authority.

2. DISCLAIMER

- i. The information contained in this EOI or information provided subsequently to Bidder(s) whether verbally or in documentary form/email by or on behalf of NaBFID, is subject to the terms and conditions set out in this EOI.
- ii. This EOI is not an offer by NaBFID, but an invitation to receive responses from the eligible Bidders.
- iii. The purpose of this EOI is to provide the Bidder(s) with information to assist preparation of their Bid proposals. This EOI does not claim to contain¹ all the information each Bidder may require. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information contained in this EOI and where necessary obtain independent advices/clarifications. Bank may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this EOI.
- iv. The Bank, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this EOI or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the EOI and any assessment, assumption, statement or information contained therein or deemed to form or arising in any way for participation in this EOI.
- v. The Bank also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused arising from reliance of any Bidder upon the statements contained in this EOI.
- vi. The Bidder is expected to examine all instructions, forms, terms and specifications in this EOI. Failure to furnish all information required under this EOI or to submit a Bid not substantially responsive to this EOI in all respect will be at the Bidder's risk and may result in rejection of the Bid.
- vii. The issue of this EOI does not imply that the Bank is bound to select a Bidder or subsequently to award the contract to the shortlisted Bidder, as the case may be, for the project and the Bank reserves the right to reject all or any of the Bids or Bidders without assigning any reason.

¹ **"Fraudulent practice"** means a misrepresentation of facts in order to influence a procurement process culminating with award of the contract or the execution of a contract and, includes collusive practices among bidders [prior to or after bid submission] designed to deprive the Institution of the benefits of free and open competition;

² **"Corrupt practice"** means the offering, giving, receiving, or soliciting of anything of value to influence the action of any official in the procurement process or in contract execution.

3. **DEFINITIONS**

In this connection, the following terms shall be interpreted as indicated below:

- i. **“The Bank”** ‘means the National Bank for Financing Infrastructure and Development (NaBFID)
- ii. **“Bidder”** means an eligible entity/firm submitting the Bid in response to this EOI.
- iii. **“Bid”** means the written reply or submission of response to this EOI.

4. **METHOD OF PROCUREMENT**

The fundamental principle of all assignments would be guided by the notion of responsibility and accountability in order to bring in efficiency, economy and transparency.

In addition to this, the entire procedure of procurement has to provide a fair and equitable treatment and opportunity to the prospective suppliers besides promoting a competitive environment. It is pertinent to state that any procurement should conform to the yardsticks which are laid by the institution keeping in mind the GFR and other applicable rules and regulations.

5. **ELIGIBILITY AND TECHNICAL CRITERIA/SCOPE OF WORK:**

- i. Bid is open to all Bidders who meet the eligibility and technical criteria/scope of work as given in **Appendix-B & Appendix-C** of this EOI. The Bidder has to submit the documents substantiating eligibility criteria as mentioned in this EOI document.

6. **COST OF BID DOCUMENT**

The participating Bidders shall bear all the costs associated with or relating to the preparation and submission of their Bids including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstration or presentations which may be required by the Bank or any other costs incurred in connection with or relating to their Bid. The Bank shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder regardless of the conduct or outcome of the bidding process.

7. CLARIFICATION AND AMENDMENTS OF EOI/PRE-BID MEETING:

- i. Bidder requiring any clarification on EOI may notify the Bank in writing strictly as per the format given in **Appendix-E** at the address/by e-mail within the date/time mentioned in the Schedule of Events.
- ii. All queries to be raised in the pre-bid meeting will relate to the EOI alone and no queries related to detailed analysis of scope of work, payment terms and mode of selection will be entertained. These issues will be amply clarified at the RFP stage.
- iii. A pre-Bid meeting will be held in person or online on the date and time specified in the Schedule of Events which may be attended by the authorized representatives of the Bidders interested to respond to this EOI.
- iv. The queries received (without identifying source of query) and response of the Bank thereof will be posted on SIDBI's/ the Bank's website or conveyed to the Bidders through email.
- v. The Bank reserves the right to amend, rescind or reissue the EOI, at any time prior to the deadline for submission of Bids. The Bank, for any reason, whether, on its own initiative or in response to a clarification requested by a prospective Bidder, may modify the EOI, by amendment which will be made available to the Bidders by way of corrigendum/addendum. The interested parties/Bidders are advised to check NaBFID's website (<https://www.nabfid.org/>) regularly till the date of submission of Bid document specified in the Schedule of Events/email and ensure that clarifications/ amendments issued by the Bank, if any, have been taken into consideration before submitting the Bid. Such amendments/clarifications, if any, issued by the Bank will be binding on the participating Bidders. Bank will not take any responsibility for any such omissions by the Bidder. The Bank, at its own discretion, may extend the deadline for submission of Bids in order to allow prospective Bidders a reasonable time to prepare the Bid, for taking the amendment into account. Nothing in this EOI or any addenda/corrigenda or clarifications issued in connection thereto is intended to relieve Bidders from forming their own opinions and conclusions in respect of the matters addresses in this EOI or any addenda/corrigenda or clarifications issued in connection thereto.
- vi. Queries received after the scheduled date and time will not be responded/acted upon.

8. CONTENT OF EOI DOCUMENT

- i. The Bidder must thoroughly study/analyse and properly understand the contents of this EOI, its meaning and impact of the information contained therein.
- ii. Failure to furnish all information required in this EOI or submission of Bid not responsive to this EOI in any respect will be at the Bidder's risk and

responsibility and the same may finally result in rejection of its Bid. The Bank has made considerable effort to ensure that accurate information is contained in this EOI and is supplied solely as guidelines for Bidders.

- iii. The Bid prepared by the Bidder, as well as all correspondences and documents relating to the Bid exchanged by the Bidder and the Bank and supporting documents and printed literature shall be submitted in English.
- iv. The information provided by the Bidders in response to this EOI will become the property of the Bank and will not be returned. Incomplete information in Bid document may lead to non-consideration of the proposal.

9. **BID PREPARATION AND SUBMISSION**

- i. The Bid is to be submitted physically to the address mentioned in Sl.No.1 of Schedule to Event with the required documents duly signed by the authorised signatory:
 - a. Index of all the documents, letters, bid forms etc. submitted in response to EOI along with page numbers.
 - b. Bid covering letter/Bid form on the lines of **Appendix-A** on Bidder's letter head.
 - c. Specific response with supporting documents in respect of Eligibility Criteria as mentioned in **Appendix-B** and technical criteria/scope of work on the lines of **Appendix-C**.
 - d. Bidder's details as per **Appendix-D** on Bidder's letter head.
 - e. Audited financial statement and profit and loss account statement as mentioned in Part-2.
 - f. A copy of board resolution along with copy of power of attorney (POA wherever applicable) showing that the signatory has been duly authorized to sign the Bid document.
 - g. If applicable, copy of registration certificate issued by competent authority as mentioned in **SI No 1 of Eligibility Criteria** under **Appendix-B**.
- ii. **Bidders may please note:**
 - a. While submitting the EOI, literature on the proposed solution/services should be segregated and kept together in one section.
 - b. The Bid document shall be complete in accordance with various clauses of the EOI document or any addenda/corrigenda or clarifications issued in connection thereto, duly signed by the authorized representative of the Bidder. Board resolution authorizing representative to Bid and make commitments on behalf of the Bidder is to be attached.
 - c. If deemed necessary, the Bank may seek clarifications on any aspect from the Bidder. However, that would not entitle the Bidder to change or cause any change in the substances of the Bid already submitted.
 - d. The Bidder may also be asked to give presentation for the purpose of clarification of the Bid.
 - e. The Bidder must provide specific and factual replies to the points raised in the EOI.

- f. The Bid shall be typed or written and shall be signed by the Bidder or a person or persons duly authorized.
- g. All the enclosures (Bid submission) shall be serially numbered.
- h. The Bank reserves the right to reject Bids not conforming to above.

10. DEADLINE FOR SUBMISSION OF BIDS

- i. Bids must be physically submitted to the address mentioned in SL.No.1 , by the date and time mentioned in the “Schedule of Events”.
- ii. In the event of the specified date for submission of Bids being declared a holiday for the Bank, the Bids will be received upto the appointed time on the next working day.
- iii. In case the Bank extends the scheduled date of submission of Bid document, the Bids shall be submitted by the time and date rescheduled. All rights and obligations of the Bank and Bidders will remain the same.

11. MODIFICATION AND WITHDRAWAL OF BIDS

- i. The Bidder may modify or withdraw its Bid after the Bid’s submission, provided that modification, including substitution or withdrawal of the Bids, is received in the mentioned address, prior to the deadline prescribed for submission of Bids.
- ii. No modification in the Bid shall be allowed, after the deadline for submission of Bids.

12. BIDDING PROCESS/OPENING OF TECHNICAL BIDS:

- i. All Bids received up to the specified time and date will be opened for initial evaluation on the time and date mentioned in the Schedule of Events. The Bids will be opened in the presence of representatives of the Bidders who choose to attend the same. No separate notice for opening of bids and for presence of the bidders for opening of bids shall be sent. However, Bids may be opened even in the absence of representatives of one or more of the Bidders.
- ii. Prior to the detailed evaluation, the Bank will determine the responsiveness of each Bid to the EOI. For purposes of these Clauses, a responsive Bid is one, which conforms to all the terms and conditions of the EOI in toto, without any deviation.
- iii. If a Bid is not responsive, it will be rejected by the Bank and will not subsequently be made responsive by the Bidder by correction of the non-conformity.
- iv. After examining the EOI, Bidders meeting all the eligibility criteria will be asked to make presentation of the solution and/ or demonstrate proof of concept (POC) within ~~1/2~~ two weeks of submission of EOI. The Bidder shall

bear all costs associated with submission of EOI, presentation/POC desired by the Bank. The Bank shall not be responsible or liable for any cost thereof, regardless of the conduct or outcome of the process.

- v. Bank may issue a Request for Proposal (RFP) to shortlisted Bidders for next process of engagement. However, please note that short listing of Bidders should not be treated as a contract for the proposed work.
- vi. Nothing contained in this EOI shall impair the Bank's Right to issue 'Open RFP' on the proposed solution/services.
- vii. Bidders will be advised about shortlisting of their EOIs or otherwise. However, Bidders will not be provided with information about comparative position of their EOIs with that of others.

13. CONFLICT OF INTEREST

- i. Bidder shall not have a conflict of interest (the "Conflict of Interest") that affects the bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified without prejudice to any other right or remedy that may be available to the Bank under the EOI and/ or the subsequent RFP or otherwise.
- ii. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the bidding Process, if:
 - a. the Bidder, its Member or Associate (or any constituent thereof) and any other Bidder, its Member or any Associate thereof (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding of a Bidder, its Member or an Associate thereof (or any shareholder thereof having a shareholding of more than 5% (five per cent) of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, its Member or Associate, has less than 5% (five per cent) of the subscribed and paid up equity share capital thereof; provided further that this disqualification shall not apply to any ownership by a bank, insurance company, pension fund or a public financial institution referred to in section 2(72) of the Companies Act, 2013. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows: (aa) where any intermediary is controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; and (bb) subject always to sub-clause (aa) above, where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on a proportionate basis; provided, however, that no such shareholding shall be reckoned under this sub-clause (bb) if the shareholding of such person in the intermediary is less than 26% of the subscribed and paid up equity shareholding of such intermediary; or

- b. a constituent of such Bidder is also a constituent of another Bidder; or
 - c. such Bidder, its Member or any Associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Bidder, its Member or Associate, or has provided any such subsidy, grant, concessional loan or subordinated debt to any other Bidder, its Member or any Associate thereof; or
 - d. such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
 - e. such Bidder, or any Associate thereof, has a relationship with another Bidder, or any Associate thereof, directly or through common third party/parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Bid of either or each other; or
 - f. such Bidder or any of its affiliates thereof has participated as a consultant to the Bank in the preparation of any documents, design or technical specifications of the EOI.
- iii. For the purposes of this EOI, Associate means, in relation to the Bidder, a person who controls, is controlled by, or is under the common control with such Bidder (the "Associate"). As used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person by operation of law or by contract.

14. CODE OF INTEGRITY AND DEBARMENT/BANNING:

- i. The Bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the bidding Process. Notwithstanding anything to the contrary contained herein, the Bank shall reject Bid without being liable in any manner whatsoever to the Bidder if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt/fraudulent/coercive/undesirable or restrictive practices in the bidding process.
- ii. Bidders are obliged under code of integrity to Suo-moto proactively declare any conflicts of interest (pre-existing or as and as soon as these arise at any stage) in EOI process or execution of contract. Failure to do so would amount to violation of this code of integrity.
- iii. Any Bidder needs to declare any previous transgressions of such a code of integrity with any entity in any country during the last three years or of being debarred by any other procuring entity. Failure to do so would amount to violation of this code of integrity.
- iv. For the purposes of this clause, the following terms shall have the meaning hereinafter, respectively assigned to them:

- a. **“corrupt practice”** means making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the engagement process or to otherwise influence the engagement process or contract execution;
- b. **“Fraudulent practice”** means any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a EOI process or to secure a contract or in execution of the contract;
- c. **“Coercive practice”** means harming or threatening to harm, persons or their property to influence their participation in the empanelment process or affect the execution of a contract;
- d. **“Anti-competitive practice”** means any collusion, bid rigging or anticompetitive arrangement, or any other practice coming under the purview of the Competition Act, 2002, between two or more bidders, with or without the knowledge of the Bank, that may impair the transparency, fairness and the progress of the empanelment process or to establish bid prices at artificial, non-competitive levels;
- e. **“Obstructive practice”** means materially impede the Bank’s or Government agencies investigation into allegations of one or more of the above mentioned prohibited practices either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements to investigators and/or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or by impeding the Bank’s rights of audit or access to information;

v. **Debarment/Banning**

There will be provision of debarment of firm/bidder in line with Ministry of Finance, Department of Financial Services (Coordination Section) letter dated November 22, 2021

The terms "banning of firm", 'suspension', 'Black-Listing' etc. convey the same meaning as of " Orders for Debarment of a firm(s) shall be passed by Institution, keeping in view of the following:

- a. A bidder or any of its successors may be debarred from participating in any procurement process for a period not exceeding two years.
- b. Firms will be debarred if it is determined that the bidder has breached the code of integrity as per Rule 175 of GFRs 2017 or it is covered under the Rule 151 of GFRs 2017: Debarment from bidding.
- c. A bidder can also be debarred for any actions or omissions by the bidder other than violation of code of integrity, which in the opinion of the Institution, warrants debarment, for the reasons like supply of sub-standard material, non-supply of material, abandonment of works, sub-standard quality of works, failure to abide "Bid Securing Declaration" etc.
- d. The Institution before issuing the debarment order against a firm must ensure that reasonable opportunity has been given to the concerned firm to represent against such debarment (including personal hearing, if requested by firm).

- e. Department Head shall be the competent authority to debar the firms.
- f. The Department that issued the order of debarment can also issue an Order for revocation of debarment before the period of debarment is over, if there is adequate justification for the same. Ordinarily, the revocation of the Order before expiry of debarred period should be done with the approval of Head of the concerned Department.
- g. The Institution will maintain list of debarred firms, which will also be displayed on its website.

Code of Integrity as contained in Rule 175 of the GFRs is reproduced as under:

No official of a procuring entity or a bidder shall act in contravention of the codes which includes prohibition of:

- (i) making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
- (ii) any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained or an obligation avoided.
- (iii) any collusion bid rigging or anticompetitive behaviour that may impair the transparency, fairness and the progress of the procurement process.
- (iv) improper use of information provided by the procuring entity to the bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
- (v) any financial or business transactions between the bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly.
- (vi) any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
- (vii) obstruction of any investigation or auditing of a procurement process.
- (viii) making false declaration or providing false information for participation in a tender process or to secure a contract;
 - (a) disclosure of conflict of interest.
 - (b) disclosure by the bidder of any previous transgressions made in respect of the provisions of sub-clause (i) with any entity in any country during the last three years or of being debarred by any other procuring entity.
 - (c) No contract of any kind whatsoever shall be placed to debarred firm including its allied firms after the issue of a debarment order by the Institution. Bids from only such firms shall be considered for placement of contract, which are neither debarred on the date of opening of tender (first bid, normally called as technical bid, in case of two packet/two stage bidding) nor debarred on the date of contract. Even in the cases of risk purchase, no contract should be placed on such debarred firms.
 - (d) If case, any debarred firms has submitted the bid, the same will be ignored. In case such firm is lowest (L-1), next lowest firm shall be considered as L-1. Bid security submitted by such debarred firms shall be returned to them.
 - (e) Contracts concluded before the issue of the debarment order shall, not be affected by the debarment Orders.

- (f) The Debarment shall be automatically extended to all its allied firms. In case of joint venture/ consortium is debarred all partners will also stand debarred for the period specified in Debarment Order. The names of partners should be clearly specified in the "Debarment Order".
- (g) Debarment in any manner does not impact any other contractual or other legal rights of the procuring entities.
- (h) The period of debarment shall start from the date of issue of debarment order.
- (i) The Order of debarment will indicate the reason(s) in brief that lead to debarment of the firm.
- (j) Ordinarily, the period of debarment should not be less than six months.
- (k) In case of shortage of suppliers in a particular group, such debarments may also hurt the interest of procuring entities. In such cases, endeavour should be to pragmatically analyse the circumstances, try to reform the supplier and may get a written commitment from the supplier that its performance will improve.

Revocation of Orders

- a. An order for debarment passed shall be deemed to have been automatically revoked on the expiry of that specified period and it will not be necessary to issue a specific formal order of revocation.
- b. A debarment order may be revoked before the expiry of the Order, by the competent authority, if it is of the opinion that the disability already suffered is adequate in the circumstances of the case or for any other reason.

15. GOVERNING LANGUAGE

The governing language shall be English/Hindi

16. APPLICABLE LAW

The Contract shall be interpreted in accordance with the laws of the Union of India and shall be subjected to the exclusive jurisdiction of courts at Mumbai.

17. NOTICES

Any notice given by one party to the other pursuant to this EOI shall be sent to other party in writing and confirmed in writing to other Party's address. The notice shall be effective when delivered or on the notice's effective date whichever is later.

18. OTHER TERMS & CONDITIONS

- i. Lodgement of an EOI shall be construed as evidence of a Bidder's consent to comply with the terms and condition of Request for EOI process and subsequent bidding process. If a Bidder fails to comply with any of the terms, its EOI may be summarily rejected.
- ii. Wilful misrepresentation of any fact within the Bid will lead to the disqualification of the Bidder without prejudice to other actions that the Bank may take. All the submissions, including any accompanying documents, will become property of the Bank. The Bidders shall be deemed to license, and

grant all rights to the Bank, to reproduce the whole or any portion of their Bid document for the purpose of evaluation and to disclose the contents of submission for regulatory and legal requirements.

- iii. Bidders must advise the Bank immediately in writing of any material change to the information contained in the EOI application, including any substantial change in their ownership or their financial or technical capacity. Copies of relevant documents must be submitted with their advices. For shortlisted Bidders, this requirement applies until a contract is awarded as a result of subsequent bidding process.
- iv. Shortlisted Bidders must not advertise or publish the same in any form without the prior written consent of NaBFID.
- v. Brief overview of the proposed empanelment process /scope of work given in this document may be further elaborated, viz., more details may be included in the Request for Proposal (RFP) document to be issued as a result of evaluation process of EOIs.
- vi. The Bank reserves the right to formulate any terms & conditions while framing the RFP, even if these are in variance with the terms provided in this EOI. Further, the Bidders shall have no claim in this regard.
- vii. The Bank shall have the right to cancel the EOI process itself at any time, without thereby incurring any liabilities to the affected Bidders. Reasons for cancellation, as determined by the Bank in its sole discretion include but are not limited to, the following:
 - a. Services contemplated are no longer required.
 - b. Scope of work not adequately or clearly defined due to unforeseen circumstance and/or factors and/or new developments.
 - c. The project is not in the best interest of the Bank.
 - d. Any other reason.

PART 2

Appendix – A

BID FORM (TECHNICAL BID)

[On Bidder's letter head]

To:

National Bank for Financing Infrastructure and Development,
Information Technology Department,
SIDBI, SWAWALAMBAN BHAWAN,
C-11, G BLOCK BKC,
BANDRA EAST, MUMBAI - 400051
MAHARASHTRA.

Date:

Dear Sir,

Ref: EOI No. XXXXXXXXX dated: XX.XX.2023

We have examined the above EOI, the receipt of which is hereby duly acknowledged and subsequent pre-bid clarifications/ modifications / revisions, if any, furnished by the Bank. We submit our bid and shall abide by the terms and conditions spelt out in the EOI.

i. While submitting this Bid, we certify that:

- The undersigned is authorized to sign on behalf of the Bidder and the necessary support document delegating this authority is enclosed to this letter.
 - We declare that we are not in contravention of conflict of interest obligation mentioned in this EOI.
 - We have not induced or attempted to induce any other Bidder to submit or not to submit a Bid for restricting competition.
- ii. We undertake that, in competing for the above EOI, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".
- iii. We undertake that we will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Bank, connected directly or indirectly with this EOI process, or to any person, organisation or third party related to this EOI in exchange for any advantage in the EOI, evaluation and shortlisting.
- iv. We undertake that we will not resort to canvassing with any official of the Bank, connected directly or indirectly with the EOI process to derive any undue advantage. We also understand that any violation in this regard, will result in disqualification of bidder from further bidding process.
- v. It is further certified that the contents of our Bid are factually correct. We have not sought any deviation to the terms and conditions of this EOI. We also accept that in the event of any information / data / particulars proving to be incorrect, the Bank will have right to disqualify us from the EOI or any subsequent bidding process without prejudice to any other rights available to the Bank.

[Type here]

Appendix – B

Bidder's Eligibility Criteria

Bidders meeting the following criteria are eligible to submit their Bids along with supporting documents. If the Bid is not accompanied by all the required documents supporting eligibility criteria, the same would be rejected.

S. No.	Eligibility Criteria	Compliance (Yes/No)	Documents to be submitted
1	The Bidder must be an Indian Company/ LLP /Partnership firm registered under the applicable Act in India.		Certificate of Incorporation issued by Registrar of Companies and full address of the registered office along with Memorandum & Articles of Association/ Partnership Deed.
2	The Bidder/parent entity should be a profitable organization on the basis of profit before tax (PBT) for at least 02 (two) out of the last 03 (three) financial years of FY22-23, FY21-22 and FY20-19		Copy of the audited financial statement along with profit and loss statement for corresponding years and/or Certificate of the statutory auditor certifying the same.
3	Products by the Bidder in atleast 3 of the following areas should have been running live in at least 1 RBI regulated financial institution with a balance sheet size of more than 3 lakh crore. <ul style="list-style-type: none">▪ Loan Origination System▪ Risk Management System▪ EWS▪ Loan Syndication System▪ Data Warehouse		Copy of the order and/or Certificate of completion of the work. Bidder to provide details of successful projects with information on: - Client Name - Brief Project description - Start/End date
4	Bidder should have experience of a minimum of 5 years in providing system integration and		Bidder should specifically confirm on their letterhead in this regard as per Appendix-K

	<p>implementation services. This includes:</p> <ul style="list-style-type: none"> - At least 1 system implementation at a RBI regulated financial institution in India with a balance sheet size of more than 3 lakh crore - At least 1 system implementation project for each one of the five products <ul style="list-style-type: none"> ▪ Loan Origination System ▪ Risk Management System ▪ EWS ▪ Loan Syndication System ▪ Data Warehouse 		<p>Please provide references carried out in the past 5 years of similar scope, size and scale. Details to be included are:</p> <ul style="list-style-type: none"> - Client Name - Contact Details - Brief project description - Start/End Date of project
5	<p>Bidders should not be under debarment/blacklist period for breach of contract/fraud/corrupt practices by any Scheduled Commercial Bank/ Public Sector Undertaking / State or Central Government or their agencies/ departments on the date of submission of bid for this RFP.</p>		<p>Bidder should specifically certify in Appendix-A in this regard.</p>

Documentary evidence must be furnished against each of the above criteria along with an index. All documents must be signed by the authorized signatory of the Bidder. Relevant portions, in the documents submitted in pursuance of eligibility criteria, should be highlighted.

- i. If all these conditions are not fulfilled or supporting documents are not submitted with the technical Bid, then all those Bids will be summarily rejected, and no queries will be entertained.

Name & Signature of authorised signatory

Seal of Company

<u>AREAS ON WHICH PRESENTATIONS MAY BE MADE</u> <u>TENTATIVE SCOPE OF WORK</u>

A) Overall Objective

The primary objective of this Expression of Interest (EoI) is to forge a transformative partnership between NaBFID (National Bank for Financing Infrastructure and Development) and a visionary System Integrator to embark on the second phase of our digitization journey.

The existing modules which are under implementation as a part of first phase of Integrated Solution are, Treasury, Loan Management System (LMS) of Finacle 10.x and Accounting System on Oracle ERP. All these modules are procured as a secured SaaS model, which are integrated with one another.

The proposed phase aims to propel NaBFID into a new era of banking excellence, anchored in cutting-edge technology, data-driven decision-making, and unwavering compliance. The overarching goal is to amplify operational efficiency, enhance borrower interactions, and cultivate a culture of responsible data stewardship.

The EoI seeks to synergistically harness the prowess of technology to achieve the following strategic aspirations:

Seamless Integration: Establish a fully secured single-tenant private cloud or MeitY approved virtual private cloud, fostering the integration of multiple solutions for enhanced interoperability.

Empowered Borrower Onboarding-LOS (Loan Origination System): Implement a Loan Origination System (LOS) that autonomously captures automated inputs, including financial data from diverse sources. Automate name clearance procedures to expedite borrower onboarding while maintaining regulatory adherence.

Loan Syndication System (LSS) Integration: Integrate a robust Loan Syndication System (LSS) that streamlines the management of syndicated loans. The LSM should seamlessly interface with the Loan Origination System (LOS), Loan Management System (LMS), and other relevant systems.

Real-time Industry Insights: Leverage authorized data sources, such as RBI, CIBIL, ROC, NSDL, credit bureaus, and news channels, to provide financing banks with the latest status of borrowers and industries.

Effortless Reporting and Analytics: Standardize parametrization processes to facilitate simplified report generation and robust analytics, empowering stakeholders with data-driven insights.

Continuous Risk Monitoring: Develop an Early Warning System (EWS) that proactively monitors borrowers' financial health throughout the loan lifecycle. Enable ongoing risk assessments based on real-time data inputs.

Risk Management Solutions : Risk Management Solutions which includes Credit Risk-R.W.A. (Risk Weighted Asset) computation as prescribed by regulators, Leverage Ratio, Stress Testing as part of ICAAP (Internal Capital Adequacy Assessment Process), Exposure Management. Their integration with LOS, LMS and Treasury modules.

Holistic Data Warehouse: Establish an Enterprise Data Warehouse (EDW) integrated with Core Banking System (CBS) and external channels. Utilize EDW as a multifaceted repository for insights, reports, data analytics, and strategic decision-making.

Enhanced Borrower Engagement: Craft an internet banking-like channel, enabling borrowers to submit financial documents in a structured format from loan origination through the life of the loan. Prioritize user experience and data security.

Data Protection & DPDPA 2023: Institute end-to-end Governance of the EDW with respect to data privacy, aligning with the latest Digital Personal Data Protection Act (DPDPA) 2023 regulations. Ensure data integrity, privacy, and compliance.

By forging this collaborative partnership, NaBFID envisions realizing a holistic transformation that redefines the contours of banking, enriches borrower experiences, and elevates data-driven insights for informed decision-making. The chosen System Integrator will join us in shaping the future of banking, steering NaBFID towards a technologically adept, transparent, and responsible banking ecosystem.

B) General Requirements encompassing all the modules:

1. Seamless Integration:

We need to establish a fully secured single-tenant private cloud or MeitY approved virtual private cloud to foster the integration of multiple solutions for enhanced interoperability. Some of the basic requirements include:

- Providing a secure and compliant environment: The cloud environment will be isolated from the public internet and will be compliant with the latest security and privacy regulations.
- Enabling easy data sharing: The cloud environment will be designed to facilitate easy data sharing between different systems, making it easier to integrate multiple solutions.
- SaaS model: The cloud environment will be of Software as a Service (SaaS) model.
- Providing a high level of availability: The cloud environment will be designed to provide a high level of availability, ensuring that our systems are always up and running.

2. Cyber Security & Privacy Requirements:

The proposed solutions will be hosted on a secure cloud environment, either a single tenant private cloud or MeitY approved VPC (virtual private cloud) The bidder must implement the following security solutions to protect these solutions:

- Security Information and Event Management (SIEM): Collect, analyze, and correlate security logs from across the cloud environment.
- Privileged Identity Management (PIM): Manage privileged access to cloud resources.
- Database Activity Monitoring (DAM): Monitor database activity and identify unauthorized access or malicious activity.
- Intrusion Prevention System (IPS): Detect and block network intrusions.
- Web Application Firewall (WAF): Protect web applications from a variety of attacks, such as SQL injection and cross-site scripting.
- Encryption at Rest and In Transit: Encrypt all data at rest and in transit within the cloud environment.
- Multi-Factor Authentication (MFA) Virtual Private Network (VPN): Implement MFA for all users accessing the cloud environment with VPN enabled connectivity.
- Continuous Monitoring and Auditing: Implement continuous monitoring and auditing of the cloud environment to ensure compliance with security best practices and regulations.
- Compliance with Industry Standards: Align the cloud environment with industry-leading security frameworks and standards, such as ISO 27001 and NIST Cybersecurity Framework.
- Compliance with the Digital Private Data Protection Act 2023 (DPDPA 2023): Apart from all other regulatory requirements, the proposed solutions should be in strict compliance with the very recent DPDPA 2023.

3. Disaster Recovery and Backup:

The successful implementation of this project hinges on a robust Disaster Recovery (DR) and backup strategy, underpinned by adherence to ISO 22301 standards for Business Continuity Management Systems. The following bullet points outline the key aspects of this imperative:

[Type here]

- **Establish a Comprehensive DR Plan:** Craft a thorough and meticulously detailed Disaster Recovery plan that encompasses all modules, ensuring the continuity of operations even in the face of unforeseen disruptions.
- **Data Backups and Archiving:** Regularly perform secure data backups and archiving procedures to safeguard against data loss and maintain the integrity of critical information.
- **Advanced Replication Mechanisms:** Implement advanced replication techniques to create redundant copies of data, enabling seamless and rapid recovery in case of data corruption or hardware failure.
- **Failover Procedures:** Develop and deploy meticulous failover protocols that ensure swift and seamless transition to backup systems in the event of primary system failure.
- **Alignment with ISO 22301:** Ensure full alignment with ISO 22301 standards for Business Continuity Management Systems, substantiating the project's commitment to operational resilience and robust disaster recovery practices.
- **Regulatory Compliance:** Adhere to relevant data protection regulations, ensuring that the DR and backup strategy complies with the stipulated data security and privacy requirements.
- **Rigorous Testing:** Conduct rigorous testing of the DR mechanisms to validate their effectiveness and readiness. Simulate various disaster scenarios to ensure the system's ability to recover data and restore operations without compromising integrity.
- **Seamless Stakeholder Experience:** Strive to offer stakeholders an uninterrupted experience by minimizing downtime and swiftly restoring operations through well-defined DR procedures.
- **Data Integrity Preservation:** Prioritize the preservation of data integrity throughout the disaster recovery process, ensuring that recovered data remains accurate and reliable.
- **Operational Resilience:** Enhance operational resilience by ensuring that the DR and backup strategy can handle a range of disruptions and swiftly recover to normal operations.
- **Constant Improvement:** Continuously assess and refine the DR and backup strategy to incorporate lessons learned from testing and real-world experiences, ensuring its ongoing effectiveness.

By adopting these key elements and aligning with ISO 22301 standards, the project aims to establish a resilient and robust disaster recovery and backup strategy that guarantees operational continuity and safeguards critical data assets.

4. General Technical Requirements:

- Secure RESTful APIs for seamless integration between the modules.
- OAuth 2.0 for secure user authentication and authorization, bolstering data protection.
- Data privacy and security through encryption, tokenization, and secure communication protocols.
- Wherever possible, utilize a micro services architectural pattern to ensure modularity, scalability, and maintainability of the specific system integrated.

C) Scope of Modules - LOS, LSS, EDW, EWS & Internet Banking channel

I) Section: Loan Origination System (LOS)

Brief Scope of Work:

The Loan Origination System (LOS) initiative seeks to elevate loan processing by introducing an automated and data-driven approach. This system will streamline borrower data collection, enhance validation processes, and seamlessly integrate with external data sources and NaBFID's Core Banking System.

Detailed Scope of Work:

Requirements Analysis and Design:

- Conduct in-depth workshops and discussions with NaBFID stakeholders to meticulously capture business, functional, and technical requirements.
- Design a user-centric interface that aligns with industry best practices, ensuring an intuitive and efficient user experience.

Automated Data Collection and Verification:

- Establish secure connections to external data sources via RESTful APIs, including RBI, CIBIL, ROC, NSDL, various credit bureaus, and authorized financial sites.
- Develop sophisticated data validation algorithms to cross-reference and validate data from various sources, ensuring data accuracy and integrity.

Integration and Parametrization:

- Architect a robust and flexible integration layer to facilitate real-time data synchronization between the LOS and NaBFID's existing Core Banking Solution and other relevant systems.
- Define and implement standardized parameters to enable consistent data exchange, report generation, and analytics.

[Type here]

Reporting and Analytics:

- Implement a comprehensive suite of dynamic reports, interactive dashboards, and data visualizations.
- Utilize advanced data visualization libraries to present key loan origination trends, borrower profiles, and risk assessments.

User Training and Documentation:

- Design and execute tailored training programs to empower NaBFID staff with in-depth knowledge of the LOS functionalities and usage.
- Develop comprehensive user manuals, guides, and FAQs to facilitate effective system utilization and troubleshooting.

Quality Assurance and Testing:

- Conduct rigorous testing cycles covering functional, integration, security, performance, and regression testing.
- Collaborate closely with NaBFID representatives in User Acceptance Testing (UAT) to validate system performance against predefined acceptance criteria.

Specific Technical Preferences:

The following technical requirements are preferable, however, other technologies may be considered, as long as they meet the functional and non-functional requirements of the LOS system.

- Employ Java as the primary programming language, capitalizing on the Spring framework to expedite development and enhance system stability.
- Utilize Apache Camel for ETL processes, enabling smooth data extraction, transformation, and loading.
- Employ D3.js for interactive data visualizations, enhancing decision-making through insightful dashboards.

II) Section: Loan Syndication System (LSS)

Brief Scope of Work:

The Loan Syndication System (LSS) initiative aims to revolutionize the management of syndicated loans, optimizing participant collaboration, tracking, and overall process efficiency. This system will seamlessly integrate with the Loan Origination System (LOS), Loan Management System (LMS), and other relevant systems, providing a cohesive platform for syndicated loan origination, monitoring, and reporting.

Detailed Scope of Work:

Requirements Analysis and Design:

- Conduct comprehensive workshops and consultations with NaBFID stakeholders to capture intricate business, functional, and technical requirements specific to syndicated loan management.
- Design an intuitive and user-friendly interface that aligns with industry standards, ensuring smooth navigation and interaction for all users.

Participant Management and Collaboration:

- Develop robust participant management features that enable efficient onboarding of financial institutions involved in syndicated loans.
- Implement secure communication channels and collaboration tools for streamlined information sharing and decision-making among participants.

Syndication Process Tracking:

- Architect a process-driven framework that enables systematic tracking of the syndication lifecycle, from origination to closure.
- Provide real-time updates on the progress of syndicated loan applications, approvals, documentation, and disbursements.

Integration and Data Exchange:

- Establish seamless integration channels between the Loan Syndication System (LSS), Loan Origination System (LOS), Loan Management System (LMS), and other relevant systems.
- Enable secure and automated data exchange, ensuring accurate and consistent data flow across all interconnected systems.

Transparency and Reporting:

- Develop an extensive suite of real-time reports, dashboards, and visualizations that offer insights into syndicated loan activities, borrower profiles, and risk assessments.
- Utilize advanced data visualization techniques to present critical syndication trends and performance metrics.

Loan Syndication Workflow Customization:

- Configure the Loan Syndication System (LSS) to accommodate NaBFID's unique syndication workflows, ensuring that the system adapts to the bank's specific processes and requirements.
- Provide flexibility for different types of syndicated loan arrangements, including lead arrangements, agent bank roles, and participant roles.

Syndication Agreement Management:

- Implement comprehensive tools for managing syndication agreements, including term sheets, legal documentation, and compliance checks.
- Automate the process of distributing syndication documentation to participants and facilitating electronic signatures.

Risk Assessment and Compliance:

- Incorporate risk assessment algorithms that enable the identification and mitigation of potential risks associated with syndicated loans.
- Implement compliance checks to ensure that syndication activities adhere to relevant regulatory and legal frameworks.

User Training and Support:

- Design tailored training programs for NaBFID staff, empowering them to effectively navigate and utilize the features of the Loan Syndication System (LSS).
- Create comprehensive user guides and resources to facilitate self-help and troubleshoot common queries.

Quality Assurance and Testing:

- Conduct rigorous testing cycles encompassing functional, integration, security, performance, and regression testing of the Loan Syndication System (LSS).
- Collaborate closely with NaBFID representatives during User Acceptance Testing (UAT) to validate system behaviour against predefined acceptance criteria.

This integrated approach, where the Loan Syndication System (LSS) seamlessly interfaces with existing modules, ensures that syndicated loan processes are streamlined, transparent, and conducive to optimal collaboration among financial institutions.

Specific Technical Preferences:

Same as the requirements for LOS mentioned in the previous section.

III) Section: Enterprise Data Warehouse (EDW)

Brief Scope of Work:

The Enterprise Data Warehouse (EDW) initiative seeks to create a unified and robust data ecosystem that empowers NaBFID with actionable insights. By integrating data from diverse sources, including Core Banking System (CBS) and external channels, the EDW will serve as a strategic asset for advanced reporting, analytics, and decision-making.

Detailed Scope of Work:

Requirements Gathering and System Architecture:

- Conduct comprehensive workshops and interviews with NaBFID stakeholders to capture intricate business, functional, and technical requirements.
- Architect a highly scalable, fault-tolerant, and cloud-enabled system infrastructure that aligns with NaBFID's long-term data strategy.

Data Integration and Transformation:

- Implement a robust Extract, Transform, Load (ETL) framework to seamlessly orchestrate data from diverse sources into the EDW.
- Develop data profiling and cleansing routines to ensure data accuracy, consistency, and adherence to data quality standards.

Integration with MIS and BIS:

- Establish seamless API-based integrations with Management Information Systems (MIS) and Business Intelligence Systems (BIS), enabling cross-functional insights.
- Design event-driven architecture for real-time data synchronization and availability across systems.

Advanced Analytics and Visualization:

- Leverage advanced analytical techniques such as machine learning and predictive modeling to unearth hidden patterns and trends in the data.
- Craft interactive and dynamic visualizations using industry-leading tools like Tableau and Power BI, facilitating intuitive exploration of data insights.

[Type here]

Integration with EWS and CBS:

- Develop robust data connectors for seamless integration between the Enterprise Data Warehouse and the Early Warning System (EWS) for continuous risk assessment.
- Implement real-time synchronization mechanisms with the Core Banking System (CBS) to ensure up-to-date data availability.

User Training and Support:

- Design customized training modules and workshops to empower NaBFID staff to harness the full potential of the EDW's analytics capabilities.
- Establish a dedicated support framework to address technical queries, optimize system usage, and facilitate problem resolution.

Specific Technical Preferences:

The following technical requirements are preferable, however, other technologies may be considered, as long as they meet the functional and non-functional requirements of the EDW system.

- Employ Java as the primary programming language, capitalizing on the Spring framework to expedite development and enhance system stability.
- Utilize Apache Camel for ETL processes, enabling smooth data extraction, transformation, and loading.
- Leverage Apache Commons Validator for data validation, ensuring data integrity and compliance.
- Employ D3.js for interactive data visualizations, enhancing decision-making through insightful dashboards.

IV) Section: Early Warning System (EWS) for Credit Monitoring

Brief Scope of Work

The Early Warning System (EWS) for credit monitoring will be a cutting-edge risk assessment framework that harnesses advanced data processing and predictive modelling techniques. It will use a variety of data points, such as payment history, debt-to-income ratio, and credit score, to create a risk score for each borrower. The EWS will be integrated with external data sources to enable NaBFID to proactively identify and mitigate potential risks across its portfolio.

Detailed Scope of Work

Requirements Definition and Data Collection:

- Engage in extensive consultations with NaBFID stakeholders to define nuanced risk assessment triggers and dynamic data collection criteria.
- Develop a versatile data ingestion mechanism that effortlessly extracts data from various external sources, ensuring continuous data flow.

Data Processing and Risk Assessment:

- Architect an agile data processing pipeline that encompasses data enrichment, transformation, and contextualization.
- Implement advanced machine learning algorithms, such as anomaly detection and regression models, to quantify potential risks accurately.

Integration with EDW and Reporting:

- Engineer seamless data synchronization between the Early Warning System (EWS) and the Enterprise Data Warehouse (EDW) for holistic risk profiling.
- Develop an intelligent reporting engine that employs real-time alerts, notifications, and custom reports to facilitate prompt risk response.

Trend Analysis and Visualization:

- Leverage complex time-series analysis and clustering techniques to uncover subtle risk patterns within borrower data.
- Design immersive and interactive visualizations that empower NaBFID stakeholders to intuitively explore evolving risk trends.

User Training and Documentation:

- Curate specialized training modules that equip NaBFID personnel with in-depth insights into harnessing the Early Warning System's advanced features.
- Craft comprehensive documentation that provides a deep dive into system capabilities, methodologies, and recommended best practices.

Specific Technical Preferences

- Harness the power of machine learning frameworks like TensorFlow and XGBoost to build robust predictive models for risk assessment.

[Type here]

- Implement continuous monitoring and anomaly detection to ensure the EWS's ongoing efficiency and relevance.

In addition to the above, the EWS should also meet the following functional and non-functional requirements:

Functional requirements:

- The EWS should be able to identify borrowers who are at risk of defaulting on their loans.
- The EWS should be able to generate real-time alerts and notifications to NaBFID stakeholders.
- The EWS should be able to provide custom reports that allow NaBFID stakeholders to explore evolving risk trends.

Non-functional requirements:

- The EWS should be scalable to handle a large volume of data.
- The EWS should be secure and protect the confidentiality of borrower data.

V) Section: Internet Banking Channel

Brief Scope of Work

The Internet Banking Channel project endeavors to establish an advanced and secure platform, enabling borrowers to effortlessly submit vital financial documents and statements during their loan journey and also our external technical experts to upload their reports. Through seamless integration with the Loan Origination System (LOS) and other relevant modules and adherence to stringent security protocols, this channel will elevate borrower interaction while revolutionizing document management. This channel will be only for viewing and document / statement uploading and downloading facility. Presently we are not looking to enable transactions through this channel.

Detailed Scope of Work

Channel Development and User Interface:

- Craft an immersive and intuitive internet banking platform that presents borrowers with a cohesive gateway into NaBFID's loan management ecosystem.
- Implement a design-first approach, focusing on responsive and engaging user interfaces that deliver a frictionless experience.
- Provide clear and concise instructions for viewing, uploading, and downloading statements and documents.

Document Structure and Validation:

- Architect a dynamic document framework that supports structured data submission, ensuring uniformity and accuracy across documents.
- Institute intelligent validation algorithms that inspect document data for completeness, integrity, and compliance.

Integration with LOS and Loan Lifecycle:

- Forge an integrative bond between the Internet Banking Channel and the Loan Origination System (LOS), fostering real-time data synchronization.
- Engineer streamlined document submission workflows, allowing borrowers to seamlessly contribute documents throughout the loan lifecycle.

Security and Authentication:

- Institute multi-layered security protocols, encompassing biometric authentication, tokenization, and encryption, to shield sensitive borrower information.
- Adhere rigorously to security frameworks such as NIST SP 800-63 ensuring a fortified defense against potential threats.

Document Management and Notifications:

- The Channel will also facilitate our appointed external technical experts to upload their reports such as LIE (Lender's Independent Engineer) reports and TEV (Techno Economic Viability) reports and other similar documents.
- Construct an intelligent document repository that fosters efficient document management, searchability, and archival.
- Incorporate automated notifications to update borrowers and NaBFID personnel on document submission, review, and status changes.

User Training and Support:

- Develop comprehensive self-paced learning modules and interactive tutorials, equipping borrowers to navigate the Internet Banking Channel adeptly.
- Establish a responsive and knowledgeable support structure, offering technical guidance and prompt issue resolution.

Specific Technical Preferences

The following technical requirements are preferable, however, other technologies may be considered, as long as they meet the functional and non-functional requirements of the Internet Banking channel.

- Create the internet banking channel using cutting-edge front-end technologies like React or Angular, prioritizing performance and seamless interactions.
- Employ secure and efficient file upload mechanisms with client-side encryption to ensure privacy during document submission.
- Integrate logging, monitoring, and anomaly detection systems to proactively identify and address potential security and performance issues.

Additional Notes

- The extended internet banking system will not be used for conducting transactions.
- Borrowers will only be able to view, upload, and download relevant statements and documents as specified above.
- All documents will be stored securely in the document repository.
- Borrowers will receive automated notifications about the status of their documents.

Period for completion of the project : As specified in RFP documents.

Appendix – D

Bidder Details

Details of the Bidder

S. No.	Particulars	Details
1.	Name	
2.	Date of Incorporation and / or commencement of business	
3.	Certificate of incorporation	
4.	Brief description of the Bidder including details of its main line of business	
5.	Company website URL	
6.	Company Pan Number	
7.	Company GSTIN Number	
8.	Particulars of the Authorized Signatory of the Bidder a) Name b) Designation c) Address d) Phone Number (Landline) e) Mobile Number f) Fax Number g) Email Address	

Name & Signature of authorised signatory

Seal of Company

[Type here]

Pre-Bid Query Format
(To be provide strictly in Excel format)

Vendor Name	Sl. No.	EOI Page no.	EOI Clause no.	Existing clause	Query/ Suggestion

Format for Submission of Client References

To whosoever it may concern

Particulars	Details
Client Information	
Client Name	
Client address	
Name of the contact person and designation	
Phone number of the contact person	
E-mail address of the contact person	
Project Details	
Name of the Project	
Start Date	
End Date	
Current Status (In Progress / Completed)	
Size of Project	
Value of Work Order (In Lakh) (only single work order)	