

NOTICE INVITING BUDGETORY OFFERS

Name of Work	NAME OF WORK : “CARRYING OUT SUCCESSFULLY THE UPGRADE/ MIGRATION/ IMPLEMENTATION OF SAP ERP FROM SAP ECC 6.0 EHP 8.0 SUITE ON HANA (PERPETUAL LICENSE MODEL) HOSTED AT SAP HANA ENTERPRISE CLOUD TO RISE WITH SAP S/4HANA PRIVATE CLOUD VERSION 2023 (SUBSCRIPTION MODEL) HOSTED AT SAP HANA ENTERPRISE CLOUD”
Date of submission of budgetary quotation	On or Before 17/05/2024 at 15:00 Hrs.
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**FA & CAO
MORMUGAO PORT AUTHORITY**

Technical specification

1.INTRODUCTION:

MPA has implemented SAP ERP ECC 6.0 along with SAP EP & SAP PI/XI in the year 2009. The SAP Servers were on-site. The system was technically upgraded in the year 2017 to Enhanced Package 7. The systems was further upgraded to Suite on HANA in the year 2018. The systems were migrated and hosted on HANA Enterprise Cloud in Aug. 2018. The system is now upgraded to EHP 8, being pre-requisite for upgrade to S/4HANA. MPA has already subscribed for RISE with SAP S/4HANA Private Cloud Edition w. e. f. 01.04.2023.

Currently, SAP ERP/Applications are being accessed from multiple locations by MPA customers and employees. The standard modules implemented including one customized system namely Port Operating System which is configured using standard SAP modules – Plant Maintenance (PM) & Customer Service (CS) have been outlined hereinafter.

1.1. MODULES - SAP ECC 6.0 (EHP 8) SUITE ON HANA & INTEGRATION WITH THIRD-PARTY APPLICATIONS

1.1.1. STANDARD MODULES/SYSTEM

- 1.1.1.1. Finance & Controlling (FICO)
- 1.1.1.2. Sales and Distribution (SD)
- 1.1.1.3. Material Management (MM)
- 1.1.1.4. Customer Service (CS)
- 1.1.1.5. Plant Maintenance (PM)
- 1.1.1.6. Project System (PS)
- 1.1.1.7. Document Management System (DMS)
- 1.1.1.8. Human Resources Management (HR/HCM)
- 1.1.1.9. Payroll (INDIA)
- 1.1.1.10. SAP Real Estate Management (RE/FX)
- 1.1.1.11. Net Weaver Process Integration (PI/XI)
- 1.1.1.12. SAP File Lifecycle Management (Fiory based E-Office System)
- 1.1.1.13. SAP Enterprise Portal (EP) - Customised Objects of Port Operating System are accessed by MPA Customers using EP

1.1.2. CUSTOMISED MODULES/SYSTEM

- 1.1.2.1. **PORT OPERATING SYSTEM (POS)** – A set of customized objects developed using ABAP which comprises of standard SAP Modules namely Plant Maintenance (PM) & Customer Service (CS) in the backend. Customers are using these objects thru SAP Enterprise Portal (EP).

1.1.3. INTEGRATION WITH THIRD PARTY APPLICATIONS

- 1.1.3.1. RFID Application for Gate Operations Process.
- 1.1.3.2. Application for Employee Biometric Attendance
- 1.1.3.3. Sagar Setu/National Logistics Portal-Marine (NLP-M) – XML Documents /Messages Sharing System.
- 1.1.3.4. Bank Payment Gateways.

1.2. PROCESS DETAILS :

1.2.1. Finance & Controlling (FICO)

- 1.2.1.1. General Ledger
- 1.2.1.2. Accounts Receivable
- 1.2.1.3. Accounts Payable
- 1.2.1.4. Fixed Assets
- 1.2.1.5. Banks
- 1.2.1.6. Cost Centres
- 1.2.1.7. Profit Centres
- 1.2.1.8. Project Costing.
- 1.2.1.9. Budgeting Processes
- 1.2.1.10. Costing Processes
- 1.2.1.11. Asset Creation using WBS Elements
- 1.2.1.12. Bank Reconciliation
- 1.2.1.13. TDS Compliance, Reporting & Uploading
- 1.2.1.14. GST Compliance, Reporting & Uploading

1.2.2. Sales and Distribution (SD)

- 1.2.2.1. Inquiry
- 1.2.2.2. Quotation
- 1.2.2.3. Sales Order Processing
- 1.2.2.4. Picking, Packing
- 1.2.2.5. Delivery
- 1.2.2.6. Billing and Revenue Recognition.

1.2.3. Material Management (MM)

- 1.2.3.1. Material Requisition
- 1.2.3.2. Outline Agreement
- 1.2.3.3. Purchase Order with Release Strategy
- 1.2.3.4. Inventory Management
- 1.2.3.5. Service Entry Sheet with Release Strategy
- 1.2.3.6. Vendor Invoice Posting

1.2.4. Customer Service

- 1.2.4.1. Management of Technical Objects with Customization
- 1.2.4.2. Service Processing with Customization

1.2.4.3. Maintenance Planning

1.2.4.4. Maintenance Task List

1.2.4.5. Dynamic Item Processor (DIP) Profile

1.2.4.6. Quotation and Sales Order Creation (DP80 and DP90) with customization.

1.2.5. Plant Maintenance (PM)

1.2.5.1. Management of Technical Objects

1.2.5.2. Service Order Processing

1.2.5.3. Preventive Maintenance.

1.2.6. Project System (PS)

1.2.6.1. Project Builder

1.2.6.2. Project Progress.

1.2.6.3. Reporting

1.2.7. Human Resources Management (HR/HCM)

1.2.7.1. Personnel Management

1.2.7.2. Time Management

1.2.7.3. Organization Management

1.2.7.4. Payroll (INDIA) with customization – Employees & Pensioners

1.2.8. SAP Real Estate Management (RE/FX)

1.2.8.1. Master Data.

1.2.8.2. Rent and Lease Contracts

1.2.8.3. Rental Accounting.

1.2.9. Document Management System (DMS)

1.2.9.1. Document Types

1.2.9.2. Document upload department-wise

1.2.10. Port Operating System (Modules : PM & CS duly Integrated with SD, FI-CO, MM & EP)

1.2.10.1. All current set of customized objects developed using ABAP which comprises of SAP Modules namely Plant Maintenance & Customer Service in the backend duly integrated with SD, FI-CO, MM and EP Modules.

1.2.10.2. These customised objects of Port Operating System have been seamlessly made available & accessible in SAP Enterprise Portal for Mormugao Port Customers (Port Users).

1.2.10.3. Different Types of Service Requests of Port Operating System are available to Mormugao Port Customers.

1.2.10.4. All Reports including customised ones are made available for Mormugao Port Customers in SAP Enterprise Portal.

1.2.11. SAP FLM (FIORI based)

1.2.11.1. File Processing with Workflow.

1.2.11.2. DAAK processing with Workflow.

1.2.12. Net Weaver Process Integration (PI/XI)

1.2.12.1. XI/PI is used to integrate NLP data with SAP in XML format

1.2.12.2. Total no of message integrated using XI/PI :

1.2.12.2.1. National Logistics Portal-Marine/Sagar Setu : Seven Messages.

1.2.12.2.2. RFID System – Two Messages

1.2.13. SAP Enterprise Portal (Customized Objects of Port Operating System are accessed by customers)

1.2.13.1. Service Request for all Port Services.

1.2.13.2. Create Estimation.

1.2.13.3. Bank Transactions.

1.2.13.4. Reports.

All systems in SAP landscape are Unicode and SAP ERP & EP production systems are in HA Cluster at SAP HANA Enterprise Cloud.

1.3. SCOPE OF WORK

The bidder shall be broadly responsible for following major activities during the contract period of fifty two weeks.

Up-gradation/Conversion from SAP ECC 6.0 EHP 8.0 to Rise with SAP S/4HANA 2023 or latest version including certain implementations/transformations.

- (a) MPA intends to upgrade/convert the existing SAP ERP ECC 6.0 with all its modules and applications e.g. PI/PO & Enterprise Portal applications to SAP S/4HANA having subscribed to Rise with SAP S/4HANA at HANA Enterprise Cloud. The total duration for the project of conversion of SAP Platform solution will be 52 Weeks (including 26 Weeks of Post Stabilization Support, Functionality Enhancement and New Processes Implementation) from the date of issue of detailed work order. The required functional testing would be carried out by MPA functional team with assistance of bidder's functional team.
- (b) The Phase-wise Broad Level of Activities required to be done as a part of conversion from ECC 6.0 EHP 8 to S/4HANA 2023 including implementations of certain new functionalities and transformation of SAP transactions/reports to Fiori interface include the following activities but not limited to :-

Sr. No.	Phase	Activity	Systems
1	1	Conversion from SAP ECC 6.0 EHP8 to SAP S/4HANA 2003 or latest version. This job includes Custom Code Adaptations and Simplification List as per SAP Readiness Check Report.	DEV, QAS, PRD
2	1	Adapt Customised Module – Port Operating System (POS) to Fiori Interface. The number of transaction codes of POS required to be made available in Fiori Interface of SAP S/4HANA is around Fifty.	DEV, QAS, PRD
3	1	Activation of Fiori Light House Apps for all Modules.	DEV, QAS, PRD
4	1	Number of POS transactions apps to be activated in Fiori Interface are fifty	DEV, QAS, PRD

5	1	Migration of EP system to S/4HANA and also make them available in Fiori Interface. EP comprises of POS Tcodes.	DEV, QAS, PRD
6	1	a. Implementation of PO System in SAP S/4HANA. b. Migration of interfaces from XI/PI to PO	DEV, QAS, PRD
7	1	Migrating Central EP system to Distributed App & DB system	PRD
8	2	Configuration and Implementation of ESS & MSS in S/4HANA	DEV, QAS, PRD
9	2	Configuration & Implementation of India Localisation Compliance Report (GST & WST)	DEV, QAS, PRD
10	2	Configuration & Implementation of Bank Reconciliation.	
11	2	Functionality Enhancements for enabling/activating key functionalities of S/4HANA	DEV, QAS, PRD
12	2		DEV, QAS, PRD

(c) The entire project is to be completed as per the Project Plan defined in **(J) Delivery Schedule** clause which will be mutually finalized with the successful bidder (System Integrator).

(d) System Integrator (SI) needs to execute the project Onsite & Offsite modality.

(e) Major Activities:

No.	Activity	Description	Quality level and Acceptance Criteria
1	Convert SAP ECC 6.0 EHP8 to SAP S/4HANA 2023 or latest release	Technical conversion of SAP ECC 6.0 EHP8 to S/4HANA 2023 or latest release (of Development, Quality & Production system instances in accordance with MPA's subscription of Rise with SAP S/4HANA Private Cloud Edition hosted at HANA Enterprise Cloud (HEC))	All transactions supporting business processes pre-S/4HANA should continue to work after converting to S/4HANA.
2	Support & Execute Conversion Test Cycles	Number of test cycles required to convert MPA landscape from ECC to S/4HANA.	All business processes pre-S/4HANA should continue to work after converting to S/4HANA
3	Customer Vendor Integration (CVI) configuration and conversion	Configure, Test and Convert Customer and Vendor data in ECC to Business Partners in S/4HANA	All Customer and Vendors in the existing ECC system are converted to Business Partners in S/4HANA.
4	Simplification Items adaptation	Simplification Items Workshops to identify scope, business decision and solution	All simplification items are managed, and adaptations are implemented for in-scope items.

5	Custom Code Adaptations	List of custom code objects, solution/remediation action, and status	All custom code is migrated/converted and validated to fit the target S/4HANA 2023 or latest release. All Custom Code Transactions and Reports to function properly in S/4HANA.
6	Process Orchestration (PO)	Implementation of PO System in SAP S/4HANA. All interfaces to be migrated from existing SAP XI/PI to PO in SAP S/4HANA.	All interfaces are adopted to newly implemented PO instance/system in S/4HANA.
7	Enterprise Portal (EP)	Existing EP POS interfaces linked to ECC to be working as it is in S/4HANA post conversion.	Existing processes in EP to be working post conversion.
8	Migrating EP functionalities to Fiori	Existing EP POS interface working in S/4HANA to be also migrated to Fiori.	Interfaces to be working on Fiori launch pad.
9	India Localisation Compliance Report	Implementation of India Localisation Compliance Report	Completion of desired outputs/reports ready for compliance/uploads.
10	Bank Reconciliation Statements	Bank Reconciliation Statements	BRS functionality working on S/4HANA system.
11	ESS/MSS	Implementation of ESS / MSS	ESS/MSS functionality working on S/4HANA system.

(f) Whenever the said work is to be executed by bidder, the below activities are to be executed by the bidder for upgradation / conversion / implementation:

- i. Understand current business processes and MIS reporting requirements of MPA including POS related customised configurations, customised transactions and customised reports.
- ii. Explain the best practices available in Rise with SAP S/4HANA latest version and its advantages over existing business processes of MPA.
- iii. Identify redundancies & deficiencies in the existing business processes of MPA.
- iv. Finally, it is required to undertake Fit-Gap Analysis to identify the difference between the business requirements of MPA and the new features that SAP S/4HANA brings with it to support the business requirements. After identifying the business requirements and the SAP S/4HANA features, it is required to conduct an analysis that identifies the difference between the requirements of the business and the new features that comes with SAP S/4HANA. Once the gaps have been identified, the next course of action would be to prioritize them based on their impact on the business. This can be done by assessing the risk

associated with each gap and the business value that will be achieved by closing the gap. Finally, a plan should be developed to address the identified gaps.

- v. Organize workshops to reconcile the gaps/differences and prepare revised "To-Be" processes in alignment with the best practices of Rise with S/4HANA features and functionalities.
- vi. Identify areas where the software does not meet the requirements and prepare a plan of action in terms of a workaround.
- vii. Identify customization (apart from configuration) in order to meet MPA requirements and better workarounds in the system that could also address such requirements without customization.
- viii. All the existing transactions and reports of SAP ERP ECC 6.0 should be made available & functional in S/4HANA.
- ix. The Bidder shall incorporate all the features as agreed by MPA in the finalized Business Solution Design Document (BSDD).
- x. Preparing Role Authorization Matrix / User Roles & Responsibilities and should be approved by MPA and to be configured in system.
- xi. Existing ABAP/Dynpro Object (Approximately 1050 nos. Objects) must be adapted during the conversion to SAP S/4HANA.
- xii. All SAP Transaction Codes (NetWeaver Screens) currently in use should be made available and functional in SAP S/4HANA before Go-Live. In cases, where the Transaction Codes of ECC 6.0 in use which are being deprecated in S/4HANA, any new transaction code in lieu of such deprecated Transaction to be activated in SAP S/4HANA with required configuration/customizations.
- xiii. Around fifty Customised Transactions of POS which are currently availed in SAP Enterprise Portal are required to be made available in Fiori Interface. SI is required to enable these fifty POS related Custom ABAP GUI based program/transaction for access via Fiori Applications. The objective is to enhance user experience and optimize business processes by leveraging Fiori's intuitive interface alongside the robust functionality of custom ABAP Developments. The SI is required to develop necessary adaptations and enhancements to ensure smooth functioning of the above specified custom. The SI is required to also implement any required FIORY elements such as UI5 applications, Odata services or Fiori Elements to facilitate integration. The SI is also required to also make these transactions available in EP for access (50 POS Tcodes)
- xiv. Activate all Fiori Lighthouse Apps in S/4HANA applicable to SAP modules implemented by MPA.
- xv. Design all data security controls in fiori interfaces to be developed.
- xvi. Configure, Test and Implement ESS/MSS, India Localisation Compliance Report and Bank Reconciliation Statements.
- xvii. Document the configuration done and prepare/maintain user manuals

for maintenance of configuration/customization along with version control. The Bidder shall also prepare training documentation viz. End-User Manuals.

(A) Training

- (i) SI shall provide an Overview Presentation to MPA management before starting the conversion process and before Go-Live of the new system.
- (ii) The SI shall provide training to MPA IT Team &/or Nominated officers/officials on areas of delta changes in S/4HANA system post conversion.
- (iii) Training would be conducted during the contract period and it should fulfil satisfaction of participants.
- (iv) The bidder shall have to start training after the first conversion run completion.
- (v) The bidder shall provide to MPA - (a) Soft copy of each training document on completion of training (b) Feedback forms and attendance sheet.
- (vi) The bidder shall provide soft copy of training documents to all participants.
- (vii) MPA will measure the effectiveness of training imparted after the completion of the training through training feedback forms. If the consolidated feedback of the training is not up to the desired level of expectation then same shall be re-organized by selected bidder at no extra cost.

(B) Hardware/Infra for the Mock Drill

MPA will arrange all the relevant hardware and infrastructure that is required for the start of the project. The relevant system for development would be made available by SAP HANA Enterprise Cloud under the contract signed with SAP India Pvt. Ltd. for Rise with SAP S4/HANA Cloud Services, Private Edition.

(C) Migration Approach:

(i) Project Preparation

- Project Kick-off -Project Charter /Project Plan
- Resource Mobilization Plan
- Cloud Infrastructure Readiness Check.

(ii) Sandbox Run (Mock)

- A Sandbox System shall be provided by MPA at SAP HEC for Installation, Migration and S/4HANA Conversion.
- SI shall modify and finalize the detailed project plan with a well-defined plan of action for all the activities as per the observations from the sandbox run.
- SI shall develop detailed technical procedures executed as part of the conversion to S4/HANA.
- MPA team will perform complete all the Scenario Testing and SI will be responsible for any bug fixation during the testing period.

(iii) Mock Runs including Technical Downtime Optimization

This phase includes setting up the Development and Quality environment. The

bidder shall conduct minimum two mock runs for S/4HANA conversion at planned dates to ensure that the final run passes smoothly. The process shall include:

- The data integrity is maintained 100% in comparison with the old SAP Systems in landscape.
- All the customizations done on the old SAP systems including POS are working correctly on new S/4HANA instances. Any communications with third party systems if applicable also to be checked and verified.
- End to end update, HANA suite to S/4HANA migration in sandbox environment;
- Optimization of the downtime;
- Technical and functional testing by MPA and any bug fixation/ issue resolution by SI.
- Analyze the functional issues reported and provide prompt resolutions.
- Technical and functional support for test.
- Named and confirmed resources for each activity in the plan.
- Ensure the conversion completes within the allotted business downtime window.
- Prepare the documentation of all the activities and maintain the standard repository and periodically update the same.
- Conduct training sessions to core team, workshops on relevant topics like changed transactions in SAP S/4HANA or if any new transactions in SAP S/4HANA for empowering the MPA IT team /Implementation Core Team to handhold and manage the system.
- Current SAP functionalities in EP, POS will be configured in the S/4HANA in-built ESS functionalities (FIORI) during the Mock 2 & 3.

(iv) Testing

(a) Unit Testing

Module wise unit testing shall be carried out wherever applicable.

- Data for testing shall be created by the MPA in coordination with SI Team.
- Unit test shall be executed by the MPA team in coordination with SI Team.
- MPA team shall sign off the test clearance for transporting to Quality system for further testing.

(b) Integration Testing

MPA team shall work through the Integration System Test scripts, following the test plan, recording results and discrepancies. The SI shall resolve identified discrepancies and MPA team shall sign-off completed test scripts.

(c) System Acceptance

MPA shall develop User Acceptance Test (UAT) procedures in coordination with SI. The purpose of this acceptance is to ensure conformance to the required process operations, response times, and integrity of the software after migration, and to eliminate any operational bugs.

Testing has to be conducted in the Sandbox, Development and Quality system. All the acceptance tests should be carried out before Go-Live.

At the satisfactory conclusion of these acceptance tests, MPA team shall sign-off the acceptance test document and the migration shall be considered for moving to Production and Go-Live.

(v) Final Cutover

Migrate cutover data from SAP ERP Landscape to SAP S/4HANA with Development, Quality and Production Systems (if required).

(D) Migration Activities

- a) Migration Planning workshop.
- b) ABAP Support for custom code adjustments (SPDD & SPAU) for S/4HANA - Empowering and guidance and Quality Checks (Approx. 460 active customizations incl. in standard SAP system).
- c) Cloud ALM activation
- d) Early Watch Alert setup for Production Systems, if required by MPA.
- e) Creating new/ additional data mandatory in new system.
- f) Delivery of Upgrade/Conversion document with screenshots.
- g) Code pushdown & Optimization for high resource consuming & complex queries.
- h) Provide functional support includes Testing Support and Issue resolution during testing performed by MPA team.
- i) ABAP on HANA
 - o Functionality Check and ABAP Remediation
 - o Oversight & Governance for custom code adoption by MPA
 - o Enablement Workshop for remediation needed during migration of custom programs on HANA
 - o Run-PGLS (Post Migration Go-Live Support) by Technical experts.

(E) Go-Live

This phase includes setting up Production instances and test backup with Disaster Recovery Site in coordination with SAP HEC team. The bidder should ensure the following during this phase:

- a) The data integrity is maintained 100% in comparison with the old SAP Systems in landscape.
- b) The integration with other systems and modules is working correctly as envisaged.
- c) Smooth transition to Go-Live.
- d) Vigilant monitoring on the performance of the system, growth of the database and system logs to detect the system level issues very early and provide quick resolution and preventive options.
- e) On the successful completion of activities till Production environment, the SI commences Go-Live. Upon successful operation of "SAP S/4HANA Solution" in the production environment, Go-Live acceptance certificate will be issued by MPA.
- f) SI shall provide the Post Go-Live support (Functional and Technical) as mentioned in this section "Scope of Work".

(F) Support Services & Implementations during Post Go-Live Stabilization (PGLS) Period

Post Go Live stabilization support will start from the date of Go live. SI shall engage the same technical & functional consultants during the stabilization period after Go-Live. The SI shall be responsible for supporting and rectifying all issues identified but not limited to following:

- a) Rectifying bugs as and when identified.
- b) SI shall cover the configuration elements changes if required as part of stabilization period support.
- c) In case of failure of any implemented process/ functionality, reconfiguration of system shall be done for bringing the system back in function.
- d) Configure, Implement and Support the following Requirements
 1. Employee Self Services & Manager Self Services (ESS/MSS)
 2. India Localisation Compliance Reports
 3. Bank Reconciliation Reports
- e) SI needs to update the changes in user manuals and deliver to MPA as and when required.
- f) Any open issue at the end of Post Go-Live Stabilization period completion to be resolved by SI for critical issues raised by MPA as part of S4/HANA Conversion project. After the successful closure of all the critical issues, MPA shall provide sign-off for the stabilization support phase.

(G) Implementation Methodology:

The bidder should adopt following phases in the implementation methodology:

- 1) **Prepare:** The Prepare phase will provide initial planning and preparation for a project, including project organization and governance as well as the project schedule and project management plans. The System Integrator must clearly understand the requirements of the MPA through extensive requirement gathering. Requirement gathering must be done through interaction with officials at MPA Office, core team and field offices (all located within a radius of 5 kms. From administrative office) if required. The System Integrator must capture in detail, the business processes of all the functions at MPA. The requirements must be validated by the MPA.
- 2) **Explore:** In the Explore phase, conduct industry best practice workshops to review the SAP best practices functionality, to identify delta requirements or gaps, and document the conceptual design of the "to-be" delivered SAP enterprise solution. Documents all functional and technical requirements, project issues and gaps.
- 3) **Realize:** MPA specific configuration is undertaken and any additional agreed delta scope is delivered. The test approach and any knowledge transfer be executed. MPA User Acceptance Testing is completed.
- 4) **Deployment:** Final checks are made before the cutover to Production Environment and end users are trained. Ongoing support is put in place by the MPA and the Services are closed.
- 5) **Run-PGLS:** Post go-live support which includes certain implementations and enhancements.

(H) FIORI Apps:

FIORI applications to be implemented shall be approved by MPA before the implementation /development.

(I) Delivery:

The deliverables documents are as under:

Sr. No.	MILESTONE	DELIVERABLE
1	Prepare Phase	<ul style="list-style-type: none"> • On-boarding of Project Team & Project Kick off • Detailed Project Scope Document • Project Organization and Governance • Implementation Plan & Schedule • Project Charter • Risk Register • Communication Plan • RACI Matrix • Issue Tracker • System Landscape • Data Migration Approach and Strategy • Prepare for the Fit/Gap Analysis Activities • Plan for Meeting one of the Pre-Requisite i.e. Converting XI Dual Stack (ABAP & JAVA) into PI/PO single Java Stack only. • Plan for Migrating SAP File Lifecycle Management (FLM) Module to SAP S/4HANA Private Cloud(Fiory)
2	Explore Phase	<ul style="list-style-type: none"> • Detailed Plan for Resolution of Remaining Pre-Requisites for S/4HANA Migration e.g. Convert XI Dual Stack (ABAP & JAVA) into PI/PO single Java Stack only etc. • Documented Design, including: <ul style="list-style-type: none"> ○ Project Plan Update ○ Process Flows ○ Functional Specifications • Test Strategy and Plan • Business Process Master List • Complexity Classification under Simple/ Medium/High with Justification • Best Practices Baseline Built • Business Process Workshops & Demos/SolutionValidations • Fit-Gap Analysis • Business Process Design Documents and Signoffs • Master Data Draft Templates • Test Strategy and Plan • Training Plan

3	Realize Phase	<ul style="list-style-type: none"> • Solution Configuration and Tests • Development/Testing of Enhancements and Extensions like Interfaces, Forms, Workflows, Conversions, or Reports • Preparation/Delivery of Train-the-Trainer Course • End User Training System Environment • Configuration Completion • RICEF Tracker • RICEF Objects Functional Specifications Documents • Unit Testing & Integration Testing • Security Roles and Authorization Matrix • Master Data Collection • Quality System Readiness • User Manuals • Training to MPA Team Members • User Acceptance Testing & Signoff • Data Migration Conducted • Cutover and Transition Plan
4.	Deployment Phase	<ul style="list-style-type: none"> • Production Readiness Check • Cutover Plan Sign Off, Simulation, Data Upload; • Production System Readiness • Production System Upgrade Report and Go-Live Sign-off Document • Any other Document not submitted earlier and required for fulfillment of this migration process.
5.	Run-PGLS	<ul style="list-style-type: none"> • Post Go-Live Support • Issue Resolution & Maintain Issue Register • Documentation of New Development or Change in Configuration etc.

(J) Delivery Schedule

The following is a tentative delivery schedule; it will be finalized through mutual discussion with the selected successful bidder after the contract signing.

Tentative SAP S/4HANA Project Work Plan

S. No.	Particular	Delivery Schedule (In Weeks)
1	Date of Issue of Work Order for S/4HANA Conversion by the Purchaser i.e. MPA	-
2	SI Team Mobilization	2
3	Prepare Phase	3
4	Explore Phase	6
5	Realize Phase	8
6	Deployment Phase	9
7	Run-PGLS	26

Note:

- (i)
- (ii) During the stabilization period, government mandated changes/new requirements will be considered to implement by SI promptly without demanding any additional payment.
- (iii) MPA deserves the right to hold the payment until the resolution of all the issues reported during this stabilization period.
- (iv) Whenever Go-Live is over, SI shall ensure that proper knowledge of new SAP S/4HANA system has been transferred to their Go-Live Support Consultants.

(K) Go-Live Support Period: Maintenance of SAP ERP modules/systems & other SAP S/4HANA Applications/Components, along with new Development, Integration, Customisation, Configuration, Modification, Updation, Testing and Commissioning.

- i. **Hyper Care Support shall be for 26 weeks.**
- ii. **Scope activities as mentioned in Key Deliverables section.**

In this phase, the services have been categorized in following two parts:

- (i) Maintain SAP ERP modules & Systems (EP, XI/PO) (before and after migration) and will perform work of new Development, Integration, Customisation, Configuration, Modification, Updation, Testing and Commissioning of SAP ERP modules; and
- (ii) Maintain functionalities of Port Operating System configured using PM, CS & SD modules duly integrated with EP and integration with Sagar Setu Portal (Previously called National Logistics Portal-Marine (NLP-M) and Port Community System 1x (PCS 1x and RFID System. SI will also perform work of new development, modification, updation, testing pertaining to POS as per MPA requirement and maintain integrations with Sagar Setu, RFID System as also Biometric Attendance and Payment Gateway Services.

The Bidder/SI is required to perform the following services: -

i. Non-SAP Applications Integration Services

To co-ordinate with respective stakeholders (e.g. MPA/SAP/RFID & Bio-metric Vendor/HEC/Railtel/Sagar Setu Vendor etc.) for upkeep of the entire system and assist for integration/update/upgrade and troubleshoot the SAP software/services required for proper integration of these Non-SAP applications with SAP S/4HANA systems.

ii. Other Important Services:

- a. Furnish Test Cases of Development and UAT result shall be get approved by the nominated person from the purchaser i.e. MPA.
- b. Process improvement and enhancements including changes related to changes in taxes, rules and laws, etc. and other compliances.
- c. Operational assistance with special processing events (end of year close off, tax reporting, annual accounts, balance sheets, carry forward of annual plan etc.)
- d. Assistance with recovery from SAP Application errors.
- e. Timely Resolution of Issues. The log of Support Work (resolving the queries and issues) should be maintained properly.
- f. Support shall be provided promptly in case of emergency whether it is a

working day or a holiday.

The selected bidder shall provide complete set of documentation in one hardcopy and one softcopy as under but not limited to-

- Post Go-Live
 - User Manuals with Version Control
 - Step by step guide including processes customized, developed, configured, Test Cases and Report of SAP modules and any other application along with complete coding details for each minor development.
 - Time sheet of consultants working on MPA project
 - Authorization Matrix
 - Provide suggestion for improvement and smooth working of SAP ERP and other applications implemented in MPA
- Every Month During Go-Live Support
 - Updated User Manuals with Version Control
 - Issue Register
 - Step by step guide including processes customised, developed, configured, Test Cases and Reports of SAP Modules and any other application along with complete coding details for each minor development.
 - Time sheet of consultants working on MPA project
- End of Go-Live Support
 - Updated User Manuals with Version Control
 - Updated Customisations/Configuration Documents & Customised Reports, Programs Developed with Version Control etc.
 - Update Authorisation Matrix with Version Control

Once upgradation/migration conversion project is completed, System Integrator (SI) needs to provide Post Go-Live Support for SAP S/4HANA system for the Post Go-Live Support of 26 weeks. The major scope of work under this clause remains same as mentioned in this clause above. However, the following shall be applicable wherever required:-

- a) Total completion period of this work including Post Go-Live Support including new implementations/enhancements is 52 weeks. After Go-Live support for Rise with SAP S/4HANA shall be provided by the bidder.
- b) If nomenclature of any other module is changed after conversion/upgradation to S/4HANA, the new module shall be covered under Post Go-Live Support.

1.4. CONSULTANTS: REQUIREMENTS & GENERAL CONDITIONS

- a) The services shall be provided by consultants of SI, who should be on their payroll. Detailed CVs along with contact details of all consultants shall be furnished to purchaser for approval of same before deployment.
- b) Consultant of each type FICO (Finance & Controlling), MM (Material Management), HCM+ Payroll, BASIS (System Admin), PM (Plant Maintenance), PS (Project System) cum IM (Investment Management) or Equivalent (as per ECC / S/4HANA requirement) in general shall be deployed onsite/offsite during the contract period.
- c) Online Training is required to be provided by SI for MPA Core Team Members for all modules by Subject Matter Expert subject to satisfaction of MPA participants. Soft Copy of the training to be provided to the participants. No separate payment would be made by MPA for providing training.

Minimum Qualification for Post-Go Live Development/Support Work:-

- All the deployed consultants of respective module/field should have experience of at least 5 years in implementation/Support service for at least 4 projects.
- HCM consultant should provide support for OM, PA, Time, Payroll also.
- Before migration to S/4HANA, sufficient BASIS/ABAP consultant shall be deployed.

The Bidder should deploy consultants on-site during critical phases of the Project as and when required. The consultants deployed on this project at MPA site including Project Manager shall work on Monday to Friday in general. Holidays adopted in MPA shall be allowed to consultants. In case of urgency, if any consultant is required by MPA to work even on weekends/holiday(s), no additional payment shall be made by MPA.

Laptops for carrying out its services and halt/stay provisions of consultants in Goa shall be arranged by the bidder at its own cost and no additional cost shall be payable to bidder for the same. The bidder will also bear travel, lodging and boarding expenditure of consultant who are deployed at MPA site.

1.5. RESPONSIBILITIES OF MPA

MPA has the following general responsibilities:

- Availability of IT team;
- Procurement of applicable SAP licenses and related Hardware.
- Availability of Hardware infrastructure for mock and target HANA landscapes as per the project requirement
- System functional Testing by MPA team
- Sign-off on required documents.
- Seating space, internet connectivity for Consultants.
- System Access to Offshore consultants for development.
- Training to the End-users of MPA.
- Arrangement of meeting with SAP/Portall Infosystems (SAGAR SETU Developers)/RFID Vendor/BIOMETRIC Vendor/Payment Gateway Banks etc. (if required).

1.6. Other Conditions:

- 1) Bidders are required to send budgetary offers via email to navisha.miranda@mptgoa.gov.in & cc to facao@mptgoa.gov.in with password protected file quoting for **“CARRYING OUT SUCCESSFULLY THE UPGRADE/**

MIGRATION/ IMPLEMENTATION OF SAP ERP FROM SAP ECC 6.0 EHP 8.0 SUITE ON HANA (PERPETUAL LICENSE MODEL) HOSTED AT SAP HANA ENTERPRISE CLOUD TO RISE WITH SAP S/4HANA PRIVATE CLOUD VERSION 2023 (SUBSCRIPTION MODEL) HOSTED AT SAP HANA ENTERPRISE CLOUD”

- 2) The rate should be exclusive of GST.
- 3) The Tenderer shall inspect the site and assess the requirement if necessary before furnishing their offer.