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Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Some control improvements were required in the areas of process, system design, configuration, reporting and data management

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EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of Umoja implementation in the United Nations Office at Geneva (UNOG) and the Geneva-based entities supported by UNOG. The objective of the audit was to assess the adequacy and effectiveness of governance, risk management, control processes over the effective implementation of Umoja. The audit covered the period from 1 January 2015 to 30 June 2017 and included a review of governance, project management, training, business activities, systems analysis, design and testing, and user access procedures.

UNOG and the Geneva-based entities supported by it had established good project management practices for the deployment of Umoja, such as coordination, communication and clear delineation of roles and responsibilities. However, some control improvements were required in the areas of process, system design, configuration, reporting, and data management.

OIOS made 8 important recommendations. To address issues identified in the audit:

The Department of Management (DM) needed to: (i) realign the Umoja benefit realization plan with the current status of implementation to determine where quantitative benefits and efficiency gains can be realized; (ii) strengthen periodic monitoring of implementation of the benefit realization plan; (iii) in coordination with the International Trade Centre, proceed in implementing the plan for addressing the issues regarding multi-currency budget requirements; (iv) ensure that adequate training is provided to users of the grants management module; (v) review the design of the grants management module to ensure that extra-budgetary work processes are adequately supported and reports are made available for donor reporting; (vi) rationalize and re-engineer the workflows across all processes for timely and efficient execution of transactions; and (vii) as a part of long term improvements, address policy and budget issues to update the service catalogue within Umoja.

The Office of the High Commissioner for Human Rights (OHCHR), in coordination with the Umoja Office, needed to consider the practical challenges and accordingly establish a roll out plan for deployment of the Umoja solution to its field offices.

UNOG needed to: (i) in coordination with Geneva-based entities, enforce the need to record and route all Umoja support requests through iNeed; (ii) in coordination with DM, implement the production support strategy and deploy support mechanisms to cover policy and process issues; (iii) conduct a comprehensive review of the roles assigned in Umoja and establish mechanisms for enforcement and control of user access; and (iv) strengthen its check out process by establishing a mechanism to notify the Security Liaison Officer of departing users.

DM, UNOG and OHCHR accepted the recommendations and have initiated action to implement them.

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I.   BACKGROUND

1.   The Office of Internal Oversight Services (OIOS) conducted an audit of Umoja implementation in the United Nations Office at Geneva (UNOG) and the Geneva-based entities supported by UNOG, i.e., the Office for the Coordination of Humanitarian Affairs (OCHA), the Office of the United Nations High Commissioner for Human Rights (OHCHR), the United Nations Conference on Trade and Development (UNCTAD) and the International Trade Centre (ITC).

2.   UNOG serves as the representative office of the Secretary-General at Geneva and provides financial and administrative support services to more than 20 Geneva-based United Nations organizations/departments as well as entities located in Bonn and Turin. It manages the United Nations facilities in Geneva and provides conference services for the United Nations meetings held in Geneva as well as for the specialized agencies.

3.   The OCHA office in Geneva is one of two Headquarters locations. The Geneva Office hosts branches of emergency services, partnership and resource mobilization, programme support and liaison offices for the African Union, Brussels and the Gulf. The partnership and resource mobilization branch has sections related to donor relations, external relations and partnerships, partnerships co-ordination, private sector and resource mobilization support. The programme support branch looks after sections related to coordinated assessment support, financial tracking service, inter-cluster co-ordination and planning and monitoring.

4.   OHCHR has the mandate to promote and protect all human rights for all people. OHCHR is also entrusted with the principal responsibility for the human rights activities of the whole Organization, under the direction and authority of the Secretary-General.

5.   UNCTAD is the principal organ of the General Assembly dealing with trade, investment, and development issues. The primary objective of UNCTAD is to formulate policies relating to all aspects of development including trade, aid, transport, finance and technology. The conference ordinarily meets once in four years; the permanent secretariat is in Geneva.

6.   ITC is the joint technical cooperation agency of the United Nations and the World Trade Organization for business aspects of trade development. Its mission is to foster inclusive and sustainable growth and development through trade and international business development.

7.   Umoja is an application of the SAP enterprise resource planning (ERP) software which supports management activities related to finance, budget, human resources, supply chain, central support services, and other core business functions. This system was intended to replace and integrate numerous existing legacy information systems across the United Nations Secretariat. The approved budget for the Umoja project to date was $466.16 million.

8.   The Department of Management (DM) has been leading the implementation of the Umoja project through the Umoja Office. The deployment of Umoja has been divided into phases (Foundation, Extension 1, and Extension 2), modules, and clusters.

9.   The deployment of Umoja in the Geneva-based entities went live as part of Cluster 3 (OCHA) and Cluster 4 on 1 June 2015 and 1 November 2015 (to the remaining Geneva-based entities) respectively. Table 1 shows the completed/planned rollout schedule of Umoja.

Table 1: Schedule of Umoja deployment

Implementation of Umoja component and location	Date
Pilot implementation of Umoja Foundation – UNIFIL	1 July 2013
Cluster 1 – Foundation - Peacekeeping Missions	1 November 2013
Cluster 2 – Foundation - Special Political Missions	1 March 2014
Umoja Foundation + Pilot implementation of Extension 1 – MINUSTAH	1 July 2014
Cluster 3 – Integration: Foundation + Extension 1 United Nations Office at Nairobi, the United Nations Environment Programme, the United Nations Human Settlements Programme, OCHA (including United Nations Headquarters and UNOG as its service providers) and the Economic and Social Commission for Asia and the Pacific (international staff)	1 June 2015
Cluster 4 – Integration: Foundation + Extension 1 United Nations Headquarters, UNOG, the United Nations Office at Vienna, the Economic Commission for Africa, the Economic and Social Commission for Western Asia, the Economic Commission for Latin America and the Caribbean, the Economic Commission for Europe, the international tribunals, and deployment of Umoja Extension 1 in peacekeeping operations/special political missions for international staff (international staff)	1 November 2015
Cluster 5 – Extension 1 Peacekeeping and Special Political Missions (National staff and individual uniformed personnel)	1 November 2016
Extension 2	2017- 2018

10.   Cluster 4 roll-out was the largest and most complex and expanded the Umoja user base from 12,000 to 32,000.

11.   Comments provided by UNOG, the Geneva-based entities and DM are incorporated in italics.

II.   AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

12.   The objective of the audit was to assess the adequacy and effectiveness of governance, risk management, control processes over the effective implementation of Umoja in UNOG and the Geneva-based entities supported by it.

13.   This audit was included in the 2017 risk-based work plan of OIOS due to the high risks associated with Umoja implementation and its potential impact on the next deployment in other locations.

14.   OIOS conducted this audit from April 2017 to July 2017. The audit covered the period from 1 January 2015 to 30 June 2017. Based on an activity-level risk assessment, the audit covered risk areas relating to project management and ICT support systems. It included a review of governance, project management, training, business activities, systems analysis, design and testing, and user access procedures.

15.   The audit methodology included: (i) interviews with key personnel; (ii) reviews of relevant documentation; (iii) analytical reviews of data; and (iv) tests of transactions and procedures.

16.   The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III.   AUDIT RESULTS

A.   Project management

Need for realignment of the benefit realization plan

17.   Projects in Controlled Environments (PRINCE2), which is the United Nations Secretariat's project management methodology, describes benefit realization as the achievement of project benefits envisaged in the business case. A benefit realization plan is used to define how and when to measure the achievement of project benefits. The plan covers the activities to determine whether the expected benefits have been realized and how the products have performed when in operational use. Each expected benefit is assessed for the level of its achievement and whether any additional time is needed to assess the residual benefits.

18.   The documented benefits and baseline measures for Umoja linked cost savings to process-level efficiency improvements. Each entity was expected to develop its benefit realization plan by estimating: (i) process-level efficiency improvements; and (ii) changes in entity-level resource requirements. A top-down approach was used to determine an entity's contribution to the total saving. The entity-level realization plans were then integrated into the budgeting and performance reporting process at the Organization level. Progress of benefit realization plans were monitored over time using a set of key performance indicators.

19.   The baseline used for estimating process efficiencies was a comparison of efforts compiled for the as-is processes and the documented to-be processes. However, the Umoja project was subject to some additional functionalities, changes in processes, and introduction of offline processes that have impacted the measurement of benefits using the described methodology. Also, the timing for measurement of benefits did not take into consideration the implementation challenges currently faced. UNOG and the Geneva-based entities explained that the top-down approach at times imposed operational difficulties through budget cuts as there were still some system inefficiencies, misalignment between policy and process, and lack of functionalities which resulted in additional offline processes, workflows or manual workarounds and deployment of new tools to support business processes. OIOS is of the view that lack of alignment between the benefit realization plan and the current status of implementation of Umoja may delay the achievement and recognition of quantitative benefits.

> **(1) DM, in coordination with the process owners, should: (i) realign the Umoja benefit realization plan with the current status of implementation to determine where quantitative benefits and efficiency gains can be realized; and (ii) strengthen periodic monitoring of implementation of the benefit realization plan.**
>
> *DM accepted recommendation 1 and stated that forward-looking projections based on the amounts presented in A/71/390 will continue to be reviewed based on the experience gained with the upcoming implementation phases. The exact breakdown of amounts for future periods, by departments/offices/missions, will continue to be presented in the individual budget submissions for the regular budget and for peacekeeping operations for approval by the General Assembly. The Board of Auditors will fully audit benefits realization in January 2018. A Continuous Improvements Monitoring Programme (CIMP) is in place that enables ongoing tracking of performance and problem*

> *solving to ensure the continued sustained Umoja benefit realization.* Recommendation 1 remains open pending receipt of evidence that it has been fully implemented.

Incomplete deployment of Umoja by some Geneva-based entities needed to be addressed

20.   Umoja aims to provide continuous organizational transformation enabling high quality, cost-effective service delivery anywhere in the world by updating skills, harmonizing practices and applying global technology.

21.   OCHA indicated that the introduction of Umoja enabled it to transition from using extremely manual processes to an automated process. However, OIOS noted the following in other entities:

(a)   Umoja was deployed in OHCHR's Geneva Office as part of Cluster 4 deployment but there was no roll out plan for the full deployment of Umoja to its field offices. OHCHR field staff had limited access to the Employee Self Service module (ESS), the travel solution and the Supplier Relationship Management (SRM) module. OHCHR explained that the small number of personnel in many of its field offices pose practical challenges in the deployment of a complex system like Umoja that may need careful rationalization of current roles and responsibilities, including shifting some responsibilities to other locations. Furthermore, since OHCHR uses the United Nations Development Programme (UNDP) to provide it with services, the access to Umoja for such UNDP personnel and the ability to hold them accountable for mistakes or abuse would also have to be resolved. UNDP's unwillingness to provide services using Umoja would also have to be factored in.

(b)   ITC expressed concern as to limitations in using Umoja due to the need to generate budgets in both Swiss Francs and US Dollars. The Umoja solution lacked this functionality due to SAP system limitations and enterprise design decisions. DM explained that the first phase of a two-phased dual currency reporting solution was implemented in 2016. However, the enterprise structure design of Umoja provides for one company code and a single funds management area managed in the functional currency of the enterprise. This precludes the possibility for managing and executing budgets in currencies other than US Dollars. ITC's functional currency and presentation currency are US dollars. In view of ITC's unique budgeting requirements, the Umoja Office began extensive consultations with ITC in 2015, which led to the documentation of a plan to address their budgeting issues. A working group of ITC and Umoja staff was formed in 2015 to review options and coordinate the development and implementation of a business intelligence reporting solution combined with some specific budgeting settings in the Enterprise Core Component. The first phase of this solution is currently in use. Phase 2 was pending because feedback from ITC was awaited.

22.   These conditions were due to: inadequate attention directed at expanding Umoja access to ensure operational and financial control and monitoring improvements through more extensive use of Umoja; and (b) delays in finalizing automated processes to address the unique requirements of these entities. Failure to address these gaps may result in the use of manual workarounds and reduce the benefits realized from implementing Umoja.

(2) OHCHR, in coordination with the Umoja Office, should consider the practical challenges and accordingly establish a roll out plan for deployment of Umoja to its field offices.

OHCHR accepted recommendation 2 and stated that it is has commenced training for its field staff, but still has fundamental concerns regarding the functionality of Umoja in all remote locations for very small offices. It further stated that pilots will be conducted in early 2018 in the larger OHCHR field offices, and that experience will guide the further planning for deployment to other locations as appropriate. Recommendation 2 remains open pending receipt of a roll out plan for deployment of Umoja to OHCHR field offices after consideration of the practical challenges explained above.

(3) DM, in coordination with the International Trade Centre, should proceed in implementing the plan for addressing the issues regarding multi-currency budget requirements.

DM accepted recommendation 3 and stated that the first phase of the solution was implemented in 2016 and is currently in use without any issues identified or negative feedback received from ITC and that Phase 2 of the solution is pending feedback from ITC. Recommendation 3 remains open pending receipt of evidence that the issues regarding multi-currency budget requirements of ITC have been addressed.

Unresolved issues reported by Cluster 3 and 4 entities were planned to be used for continuous improvement

23.   The eighth progress report of the Secretary-General on the Umoja project described the revival of the Umoja Post-Implementation Review Task Force (UPIRTF) chaired by the Controller to ensure the speedy resolution of issues reported by Cluster 3 and 4 entities. The task force provided a forum for business entities, process owners, the Chief Information Technology Officer (CITO) and the Umoja team to engage on post-deployment issues, identify solutions and agree on closure of the reported issues.

24.   As part of UPIRTF, the deployment leads from the main Cluster 3 and 4 entities (the United Nations Office at Nairobi, the Economic and Social Commission for Asia and the Pacific, and UNOG) prepared a post-implementation review report in consultation with their key client offices. The report included a consolidated list of 284 issues relating to system, process and policy which was presented to UPIRTF for action. The issues raised were harmonized into a set of 67 recommendations and assigned to process owners and CITO with target resolution dates. Of the 67 recommendations, 13 were categorized as continuous improvements to be addressed over time, and the remaining 54 were targeted for closure by the end of 2016.

25.   UNOG and the Geneva-based entities expressed concern over the delay in resolution of issues reported to UPIRTF, which had operational implications for these entities. As of May 2017, OIOS noted the following with regard to the status of these issues:

(a)   There were 63 unresolved issues related to system, process and policy of Human Resources (13), Travel (7), Finance (5), and General (38) leading to 16 recommendations (or 24 per cent of the original recommendations) due to inadequate guidance or alignment with control mechanisms relating to the system, process and policy.

(b)   37 issues (or 54 per cent of the total unresolved issues) had the 'target closure' status as 'long-term' without any time frame for resolution.

(c)   The status of 5 out of 248 pending system fixes was either 'pending', 'open' or 'waiting for predecessor (i.e., there was a related work-order that needs to be completed prior to closing the underlying service request).

26.   In terms of an interoffice memorandum of 16 May 2017 from the Acting Under-Secretary-General for Management, UPIRTF officially ended the first phase of its operations on 1 May 2017 and the next iteration of the Umoja task force will therefore use a "continuous improvements model" whereby the Umoja solution will be technically upgraded and improved as needed. *DM stated that following two years of intensive efforts from the global entities, the process owners, CITO, and the Umoja project team in New York, it was agreed by all concerned that the majority of the technical and process-related challenges in Umoja reported by the entities in Clusters 3, 4 and 5 that can be addressed have been resolved within the existing parameters of Umoja and other enterprise solutions, and most importantly, by the underlying policies and business processes which are in use across the Secretariat. All entities agreed to the shutdown of the UPIRTF and to its next iteration.* In view of DM's assertion that it was agreed by all concerned that the unresolved issues including long-term recommendations will be used as part of a "continuous improvements model", OIOS did not make a recommendation in this area.

Strategy for training was being improved

27.   The Umoja training strategy for Clusters 3 and 4 was to provide regional rather than entity-by-entity training which leverages on the existing learning structure within the Department of Field Support and the Office of Human Resources Management (OHRM). The Umoja deployment guide required UNOG and the Geneva-based entities to ensure that staff received essential training and acquired the necessary skills and knowledge to perform their functions in Umoja.

28.   OIOS noted the following in this regard:

(a)   The training material and instructions were mainly based on the peacekeeping environment, which did not match the post go-live requirements of the regular budget or extra-budgetary entities based in Geneva.

(b)   There were a limited number of local process experts to support the post go-live training requirements.

(c)   Mandatory training required for process experts to become certified Umoja users was not always available in a timely manner which led to some entities complaining of inadequate resources to process transactions due to this limitation.

(d)   There were inadequate resources to support continuous 'on-demand training' required to ensure that users could continuously update their skill sets and new users could get the required training to perform their jobs. This gap led to instances of "learning-by-doing" (not recognized for granting access to process experts) which was found to be more effective than the formal training.

29.   *DM stated that a series of initiatives have been implemented, including: (i) enhancing Inspira to enable managers to track and address training gaps by linking training completion to Umoja enterprise roles; (ii) a working group of training coordinators and process experts was established to identify opportunities for improving training content, distributing responsibilities for maintaining training data sets and keeping training documents periodically updated; and (iii) OHRM was also pursuing opportunities for further modernizing the delivery of training.* In view of the actions taken by DM, OIOS did not make a recommendation in this area.

B.   ICT support system

<u>Need to strengthen post-production support procedures</u>

30.   The Unite service desk (iNeed) is the global service management application used to log in all user requests, incidents or problems relating to Umoja. A workflow process had been implemented from the logging of an issue to its resolution for Umoja-related issues.

31.   The Umoja deployment guide required that at the local level, mechanisms be put in place to gather, review, update and escalate existing and additional post-deployment issues for timely resolution. There were inadequate resources assigned by UNOG for capturing process and policy issues in a systemic manner. In addition, there were limited post-production support mechanisms established to ensure a smooth transition and to address entity- and user-specific concerns for resolution of post-deployment issues.

32.   Furthermore, there was no consistent practice for raising and resolving Umoja issues. Some users raised service tickets in iNeed via email and in some cases, users made direct contact with process owners at Headquarters, New York. Due to the inconsistent manner of raising issues, service requests could not be adequately monitored and resolved. UNOG needs to take measures in coordination with DM to ensure that the post-production support strategy is implemented.

> **(4) UNOG, in coordination with Geneva-based entities, should enforce the need to record and route all Umoja support requests through iNeed.**
>
> *UNOG accepted recommendation 4 and stated that it has already developed the iNeed catalogue and has begun rollout of the new system/process.* Recommendation 4 remains open pending receipt of evidence showing that Umoja support requests are recorded and routed through iNeed.
>
> **(5) UNOG, in coordination with DM, should implement the production support strategy and deploy support mechanisms to cover policy and process issues.**
>
> *UNOG accepted recommendation 5 and stated that it has incorporated the requirement in the new iNeed structured request for production support, which will now mainstream and improve such requests and will now follow standard path for escalation on policy and process.* Recommendation 5 remains open pending receipt of the new iNeed structured request for production support.

<u>Governance mechanisms for information and business intelligence reporting were being strengthened</u>

33.   The Umoja vision statement for business intelligence (BI) states that the BI solution is to promote the integration of BI reporting and analytics by empowering users to employ data-driven decision making across the Organization's business operations, and to effectively improve data transparency and process efficiency. This approach required users to acquire an adequate understanding of the various data elements used in reporting and their corresponding business terminology.

34.   Although the BI module was functional, there were inadequate governance structures over BI and ownership of BI reporting was unclear, which resulted in incomplete data cubes, the lack of documented data architecture/data dictionary and lack of standardized reporting framework for reporting within the Umoja environment. In this regard, OIOS noted the following:

(a)   There were issues concerning the integrity and completeness of information/outputs from the various modules, e.g. BI reports used for compiling donor statements did not provide sufficient information for reporting purposes (i.e., no opening balance, duplicated travel expenditure).   DM explained that BI development by the Umoja team or by the Office of Information and Communications Technology (OICT) is subjected to extensive tests before releasing reports and/or analysis of areas or cubes to ensure that the data is correct and complete. The development follows the normal product integration testing and user verification testing. Power users also develop reports after they complete extensive training. Reports developed by power users are not subjected to that type of testing.

(b)   User requirements were not adequately collected prior to development and deployment of reports, which resulted in users' inability to rely upon and use some critical reports available in the BI module (such as trial balance leading/non-leading ledger report, commercial analysis of bid responses, detailed report on basis of award, and trips with missing expense reports).

(c)   The training provided to harness the potential of BI reports was not adequate as users located in Offices away from Headquarters sometimes did not have timely access to training.

(d)   The unavailability of critical reports across functions and programmes led to some Geneva-based entities to seek alternative tools for reporting and the extraction of data from Umoja.

35.   *DM stated that reports were developed by OICT and Umoja based on process owners' requirements. DM was working on governance and management mechanisms specifically suited to BI reporting, and has been engaging regularly on governance with Umoja BI stakeholders through meetings and workshops, focusing on requirements gathering and reports development. A technical data dictionary was made available to technical resources on a prototype basis to solicit feedback for a wider release. This initiative is still in progress, and is on the Umoja BI project plan for delivery in the first quarter of 2018. This is being complemented with the implementation of a virtual Information Architecture Team that includes resources initially from DM and the Department of Field Support. Terms of Reference for the team are also being developed. In early 2016, a comprehensive inventory of BI and transactional reports was formulated and is available to all users. A new folder structure for BI reports has been proposed and a new classification for report requirements is currently in development. This will improve accountability for reports, reports quality, as well as access to reports.* In view of the actions being taken by DM to address the issues relating to BI reporting, OIOS did not make a recommendation in this area.

Need to strengthen user role and account management

36.   Access to the Umoja system should be restricted to authorized staff members in accordance with their functional roles and responsibilities. Access should also be periodically monitored for proper use.

37.   UNOG had dedicated security liaison officers (SLOs) who were responsible for providing, modifying and removing user access to Umoja based on users' roles and responsibilities. DM supported the SLOs through ongoing interactions, guidelines and training. However, OIOS noted the following:

(a)   There was a limited number of SLOs in UNOG to administer user access, which created bottlenecks in granting timely access;

(b)   The check-out procedure (including the clearance form used by UNOG's Human Resources Management Service (HRMS) did not include the requirement to notify the SLOs of the need to de-provision users who had checked out and left the Organization.

(c)   There were instances of staff retaining Umoja enterprise roles and functions associated with other duty stations because the de-provisioning process had not been completed and the SLOs did not adequately check for role assignments across geographical locations.

(d)   The governance, risk and control module (GRC) was not deployed, therefore there was no automation to prevent and identify role conflicts defined in the enterprise role guide.   There were instances of ineligible users being assigned to the enterprise roles e.g. certifying and approving officers. *DM stated that the enhancement to automate checking for segregation of duties conflicts across enterprise roles was in production.*

(e)   There were instances of users in Umoja who were performing responsibilities without the formal delegation of authority.

38.   UNOG needs to monitor and enforce user roles to ensure that the functions performed in Umoja are in accordance with designated roles and responsibilities.

> **(6) UNOG should: (i) conduct a comprehensive review of the roles assigned in Umoja and establish mechanisms for enforcement and control of user access; (ii) strengthen its check out process by establishing a mechanism to notify the Security Liaison Officer of departing users.**
>
> *UNOG accepted recommendation 6 and stated that it agreed but had a number of constraints. First issue is that it had no dedicated resources for Umoja in Geneva which could start this project. Second, there has been a number of adjustments in definitions of roles and compatibility (e.g. role X cannot be given to staff with role Y).   UNOG will reach out to Headquarters to finalize roles definitions in 2018 and will then have a meeting with client offices in Geneva mid-year to assemble a team to do the review and improve control.* Recommendation 6 remains open pending receipt of evidence that: (i) the roles assigned in Umoja have been reviewed and are being enforced; and (ii) check out procedures have been strengthened to notify SLOs of departing users.

Need to strengthen controls over grants management data, transactions and processes

39.   The Umoja grants management module facilitates the administration and management of workflows, budgets, programme activities, donor agreements and donor reporting.

40.   The majority of the Geneva-based entities supported by UNOG had a significant proportion of their budgets funded from extra-budgetary resources.   However, at the time of audit, the grants management module did not provide adequate functionality to facilitate grant management by these entities. This gap caused the following:

(a)   A lengthy budget formulation and redeployment process, which was prone to human error. Once an error occurred, it was difficult to rectify. DM explained that a two-step creation and redeployment process requires an understanding by both the user and approver of grants management expense types, unreleased and released budgets, and alignment requirements between the grants management (GM) and financial management (FM) modules. Once an error is made by a creator, an approver may reject the document and once an incorrect budget posting is approved, the same two-step is required to correct it.

(b)   The population of the grants master data fields required significant amount of data input. This requirement created the risk of input errors because of the volume of information that was input manually. Also, due to the number of levels/nodes associated with the work breakdown structure, changes to

elements of the structure could be cumbersome and required additional checks to prevent erroneous data from being displayed in Umoja.

(c)   Programme support cost batches were not running consistently; they did not capture all grants and therefore, incorrect results were obtained which required the batches to be rerun to obtain correct results.

(d)   The budget/expenditure classification limited the ability to monitor the budget performance at a detailed level.

(e)   There were inconsistencies between the GM and FM module, as follows.

•   Inconsistencies in recording of expenditure including: (i) duplication of trip expenditure in GM, whereas FM showed the correct figure; (ii) retroactive amendment to prior period commitment document was reflected in the current financial year in GM, whereas FM correctly posted the adjustment to the prior year; and (iii) discrepancies between FM/GM and GM/Travel module, where expenditure was reflected in the wrong period in GM.

•   Inconsistencies in recording of income for: (i) donor agreements entered and finalized in different years; and (ii) multi-year agreements, where annual recording of contribution was not possible.

•   There were several technical issues with the functionality for performing mass liquidation of fund commitments, purchase orders and trip commitments, including the following:

    (i)   Purchase orders – Currently there was no standard functionality in Umoja for mass closing of purchase orders. A custom programme had been developed which was being used to close any outstanding unliquidated obligations from budget period B15.

    (ii)   Fund commitments (including UNDP) – There was a standard functionality in Umoja for mass closing of fund commitments. However, when the functionality was tested for grant funds in FM, the surpluses were reflected against 2016, whereas in GM they were reflected against the 2017 budget period.

    (iii)   Trip commitments in the travel module – There was no standard functionality for mass closure of trip commitments within Umoja. A custom programme was planned but was not ready. Trip commitments remaining for the budget period 'B15" were closed manually as there was no tool for managing grant funded trips.

> **(7)   DM should: (i) ensure that adequate training is provided to users of the grants management module; and (ii) review the design of the grants management module to ensure that extra-budgetary work processes are adequately supported and reports are made available for donor reporting (not limited to opening balance, accurate travel expenditure, posting of retroactive adjustment to prior year commitment, and details of donor contribution).**
>
> *DM accepted recommendation 7 and stated that training for enhancement to the Grants Management Module will be provided as part of Umoja Extension 2 phased implementation date which will begin in September 2018. Review of the design will take place as part of enhancement to the Grants Management Module.* Recommendation 7 remains open pending receipt of evidence that training has been provided to GM users, and the design of the grants management module has been reviewed to ensure that: (a) extra-budgetary work processes are adequately supported; and (b) reports are available for donor reporting.

<u>Need to strengthen controls over data, transactions and processes</u>

41.   According to Umoja procedures, business processes should be designed and integrated in the development and implementation of a new information system with adequate mechanisms for meeting business requirements and, to the extent possible, automating control processes and improving performance.

42.   OIOS noted the following issues, some of which were considered critical by UNOG and the Geneva-based entities because they prevented them from discharging their mandated activities:

(a)   <u>Human Resources (HR)</u>: The HR function was supported by a dedicated UNOG team which provided centralized support to all supported entities to process various HR administrative tasks. However, HR partners had no visibility of the end-to-end process which made the follow up of transactions or queries from staff members difficult (e.g., status of payments and status of medical clearances).

(b)   <u>Finance</u>: UNOG had a dedicated finance team to manage the financial operations. However:

•   If a non-staff member submitted a travel expense claim, the payment or currency block was applied automatically and removed manually. There was no visibility as to when the block was triggered. Finance staff became aware of this issue when the users reported that they had not received their travel payments.

•   Aging for accounts payable and accounts receivable were being done manually as the associated transaction codes were not activated.

•   The workflow for invoice processing needed to be streamlined as the current process required multiple levels of review which negated the benefits of the embedded controls within the Umoja environment. For instance, an invoice had to undergo three stages before approval (i.e., through the creator, reviewer and approver).

(c)   <u>Travel</u>: There was a dedicated travel team in UNOG and to facilitate timely reconciliation of travel claims within Umoja, there was an express claim functionality that allowed claims to be automatically processed when the travel request and claims were aligned (e.g., if the travel expense report does not contain any expense types which require manual validation and approval, the system sets the travel expense report with status as "Approved". In situations where they do not align, claims are routed through a work flow that checks the claims. OIOS observed that the express claim functionality did not work as intended, as simple claims that aligned were sometimes routed for manual validation and approval. There were also open travel requests in the system beyond the established timeline for submission.

(d)   The service catalogue was not aligned with the material master and the prices of items were based on 2016 rates rather than the applicable 2017 rates. In order to apply the rate change in Umoja, users manually adjusted the quantity and price.

(e)   With regard to organization and position management, there were no specific organization management reports for the officials who had left the Organization. There were duplicated staffing positions/multiple posts particularly where positions were co-funded. Also, the reporting lines for time and attendance were not always mapped correctly because of inaccurate post assignments in the organization management module.

(8) DM should: (i) rationalize and re-engineer the workflows across all processes for timely and efficient execution of transactions; and (ii) as a part of long term improvements, address policy and budget issues to update the service catalogue within Umoja.

DM accepted recommendation 8 and stated that: (i) CIMP has been created to ensure sustained Umoja benefit realization. Umoja is based on 321 engineered processes to ensure that the critical administrative functions of the Organization can be executed to meet operational objectives. The service catalogue necessitates long-term improvements. Recommendation 8 remains open pending receipt of evidence showing: (i) rationalizing and re-engineering of workflows across all processes for timely and efficient execution of transactions; and (ii) a strategy for improving the service catalogue within Umoja.

IV.   ACKNOWLEDGEMENT

43.   OIOS wishes to express its appreciation to the Management and staff of UNOG, OCHA, OHCHR, UNCTAD, ITC and DM for the assistance and cooperation extended to the auditors during this assignment.

(*Signed*) Eleanor T. Burns
Director, Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
1	DM, in coordination with the process owners, should: (i) realign the Umoja benefit realization plan with the current status of implementation to determine where quantitative benefits and efficiency gains can be realized; and (ii) strengthen periodic monitoring of implementation of the benefit realization plan.	Important		Receipt of evidence that the recommendation has been fully implemented.	31 January 2019
2	OHCHR, in coordination with the Umoja Office, should consider the practical challenges and accordingly establish a roll out plan for deployment of Umoja to its field offices.	Important	O	Receipt of a roll out plan for deployment of Umoja to OHCHR field offices after consideration of the practical challenges explained.	31 December 2018
3	DM, in coordination with the International Trade Centre, should proceed in implementing the plan for addressing the issues regarding multi-currency budget requirements.	Important	O	Receipt of evidence that the issues regarding multi-currency budget requirements of ITC have been addressed.	Not provided
4	UNOG, in coordination with Geneva-based entities, should enforce the need to record and route all Umoja support requests through iNeed.	Important	O	Receipt of evidence showing that Umoja support requests are recorded and routed through iNeed.	
5	UNOG, in coordination with DM, should implement the production support strategy and deploy support mechanisms to cover policy and process issues.	Important	O	Receipt of the new iNeed structured request for production support.	
6	UNOG should: (i) conduct a comprehensive review of the roles assigned in Umoja and establish mechanisms for enforcement and control of user access; (ii) strengthen its check out process by	Important	O	The receipt of evidence that: (i) the roles assigned in Umoja have been reviewed and are being enforced; and (ii) check out procedures have been strengthened to notify SLOs of	31 December 2018

[1] Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.
[2] Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.
[3] C = closed, O = open
[4] Date provided by DM, UNOG and OHCHR in response to recommendations.

STATUS OF AUDIT RECOMMENDATIONS

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
	establishing a mechanism to notify the Security Liaison Officer of departing users.			departing users.	
7	DM should: (i) ensure that adequate training is provided to users of the grants management module; and (ii) review the design of the grants management module to ensure that extra-budgetary work processes are adequately supported and reports are made available for donor reporting (not limited to opening balance, accurate travel expenditure, posting of retroactive adjustment to prior year commitment, and details of donor contribution).	Important	O	Receipt of evidence that training has been provided to GM users, and the design of the grants management module has been reviewed to ensure that: (a) extra-budgetary work processes are adequately supported; and (b) reports are available for donor reporting.	30 September 2019
8	DM should: (i) rationalize and re-engineer the workflows across all processes for timely and efficient execution of transactions; and (ii) as a part of long term improvements, address policy and budget issues to update the service catalogue within Umoja.	Important	O	Receipt of evidence showing: (i) rationalizing and re-engineering of workflows across all processes for timely and efficient execution of transactions; and (ii) a strategy for improving the service catalogue within Umoja.	31 December 2020

APPENDIX I

Management Response

United Nations ⚛ Nations Unies

INTEROFFICE MEMORANDUM   MEMORANDUM INTERIEUR

TO: A:	Mr. Gurpur Kumar, Deputy Director, Internal Audit Division, DATE: 27 December 2017 Office of Internal Oversight Services
THROUGH: S/C DE:	Christian Saunders, Director Office of the Under-Secretary-General for Management
FROM: DE:	Mario Baez, Chief, Policy and Oversight Coordination Service Office of the Under-Secretary-General for Management
SUBJECT: OBJET:	**Draft report an audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities (Assignment No. AT2017/519/01)**

1.   We refer to your memorandum dated 13 December 2017 regarding the above-subject draft report and provide you with comments from the Department of Management (DM) below and in the attached Appendix I.

Paragraph 7

Umoja is an application of the SAP enterprise resource planning (ERP) software which supports management activities related to finance, budget, human resources, supply chain, central support services, and other core business functions. This system was intended to replace and integrate numerous existing legacy information systems across the United Nations Secretariat. The expenditure incurred on the Umoja project to date is $466.16 million. The revised resource requirements approved for the project by the General Assembly from inception in 2008 to the end of 2018-2019 were $543.96 million

2.   Reference A/72/397, Table 9 (Expenditures, 2008-2017) - $466.16 million is the approved budget, whilst 461.8 million is the projected budget for 2008-2017. Tables 10 and 11 outline the Projected Resource requirements for 2018-2019.

Paragraph 9

The deployment of Umoja in the Geneva-based entities went live as part of Cluster 3 (OCHA) and Cluster 4 on 1 June 2015 and 1 November 2015 (to the remaining Geneva based entities), respectively. Table 1 shows the planned rollout schedule of Umoja

3.   Table 1 shows completed as well as planned.

Paragraph 32 and recommendation 5

Furthermore, there was no consistent practice for raising and resolving Umoja issues. Some users raised service tickets in iNeed via email and in some cases, users

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28 Dec 2017

made direct contact with process owners at Headquarters, New York. Due to the inconsistent manner of raising issues, service requests could not be adequately monitored and resolved. UNOG needs to take measures in coordination with DM to ensure that the post-production support strategy is implemented

Recommendation 5

UNOG, in coordination with DM, should ~~review~~ implement the production support strategy and deploy support mechanisms to cover policy and process issues.

4.   DM requests that recommendation 5 be revised as show above.

Paragraph 40 (c)

There were four types of grants and sometimes, funding was pooled across multiple donors. To reconcile these grants, trial balances had to be run separately by grant and then manually consolidated to get the desired output.

5.   Trial balances do not have to be run separately to reconcile the four types of grants. A trial balance can be run for multiple grants or for a range of grants. In addition, functionality exists for the grouping of grants. Each of these options provides automatic consolidation of multiple grants into one trial balance thereby not requiring manual consolidation to get the desired output.

Paragraph 40 (f), second bullet

Inconsistencies in recording of income for: (i) donor agreements entered and finalized in different years; and (ii) multi-year agreements, where annual recording of contribution was not possible.

6.   DM is not aware of any inconsistencies between Financial Management (FM) and Grants Management (GM) related to the recording of income. Both GM and FM follow the IPSAS requirement for revenue recognition when the grant is in award status irrespective of when the donor agreement is entered and irrespective of a single or multi-year agreement.

7.   Thank you for giving us the opportunity to provide comments on the draft report.

Management Response

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	DM, in coordination with the process owners, should: (i) realign the Umoja benefit realization plan with the current status of implementation to determine where quantitative benefits and efficiency gains can be realized; and (ii) strengthen periodic monitoring of implementation of the benefit realization plan.	Important	Yes	Process Owners	(ii) 31 January 2019 (ii) Implemented.	i) Forward-looking projections based on the amounts presented in A/71/390 will continue to be reviewed based on the experience gained with the upcoming implementation phases. The exact breakdown of amounts for future periods, by departments/offices/missions, will continue to be presented in the individual budget submissions for the regular budget and for peacekeeping operations for approval by the General Assembly. The Board of Auditors will will fully audit Benefits Realization in January 2018. ii) A Continuous Improvements Monitoring Programme (CIMP) is in place that enables ongoing tracking of performance and problem solving to ensure the continued sustained Umoja benefit realization.
2	OHCHR, in coordination with the Umoja Office, should consider the practical challenges and accordingly establish a roll out plan for deployment of Umoja to its field offices.	Important				

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[1] Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

[2] Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Management Response

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
3	DM, in coordination with the International Trade Centre, should proceed in implementing the plan for addressing the issues regarding multi-currency budget requirements.	Important	Yes	Project Director, Umoja Assistant Secretary-General, OPPBA		The first phase of the solution was implemented in 2016 and is currently in use without any issues identified or negative feedback received from ITC and. Phase 2 of the solution is pending feedback from ITC
4	UNOG, in coordination with Geneva-based entities, should enforce the need to record and route all Umoja support requests through iNeed.	Important				
5	UNOG, in coordination with DM, should review the production support strategy and deploy support mechanisms to cover policy and process issues.	Important				
6	UNOG should: (i) conduct a comprehensive review of the roles assigned in Umoja and establish mechanisms for enforcement and control of user access; (ii) strengthen its check out process by establishing a mechanism to notify the Security Liaison Officer of departing users.	Important				
7	DM should: (i) ensure that adequate training is provided to users of the grants management module; and (ii) review the design of the grants management module to ensure that extra-budgetary work processes are adequately supported and reports are made available for donor reporting (not	Important	Yes	Project Director, Umoja Assistant Secretary-General, OPPBA	(i) 30 September 2019 (ii) 30 September 2018	i) Training for enhancement to the Grants Management Module will be provided as part of UE2 phased implementation date which will begin in September 2018. ii) This will take place as part of enhancement to the Grants Management Module.

Management Response

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	limited to opening balance, accurate travel expenditure, posting of retroactive adjustment to prior year commitment, and details of donor contribution).					
8	DM should: (i) rationalize and re-engineer the workflows across all processes for timely and efficient execution of transactions; and (ii) as a part of long term improvements, address policy and budget issues to update the service catalogue within Umoja.	Important	Yes	Project Director, Umoja in consultation with all Process Owners	(i) 31 December 2020 (ii) Ongoing	i) A continuous improvement monitoring programme (CIMP) has been created to ensure sustained Umoja benefit realization. Umoja is based on 321 engineered processes to ensure that the critical administrative functions of the Organisation can be executed to meet operational objectives. ii) The service catalogue necessitates long-term improvements

Management Response

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	DM, in coordination with the process owners, should: (i) realign the Umoja benefit realization plan with the current status of implementation to determine where quantitative benefits and efficiency gains can be realized; and (ii) strengthen periodic monitoring of implementation of the benefit realization plan.	Important				
2	OHCHR, in coordination with the Umoja Office, should consider the practical challenges and accordingly establish a roll out plan for deployment of Umoja to its field offices.	Important	Yes	Chief, Programme Support and Management Services	31 December 2018	OHCHR has commenced training for its field staff, but still has fundamental concerns regarding the functionality of Umoja in all remote locations for very small offices. Pilots will be conducted in early 2018 in the larger OHCHR field offices, and that experience will guide the further planning for deployment to other locations as appropriate.
3	DM, in coordination with the International Trade Centre, should proceed in implementing the plan for addressing the issues regarding multi-currency budget requirements.	Important				
4	UNOG, in coordination with Geneva-based entities, should enforce the need to record and route all Umoja support requests through iNeed.	Important	Yes		COMPLETE	UNOG has already developed the iNeed catalogue and has begun rollout of the new system/process. This recommendation should be closed.
5	UNOG, in coordination with DM, should	Important	Yes		COMPLETE	UNOG has incorporated in the new

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[1] Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

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Management Response

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	review the production support strategy and deploy support mechanisms to cover policy and process issues.					iNeed structure request for production support. This will now mainstream and improve such requests and will now follow standard path for escalation on policy and process. This recommendation should be closed.
6	UNOG should: (i) conduct a comprehensive review of the roles assigned in Umoja and establish mechanisms for enforcement and control of user access; (ii) strengthen its check out process by establishing a mechanism to notify the Security Liaison Officer of departing users.	Important	YES	Senior ERP Coordinator	31 December 2018	i) We agree this should be done but have a number of constraints. First issue is that we have no dedicated resources for Umoja in Geneva which could start this project. Secondly there has been a number of adjustments in definitions of roles and compatibility (eg. role x cannot be given to staff with role y). We will reach out to HQ to finalize roles definitions in Q1/2 of 2018 and will then have a meeting with Client Offices in Geneva mid year to assemble team to do review and improve control. ii) This is also a work in progress. Should be complete by mid 2018.
7	DM should: (i) ensure that adequate training is provided to users of the grants management module; and (ii) review the design of the grants management module to ensure that extra-budgetary work processes are adequately supported and reports are made available for donor reporting (not limited to opening balance, accurate travel expenditure, posting of retroactive adjustment to prior year commitment, and	Important				

Management Response

Audit of Umoja implementation in the United Nations Office at Geneva and Geneva-based entities

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	details of donor contribution).					
8	DM should: (i) rationalize and re-engineer the workflows across all processes for timely and efficient execution of transactions; and (ii) as a part of long term improvements, address policy and budget issues to update the service catalogue within Umoja.	Important				