Federal Board of Revenue
Revenue Division – Government of Pakistan

REQUEST FOR EXPRESSIONS OF INTEREST

Country:	Pakistan
Name of Project:	Pakistan Raises Revenue
Assignment Title:	Hiring of Consulting Services Firm for Consolidation of Frameworks for Central Risk Management System & Post Clearance Audit through Comprehensive Business Process Mapping and Business Process Re-engineering of Core Business Processes of Pakistan Customs
Loan No./Credit No.:	6435-PK
Reference No.:	1(23)/P&CM/PO/2021 (PK-FBR-257542-CS-QCBS)

1. The Federal Board of Revenue has received financing from the World Bank towards the cost of the Pakistan Raises Revenue Program (PRRP) and intends to apply part of the proceeds for procuring the subject consulting services. The objective of the Project is to contribute to a sustainable increase in domestic revenue by broadening the tax base and facilitating compliance.

2. Reforms to achieve high performance and innovation in the Federal Board of Revenue (FBR) are essential for sustained growth in revenue collection to meet the country's budgetary demands and to finance development programs for public welfare. The main emphasis of tax reforms is promoting voluntary tax compliance through robust compliance control mechanism, enhanced facilitation for taxpayers, improvement of Information and Communications Technology (ICT) based Data Systems for Broadening of Tax Base (BTB), automation and improving accountability and transparency.

3. The Federal Board of Revenue now invites eligible consulting firms ("Consultants"), to indicate their interest in providing the said Services. Interested firms should provide the information demonstrating that they have/ meet required qualification and experience to perform this assignment. In this regard, there are prescribed standards which have been mentioned in the Terms of Reference, which may be downloaded from the website https://fbr.gov.pk/tenders. Prospective firms are encouraged to provide materials/ information that would be specific to the proposed services. The parameters for evaluating EOI responses are given below:
   - **a.** The consulting firm must have demonstrable post-registration experience of at least ten (10) years in undertaking and successfully executing similar reforms in customs administrations in other countries.
   - **b.** The consulting firm must have experience of working with complex, multi-system environments including data extraction and interfaces system and process architecture, troubleshooting, reengineering and process mapping and use of BPMS.
   - **c.** The consulting firm must have experience of operations of Customs or comparable ICT systems either on its own or in partnership with others.
   - **d.** Demonstrated experience of having conducted comprehensive BPM and BPR and BPMS for at least two Customs administration among WCO members.
   - **e.** Expertise in implementing process diagramming as per the Business Process Model and Notation (BPMN) standard.
   - **f.** Having in depth knowledge of WCO conventions specially Revised Kyoto Convention, WCO Risk Management guidelines/compendium, Post Clearance Audit guidelines and Time

Release Study methodologies and the WTO's Customs Valuation and Trade Facilitation Agreements.

4. The attention of interested Consulting Firms is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016 [revised November 2017 and August 2018] ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

5. The Consulting Firm will be selected in accordance with the Quality and Cost Based Selection (QCBS) method as set out in the World Bank's "Procurement Regulations for IPF Borrowers" July 2016, revised November 2017 and August 2018.

6. Firm(s) may associate with other firms to enhance their qualifications in the form of a joint venture (JV)/ Association. All the partners in the JV shall be jointly and severally liable for the entire Contract, if selected. In case of joint venture/ consortium, the details of such projects will be provided separately for each member as lead or associated consultant and payments shall be made only into the designated account of JV.

7. A **virtual Information Session** shall be held on **January 27, 2022** at **1500 Hours** to familiarize the potential applicants **on Terms of Reference** (available at https://fbr.gov.pk/tenders) **and ensuing procurement process.** Interested Consulting Firms may obtain the respective meeting link/ invite via writing an email addressed to the undersigned (procsp.prrp@fbr.gov.pk) between January 24, 2022 and January 27, 2022 (latest by 1200 Hours).

8. The Expression of Interest must be delivered to the address below (in person or by mail) not later than 1500 hours (Pakistan Standard Time) on **February 10, 2022.** For expressions sent electronically, Program Office will acknowledge receipt of the same via return email. In absence of such confirmation/ receipt, please contact on the address given below.

9. The address(es) referred to above is (are):

Procurement Specialist (Program Office)
Room No. 712, Seventh Floor
Federal Board of Revenue (FBR)
FBR House, Constitution Avenue
Sector G-5, Islamabad, Pakistan
051-9209659
procsp.prrp@fbr.gov.pk

Federal Board of Revenue

Pakistan Raises Revenue Project

Terms of Reference for:

Consolidation of Frameworks for Central Risk Management System and Post Clearance Audit Through Comprehensive Business Process Mapping and Business Process Re-engineering of Core Business Processes of Pakistan Customs Service

Abbreviations

AEES	Automated Entry Exit System
AEO	Authorized Economic Operator
BPM	Business Process Mapping
BPR	Business Process Reengineering
BRS	Business Requirement Specifications
B2G	Business to Government
B2B	Business to Business
CMS	Case Management System
DOA	Delegation of Authority
EDI	Electronic Data Interexchange
FBR	Federal Board of Revenue
FCDO	Foreign Commonwealth and Development Office
GD	Goods Declaration
GOP	Government of Pakistan
HR	Human Resources
ICT	Information and Communication Technology
IT	Information Technology
Io T	Internet of Things
NTN	National Tax Number
OGA	Other Government Agency
PA/PC	Pre-Arrival/Pre-Clearance
PCA	Post Clearance Audit
PCS	Pakistan Customs Service
PCT	Pakistan Customs Tariff
PRAL	Pakistan Revenue Automation Limited
PRR	Pakistan Rises Revenue Project
PSW	Pakistan Single Window
PSWC	Pakistan Single Window Company
LPCO	Licenses, permits, certificates and other
RACI	Responsibility Assignment Matrix
ReMIT	Revenue Management, Investment and Trade
RMS	Risk Management System
SOPs	Standard Operating Procedures
SRS	System Specification Requirements
TA	Technical Assistance
TAGR	Trust Fund for Accelerating Growth and Revenue
TIR	International Transport of Goods Convention
TORs	Terms of Reference
UML	Unified Modeling Language
WB	World Bank
WBS	Work Breakdown Structure
WCO	World Customs Organization
WeBOC	Web-Based One Customs information System
WTO	World Trade Organization

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[GOVERNMENT OF PAKISTAN
(REVENUE DIVISION)
FEDERAL BOARD OF REVENUE
(CUSTOMS WING)

CONSULTANCY SERVICES FOR:

Consolidation of Frameworks for Central Risk Management System and Post Clearance Audit through comprehensive
Business Process Mapping and Business Process Re-Engineering of Core Business Processes of Pakistan Customs Service (PCS)

I. Introduction

1. **The Pakistan Customs Service (PCS) under the Federal Board of Revenue (FBR) has been pursuing an ambitious reform and modernization agenda since the past few years**. These reforms have involved digitalization of the customs processes and procedures, legal and tariff reforms, changes in the organizational setup and creation of specialized offices for different customs related operations. Since 2018, the World Bank (WB) has extended technical assistance under UK Aid's sponsored Trust Fund for Accelerating Growth and Reforms (TAGR) initiative to enable PCS to embrace international good practices and standards. Under TAGR several activities were conducted with support from WB that enabled PCS to finalize the 5-year strategic plan 2018-2023. This plan aims at transforming PCS into a world class organization. Currently under World Bank funded 'Pakistan Raises Revenue (PRR)' project and UK's Foreign, Commonwealth and Development Office (FCDO) sponsored 'Revenue Mobilization Investment and Trade Program (ReMIT)' technical assistance (TA) is being extended to PCS for reforms and modernization especially for consolidation of its frameworks for central Risk Management System (RMS) and Post Clearance Audit (PCA). Central to this reform and modernization initiative is a Business Process review and Re-engineering (BPR) activity to transform service delivery of PCS through comprehensive and well-orchestrated automation. This service delivery covers efficient fulfilment of national mandate of PCS which includes improved trade facilitation while ensuring efficient compliance of duties and tax obligations at the borders. The intended reforms are envisaged to cover reform and modernization of PCS's core functions.

2. **Technical Assistance for Consolidation of Central Risk Management System and Post Clearance Audit Programs of PCS:** The central RMS & PCA programs are integral parts of compliance cycle of any customs administration. Both these programs have cross functional linkages and dependencies on other core customs functions. In case of PCS, the RMS and PCA need complete transformation, preferably using digital technologies, for producing better analysis and targeting capabilities. This leads to enhancement of controls which in turn improve compliance levels, enhance transparency in cross border trade and improve revenue yields throughout the economy. The World Bank funded Pakistan Raises Revenue (PRR) initiative envisages comprehensive restructuring of the RMS and PCA frameworks in PCS which is predicated on a thorough analysis of the existing processes, legal and procedural framework, enforcement mechanisms, and technical capabilities. Business Process Mapping (BPM), Analysis (BPA) and subsequent Re-engineering (BPR) of the core functions of PCS from a people, processes and technology perspective, therefore, are a pre-requisite for achieving meaningful results in this area. These BPM & BPR activities will help suggest procedural and policy interventions in core customs processes to strengthen RMS and PCA capabilities, identify data and information requirements for enriching system based predictive and deductive analysis of risks, and develop a holistic approach between pre-clearance, clearance, and post clearance functions and processes. A critical outcome of the activity will be the functional and technical up-gradation of the WeBOC system using technology like Artificial Intelligence, Machine Learning and Big Data etc. and will be crucial in integrating the Non-Intrusive Technology in the process flows. For World Bank

investment in technology intensive hardware/software, the BPM and BPR of the core customs functions informing and enriching the RMS and PCA platforms is thus crucial.

3. **The PCS has implemented good practices including a sound Information and Communication Technology (ICT) based Customs Management System known as WeBOC which has indigenously been developed in collaboration with FBR's subsidiary Pakistan Revenue Automation Limited Company (PRAL)**. Since its launch in 2011, Customs has gradually been adding features to Web Based One Customs (WeBOC) information system which now enables PCS to clear 95 percent of the imports, exports and transit trade cargo at all ports and majority of border crossings. In fiscal year 2020-21 WeBOC enabled Pakistan Customs to collect almost 50% of the FBR's total annual revenue which includes collection of customs duties as well as domestic taxes such as sales tax and advance income tax on imports at the borders. The system incorporates many features of modern customs system such as electronic submission of manifests, paperless processing and assessment of customs declarations, a central risk management system (RMS), tariff management system, e-payments, electronic data interchange with port terminals, electronic records, user logs, and audit trails. Despite significant success in providing better services to the traders and other stakeholders insofar as customs clearance is concerned, WeBOC has suffered from a persistent resource constraint, mostly on the ICT side, which has adversely impacted its ability to include new service features/modules, and to upgrade its technical and functional architecture to keep up with the changing trends in Customs and ICT technology. Several core customs functions such as Post Clearance Audit (PCA), international transits, export-oriented schemes, guarantee management system, and others require significant improvement to maximize WeBOC' s potential benefits to all users while modules for several other customs functions such as Advance Rulings, Authorized Economic Operators (AEO) program, the International Transport of Goods Convention (TIR), pre-arrival processing, manifest clearances, laboratory management, e-commerce, auctions and recoveries, etc. need to be developed and implemented.

4. **The efficacy and efficiency of the RMS deployed by PCS is quite low however, leading to high level of inspections (i.e., 40 percent on average) but a low hit rate (i.e., 2 percent on average of findings)**. The low efficacy of the RMS is due to insufficient data to identify and manage the risks and increases chances of revenue slippage as well as alleviates human intervention which reflects adversely on PCS efficiency. Pakistan currently ranks at 111 under Trading across Borders indicator of the World Bank's survey report 2020 on Ease of Doing Business. This situation is further complicated by low level of integration of cargo control technology and non-intrusive inspections to efficiently manage cross border trade and its inability to record inspection results. Accordingly, the development of an integrated risk management system is critical to PCS's success. In addition, the Post Clearance Audit (PCA) performance is affected by the same lack of data elements that should be captured in the clearance and registration stages, limiting the PCA and RMS teams to do consistent and systematic compliance analysis at the border as well as post entry.[1]

II. Pakistan Single Window

5. **Pakistan is required to establish trade related 'National Single Window' (NSW) as a 'Category C' commitment with an implementation timeline of five years with effect from 22nd February 2017 under VVTO's Agreement on Trade Facilitation**. The GoP has notified Pakistan Customs as the 'Lead Agency to implement Pakistan Single Window (PSW) program to transform the overall management of external trade[2]. The GoP has also promulgated the PSW Act, 2021 to enable PCS for implementation of this program. The PSW program is a collaborative effort led by customs but

1 See WB May 2021 "The Role of Post Clearance Audit in Pakistan's Revenue Generation and Trade Facilitation Data Driven & Risk-Managed Compliance" report.

[2]Source: FBR Newsletter April 2021 accessed at https://downloadlibr.gov.pk/Docs/2021491544333430FBRNewsletterAprill.pdf on August 10, 2021

involving multiple publics, and private sector stakeholders including regulatory authorities, traders, freight forwarders, banks, terminal operators, and transporters etc. The PCS has established a dedicated PSW Company (PSWC) to develop and operate the PSW system in Pakistan. The PSWC employs IT experts from market as well as domain experts from Customs and other regulatory agencies on deputation basis to design and implement PSW system.

6. **The PSW is an electronic facility that will allow parties involved in trade and transport to lodge standardized information and documents with a single-entry point to fulfil all import, export, and transit-related regulatory requirements**. The PSW will primarily serve as a platform for integrating Customs and regulatory clearance of import, export and transit goods and is predicated on a harmonized and coordinated approach towards cargo reporting, management, and clearance procedures. In addition to customs clearance the electronic processing of licenses, permits, certificates and other (LPCOs) regulatory documents mandated by national and international laws, e-payments, and integrated risk management involving joint inspections, the PSW system will also include electronically integrated platforms for cargo processing and management in the form of port community systems implemented at all seaports, air freight units, international border crossings and dry ports. These platforms will enable real time exchange of information amongst other stakeholders connected to international trade such as port operators, ground handling agents, freight forwarders, transporters, and shipping agents etc. and will maximize the potential benefits of the PSW system. Upgraded Customs Management System i.e., WeBOC, LPCO module, port community systems, and Trade Information Portal form components of the overall PSW offering which will be expanded overtime to include other trade related services on B2G and B2B basis.

7. **The PCS through PSWC has already initiated efforts to comprehensively overhaul the management of cross border trade**. This includes mapping, simplification, and automation of trade related business processes of Customs and 74 Other Government Agencies (OGAs) which regulate cross border trade. Since WeBOC forms core of the PSW, integration with WeBOC is a top priority, however, this will require modification and transformation of some of the existing WeBOC modules to ensure a seamless integration with PSW. This modification has its challenges since international trade operations of PCS cannot be disrupted as PSWC undertakes WeBOC modification. The continuous expansion has made WeBOC a big monolithic structure - working as a non-modular system that lacks architecture level documentation as well as sound design. Secondly, mere integration with WeBOC will not optimize PSW benefits for trade if the existing systems are not reviewed and re-engineered to align them with international good practices. In addition to functional up-gradation, WeBOC needs immediate technological up-grade to transition it from Dot Net technology that has now become obsolete.

8. **Cognizant of these requirements, the PCS has re-organized WeBOC' s IT operations while replacing PRAL with the PSW Company (PSWC)**. The PSWC has also set up a team for transformation of WeBOC system including its technology up-gradation. As such all future WeBOC related interventions need to be closely planned and synchronized with the domain team of the PSWC which is currently pursuing functional and technical changes necessitated by integration with the PSW system to cause minimum disruption to international trade and revenue collection efforts of the FBR. While PCS is leading the BPM and BPR of OGAs under PSW program it is cognizant of the need to also conduct a comprehensive end to end BPM and BPR activity to align Customs with the international good practices and the PSW environment

9. **The intended reforms are envisaged to cover reform and modernization of PCS's core trade related functions especially RMS and PCA to enable a seamless integration of processes and systems to the PSW platform**. The integration looks forward to strengthening and reinforcing of the support functions, and digitalization of customs enforcement functions with focus on anti-smuggling operations and related procedures having as a pillar the risk management function. The integration

of the PCS information systems with the PSW demand a comprehensive BPM and BPR to achieve the desired objectives contributing the country's competitiveness and Domestic Revenue Mobilization (DRM). To do that under the PRR component 2, PCS in conjunction with the PSW are requesting the consultancy services for BPM and BPR of core business process of PCS which will enable implementation of RMS and PCA related frameworks as per international best practices and national requirements. These terms of reference present the vision, objective, scope, and other requirements to guide interested international companies in supporting this key activity for the modernization of the PCS in Pakistan.

II. Vision

10. **Building on the reform and modernization work already undertaken while leveraging the Pakistan Single Window Company the PCS aims to become a data driven risk-based modern organization which is capable to efficiently protect Pakistan's citizens and economy.** It will do so through effective program delivery, trade facilitation and enforcement activities that ensure Pakistan's safety, competitiveness, and revenue collection. As a world class customs service, the PCS will use data to identify risks and trends, measure compliance with laws and regulations, and take appropriate action based on data driven decisions. Further, the PCS will leverage information and communication technology as well as automation to ensure that modern technologies are applied to all border controls for enhanced security, improved compliance while capturing reliable trade data. Through implementation of modern central RMS and PCA frameworks the current practice of applying controls at front end often with human intervention can be shifted to the back end at borders and ports thereby enhancing efficiencies for all stakeholders. As a result, traders would experience a streamlined border process, quicker release times, reduced costs, and the ability to compete on a level playing field e Government of Pakistan (GoP) will benefit from a growing and documented economy that supports enhanced revenue yields.

III. Objectives

11. **The objective of the consultancy is to support the PCS's modernization efforts through an extensive mapping of "AS-IS" business processes and to re-engineers and propose a set of "TO-BE" business processes covering all its core functions simultaneously leading to the transformation of its central RMS and PCA frameworks in a consolidated manner**. This will be done through an extensive BPM and BPR exercise in consultation with PCS and relevant, government and private sector stakeholders and organizations. Critical to this initiative is the identification of new business processes that will declutter the border, reduce dwell times and reduce trader's costs of international trade all while increasing its capacity to identify and manage risks of non-compliance. This effort should also identify appropriate data elements required to enable an effective central risk management system through a strategy of using centralized data and a wider array of risk rules in line with developed systems deployed in other successful Customs Administrations. The PCS will enhance efficiency of its service delivery through transforming its PCA related capabilities. Where needed the Integrated Risk management framework and BRS developed under PSW may also be leveraged for this purpose.

12. **As the control of goods is essential to custom's border management, this initiative should further consider the processes of entry and exit of goods including the use pre-arrival information and non-Intrusive Inspection (NII) equipment and integration, central RMS, and PCA**. All reforms should be trade facilitative and promote compliance. As Customs laws, rules and regulations are increasingly complex they require special attention and knowledge to ensure that traders benefit from government concessions while paying the appropriate amounts of duties and taxes. A strong PCA function will measure compliance, support self-assessment, and properly assess the duties and taxes to be paid while ensuring future compliance. Based on the work done, the consultancy will develop a transition plan and implementation road map towards the 'To Be' status while identifying underlying legal, structural, Human Resources (HR), and administrative interventions along with training needs

for the related PCS workforce. The consultancy shall also develop Business Requirement Specifications (BRS) and System Specification Requirement (SRS) documents required for software development. The financial estimation of the adoption of the "To-Be" processes also be provided along with estimations of benefits and savings for the trader as well as PCS.

IV. Reference Documents

The consultancy services will consider the listed documents and also consult the PCS and PSW teams about their latest versions as per **Annexure-A**.

V. Tasks and Activities (Performance Requirements)

13. The service will cover following tasks and activities but not necessarily restricted to the following:

1. Functional Architecture

a. **Phase I** — Review and Benchmarking of Current Operating Model:

1. Enable Process Management Framework

i. Define the BPM Methodology to be implemented for PCS to re-engineer the processes and procedures. The convention manual should be available to define the nomenclature of processes, policies, procedures, and related legislative documents.

ii. Draft Guidelines for policy and SOP design and development, forms and template design requirements and relevant governance model (or validation of an existing template to define as the standard).

iii. Carry out consultations with Business Application Users (Customs, trades, Customs agents, shipping companies, terminal operators, and other relevant stakeholders) using the above referred foundational documents, to identify and gather users' requirements, design solution architecture, undertake revised BPM activity, and develop functional specifications as well as technical documents.

iv. Identify and document the core AS-IS Process Architecture and Landscape. The maps should be linked to the functions, services, and applications from end user (trader/clearing agent) perspective (customer journeys) and G2C, G2B, G2G interactions.

v. Draft process maps shall be developed up to level-5 or equivalent (according to BPM standard or equivalent) and shall include key references such as the legal or regulatory basis for each process, key actors/stakeholders, estimated time for completion, main data elements, output/outcome, estimated monetary costs, and others. The mapping should also identify critical parameters for audit trails, key performance indicators and in general for reporting for accountability and transparency. The consultancy will include all process key areas/components as identified in **Annex-B**.

vi. Draft all data elements and type (text, numeric, alphanumeric) used in transactions and propose removal or redundancy of data input.

vii. Identity data harmonization/standardization opportunities as per international standards (or their equivalent) such as the United Nations Trade Data Element Directory (UNTDED, ISO 7372), 'WCO Data Model NSW Data Harmonization' guidelines, and National Trade Data Elements Dictionary developed by PSW based on the list so compiled in the previous exercise.

2. Conduct Benchmarking, Gap Analysis and Recommendation based on Good Practices

i. Identify gaps taking into consideration elements such as applicable laws and regulations, beneficiary's requirements and expectations, risk impact, cost and time factors, existing technologies as well as other relevant elements using WCO recommended standards or

equivalent and good practices as reference points. The gap identification and/or measurement must be evidence-based.

ii. Benchmark processes and technology with at least three other countries who are known to have robust, modern, and technology-data driven Customs Administrations dealing with comparable level of complexities. The benchmarking process should be accompanied with a summary of general lessons learned including change management lessons learned.

3. Develop templates for implementation

i. Build the Policies and Procedures Template.

ii. Build the SOPs template.

iii. Build the Required Training Template.

iv. Build the Manpower Activity Control Process to support manpower analysis.

b. **Phase II** — Business Process Re-engineering & Propose New Operating Model 1. Process documentation and validation:

i. Draft a recommended model for each process after considering necessary business process re-engineering to ensure alignment of each process, data, and information requirements with PSW/WeBOC technical architecture.

ii. Identify and list down role of each stakeholder in relevance to customs operations and create 'stakeholder maps' detailing every stakeholder associated directly or indirectly with the BPR.

iii. Draft a detailed functional requirements and development artefacts such as workflow diagrams, business rules, data mapping spreadsheets, and/or wireframes for the revised processes, data flow diagrams and messaging exchange protocols with stakeholders, and others.

iv. Develop Unified Modeling Language (UML) diagrams such as Use Case, Activity and Sequence Diagrams.

v. Catalogue specific business and system requirements for each process/component.

vi. Facilitate and document consultation sessions for the approval and validation of their business and systems requirements by stakeholders.

vii. Coordinate with PCS and PSW transformation team to align system requirements.

viii. Integrate reengineered business processes into an operative BPMS tool.

ix. Provide training and knowledge transfer to PCS and PSW staff on the use of the BPMS tool.

14. **The services will be harnessing the power of technology and innovation to improve service delivery of PCS**. The TO-BE processes may be devised to utilize appropriate technologies such as Internet of Things (lo T), Artificial Intelligence, Data Analysis, Block chain, Robotics Process Automation, advanced detection technologies, tracking movements of goods, use of drone for surveillance, use of Non-Intrusive Inspection (NII) equipment and others. The service will produce full Solution Design document that can be transferred into a complete transformation.

2. Operational Governance

a. Define new or validate the existing Key Performance Indicators (KPIs) at the level of each function and process across Core, Support and Executive categories. For each metric, ensure that the desired targets, measuring methodology and data collection mechanism are clearly articulated.

b. Implement a methodology to specify accountability at the level of each function and process (e.g., Responsibility Assignment Matrix (RACI) framework). The exercise must strive to clarify who is responsible for a given function or process, who is accountable for implementation or execution, who will be consulted along different steps of a given process and what entities will be informed of progress or outcome.

c. Ensure that process-relevant procedures and manuals are compliant with all required regulations.

d. Recommend the Delegation of Authority (DOA) Matrix for key process related decisions.

3. Change Management

a. Draft a change management strategy to implement and facilitate the BPR framed by the key objectives of each BPR to achieve including training and extensive communication with stakeholders and FBR, PCS, and PSW staff.

b. Design Change management solutions to cover important components such as but limited to:

   i. Draft a Change Management Communication Strategy and implementation plan.

   ii. Draft a Training Need Analysis (Capacity Building) for FBR, PCS, and PSW.

   iii. Drafts a Develop Training Manuals for FBR, PCS, and PSW.

   iv. Conduct series of workshops with all relevant stakeholders to walk them through the newly developed functions, and/or Processes and Procedures to ensure that their needs/objections are covered, and they agree. All communications and consultation with all stakeholders should be properly documented to ensure the BPR has covered all stakeholder expectations and disagreements have been addressed.

c. Draft and conduct a Change Impact Assessment to identify main constrains and champions to boost the change management process including:

   i. Change due to the BPR.

   ii. Change due to a new Regulatory Measure/ Legislation.

   iii. Change due to the introduction of new Technology.

   iv. Change due to people resisting change.

   v. Change due to alignment with PSW and its other projects (TIPP, PCS, ITMS, and others)

d. Draft and define the Change management strategy and plan for the PCS based on the Kotter eight step model:

   i. Creating a sense of urgency.

   ii. Establish a strong and senior guiding team.

   iii. Developing a vision and a strategy.

   iv. Communicating the vision.

   v. Removing obstacles.

   vi. Creating short term wins.

   vii. Consolidating gains; and

   viii. Anchoring change in the corporate culture.

4. Project Management

15. PCS in collaboration with the Chief Executive Officer of the PSWC will play a direct role in managing this project; the project management methodology in PCS is in accordance with PMI BOK Latest

Edition, and the PMO Policies and Procedures. The consultancy, under the supervision of PCS Team, will develop and maintain the following:

a. Draft a Project Charter.
b. Draft a Project Management Plan.
c. Draft a Complete Scope Management Plan including Work Breakdown Structure (WBS).
d. Draft a Complete Schedule Plan.
e. Draft a Complete Cost Management Plan (Defining what we have already completed).
f. Draft a Complete Quality Management Plan.
g. Monitor progress of the project against the baselines (PCS and Contractor).
h. Identify and manage project related risks and issues in a timely manner and monitor the control elements to ensure no risk will cause project failure.
i. Provide the required feedback with regards to the project progress to the PCS appointed project Manager/Single Point of Contact.

16. **The consultancy should propose a detailed timeline and sequencing of activities indicating the number of required resources to implement the BPM and the BPR**. The service will present the BPR proposal in a format that will be provided by PCS and ready to be automated. This is to facilitate the automation of the BPR considering the way the FBR develops and implement automated business processes. It is expected that through the format, FBR will be ready to automate and pilot the BPR in accordance with the proposed sequencing of the BPR.

17. **The consultancy should advise PCS on the benefits and various technical approaches of implementing enterprise architecture (e.g., TOGAF, Zachman, Gartner, etc.)** as an institutional tool for strategy implementation, including their strengths and weaknesses and appropriateness for and application in Pakistan Customs. The goal of this task is to introduce PCS to the methodology and ensure that PCS is properly informed about various approaches to enterprise architecture and how to implement it including communication, education, and training.

VI. Business Processes Mapping Software (BMPS)

18. **The consultancy as part of its proposal will include a set of BPMS solution to carry out and document the BPM and BPR indicated activities and deliverables including the number of required licenses for project implementation**[3]. The consultancy should evaluate different BPMS solutions and recommend to PCS and PSW feasible options to make them sustainable including the knowledge transfer. **Annexure-C** describes the indicative features and capabilities of the BPM software to be used to support and carry out the consultancy. The software shall be [4]procured by the consultants during currency of the contract and The ownership of this software will be transferred to Client towards the end of contract in an orderly manner ensuring that technology transfer aspects have been agreed and executed before the transfer.

VII. Deliverables

19. The following table describes the deliverables and the expected time for their completion:

[3] 1. The estimated number of licenses is as follows: 2 BPM Architects, 5 BPM Designers, 50 - 70 Concurrent Viewers with simulation for PCS staff to be working during the project implementation and subsequent regular operations.
[4] The consultants will ensure that provision is made at the time of procurement of software about eventual transfer of software to Client (i.e., FBR) and the price of the software thereof is included in the Consultancy.

Table #1: Main Deliverables

No.	Phase/Activity/Deliverable 1/	Estimated Timeline
1	**Phase 1 - Inception Report**	45 days
	1. Review and Benchmarking of Current Operating Model	.
	a. Process Management Framework	
	b. BPM Methodology Document	
	c. Process Architecture Document	
	d. Conventions Manual Document	
	2. Study and Review Current Organization	
	a. Pakistan Customs Organization Chart	
	b. Roles & Responsibilities	
	c. Application List	
	d. Policies, Procedures' list	
	e. High-Level Strategy	
2	**Phase 1 - Review and Benchmarking of Current Operating Model**	90 days
	1 Process Landscape	.
	a. Capabilities Structure Document	
	b. Function Allocation Diagram	
	c. Validated 'business process maps' including legal or regulatory basis, transaction volume and completion times for every stakeholder associated directly or indirectly with PCS;	
	d. End — to — End Process Chain	
	e. Customs Journey Mapping	
	f. Service Tree Mapping	
	g. Service Card	
	2. Benchmarking & Gap Analysis	
	a. PCS process, policies, and procedures gaps against WCO standards & Good Practices	
	b. Benchmark processes and technology with at least three other countries who are known to have robust, modern and technology driven Customs Administrations dealing with comparable level of complexities	
	c. Gap Analysis Report with Benchmarking, Good Practices and Standards against PCS processes and technologies.	
	d. Improvement Plan & Recommendation Report	
	3. Templates for implementation	
3	**Phase II — Business Process Re-engineering & New Operating Model**	180 days
	1. Completed business requirement specification document for the PCS as per defined scope above	
	2. Solution design that documents the architectural design of the PCS including all core processes and integrations as per defined scope;	
	3. Completed System Requirement Specification (SRS) document for the PCS as per defined scope;	
	4. Process Manual	
	5. Policy and procedure manual	
	6. Process Analysis Card	
	7. Delegation of Authority Matrix	
	8. Reengineered processes captured and integrated in an operative BPMS tool.	
	9. Knowledge transfer of the BPMS tool to PCS and PSW selected staff.	
4	**Operational Governance**	210 days
	a. KPI List	
	b. Audit Points	
	c. Operational Risk	

No.	Phase/Activity/Deliverable 1/	Estimated Timeline
5	**Change Management**	230 days
	a. Communication strategy and plan.	
	b. Training Need Analysis (Capacity Building) for PCS	
	c. Develop Training Manuals for PCS	
	d. Conduct awareness workshop on the change impact to re-engineered processes	
	e. Change due to alignment with PSW and its other projects (TIP, PCS, ITMS etc.)	
6	**Final presentation to Customs on the consolidated central RMS and PCA frameworks**	**242 days**
7	Project Management	50 days
	a. Project Charter	
	b. Project Management Plan (including all sub-plans as per PMI PMP BOK ED.)	
	c. Project progress updates and dashboard	
	d. Change Management Requirements	
	e. Risk and Issue log	
	f. Deliverables Tracking Updates	
	g. Quality Tracking Updates	
	h. Lessons Learned	

1/ All activities and deliverables included in this table should be read together with point V. of the tasks and activities description to complement the scope and content of the deliverables pointed out in this table.

VIII. Estimated Period for completion and Delivery

The duration of the consultancy is 11 months from the date of signing of contract.

IX. Reporting and clearance

a. The selected firm will report to the Project Director (PSW), Federal Board of Revenue, Islamabad being the focal person from PCS for this activity, however, the operational counterpart for all practical purposes will be the Chief Executive Officer of the PSWC or any officer assigned by the CEO.

b. The consultancy service will report and coordinate with PCS focal point for implementing the consultancy service activities and will mobilize the necessary consultancy resources to deliver the deliverables of Table #1.

c. The deliverables produced under the consultancy service will be validated by PCS staff and submitted to the PD PSW after technical sign-off of the CEO PSW or their authorized nominee

d. All deliverables produced during the consultancy will be the intellectual property of PCS and may not be shared with external stakeholders without express authorization from PCS.

X. Qualifications

a. The consulting firm must have demonstrable post-registration experience of at least ten (10) years in undertaking and successfully executing similar reforms in customs administrations in other countries.

b. The consulting firm must have experience of working with complex, multi-system environments including data extraction and interfaces system and process architecture, troubleshooting, reengineering and process mapping and use of BPMS.

c. The consulting firm must have experience of operations of Customs or comparable ICT systems either on its own or in partnership with others.

d. Demonstrated experience of having conducted comprehensive BPM and BPR and BPMS for at least two Customs administration among WCO members.

e. Expertise in implementing process diagramming as per the Business Process Model and Notation (BPMN) standard.

f. Having in depth knowledge of WCO conventions specially Revised Kyoto Convention, WCO Risk Management guidelines/compendium, Post Clearance Audit guidelines and Time Release Study methodologies and the WTO's Customs Valuation and Trade Facilitation Agreements.

g. Team proposed shall be as follows (CVs not required at shortlisting stage):

No	Key Expert	Qualification	Experience
1.	Team Lead – Customs BPR	Master's in Trade Facilitation, Customs, Economics (minimum 16 years of education)	Min. 20 years of experience in Customs, Ports & Border Management Process Re-engineering with proven track record of managing large and complex BPR/BPM projects with large customs administrations.
2	Lead Business Process Expert	Masters (minimum 16 years of education) in Engineering, Business Administration, Social Sciences, Information Technology.	15 years' experience in leading Business Process Management team, Process Re-engineering, Enterprise Architecture, Process Designing, workflow related to trade, customs and other OGAs.
3	Customs BPM Expert – Risk Management	Master's (minimum sixteen years of education) in International Trade, Development Economics, Customs, Supply Chain.	12 years of experience in designing the Risk Management Framework
4	Customs BPM Expert – Business Intelligence	Master's(minimum sixteen years of education) in International Trade, Transportation or other related field	12 years of experience in designing the business processes and workflow of Inspection, Intelligence, Case Management, Adjudication, Post Clearance Audit and Auction etc.
5	Customs BPM Expert – Integration	Master's (minimum sixteen years of education) Business Administration, Customs, Supply Chain. International Trade	12 years of experience in Customs and Trade Facilitation with key focus on developing integration / touchpoints of various systems and process linkages such as Customs system integration with Pakistan Single Window, Tariff, Risk Management, Port

			Community System and with other trade bodies/stakeholders.
6	Customs Expert – Best Practices and Standards	Master's(minimum sixteen years of education) in International Trade Business Administration, Customs, Supply Chain.	12 years of experience of Digital Customs, Reforms & Automation, Customs best practices, WCO Standards and the implementation in future business processes of Pakistan Customs.
Non-Key Experts			
1	Change Management Expert	Master's degree in Strategic Management / Project Management or Engineering	10 years of experience in Change Management w.r.t to impact of change due to people, process technology and Regulatory/Legal changes due to Process Re-engineering activity. Develop awareness workshops on the change impact and to provide training on change management
2	BPM Architect x 2	Bachelor's degree with Certification in BPM, Lean Six Sigma, BPR	7 years of experience in designing architecture view of Future Customs Process Landscape.
3	BPM Designers x 5	Bachelor's degree with Certification in BPM, Lean Six Sigma, BPR	7 years of experience in design and map processes, using BPM tools as per the enterprise architecture definition.
4	Project Manager	Master's in Management with certification in Project Management such as PMP.	10 years of experience in managing large and complex change management / BPR Government reforms and modernization projects / programs worldwide.
5	Legal Expert	Master's/Bachelor in Customs duty and Taxation Law, Legal, Supply Chain.	12 years of experience of practicing local Pakistan Customs Laws. Must be professional in FBR regulatory framework, Customs Act, PSW Act etc. Should have excellent knowledge and understanding of International Customs Laws, Ecommerce, Cross Border Trade Agreements such as FTA, MRA etc.

XI. Selection Process

20. A consulting firm will be selected in accordance with Quality and Cost Based Selection method set out in the "World Bank Procurement Regulations for IPF Borrowers (July 2016) Revised November 2017 & August 2018 www.worldbank.org/procure.

Annex-A: List of Reference Documents

a) Customs Act 1969 and allied notifications.

b) Pakistan Customs Rules.

c) Customs General Orders.

d) Pakistan Single Window Act, 2021 and allied notifications.

e) PSW consultancy reports, including USAID and WeBOC diagnostic studies.

f) All artifacts prepared by PCS under the PSW program.

g) The DIAMOND report of March 2018.

h) 5-year Pakistan Customs strategic plan.

i) WeBOC functional review report of June 2018.

j) A note on the role of Customs on revenue collection June 2018.

k) BPM report of June 2018.

l) Pre-Arrival and pre-clearance draft procedure.

m) PCA vision.

n) Draft of a Risk-Based approach to Compliance.

o) Customs Manuals prepared with the help of USAID-PREIA.

p) Customs five-year Strategic Plan 2019-2023.

q) Relevant international instruments like the Revised Kyoto Convention, The Agreement on Implementation of Article VII of GATT, the WTO Bali Trade Facilitation Agreement, and the WCO SAFE Framework.

Annex B: Scope of the Activity

The scope of this initiative is important to its success. As it is not possible to map every single process, priorities must be set.

General Framework

Developments in the Information & Communication Technology arena has made the centralization of data possible and should be reflected in a stronger PCS HQ function. In this sense, these TORs consider that the improvement of the central RMS and the PCA functions will be the main drivers of the BPR. To do so, the key question to answer through the BPR will be what kind of data elements are needed to get an enhanced central RMS where the data can also be analysed in different ways depending on the data itself. e.g. must be able to seperate a formal importer from an informal one, must be able to identify an Authorized Economic Operator (AEO) participant from a formal importer etc. Hence, does the current central RMS have enough data, information, and capacity to identify and process risks to determine how they are treated in a systematic and comprehensive manner at each of the following stages:

a. **Pre-Arrival.** Map the business processes and identify the data elements, sources of information and reception requirement timelines that a central RMS needs to be effective and efficient. This will include the role and integration of entry-exit cargo control and Non-Intrusive Inspection (NII) technology. Map the main actors and stakeholders and describe their role in the process. This includes a review of the registration process for all actors, including those in the single window or at the FBR and ensure it is efficient and aligned with the Pre-Arrival process as well as compatible with FBR systems. Identify clearly who is the main owner of the process. Identify the main objective of the BPR including numerical estimations in the reduction of costs and dwell time realized by the BPR once implemented. The recommended process should be functional for any cargo arriving at all Karachi terminals regardless of type of customs operation (imports, transit, transshipment or other). It will be important to clarify how NIIs play a role in Pre-arrival and Pre-clearance as these imply that the goods are not available for scaning.

b. **Pre-Clearance.** Map the business processes and identify the data elements, sources of information and reception requirements timelines that a central RMS needs to be effective and efficient. This will include the role and integration of entry-exit cargo control and Non-Intrusive Inspection (NII) technology. The map should reconsider the whole inspection process. Not only NII. (methods, locations, actors etc.). Map the main actors and stakeholders and describe their role in the process. This includes a review of the registration process for all actors, including those in the single window or at the FBR and ensure it is efficient and aligned with the Pre-Clearance process as well as compatible with FBR systems. Identify clearly who is the main owner of the process. Identify the main objective of the BPR including numerical estimations in the reduction of costs and dwell time realized by the BPR once implemented. The recommended process should be functional for imports, transit, and transshipment. It will be important to clarify how NIIs play a role in Pre-arrival and Pre-clearance as these imply that the goods are not available for scaning.

c. **Clearance.** Map the business processes and identify the data elements, sources of information and reception requirements timelines that a central RMS needs to be effective and efficient. This will include the role and integration of entry-exit cargo control and Non-Intrusive Inspection (NII) technology. Map the main actors and stakeholders and describe their role in the process. Review the registration process of all actors is included in the single window or at the FBR and ensure is efficient and aligned with the Pre-Clearance process. Identify clearly who is the main owner of the process.

Identify the main objective of the BPR including numerical estimations in reduction of costs and dwell realized by the BPR once implemented. The recommended process should be functional for imports, transit, and transshipment.

d. **Post-Clearance.** Understood as post release, after duty and taxes are paid, cleared by customs but could be still in port. Map the business processes and identify the data elements that a central RMS needs to be effective and efficient. This will include the role and integration of the Non-Intrusive Inspection (NII) technology. Map the main actors and stakeholders and describe their role in the process and their specific needs from the RMS. Identify clearly who is the main owner of the process. Identify the main objective of the BPR including numerical estimations in reduction of costs and dwell time whether the BPR will be implemented including the compliance follow up of other actors as customs brokers, storage facilities, shipping companies, etc.

More than 80% of Pakistan international trade is done thought four port terminals at Karachi. Each of these terminals has different layout, infrastructure, and location limitations that, on many occasions, result in different clearance processes by PCS. This should be considered and, in as much as possible, seek to standardize all the reengineered processes and, if needed, recommend modifications of the infrastructure that could generate substantial efficiencies in the execution of the processes. These recommendations should be practical and achievable. Nevertheless, it is important to note that Customs is not totally in control of the sea ports and that consultations will be required with the port authorities. In case airports are included, the standardization of processes along all airports should be also required and ensured.

A central input for the risk management process and for control over all phases of the clearance process is the clear identification and management of all actors. The adequate registration of importers, exporters, customs brokers, shipping companies, authorized storage facilities, duty free shops, among others, in any customs operation is fundamental to create adequate risk profiles. The Inland Revenue wing in FBR is the core agency for revenue collection on behalf of the Government of Pakistan in charge of the registration of all taxpayers. Registration is the first step in the risk management of all customs stakeholders. As part of its strategic plan, PCS seeks alignment and a smooth flow of information with the Inland Revenue process to attain an effective PCS central risk management system. Currently, integration with Customs is weak. Furthermore, the Single Window project has included in its scope, certain registration steps that require effective integration with PCS.

Detailed Scope

The activity shall include all customs processes broadly categorized into the following thematic areas:

a. Risk Management
b. Post Clearance Audit
c. Registration and Licensing
d. Entry-Exit Cargo Control
e. Imports
f. Exports
g. Support Operations including Auctions, Adjudications, Enforcement, HR etc.

The transformation and modernization of central RMS and PCA frameworks in a consolidated manner cannot be achieved in isolation unless other core functions and allied areas in PCS, as listed above, are also up-graded. For greater clarity, scope for each of the above mentioned areas are explained as below:

Risk Management System

The service for mapping the central RMS data elements should consider:

a. Risk profiles of all registered traders including the existence of: (1) traders/taxpayers/brokers/shipping companies/terminal operators current accounts to evidence the status of duties and tax obligations; (2) the physical or commercial existence of the taxpayer and/or company through exchange of PSW, this exchange of information needs to be systematic, opportune, meaningful, and automated; (3) systematic feedback from physical and documentary inspections outcomes and findings; (4) systematic feedback from PCA outcomes and findings; (5) systematic feedback from IRS audit outcomes and findings; (6) systemic feedback from criminal investigations conducted by Customs in connection with smuggling, documentary fraud, money laundering or, other cognizable offences and (7) use of duties and tax exemptions, (8) systematic use of data from banks profile under PSW (9) use of data available under PSW from OGAs
b. Use of RMS at different stages of clearance from pre-arrival to post clearance.
c. Risk profiles for authorized goods: (1) list of HS codes; (2) list of forbidden goods; (3) list of dangerous goods; (4) list of goods subject to duties and tax exemptions; (5) systematic feedback from physical and documentary inspections outcomes and findings; (6) average value defined by the sales price; (7) origin of the goods; and (8) number of ports before arriving to the country.
d. Identification of external data providers and roadmap for using such data as well as usage of data through integration with upcoming international block chain based platforms to improve efficacy of RMS.
e. Improve risk assessment ability by leveraging advanced analytics and shared data across government and international service providers to introduce system_ based assessments through assessment bots. This will allow holistic risk evaluations of traders and passengers that better secure the border while allowing interventions to be more effectively targeted.
f. Redesign the next generation integrated risk management system using machine learning/Artificial intelligence tools to analyze transaction data using the approach of deductive, inductive, and predictive analytics.
g. Any other Customs RMS related business process or intervention for its enhancement.

Post Clearance Audit

a. The entire process chain for PCA including audit selectivity criteria and mechanism, RMS for PCA, audit methodology etc. shall be reviewed for identification of gaps and recommendations for improvement.
b. PCA organizational structure and HR requirements with Job Descriptions and KPIs
c. Identification of data elements, data items and documents to be utilized for PCA
d. Use of Robotic Processing Arm and Al in PCA
e. Utilization of the integrated risk management system to identify high risk tariff origin and valuation cases along with a compliance strategy to measure and improve compliance. A case management system for PCA should record the audit planning and execution and results. A ruling issued following a PCA verification can be monitored and enforced.
f. Any other PCA related business process – e.g., interest on monies owed, penalties, policy, SOPs, enforcement versus errors, case management software, record integrity, payment & appeal, access to data, a compliance strategy.

Registrations & Licensing

The registration process is required to gather data from the trader and/or service provider to develop a trader profile and an initial risk assessment.

a. Licensing of Customs Clearing Agents
b. Licensing of Shipping Agents
c. Licensing of Bonded Carriers and vehicles
d. Licensing of public and private bonded warehouses
e. Licenses of ground handlers
f. Licenses of port terminals, off-dock terminals, and land border terminals
g. Certification of Authorized Economic Operators
h. Any other licensing related business process/ category handled by PCS

Entry Exit Cargo Control

The control of goods entering and exiting Pakistan is essential to custom's mandate.

a. Transit including under Afghanistan-Pakistan Transit Agreement
b. TIR
c. TP (in-land movement of goods between seaports and in-land dry ports)
d. Inter-port movement
e. International transshipments (all possible iterations which are internationally practiced)
f. Sealing and tracking
g. Any other Customs related business process for transit/transshipment at seaports, airports, in-land dry ports and land border crossings.

Imports

a. Pre-arrival/ Pre-clearance
b. Goods Declaration,
c. Calculation and Payment of duties,
d. Physical examination of cargo/Joint inspection
e. Assessments
f. Exemptions
g. Provisional release of goods
h. Warehousing,
i. Release/exit
j. Business process for the non-intrusive inspection of cargo (before or after Declaration -both within and outside terminals). The service for mapping the NII of cargo should consider: 1) Business process for scanning of cargo (within and outside terminals); 2) the scope and volumes of inspections; 3) the type of technology to be used (existing and to be deployed); 4) the time and location for inspection; 5) the necessary logistic organization 6) the time and location for analysis; 7) the information exchange between WeBOC, NII systems and any other stakeholder IT system.
k. Temporary importation
l. Clearance of bulk cargo
m. Frustrated/Abandoned cargo
n. Manifest clearance,

o. Auctions
p. Advance Rulings
q. Immediate clearance and clearance of perishable goods
r. E-Commerce related imports
s. Any other Customs related business process for imports at seaports, airports, in-land dry ports and land border crossings

Exports

a. Goods Declaration
b. Physical examination of cargo/Joint inspections,
c. Assessment
d. Duty drawback
e. Re-exports and related temporary imports schemes
f. Immediate clearance and clearance of perishable goods
g. E-Commerce related exports
h. Any other Customs related business process for exports at seaports, airports, in-land dry ports and land border crossings

Support operations

a. MIS reports
b. Revenue analysis and forecasting tools, Business Intelligence Tools
c. Trader revenue accounting to provide account statements for all trader financial obligations and payments in accordance with commercial best practices.
d. Recovery of customs dues
e. Guarantee management systems
f. Authorized Economic Operator program with AEO authorization process aligned to PSW technical architecture and capable of integration with other external parties and changes to support simplified clearance for AEOs
g. User Management Systems
h. Enforcement related functions including implementation of a case management application to support investigations and resulting legal actions
i. Auctions of smuggled goods.
j. Adjudications including include a review of the appeal process so that payment of duty and taxes owed are appealed only after they are paid or guarantee deposited.

Annex C: Category Functionalities and Characteristics of BPMS

1. **Identification of processes**
    a. Capture of strategic objectives
    b. Modelling of process map and high-level diagrams (e.g., Value-added chain diagram)
    c. Definition of processes
    d. BPMN Support 2.0 (modeling, import and export)
    e. CMMN Support (modeling of dynamic case management)
    f. Extended documentation of models (descriptions of activities, activities procedures, links to external guides and manuals)
    g. Definition of process and business performance indicators (KPI)
    h. Integration with organization model, external users, and roles.
    i. Graphic modeling of business rules and integration with external business rules management systems
    j. Validation and simulation of processes based on data sources
2. **Design of processes**
    a. Automatic transformation between modeling language and execution language
    b. Synchronization between executable process model and business process model
    c. Creation of service level agreements
    d. Links between performance indicators (KPI) and service levels
    e. Support to errors, exceptions, compensations, and process transactions
    f. Access connectors to internal data sources
    g. Connectors to external service sources and access to external web sites
    h. Support for federal authentication and authorization and PKI
    i. Support to integration with Enterprise Content Management / Document Management System ECM/DMS, Enterprise Application Integration EAI middleware and distributed transactions
    j. Support for the development of personalized connectors
    k. Support for automatic generation of user interfaces and personalization of generic interfaces
    l. Support for prompt development of user WYSIWYG user interfaces
    m. Support to high level modern or no programming languages and scripting
    n. Responsive user interface with latest generation Web standards and frameworks such as CSS3, HTML5, AngularJS, Bootstrap, etc).
    o. Support for the creation and execution of test cases, functional, nonfunctional and regression tests
    p.
3. **Execution of processes**
    a. Support for simultaneous execution of several versions of the same process
    b. Support for integration with corporate portals and interaction from mobile devices
    c. Programmatic API

4. **Administration**
    a. Administration of technical aspects: configuration of connectivity to databases and repositories, errors

b. management, support, and security copies
c. Administration of cases in execution time (begin, pause, cancel, reassign, etc.)

5. Monitoring

a. Reports and generation of alerts due to system and connectivity errors, active connections, response times, etc.
b. Support to active monitoring of activities (BAM - Business Acitivity Monitoring), process mining, and Business Intelligence techniques
c. Scoreboards by process, business area and general.

6. Product

a. Guarantee of local support with levels of service and training of technical team and users that will manage the processes
b. Legal responsibility and indemnity
c. Updates, patches, and alignment with the product's route sheet.

BPMS General Capabilities

1. **Design**
   Document and align corporate strategy with business processes and IT.

2. **Discovery**
   Use process mining to extract process data from operational IT systems (such as 3rd party BPMS etc.) and reconstruct each process from start to finish automatically.

3. **Repository**
   Manage process assets in the extensible method-based and multi-language tool repository and profit from version control, change history and central user management.

4. **Document storage**
   Upload, manage and share process-relevant documents and media content, control access permissions, and integrate to other document management systems etc

5. **Simulation**
   Simulate and dynamically analyze business processes to identify the best way to improve process efficiency and cost effectiveness.

6. **Analytics**
   Identify process weaknesses and problem causes and drill down into process details interactively to analyze Key Performance Indicators (KPIs) via interactive filter components.

7. **Reporting**
   Analyze process information, such as time and costs, through standard and customized ad-hoc analysis and queries.

8. **Publishing**
   Share process information with a flexible and customizable role-based process portal.

9. **Dash boarding**
   Visualize KPIs and data in a context-sensitive, self-explaining, story-telling way.

10. **Collaboration**
    Unlock the power of collaborative process improvement, empowering anyone, anytime, anywhere to collaborate.

11. **Contribution**
    Enable people without business process modelling skills to contribute their expertise to processes by describing, for example, steps, roles, and documents.

12. **Model-to-Execute**
    Align business process blueprints with process execution in 3rd party / open source BPMS.

13. **Test design**
    Reuse defined business processes and design test cases graphically or automatically.

14. **Governance**
    Manage the process of process management based on automated governance processes using a model-driven approach.