AMENDMENT NO. 2

Date: 09/04/2021

Subject: Amendment No. 2 to "Invitation to Bid" for "Procurement of Business Process Management (BPM) Software" within the context of "Employment and Skills Development Project".

Ref: UNDP-TUR-ITB(KW)-2021/004 (E-TENDERING EVENT ID: TUR10-ITB-21-004)

Dear Madam/Sir,

Please find "ATTACHMENT-1 for the "ANSWERS TO QUESTIONS RECEIVED FROM PROSPECTIVE BIDDERS" within the context of subject ITB issued on 10 March 2021 for "Procurement of Business Process Management (BPM) Software" within the context of "Employment and Skills Development Project".

You are kindly requested to prepare and submit your Bids in response to our subject ITB with the consideration of these answers; whereas all other clauses of the ITB, except as amended herein, remaining valid.

Please kindly be informed that Amendment No. 3 for answering further questions received from Prospective Bidders is planned to be issued next week.

Please make sure that your bids are submitted through e-tendering on or before <u>19 April 2021, 07:00 am (EST/EDT New York Time),</u> as indicated in the e-tendering system.

Yours sincerely;

UNDP TURKEY Country Office

<u>Attachments:</u>

ATTACHMENT-1 for the "ANSWERS TO QUESTIONS RECEIVED FROM PROSPECTIVE BIDDERS"

ATTACHMENT-1 for the "ANSWERS TO QUESTIONS RECEIVED FROM PROSPECTIVE BIDDERS"

Question 1: Please kindly clarify how many users this system is intended to support and advise if UNDP is looking for SaaS System or On-Premise Solution.
Answer 1: As indicated in Section 5a: Schedule of Requirements and Technical Specifications, Page No. 29 of ITB, system shall support 1000 concurrent users. Bidders shall propose On Premise Solution.

Question 2: With reference to Page 18, Section 3 – Item no. 6, Phrase "Bid Security shall be valid until 30 days after the expiry of Bid Validity Period. (i.e. 90 days after bid submission deadline". Since bid validity period is 90 days, total duration for validity of bid security shall be 120. Please clarify and confirm.
Answer 2: It is confirmed that total validity period of the Bid Security shall be 120. Mentioned clause has been amended as follows:
Bid Security shall be valid until 30 days after the expiry of Bid Validity Period. (i.e. 120 days after bid submission deadline).

Question 3: With reference to Page 24, Section 4 Qualification Table History of Non-Performing Contracts. Is this a question for contracts under UNDP projects?
Answer 3: Bidders shall demonstrate the history of <u>all</u> non-performing contracts, not only Contracts signed with UNDP.

Question 4: With reference to Page 24 Section 4 Qualification Table Previous Experience. Our company is a global IT company. Can we demonstrate our global experiences?
Answer 4: Bidders shall list the assignments for which they were legally contracted by the Client as a company or was one of the Consortium/JV partners. Please refer to page number 58 and 59 for the requirements with regard to Previous Relevant Experience.

Question 5: With reference to Page 27 Section 5a - C. SYSTEM FLEXIBILITY-6 Application and development environment must have software development flexibility that shall meet requirements of the form design which the AGENCY requests and allow developing low code where necessary. Could you clarify this requirement?
Answer 5: A low-code development platform (LCDP) provides a development environment used to create application software through graphical user interfaces and configuration instead of traditional hand-coded computer programming. As mentioned in various parts of the ITB, the system should include a low code application development environment that enables users to design and deploy forms.

Question 6: With reference to Page 28 Section 5a- 3 B - C. SYSTEM FLEXIBILITY-20 Is it the responsibility of the contractor to integrate Electronic Document Management System (EDMS) of Agency?
Answer 6: As mentioned in III.C.20 article of the ITB, the contractor has two option for issuing document approval process. The first option is to have an electronic sign-based approval mechanism and storing the documents by means of the system. The other option is transferring the document to the Electronic Document Management System (EDMS) by an integration interface and using the approval mechanism of the EDMS. If the latter option is chosen, then the contractor will be responsible for the integration of the EDMS and the BPM software.

Question 7: With reference to Page 30 Section 5a- 3 B - - C. SYSTEM FLEXIBILITY-50 Control of the relevant fields and creating warnings must be possible during the data entry. Could you explain what kind of warnings do you want? What kind of entry do you want this warning? Could share us use cases about that?
Answer 7: The system should enable the low code developers to make validation controls on the fields and to throw warnings in the failure of these controls. These controls can be related with only one field. For example, the valid values of province codes of Turkey are between '01' and '81'. On the other side, some controls concern more than one field. For example, Province and County fields are related and the County field can take only values that symbolizes the counties that belong to the selected province. The system should permit to apply both kinds of controls and to throw appropriate warnings when the control rules are violated.

Question 8: With reference to Page 35 Section 5a-3 B - - F. INTEGRATION WITH EXTERNAL SYSTEMS-3 What is user verification method to use for that project?
Answer 8: User verification will be realized over the LDAP system that is currently been used by the agency. The contractor is responsible for the integration of the BPM software and the LDAP system.

Question 9: With reference to Page 35 Section 5a -3 B -- F. INTEGRATION WITH EXTERNAL SYSTEMS-5 Could you share us what kind of applications of the AGENCY used and what technology required from BPM?

Answer 9: Bidders shall prepare their bids considering the requirements related with integration, database, etc. addressed in "Section 5a: Schedule of Requirements and Technical Specifications" of ITB. Some of the Agency's internal applications will operate independently from the BPM platform to be purchased; so, unforeseen integration issues will be solved by the Agency's experts.

Question 10: With reference to Page 36 Section 5a- 3 B -G. LOGS Is there any log application or platform should contain own log system?

Answer 10: The platform should contain its own logging mechanisms as defined in section III.G. of the ITB document.

Question 11: With reference to Page 36 Section 5a-3 B - H. CODE, APPLICATION and INFORMATION SECURITY-2 Could you share us the name of firms about penetration tests- Class A and B?

Answer 11: This information can be access through https://www.tse.org.tr/IcerikDetay?ID=2258&ParentID=4643

Question 12: With reference to Page 37 -Section 5a-4-A WORKFLOW DESIGN-9 The platform must be able to integrate with the programs and database the AGENCY already use and the web services/API etc. in the business processes. Could you share technical requirements of application?

Answer 12: Bidders shall prepare their bids considering the requirements related with integration, database, etc. addressed in "Section 5a: Schedule of Requirements and Technical Specifications" of ITB. Some of the Agency's internal applications will operate independently from the BPM platform to be purchased; so, unforeseen integration issues will be solved by the Agency's experts.

Question 13: Page 37 -Section 5a-VIII. WARRANTY AND AFTER-SALE SERVICES-2 In the after sales period, is there any integration of Agency applications. Could you define it, what is our responsibility?

Answer 13: The responsibility of the contractor is defined in Article III.F.7. Proposed system should include necessary Web services and API infrastructure to integrate with other systems.

Question 14: With reference to Page 37 -Section 5a-VIII. WARRANTY AND AFTER-SALE SERVICES-3 Do we provide Software support portal pr ITSM tool?

Answer 14: In the scope of this tender, neither a Software Support Portal nor an ITSM tool will be provided. But in order to perform the software support tasks, the contractor should supply a username authenticated by a password to the AGENCY to open and monitor service requests on the software support portal (or ITSM tool or software support platform) they use.

Question 15: Could you share us type of VPN connection & vendor?

Answer 15: VPN connection will be provided by the Agency, so this will not bring any additional costs to the Contractor. In this case, Bidders does not require to have this information for preparing their bids.

Question 16: With reference to Page 48 -Section 5a-X. SERVICE LEVEL-B-3, could you share penalties of SLA's failure during warranty periods?

Answer 16: Clauses in the Service Level Section of the ITB at page number 48 and 49 shall be interpreted as Key Performance Indicators. As indicated in Section B. SERVICE LEVELS at page number 49 of the ITB, Contractor shall provide solution according to the service levels for cases of failure, maintenance, configuration and repair to occur in the system components under the Specifications. Please refer to page number 48 and 49 of the ITB for the responsibilities of the Contractor to maintain the Service Level expected during warranty period.

Question 17: We would like to clarify the licensing metric. We have two licensing metrics to base our license proposal on:
  - **Case based licensing**
  - **OR**
  - **User based licensing (there are 3 categories for user based licensing):**
    - **Regular User: User who has over 50 hourly periods of use in a month, or has the privilege to modify rules or processes**
    - **Occasional User: User between 10 and 50 hourly periods of use in a month**
    - **Sporadic Users: User less than 10 hourly periods of use in a month**

Can you please let us know which licensing metric we should use? Can you let us know the actual volumes? (case load or user numbers)

Answer 17: "The contractor should supply licenses of the application for 1000 concurrent users. There should be no time or usage limits for these users. As can be determined out of the question, some of the proposed licenses in the question include the SAAS options. However, as per ITB requirements, BPM software shall be installed on servers that will be supplied by the AGENCY."

Question 18: As per ITB Section III.A.3, it is stated that the platform must run smoothly in 11g and higher versions of Oracle database. Is it possible to propose any other solution, such as MySQL?
Answer 18: Proposed application shall work on Oracle Database for the sake of compatibility with the system that is currently being used by the Agency. In this concern, it is not possible to accept MySQL.

Question 19: As per Financial Standing Requirements of the ITB, Bidders shall submit minimum average annual turnover of the bidder for the last 3 years (i.e. 2018, 2019, 2020) which shall not be less than USD 600,000. Since our financial statement of 2020 has not been audited yet, is it possible to provide partial statement for 2020?
Answer 19: A per Financial Statement Requirements of the ITB given at page number 59. Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted. If Financial statement for period 2020 has not been completed and audited, those bidders can submit Financial Statements for the last 3 years for period 2017, 2018 and 2019. In such case, minimum average annual turnover of the bidder for the last 3 years (i.e. 2017, 2018, 2029) shall not be less than USD 600,000.

Question 20: Can the consortium members be established abroad (not in Turkey)?
Answer 20: As per Section 4. Evaluation Criteria given at page number 23 of the ITB;
- *Vendor shall be a legally registered entity.*
- *Vendor shall document that it has an established and registered office in Turkey.*

In view of the above, as long as the Bidder or one of the members of the Joint Venture/Consortium has an established branch office in Turkey, Bidder will be considered eligible.

Question 21: How many environments will we need to setup the software? Test, Development, Production?
Answer 21: The contractor shall setup the test, development and production environments for the BPM software. The development environment shall be used to model business processes, develop applications and should employ deployment and version management capabilities. The developed application will be tested on the Test environment and then will be transferred to Production environment for daily usage.

Question 22: What is the Disaster Recovery (DR) strategy of the program? Do you require DR licenses?
Answer 22: The ITB does not refer to a DR strategy and any requirement about DR licenses. The disaster recovery requirements of the system will be accomplished by means of general solutions supplied by the AGENCY.

Question 23: Can we setup and commission the software remotely with a VPN connection?
Answer 23: Setup and commissioning tasks can be issued remotely by using a VPN connection, but the contractor should give a declaration about information security and privacy before the beginning of the process.

Question 24: In terms of Information "Security in System Acquisition, Development, and Maintenance Standards" what is the expectation in the tender in terms of documents to be provided?
Answer 24: As stipulated in Section 4. Evaluation Criteria of the ITB, Bidders shall possess ISO/IEC 27001 Information Security Management System certificate. This certificate shall be submitted along with the bids.

Question 25: With reference to ANNEX I Special Conditions, Information Security document states that "All security requirements shall be identified at the requirements phase of a project and justified, agreed, and documented as part of the overall functional requirements for an information system" When do you expect the security requirements to be identified? What documents are expected within the 45-day time period after contract signature? Do we need to fill the attached security check list and submit it along with the bid?

Answer 25: These requirements are related with new ICT Projects, Systems and Applications, information system, so they are not applicable for this tender. You do not need to fill the mentioned security check list and submit it along with your bid.

Question 26: With reference to Page 27 - Section 5a -3-C. SYSTEM FLEXIBILITY -10, the version management must be able to be carried out in the application development environment. "Check-in/check-out" and versioning must be supported without using a separate tool. Is this checking version or configuration checking. Could you clarify this item please?
Answer 26: In this context, the ITB refers to version checking. But the existence of configuration checking capabilities would be an asset.

Question 27: With reference to Page 27 - Section 5a -3-C. SYSTEM FLEXIBILITY -17, The platform must have a simple in-memory cache management screen. Could you define what s memory-cache means here?
Answer 27: The term "In-Memory Cache" refers to the keeping the application data in the application server's RAM. The platform should support in memory caching and should employ an interface for the user to manage in-memory caching.

Question 28: With reference to Page 27 - Section 5a-3 -C. SYSTEM FLEXIBILITY -20, Could you clarify vendor of Electronic Document Management System (EDMS) of Agency?
Answer 28: The EDMS used in the Agency is provided by "Seneka Yazılım Donanım Bilişim Ticaret Taahhüt Ve San. Ltd. Şti.". The contact details of the firm: Tel: +90 (312) 265 09 15 web: seneka.com.tr

Question 29: With reference to Page 29 - Section 5a- 3 -C. SYSTEM FLEXIBILITY -28, in the transfer between environments, the transfer must be carried out only to a single server in the same layer for each environment. The platform itself must ensure synchronization for the environment. Could you share us what environments do you want to transfer?
Answer 29: Development, Test and Production Environments shall be transferred.

Question 30: With reference to Page 29 - Section 5a-3 -C. SYSTEM FLEXIBILITY -34, for authorization management and authentication purposes, the platform must run as integrated with the known SSO / Interagency Identity Management System or the AGENCY's LDAP or Active Directory systems. What is the vendor of SSO? What kind of Technology do you use for SSO- Ldap etc.?
Answer 30: The Agency uses the Microsoft domain structure. For Single Sign-On (SSO), Microsoft Kerberos protocol (with Domain Controller integration) is used in the corporate local network for authentication. LDAP authentication is also used with Microsoft Active Directory.

Question 31: With reference to Page 30 - Section 5a-3 -C. SYSTEM FLEXIBILITY -42, in the platform, SLA (Service Level Agreement) must be defined for all stages of a case. Could you clarify that, how could we build SLA without processes?
Answer 31: In this context, the fundamental unit of work is an activity, which may or may not be identical to a BPMN activity, that is, an action performed repeatedly with a well-defined beginning and end in each instance.
A case is a set of activities that are interrelated in some way, but the logic of the activity flow is not necessarily an orchestration and combination of steps and rules.

Cases usually involve the actions of different people and/or departments, and case management seeks to organize, compile and track cases. In short, BPM focuses on structured processes and case management focuses on less structured processes. The proposed system should enable the user to define SLA's on all stages of a case or a process.

Question 32: With reference to Page 31 - Section 5a-3 -C. SYSTEM FLEXIBILITY -52, the form development environment must support all features like "Smart Frames or equivalent" created automatically such as CSS, client-side validation; must offer this support without requiring coding in BPM. why do need client-side validation?
Answer 32: Client-Side Validation is usually used if the user request does not require any server resources to validate the input. In the Client-Side Validation, you can provide a better user experience by responding quickly at the browser level. When you perform a Client-Side Validation, all the user inputs validated in the user's browser itself. Client-Side validation does not require a round trip to the server, so the network traffic which will help your server perform better. The selection between server-side validation and client-side validation depends on the nature of the application. But the platform should provide facilities to apply both types.

Question 33: With reference to Page 32 - Section 5a-3 -C. SYSTEM FLEXIBILITY -74, the platform must support CMIS (Content Management Interoperability Services) standard and be able to be integrated with interagency content management system. In the business processes, the content must be able to be reached easily through this integration. Does Agency have own CMIS system? if yes, could you share the vendor's name?

Answer 33: Bidders shall note that there is no CMIS system in the Agency currently.

Question 34: With reference to Page 33 - Section 5a-3 -C. SYSTEM FLEXIBILITY -83, The platform must be modular and able to be expanded according to the needs. Could you clarify about modular system?

Answer 34: Modularity in this context can be defined as the degree to which a system of programs is developed in relatively independent components, some of which may be eliminated and/or added if a reduced and/or expanded version of the program is acceptable. The article refers to the ability of addition or removal of BPM modules without any loss in whole system functionality.

Question 35: With reference to Page 33 - Section 5a-3 -D. SYSTEM SECURITY -4, in case of external access, the platform must allow using CAPTCHA (Image Verification) or different verification means. Does Agency have any Captcha verification, and do you want to integrate this from tender?

Answer 35: Bidders shall note that the Agency has no CAPTCHA verification schema currently.

Question 36: With reference to Page 34 - Section 5a-3 -E. AUTHORIZATION -6, the platform management module must provide an interface which shows which actions may be carried out for users and user groups and which screens may be reached. Should the system logging themselves or do you use any logging platform & does contractor integrate this logging system?

Answer 36: The article is not related with logging mechanisms. It refers to the requirement of monitoring of privileges of users and user groups on actions and screens. The explanation about the logging system is given in Part III.G.

Question 37: With reference to Page 34 - Section 5a-3 -E. AUTHORIZATION -10, in the organization structure, units must be identified, and the unit administrators must be indicated among the AGENCY personnel by verifying. It must not allow manual entry. Has Agency any LDAP system?

Answer 37: The AGENCY has got a LDAP infrastructure and integration of LDAP with the proposed system is in the scope of this tender. However, the platform has also interfaces for defining organizational units and unit administrators.

Question 38: With reference to Page 34 - Section 5a- 3 -E. AUTHORIZATION -11, the user/title/position relations must be able to be identified. The organization structure must be able to be entered in detail into the platform and managed. Does Agency do it manually?

Answer 38: Currently, there is no proprietary application used within the Agency for the specified purposes. For this reason, the identification process is carried out manually.

Question 39: With reference to Page 35 - Section 5a-3 -E. AUTHORIZATION -14, Power of attorney should be able to be given within the application. While the power of attorney is given, it should be possible to choose which roles can be left by proxy. For example, if the user is both a department manager and a system administrator, the power of attorney for the role of department manager should be given to another person. Could you clarify that platform should do that?

Answer 39: The mechanisms for the management of power of attorneys and proxies are defined in the article. The system should let some authorized users to give power of attorney to some other users. When a power of attorney is given to user, system should provide mechanisms to choose the roles that can be left by proxy.

Question 40: With reference to Page 35 - Section 5a-3 -F. INTEGRATION WITH EXTERNAL SYSTEMS -3, For the user verification method may be able to be determined by the administrator, the relevant screens must be submitted in the system management module. Could you clarify that item?

Answer 40: The system should have user interfaces in order to let administrator to determine the user verification methods.

Question 41: With reference to Page 35 - Section 5a-3 -F. INTEGRATION WITH EXTERNAL SYSTEMS -4, The platform must have API support for the codes written in the workflow. Furthermore, the platform must have API support to facilitate actions such as access to the database, sending e-mail, calling workflow functions from the external applications, DLL

calling etc.; the detailed help documentation regarding the use of the relevant APIs must be submitted. Could you explain about DLL, why do need of calling?

Answer 41: By using a DLL, a program can be modularized into separate components. For example, an accounting program may be sold by module. Each module can be loaded into the main program at run time if that module is installed. The platform should have API support in order to call programs that are developed by using this technique.

Question 42: With reference to Page 36 - Section 5a- 3 -F. INTEGRATION WITH EXTERNAL SYSTEMS -7, The integrations identified in these Specifications, namely SMS, LDAP or equivalent and EDMS (if the other method defined in 3.C.20 is not supported) shall be carried out and made live for all users selected during the warranty period upon the Request of the AGENCY. Does Contractor priceless to integrate it? If yes, could you share integration details of SMS gateway, Ldap & EDMS etc.?

Answer 42: Yes, the contractor is obliged to integrate these applications. In order to realize SMS integration, the Web services will be provided by SMS suppliers. In order to integrate LDAP and EDMS, the Web services supplied by the AGENCY will be used.

Question 43: With reference to Page 36 - Section 5a -3-G. LOGS - 1, "Log" information must be stored as not to be changed and deleted by any user from within the platform. Does agency give permission to connect log system or platform?

Answer 43: The platform should employ a logging system about the activities carried out by using the BPM software. Logging system should avoid platform's users to change and/or delete any log information.

Question 44: With reference to Page 36 - Section 5a-3 -G. LOGS - 4, "Logs" must be monitored instantly. Does Agency have a log system to monitor, or contractor provide that?

Answer 44: The platform should employ a logging system about the activities carried out by using the BPM software.

Question 45: With reference to Page 37 - Section 5a -4 -A. WORKFLOW DESIGN- 6, In the workflow design, it must be possible to use pre-made workflows. Could you clarify of "pre-made workflows"?

Answer 45: While the user is designing a new workflow, he/she should be able to use the previous workflows that are prepared by using the platform before.

Question 46: With reference to Page 38 - Section 5a -4 -A. WORKFLOW DESIGN.- 20, The access control of the authority section, which is identified on the forms must be able to be controlled on the workflows. The forms must be able to be authorized to different users or user groups as a whole or in parts. Could you clarify that item please?

Answer 46: As mentioned in other articles of ITB, the system would enable its users to define authority sections in their form designs. The system should provide mechanisms to manage the access controls of these sections while defining workflows. The authorization of the developed forms to the users or user groups as a whole or by means of authority sections should be supported.

Question 47: With reference to Page 38 - Section 5a -4 -B. RUNNING THE WORKFLOW- 1, The workflow must be run on the main menu. Could you define about "main menu"?

Answer 47: The system should let the users to connect their defined workflows to the main menu objects. Main menu in this context refers to the primary list of options available to the user at the first scene of the BPM application.

Question 48: With reference to Page 38 - Section 5a -4 -B. RUNNING THE WORKFLOW- 2, The platform must be able to ensure to launch a workflow automatically. Could you define about "automatically"?

Answer 48: The system should provide its users to define automatic launching of their workflow due to specific dates, date intervals, special conditions etc. In this context "automatically" refers to the non-existence of any user intervention to run the workflow.

Question 49: With reference to Page 40 - Section 5a -6 -A. FORM DESIGN MODULE- 8, The platform must support "Angular", "React", and/or similar modern UI libraries. Why do you need Angular & React support, Does Agency want to develop something or does Agency want to low code platform?

Answer 49: AGENCY's main motivation is to purchase and use the low code platform. But due to some reasons such as ensuring the reusability of formerly developed code, the efficient usage of human resource and benefitting from the facilities provided by modern UI libraries, the support of Angular, React or similar libraries is also wanted.

Question 50: With reference to Page 41 - Section 5a -6 -A. FORM DESIGN MODULE- 16, For the controls on the form, verification code must be able to be written on the design screen with special JavaScript or similar scripting languages. No external coding program must be required for this action. In the code, the objects on the form must be able to be accessed. Furthermore, it must be possible to connect to the database or to access to "DLL" files that are written beforehand. Could you explain" verification mode"?
Answer 50: "Verification code" is in this context refers to "validation code"

Question 51: With reference to Page 41 - Section 5a -6 -B. INTEGRATION WITH EXTERNAL SYSTEMS- 2, It should be possible to access different databases (Oracle, MySQL, PostgreSQL, DB2, SQL Server) over native, ODBC and / or JDBC connection types for data import / export. At the -SYSTEM ARCHITECTURE- The platform must run smoothly in 11g and higher versions of Oracle database. Does platform work at Oracle database or other database, Could you clarify that?
Answer 51: The platform will run in Oracle database, but in order to make data exchange, it should also access to different databases over native, ODBC or JDBC connections.

Question 52: With reference to Page 41 - Section 5a -6 -B. INTEGRATION WITH EXTERNAL SYSTEMS- 2, It should be possible to access different databases (Oracle, MySQL, PostgreSQL, DB2, SQL Server) over native, ODBC and / or JDBC connection types for data import / export. At the -SYSTEM ARCHITECTURE- The platform must run smoothly in 11g and higher versions of Oracle database. Does platform work at Oracle database or other database, Could you clarify that?
Answer 52: The platform will run in Oracle database, but in order to make data exchange, it should also access to different databases over native, ODBC or JDBC connections.

Question 53: With reference to Page 44 - Section 5a -6 -E. ACCESS RIGHTS MODULE- 1, Access rights shall be made with group-based and role-based authorization. Does Agency want to integrate Ldap or Does platform do that?
Answer 53: The AGENCY has got a LDAP infrastructure and integration of LDAP with the proposed system is in the scope of this tender. However, the platform has also interfaced for the group-based and role-based authorization.

Question 54: Would Turkish version of Company registration documents be accepted?
Answer 54: Bidders can submit Turkish version of Certificate of Incorporation/Business Registration and Trade name registration papers along with their bids. However, UNDP reserves the right to request notarized translated copy of these documents in case needed.