Enterprise Resource Planning implementation and review of potential compatibilities within Rome-based agencies

The document provides an overview of Enterprise Resource Planning (ERP) implementations within the three Rome-based agencies (RBAs) and outlines potential compatibility opportunities.

Food and Agriculture Organization of the United Nations

1. The Enterprise Resource Planning in the Food and Agriculture Organization of the United Nations (FAO) is defined as "the ability of the organization to deliver an integrated suite of business applications which automate and support a range of administrative and operational business processes. ERP allows alignment between management corporate vision, business process, and technology and tools that support implementation of processes".[1] As such, the ERP environment at FAO consists of a set of administrative and operational policies, business processes and the information systems that underpin them.

2. In the above-mentioned context, FAO has undertaken a programme of work aimed to ensure that the ERP environment best meets the administrative and operational needs of the organization worldwide. These efforts are underpinned by the outputs of an external study[2] commissioned in 2017 by FAO and carried out by a reputable international specialized consultancy firm in close collaboration with ERP stakeholders and end-users across the organization. The study performed an assessment of the FAO ERP environment and proposed a roadmap for its evolution. The outputs of the study have contributed to the further development of the FAO ERP environment, organized under what can be defined as three main pillars: a) an ERP work plan that aims to modernize and extend the ERP system portfolio as per a defined roadmap; b) a service and support model for both ERP-related functional and technical matters; and c) governance mechanisms that manage the evolution of the ERP environment and related investments by the organization. The study also included an assessment of FAO's ERP "interoperability" particularly with regard to other Rome-based United Nations agencies' ERPs.

3. FAO is currently in the second year of this transformation and progress has been made in all three areas. More specifically:

   a) An ERP work plan is in place at FAO consisting of distinct initiatives and ongoing work needed to ensure both the utility and warranty of the ERP environment. Initiatives (typically funded by the organization's capital expenditure facility), planned and added to the work plan, are mapped to the defined roadmap and rationalized as to tangible benefits, costs (both investment and ongoing), and effect on the overall ERP functional and technical architecture. Ongoing work is planned on a quarterly basis and consists of modifications/enhancements to the ERP setup. Each change is classified to determine its effect on the ERP (improve warranty, ensure compliance, achieve efficiency and effectiveness of operations) and prioritized accordingly.

   The current FAO ERP roadmap foresees the establishment of a hybrid model that will consist of an on-premise ERP suite working in tandem with Software-as-a-Service (SaaS) cloud solutions. As per this approach, the organization will continue to utilize its flagship ERP system, the Global Resource Management System (GRMS), which includes the bulk of the FAO administrative processes in the areas of human resources, procurement, finance and travel, through the foreseeable future (through 2030). The model foresees a steady elimination of custom applications and customizations within GRMS and other ERP systems in order to reduce complexity

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and minimize ongoing support and maintenance costs. SaaS cloud solutions are considered to extend ERP capabilities where appropriate, taking into consideration organizational benefits, service costs and architecture complexities introduced to ensure integration within the overall ERP environment.

b) A large number of ERP related processes at FAO are executed by the Shared Services Centre (SSC) of the organization, which operates out of Budapest, Hungary, with hubs in Santiago, Chile and Bangkok, Thailand. The FAO SSC has undergone a major transformation, initiated in 2016, which has resulted in the centre offering today a wide area of services to FAO employees worldwide in the areas of human resources, finance, travel and payroll based on defined service level agreements and targets.

Support to FAO ERP end-users is provided across various areas utilizing a multi-tier approach. For the main ERP system (GRMS), first level support is provided by the SSC contact centre and the information technology (IT) global service desk, which handle requests, ranging from password changes to response to common administrative questions. More complex queries/issues are escalated to functional experts of specific business areas. Finally, issues that require business owner or IT interventions are further escalated accordingly. The model is currently being finalized at FAO, including automation of the various support processes that are planned to be automated through the introduction of a modern service management solution.

c) The third pillar of the FAO ERP framework is governance, which comprises both management of operational work and overall supervision of the organization's ERP strategy and roadmap. FAO has in place a two-tier ERP governance mechanism[3.] An ERP Board, comprised of senior management, oversees the FAO ERP strategy and associated roadmap, providing overall governance of ERP related investments. The ERP Board is supported by an operational working group, which manages ongoing modifications and enhancements to the ERP environment and reviews/vets additions to the ERP work plan for consideration and endorsement by the ERP Board.

FAO ERP system implementations over the years have facilitated administrative and operational work across FAO locations worldwide. Lessons learned throughout this journey, which began with the introduction of the first integrated ERP system in 1999 and subsequent large-scale implementations in 2007 and 2011, have informed the current ERP strategy at FAO. The strong advantage of such a strategy is its capacity to combine business and technology so as to provide effective, efficient and compliant administrative and operational business capabilities through the automation and integration of process, data and technology.

International Fund for Agricultural Development

4. The International Fund for Agricultural Development (IFAD) implemented Oracle PeopleSoft General Ledger in 1994, to support IFAD's financial reporting. Between 2003 and 2005, IFAD ran a strategic change programme, aimed at using the PeopleSoft ERP platform to adopt standard administrative processes across the organization. The resulting implementation saw IFAD deploy a broad range of ERP modules in human capital management, finance and Enterprise Performance Management (EPM).

5. The approach was to adopt standard (vanilla) processes from the ERP, and this was done in instances such as general ledger, assets and workforce administration. In other cases, it was determined that for processes such as travel, consultant and performance management it was necessary to address IFAD specific needs requiring customizations to map the system

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[3] FAO Administrative Circular ADM 2018/03, 10 March 2018.

in IFAD business processes and policies. This was a conscious decision to support the business owners and aimed to reduce the manual administrative overhead, where possible.

6. In addition to running administrative processes, the PeopleSoft platform also underpins IFAD's operations. This platform is used to track the lifecycle of IFAD projects from concept note, through design and implementation to closure. This approach places the ERP at the heart of IFAD operations including full integration with IFAD's core banking platform (Oracle Flexcube), which processes IFAD loan disbursements and repayments as well as the Operations Results Management System which is used for monitoring and evaluation of IFAD projects.

7. IFAD has put in place a number of integrations to and from the ERP, both within IFAD's technical ecosystem such as the Data Warehouse and with external parties. Examples of external integrations with United Nations and non-United Nations entities include the United Nations Department of Safety and Security, Carlson Wagonlit Travel (IFAD's travel service provider), the United Nations Joint Staff Pension Fund bidirectional for pension relevant information and SWIFT for payments.

8. Moreover, it should be noted that given IFAD's status as an International Financial Institution as well as a United Nations agency, the PeopleSoft ERP platform is configured to conform to the financial services specific accounting standards of the International Financial Reporting Standards as opposed to the International Public Sector Accounting Standards (IPSAS) accounting standards implemented by most United Nations organizations. After several years of enhancements and improvements, the smooth annual financial closing process is indicative of the overall system's stability.

9. Following the initial implementation, the ERP has been upgraded twice, first in 2011 to PeopleSoft 9.1 and more recently in May 2019 to latest PeopleSoft version 9.2, which has Oracle support until 2030 for operation-ability and security. Furthermore, Hyperion has replaced the PeopleSoft EPM platform for budget planning. Given this recent refresh, no major upgrades are required in the short to medium term. In addition, the ERP now fully reflects the new IFAD decentralized structure and operating model. IFAD is now in a position to leverage newly available functionality such as mobile approvals, delivered as an "out of the box" feature.

10. The current ERP platform in IFAD is hosted by the United Nations International Computing Centre in Geneva with high availability for business continuity and a secondary site off-continent disaster recovery site in New Jersey (following an external review and recommendation) together with the IFAD banking platform and related feeder systems given the interdependency and criticality of these platforms for IFAD's operations and mandate. This setup is tested annually.

11. Given the above context and background, the platform has reached a level that is now mature, robust and tailored to IFAD's business needs. As a result, the support model employs minimal internal human resources while opting for outsourcing on maintenance, hosting and development. IFAD enjoys advantageous terms in the licensing model negotiated, which provides a technical and financial horizon of predictable costs and low risk.

12. In terms of ERP governance, for significant business reengineering a senior level committee oversees divisional business requests with a view to ensuring alignment with corporate priorities and business owners manage budgetary impacts, including reviewing cost benefit analysis, while ongoing operational changes are managed by business owners. The same senior level committee steers discussions and decisions on opportunities including the introduction of automation and other emerging technologies such as artificial intelligence

and robotics, which may have a direct or indirect impact or integration requirement on the ERP platform.

13. Taking into account the level of investment over the life of the platform and the timing of the latest refresh, the ERP strategy is to sweat this core asset while at the same actively monitoring for any solution to allow the changing needs of IFAD to be fully supported, now and the future. This effectively means scouting for partnering opportunities, potential interoperability with peers, cloud offerings, robotic automations and similar opportunities, as long as there is a business case and the proposal presents good value for money. Priority will be given to areas where new business needs emerge or where current processes undergo major refactoring.

14. In conclusion, IFAD's ERP strategy is to leverage the current asset and the favorable licensing model of a supported platform to maximize the return on investment while actively exploring cost effective opportunities to address gaps or new requirements in response to IFAD's evolving business model.

World Food Programme

15. The ERP system implementation was launched in 1996 as part of a significant WFP business transformation initiative, called the Financial Management Improvement Programme (FMIP). The aim of the initiative was to streamline, harmonize and integrate core administrative and operational processes within the organization, such as financial management, procurement and logistic processes along with human capital and travel administration services. After a thorough selection process, WFP awarded IBM as system integration and implementing partner, and IBM proposed SAP as the most suitable ERP platform to support the FMIP initiative. The deployment of the SAP solution was completed in two phases: i) financial management, procurement and logistics processes in January 2001; and ii) human capital and travel administration services in January 2002.

16. In preparation of an upgrade of WFP's ERP platform, named WINGS, in 2005 WFP commissioned an external specialized consulting firm to undertake a study to define strategy and scope to determine: i) the best approach to support the evolving nature of WFP's mandate and the "fit for purpose" agenda; ii) align core WFP processes with IT solutions; iii) fully comply with the IPSAS, and; iv) adopt good business practices. The recommendations of the study presented and endorsed by WFP senior management and the Executive Board included to perform an in-depth business process reengineering exercise followed by a re-implementation of the ERP solution on an upgraded version of SAP platform.

17. In July 2009 WFP deployed a newer version of WINGS and, since then, the organization has enriched, expanded and enhanced that ERP solution to support emerging business needs, integrate and harmonize existing processes into the current ERP platform, such as the Logistic Execution Support System.

18. To support enhanced ERP solutions WFP undertook several business transformation initiatives to address more strategic, substantive and programmatic needs of the organization. Additional on-premise and cloud-based solutions have been designed and deployed within the organization following an updated governance and management framework for systems development.

19. The objective of the enhanced governance and management framework for systems development is: i) to meet fast-emerging business requirements; ii) to provide an enabling environment for developing agile systems for easier handover to host governments; and iii) to make systems adaptable to country office needs, interoperable with partners and built on standards for corporate reuse.

20. With the progressive adoption of the new governance the IT team supports WFP senior management and internal stakeholders in the development of their business roadmaps, which are endorsed by the divisional director and include current IT priorities and future plans. These corporate and divisional priorities are reviewed regularly by the Demand Assessment Board to assess the strategic value of each improvement request and ensure organization-wide alignment.

21. WFP's current internal IT strategy is to support the transformation of its corporate systems, including the ERP system, to keep up with the changing needs of the organization; to seek out value-for-money opportunities with cloud-based solutions, carefully considering the security, compliance and risk impacts to the organization; and to provide integration of internal and external systems through web services and flexible interfaces, resulting in business process optimization and business agility.

22. As an example of the revised and more nimble application architecture WFP adopted cloud-based solutions for selected talent management processes, such as e-learning and e-recruitment processes, and procurement tendering processes. The latter is an example of collaboration among the Rome-based agencies. The In-Tend Electronic Tendering solution was originally selected and deployed by FAO and subsequently adopted by WFP leveraging the existing contractual agreement and the available experience and skill in FAO.

23. With regard to future ERP system implementation, WFP is planning to upgrade their SAP platform in response to the external Audit Committee, which raised some concerns related to the current version of the ERP platform, and to address the upcoming termination of technical support of the Oracle database supporting SAP systems. Such software upgrade needs to be completed by 2020 and the financial investment has been submitted for approval by the Executive Board.

24. The strong demand from WFP senior management, the business community, donors and host countries is leading the IT division to develop, in the next 12 months, a new ERP roadmap which aims to review the traditional ERP on-premise solutions and to enhance the application architecture with cloud-based services and service oriented software that enable the organization agility to respond more rapidly to operational challenges. Nowadays a single integrated ERP system is no longer able to address the end-to-end processes that help the organization to deliver a more compelling (effective) value proposition. Hence, WFP is taking the opportunity to explore new platforms and solutions to better accommodate new target operating model and business opportunities.

Rome-based agency Enterprise Resource Planning compatibility opportunities

25. When looking for opportunities for ERP related collaborations between RBAs, it is useful to review the outcomes of an ERP interoperability study performed by an external consultancy firm and presented to the High-Level Committee of Management (HLCM) during its thirtieth session[4] in 2015, which provided the following concluding statements:

   ➢ "ERP Interoperability is feasible but is an enabler, not a goal – without an overarching business transformation, ERP Interoperability alone will introduce more costs than benefits."

   ➢ "Significant efficiencies in support services can be achieved if consolidated and rationalized – benchmark savings in the commercial sector is upwards of 30% of administrative costs. With the right model the United Nations system should be able to approach this level of results."

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[4] *CEB/2015/HLCM/16, 21 September 2015.*

> ➤ "United Nations organizations do not interoperate naturally, therefore we believe a voluntary approach will not yield the desired results. Therefore, it is recommended that a strong leadership and governance structure be put into place that has the authority to set transformation mandates across United Nations system entities."

26. ERP interoperability is contingent on business harmonization at policy and process level. This is a critical success factor when looking at compatibility opportunities. Commercial ERP solutions utilized by the three RBAs, PeopleSoft (IFAD), SAP (WFP) and e-Business Suite (FAO) offer similar functionalities; however, their implementation has been dependent on policies, standards and processes that are in many cases organization specific.

27. As part of its 2017 ERP assessment and roadmap study, FAO looked to identify potential opportunities for interoperability with the other two United Nations RBAs (IFAD, WFP). The subject of RBA interoperability was covered in a dedicated section of the study. The study addressed four areas (procurement, travel, human resources and finance) and provided a number of findings and observations. A common theme of the study findings is that opportunities on RBA interoperability and compatibility could be found in standardizing processes, sharing information and/or creating common service areas. Further review of these findings by business and technical focal points from all three RBAs could take place and form the basis for development of potential ERP related synergies and collaboration.

28. In addition to this, RBAs can look at potential common ERP approaches for specific initiatives. An area of possible collaboration would be the use of common contractual and implementation arrangements for functional and technical ERP matters (i.e. common procurement contracts, common services, etc.). Lastly, the modality of delivering operational and administrative services at the three RBAs could be reviewed to identify commonalities and look for potential opportunities for collaboration across business. This could include, but would not be limited to common procurement practices, payroll, and talent management.

29. In conclusion, further RBA collaboration in the area of ERP should be focused on finding and possibly developing common elements in administrative and operational policies and processes. Achieving this could facilitate future interoperability across ERP systems and transcend disparate technologies (e.g. SAP, Oracle e-Business Suite and Oracle PeopleSoft); currently utilized by the three RBAs. This is consistent with the findings of the 2017 FAO's ERP assessment and roadmap study, information from the United Nations ERP interoperability study as well as lessons learned from ERP implementations at the three RBAs.