United Nations

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Seventy-seventh session
Agenda items 138 and 151

Proposed programme budget for 2023

**Administrative and budgetary aspects of the financing of the
United Nations peacekeeping operations**

Progress on the functioning and development of the Umoja system

Report of the Secretary-General

Summary

　　The present report is submitted pursuant to General Assembly resolution 76/246, in which the Assembly requested the Secretary-General to provide an annual progress report updating the Assembly on the functioning and development of the Umoja enterprise resource planning system. Accordingly, the report provides an update on the progress in the functioning and development of Umoja and on all major activities since the previous report (A/76/386).

　　The Umoja system is currently used by 43,302 users across 460 locations. In its eleventh and final annual progress report on the implementation of the United Nations enterprise resource planning system (A/77/135), the Board of Auditors noted that Umoja remained a key enabler for modernization and reforms in the administration of the United Nations.

　　The present report contains information on progress related to the three key strategic pillars of the Umoja system: Umoja Analytics; continuous improvements; and systems, security and infrastructure. The uniformed capabilities support portal and the United Nations Secretariat workforce portal for Member States were delivered in 2022. Continuous improvements delivered during the period included the new payroll process model, which automated multiple individual payroll processes; improved comparative budget analysis in the budget formulation solution; and streamlined customs clearance and shipment handling. Business continuity for Umoja was strengthened through the implementation of a new solution, ensuring high availability through leading database replication technology. In the continued response to the coronavirus disease (COVID-19) pandemic, the transportation

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　　* Second reissue for technical reasons (21 November 2022).

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management solution was used by the Organization and its vendors to record and track vaccination shipments and their distribution to countries around the world.

In addition, the present report includes updates on the realization of qualitative benefits and the total cost of ownership, as well as a summary update on the recommendations of oversight bodies.

The General Assembly is requested to take note of the present report and to approve the new financing model for the Enterprise Resource Planning Solution Division, related maintenance costs of the Office of Information and Communications Technology and business support resources for 2024 and beyond.

Contents

I. Introduction

1.   The present report is submitted pursuant to General Assembly resolution 76/246, in which the Assembly requested the Secretary-General to submit an annual progress report updating the Assembly on the functioning and development of the Umoja enterprise resource planning system. The report provides an update on the progress in the functioning and development of Umoja and on all major activities since the previous report (A/76/386).

2.   The present report also provides updates on Umoja system strategy and on the three core pillars of the Umoja system: Umoja Analytics; continuous improvements; and systems, security and infrastructure. Furthermore, the report contains an update on the governance model and information on the realization of benefits, training activities, production support, the total cost of ownership and lessons learned. A summary update on the recommendations of oversight bodies and the completion of the mainstreaming of Umoja is also provided. Annexes I and II are provided in response to the request of the Advisory Committee on Administrative and Budgetary Questions in its report on the budget performance of the support account for peacekeeping operations (A/76/808, para. 15), as endorsed by the General Assembly in its resolution 76/279. Annex III is provided in response to the request from the Committee in its report on Umoja (A/76/7/Add.20, paras. 59 and 61), as endorsed by the General Assembly in its resolution 76/246.

II. Umoja system

A. Strategy

3.   The strategic direction of the Enterprise Resource Planning Solution Division for the Umoja system is based on a multi-year plan that takes into account the evolving needs of the Organization and the dynamic nature of the technology and the infrastructure that underpin it. The strategic direction is set upon three core pillars: the advancement of Umoja Analytics; the continuous improvement of Umoja applications; and the upgrading and maintaining of the systems, security and infrastructure to ensure that they are modern and fit for purpose.

4.   In alignment with the Data Strategy of the Secretary-General for Action by Everyone, Everywhere, in which the Secretary-General calls for a data-driven transformation of the Organization to create unique opportunities to advance global data action for insight, impact and integrity, the Enterprise Resource Planning Solution Division continues to focus on analytics. This is further in line with the initiatives contained in Our Common Agenda, within which analytics is a key capability of the "quintet of change". Through Umoja Analytics, the Division will continue to implement enhanced analytical capabilities that blend a broader and deeper level of internal and external data using the latest technologies. Umoja Analytics serves as the foundation for internal and external stakeholders, including Member States, to access richer data with greater ease of use and sophistication. The development of Umoja Analytics involves multi-year activities within the workstreams of enterprise dashboards, self-service analytics and the migration of existing reports from Umoja business intelligence. Key portals providing valuable information and insights to Member States have been delivered, in addition to a number of dashboards and priority reports for programme managers. The uniformed capabilities support portal for Member States provides visibility and key information about the Organization's engagement with troop- and police-contributing countries in support of mission mandates. The United Nations Secretariat workforce portal for Member States provides comprehensive information on the composition of the United Nations workforce using near real-time data.

5.   Within the framework set out in Our Common Agenda, and as part of the set of capabilities to enable a wider transformation towards United Nations 2.0, the Enterprise Resource Planning Solution Division, under a programme of continuous improvement of Umoja, delivers digital transformation and innovations driven by business needs and based on the latest technology. These are aimed at contributing to the implementation of reforms, process improvements and the effective use of the Organization's resources. The overall objective of continuous improvement of the Umoja system is to ensure that it matures and remains fit for purpose as technologies and business needs evolve. It is through continuous improvement that the investment made in Umoja is maximized. Continuous improvements are currently aimed at delivering enhancements to facilitate simplification, automation and process improvement. Notable continuous improvements delivered during the period included the new payroll process model, which automated multiple individual payroll processes, increasing the accuracy and speed of transactions. The budget formulation solution now includes improved comparative budget analysis, which is important for reporting to Member States. Inter-mission customs clearance and shipment handling have been streamlined and sped up through an enhancement to the customs clearance functionality.

6.   In the area of system, security and infrastructure, improvements included the review and implementation of the product road maps associated with the solution architecture, as well as new innovations. Regular upgrades were made to Umoja software to ensure that the solution remained robust and resilient to security threats. Umoja application security was strengthened with the implementation of multifactor authentication. Business continuity for Umoja was strengthened through the implementation of a new solution, ensuring high availability through state-of-the-art database replication technology. One of the key activities to be undertaken is the upgrade of Umoja to SAP ERP 6.0 enhancement package 8. This upgrade will ensure continued support from the vendor, deliver valuable innovations to users, and enable Umoja to keep pace with technological advances. In parallel, the Enterprise Resource Planning Solution Division continues to research and identify opportunities for innovation based on the latest technologies, such as the exploration into robotic process automation.

B.   Umoja Analytics

7.   As the primary enterprise resource planning solution of the United Nations Secretariat, Umoja provides a wealth of information about the management of a wide variety of United Nations resources. Umoja serves as a rich source of information that becomes more valuable as data are added and user adoption increases. However, getting access to and making use of the data have traditionally been stumbling blocks for many users of enterprise resource planning systems. The features that make the data so valuable, such as their volume and complexity, also make it difficult to find specific data and easily understand their implications.

8.   Using Umoja Analytics, the Enterprise Resource Planning Solution Division is developing solutions for users to be able to overcome these barriers. Umoja Analytics blends broader and deeper levels of internal and external data using the latest available technology and will serve as the foundation for United Nations staff and Member States to gain enhanced insights through more sophisticated tools that give access to larger volumes of data in a user-friendly manner.

9.   In the Data Strategy of the Secretary-General for Action by Everyone, Everywhere, analytics is defined as the use of data to better understand "what happened", "why it happened", "what may happen next" and "how to respond". Umoja Analytics explores data in ways that provide meaningful insights in order to better understand and improve upon the performance, strategies and outcomes of the United Nations. Umoja Analytics also provides predictive capabilities and answers to "what if" scenarios for improved decision-making.

10.   Key portals providing valuable information and insights to Member States were delivered, in addition to several dashboards and reports for programme managers. The first solutions deployed through Umoja Analytics were the portals for Member States on uniformed capabilities support and the United Nations Secretariat workforce, which have been welcomed as valuable tools to support their work with the United Nations.

Portals for Member States

11.   The benefits for Member States of using the portals are significant – their users can easily access tailored reports and insightful visualizations with automatically refreshed data, whenever they need the information and at the touch of a few buttons. Before the launch of the portals, access to data and reports was a manual, resource-intensive process, requiring Member States to email or make in-person requests to United Nations staff, who, in turn, had to check multiple data sources to find, collate and provide the information requested.

12.   The uniformed capabilities support portal for Member States was launched in January 2022 and provides key information about the Organization's engagement with troop- and police-contributing countries in support of mission mandates. Member States can access secure information about memorandums of understanding, verification reports, claims and payments. The portal also offers analytics, views and insights that were previously unavailable. Further development of the portal is under way, with plans to include more information and provide access to verification reports, calculation reports and payment letters.

Figure I
Uniformed capabilities support portal[a]
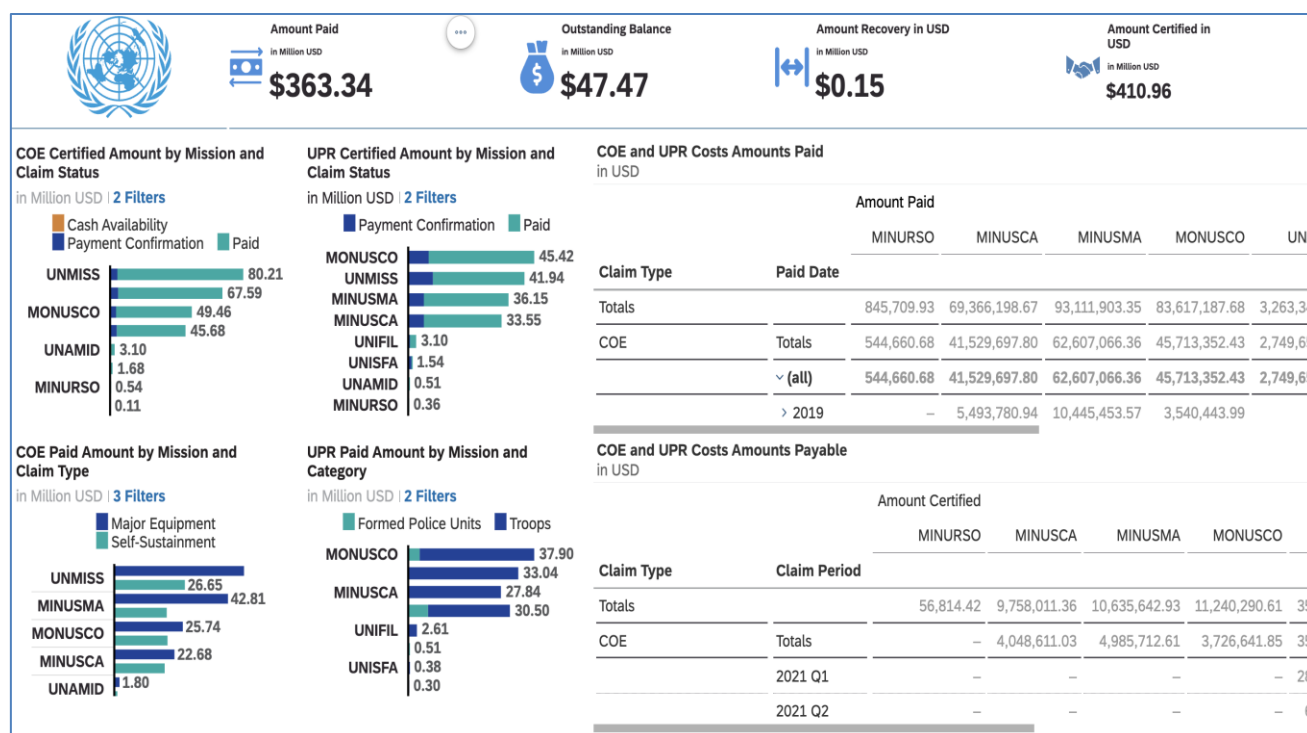
[a] The data displayed in the figure are for illustrative purposes only and are not indicative of actual data from any particular project or entity.

13.   The United Nations Secretariat workforce portal for Member States was launched in July 2022 for a pilot group and provides insights into data on the

workforce, including the geographical diversity of United Nations personnel. Providing comprehensive information on the composition of the United Nations workforce, it is based on regularly updated data, which were previously available only on an annual basis in the reports on the composition of the Secretariat. Monthly snapshots support trend analysis and determine the geographical representation status of Member States. The portal has advanced features for data segmentation, visualization and analysis. The full deployment of the portal is anticipated by the end of 2022.

Figure II
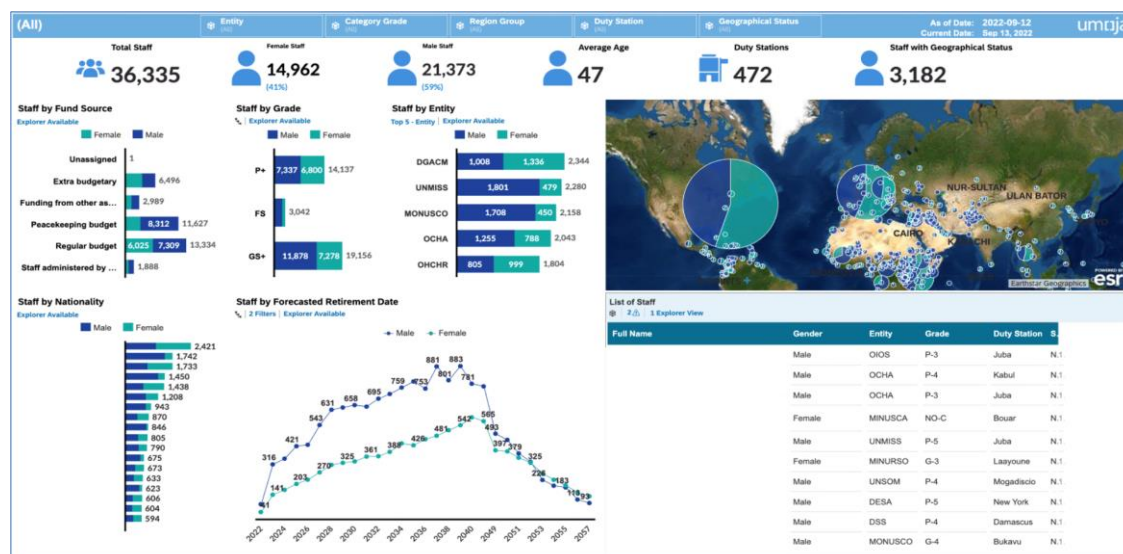**United Nations Secretariat workforce portal**[a]

[a] The data displayed in the figure are for illustrative purposes only and are not indicative of actual data from any particular project or entity.

14. Changes introduced to the contributions portal for Member States have improved the quantity and quality of information through the inclusion of additional navigation, drilldown and exporting features and chart views, as well access to historical reports.

15. The Enterprise Resource Planning Solution Division will continue to work with its partners in the United Nations Secretariat to enhance the portals and identify opportunities to develop new portals based on the needs of Member States.

Enterprise dashboards

16. In addition to the tools developed in response to Member States' needs, the Enterprise Resource Planning Solution Division is also developing Umoja Analytics dashboards in collaboration with the stakeholders in and clients of the Umoja system to support United Nations staff in performing their functions and delivering on their goals. Two examples are the enterprise risk management dashboard and the integrated planning, management and reporting dashboard.

17. The enterprise risk management dashboard allows users to identify, evaluate and prioritize mitigating actions for the Organization's strategic risks. It will also be used to monitor the work of the risk treatment teams, the effectiveness of the agreed actions in mitigating the risks and the evolving risk profile of the Organization. The deployment of the dashboard is scheduled for the end of 2022.

18. The integrated planning, management and reporting dashboard integrates multiple solutions such as strategic management, budget formulation and project systems. It is effectively an end-to-end solution for managing the life cycle of United Nations programmes and projects. It has been designed to strengthen internal management capabilities in support of the work of the Organization, providing managers with holistic and timely information about projects, including project description, logical framework, monitoring status, financial implementation status and implementation modality. Following the deployment of the individual modules, the focus is now on linking and visualizing data from those modules, so that business-critical information is available in an integrated manner and is accessible to a wider user base. The deployment of the dashboard is scheduled for the end of 2022. Figure III shows an example of an integrated planning, management and reporting dashboard.

Figure III
Integrated planning, management and reporting[a]
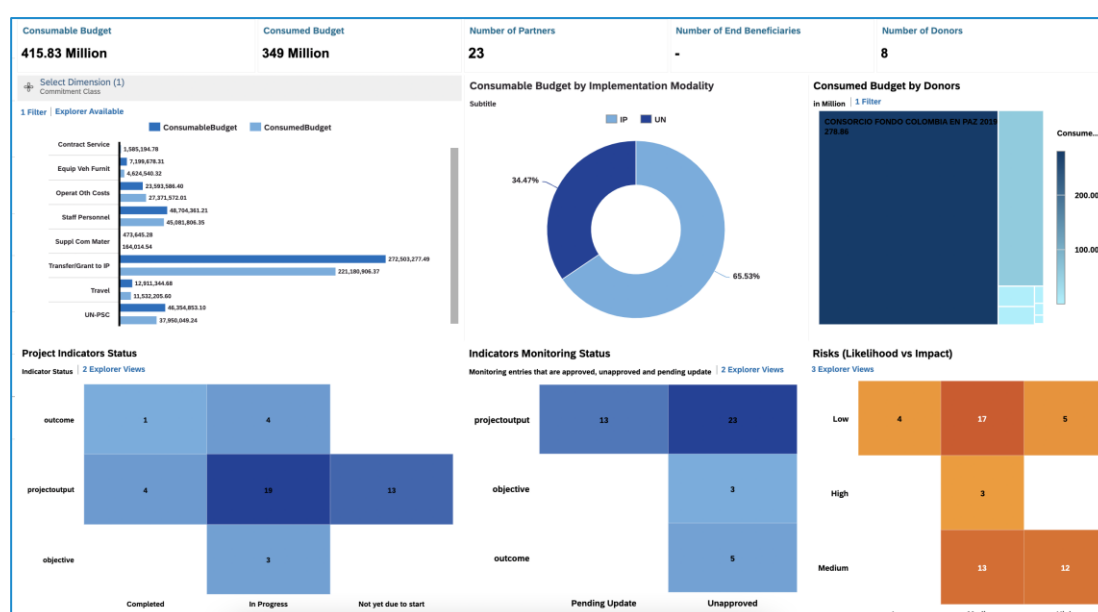
[a] The data displayed in the figure are for illustrative purposes only and are not indicative of actual data from any particular project or entity.

Migration from Umoja business intelligence to Umoja Analytics

19. In addition, the Umoja business intelligence solutions are being modernized by migrating all reports and dashboards to Umoja Analytics, which has more advanced and powerful functions. Existing reports are being redesigned to take advantage of the new capabilities offered by this technology, as well as of the enhanced data sets available, which have greater coverage and access to richer historical data. A total of 118 reports are being migrated to Umoja Analytics, of which 109 were identified as higher priority and are already available through the solution.

Self-service analytics

20. The self-service analytics feature of Umoja Analytics will benefit users at all levels of the Organization by enabling them to access Umoja data and visualizations for themselves, without having to rely on technical experts. The Enterprise Resource Planning Solution Division has deployed a beta version of the self-service analytics

solution for use by the functional subgroups, and is planning to make it available to all Secretariat users, according to their needs, by the end of 2023.

Data models

21. High-quality data models are the fundamental building blocks for Umoja Analytics. These data models mine data not only from Umoja, but also from other United Nations enterprise solutions, such as Inspira and iNeed, as well as data from external sources, for example, the United Nations Development Programme. More than 100 certified data models have been developed and delivered.

C. Continuous improvements

22. Driven by a strategy and culture of continuous improvement and innovation, the Organization continues to leverage the capabilities of the Umoja system to cultivate opportunities for business transformation. For this reason, it is imperative that the Umoja system remains modern and fit for purpose.

23. A programme of continuous improvements is currently aimed at delivering enhancements to facilitate simplification, automation and process improvement. Highlights of completed and future continuous improvements are presented below.

24. In the area of human capital management, several improvements have been made to reinforce and streamline processes and increase accuracy. In the area of payroll, a complex enhancement was implemented globally to further automate many individual payroll processes and reduce the risk of errors. The process of capturing and updating beneficiary details has been significantly simplified with the transformation of a semi-manual process into a fully automated online one that is shorter and faster. The monitoring of the danger pay entitlement was strengthened with the deployment of new data models to complement the existing danger pay solution. Further improvements were implemented to the annual dependency benefits review process, which improved the 2021 review exercise. An automated process to improve and streamline payroll cost recovery was piloted in the United Nations Office at Geneva and the United Nations Office at Nairobi. The implementation of payroll-based cost recovery simplifies, harmonizes and automates the recovery of recurrent, headcount-driven service costs and leads to significant time savings for both service providers and receiving entities. It also introduces the opportunity to align the application of service charges across the various service providers within the Organization. The deployment provides a rapidly scalable cost recovery solution that will be expanded to other United Nations offices.

25. The further integration of Umoja and Inspira has reduced the delay of up to 36 hours in obtaining index numbers for use in Inspira. As a result of this integration, searches for applicants' index numbers can now be made in real time directly within Inspira. A new interface between Umoja and the United Nations Joint Staff Pension Fund enterprise system is under development. It will automate the exchange of information on separated staff members, making the separation process faster and more reliable. Important benefits envisaged from this interface are significant improvements in the accuracy and timeliness of pension payment processing for separated staff and retirees.

26. Several improvements were made to the after-service health insurance module to migrate the data of locally recruited former United Nations Secretariat staff participating in after-service health insurance under the medical insurance plan into Umoja. The commencement of this migration has resulted in easy and timely monitoring and reporting, ensuring consistency of the administrative processes and reducing the manual effort required. In addition, a new automated process is being

developed that will reduce the manual effort involved in correcting the allocation of after-service health insurance expenditures.

27. One of the key improvements under development is the introduction of a new tool for the management of rejected sick leave requests, which will mitigate the risk of unaccounted for absences in the certified sick leave process through greater staff accountability and increased automation. A new data interface for the United Nations Headquarters host country registration and visa application system is being completed to streamline mandatory host country reporting and is projected to reduce manual effort and duplicated records.

28. In the area of travel, an enhancement was implemented to capture the consent from the certifying officer to use an additional authorized amount, eliminating the need for offline correspondence and verifications. This streamlined the process, increased the transparency, and strengthened accountability within the travel arrangement process.

29. Further enhancements to the travel claims workflow are in development to route claims more efficiently for processing, accelerating the claims processing times and mitigating the risk of unnecessary recoveries of travel advances.

30. In the area of finance, changes to the electronic payment messaging to increase automation resulted in close to 100 per cent on-time payments and a reduction in the number of payments requiring reissue. The global roll-out of functionality to provide staff members with the ability to directly update their banking information in Umoja has been well received. The global roll-out continues as planned in phases, with the next deployment at the United Nations Office at Geneva, targeting over 4,300 Swiss Franc bank accounts. For the Treasury, the planned deployment at the end of 2022 of the interface for foreign exchange rate trades will automate the processing of 3,800 transactions each year, reducing manual corrections and the risk of errors. The investment trades interface for 600 transactions will be deployed thereafter with similar benefits.

31. The redesign of the implementing partner agreement formats, as well as new features for monitoring partner payments and reporting submissions in the implementing partner solution has given users the ability to better evaluate the performance of implementing partners. The further adoption and maturity of the integrated planning, management and reporting solution has laid the foundation for its integration with the implementing partner solution to improve the effectiveness of programmatic monitoring within implementing partner agreements.

32. In the strategic planning, budgeting and performance management solution, users now benefit from an enhanced reporting functionality and the automated generation of draft plans and performance reports. Entities can also design and upload their own reporting templates as a result of enhancements to the solution's export capabilities. System capabilities will be further improved through the addition of filtering dimensions.

33. The budget formulation solution was further enhanced to provide improved comparative budget analysis of the major drivers of staff costs, which is important for reporting to the Member States. Enhancements were delivered to increase automation and reduce human error, which included a function for copying unit rates, thereby facilitating budget planning for military and police units, as well as for materials and services. Additional improvements to the budget formulation solution are being made, including the incorporation of all other non-assessed funding into the solution.

34. The financial statements solution was further improved to reduce the effort involved in the preparation of the financial statements by automating the elimination rules for extrabudgetary after-service health insurance funding and the Tax

Equalization Fund for volume I of the financial statements of the United Nations. In addition, the financial statements solution was enhanced to automate the generation of the schedule of individual trust funds, which comprises more than 140 trust funds, greatly increasing quality through the reduction of the risk of human errors.

35. In the area of supply chain management, the first global supply chain plans utilizing data from the supply chain planning tool were produced. Regular budget entities completed their 2023 plans using the new tool and peacekeeping entities did the same for their 2022/23 plans. With access to integrated end-to-end supply chain transactional data, entities used the solution to forecast and plan for future demands, as well as review supply fulfilment strategies, including existing inventories and available contracts. The planning cycles reinforced the potential of a data-driven supply chain, leveraging the wealth of information available in transactional systems and dynamic updates of supply and sourcing information. The first planning cycle undertaken in the supply chain planning tool also resulted in valuable lessons learned in areas in which data quality needed to be improved and highlighted opportunities for additional improvements.

36. Logistics execution processing and shipment handling was streamlined through the implementation of an enhancement to support customs clearance functionality. In the source to acquire area, functionalities were developed to support the process for entering into cost-sharing agreements with other United Nations entities. The process and underlying functionalities foster a consistent approach for these arrangements, eliminate various workaround processes and enable entities to track related arrangements easily.

37. In addition to its work in planning, the Organization continued to identify and implement enhancement opportunities across the end-to-end supply chain. Key forthcoming improvements include enhancements in transportation management to improve the processing and monitoring of shipments of goods, the travel of uniformed personnel and the shipment of contingent-owned equipment. These enhancements include the simplification of user interfaces; refinements to geographical routing capabilities to further automate transportation planning; and proposals to utilize information on transportation movements to estimate carbon dioxide emissions as an initiative in support of the Sustainable Development Goals. It is also envisaged to feed this information into the greenhouse gas inventory on an annual basis. Efforts are also being made to continue to expand the use of electronic data interchange interactions with vendors and freight forwarders to facilitate the availability of real-time data in support of informed decisions.

38. In the area of uniformed capabilities management, improvements were made to uniformed strength payment letters, mission consolidated strength reports, the tracking of payments for claims related to letters of assist and to generate additional uniformed strength reports. A new functionality was introduced to facilitate claim processing for the temporary reimbursement rate related to mandatory predeployment coronavirus disease (COVID-19) testing, as established by the General Assembly in its resolution 76/276. Furthermore, annual automated updates were made to the memorandum of understanding annexes and master data for revised rates and mission factors.

39. In the area of conference and event management, Umoja was integrated with Indico, the United Nations meeting participant management system. The synchronization of key details associated with events is expected to improve efficiency through the elimination of duplicate data entry, improve data quality and facilitate financial reporting associated with events.

40. In an addition to the continuous improvement programme of work for 2022, activities were initiated for the deployment of Umoja at the International Court of

Justice, with a target deployment date of 1 January 2023. Such undertakings are complex and must be managed with a focus on execution, delivery and due diligence to ensure a smooth transition in which staff and operations are not adversely affected and the integrity of Umoja data is not compromised.

D. Systems, security and infrastructure

41. Owing to the vital role of Umoja in supporting the day-to-day business operations of the United Nations, the Enterprise Resource Planning Solution Division continues to safeguard it through risk mitigation and disaster recovery planning. The events of recent years have provided further evidence of the Organization's dependency on Umoja for ensuring operational resilience and stability. Enabled by its global reach and remote accessibility, the Umoja system has provided crucial functionality, which has allowed the Organization to navigate the financial liquidity crisis and to continue operating seamlessly throughout the COVID-19 pandemic and the transition towards the "new normal". The Division has continued to strengthen Umoja, including through system upgrades to ensure its smooth, uninterrupted operation. Together with the Office of Information and Communications Technology, the Division enhanced Umoja security, enabling multifactor authentication for Umoja applications and single sign-on for Umoja Analytics, proactively implementing cybersecurity measures and deploying a state-of-the-art high availability solution. The Office, together with the Division, continued to upgrade the infrastructure for Umoja resilience and stability, which is crucial to ensure business continuity. The Division also implemented a new module for enterprise risk management to support the Secretary-General's reform strategy and the Secretary-General's statement on internal control.

42. The implementation of the Umoja enterprise risk management module and the process control module has been welcomed by oversight bodies on several occasions, including by the Independent Audit Advisory Committee in its report (A/75/293) and the Board of Auditors in their reports (A/73/5 (Vol. I), A/73/5 (Vol. II) and A/69/5 (Vol. I)). The implementation of enterprise risk management Secretariat-wide is central to the reform strategy of the Secretary-General, who committed to achieve 100 per cent implementation across all relevant entities by 2023. The enterprise risk management module was launched for six pilot entities in October 2021. The process control module is being configured to further support the Secretary-General's initiative to implement the statement on internal control, an important milestone towards achieving accountability for results.

43. To keep critical Umoja applications up to date with the latest product and security patches, the Enterprise Resource Planning Solution Division has successfully completed the support package upgrades. These upgrades to the Umoja transportation and event management modules, as well as the Fiori and reporting systems, support the Organization's supply chain area and the portals for Member States, respectively.

44. The Enterprise Resource Planning Solution Division continues to review and take appropriate action based on the Early Watch Alert reports and insights from the Security Optimization Service that proactively highlight any potential weakening of security and recommend immediate actions needed. To complement those security measures and further enhance Umoja security, the Division, in collaboration with the Office of Information and Communications Technology, has implemented an additional cybersecurity vulnerabilities detection application. It provides a preventive and context-aware approach to validate and prioritize each anomaly or threat against business-critical applications and data. Through continuous monitoring, the application delivers a near real-time preventive and detective approach to keeping the Umoja system secure.

45. Considering the remedies implemented, the Umoja system has reached full compliance with the cybersecurity action plan, as acknowledged by the Board of Auditors in its eleventh and final progress report on the implementation of the United Nations enterprise resource planning system (A/77/135). Nevertheless, given the ever-growing cybersecurity threats, efforts to protect Umoja will continue to be made.

46. A streamlined single sign-on has been implemented for Umoja Analytics to improve the user experience. This provides a single point of entry for Member States to access portals, such as the uniformed capabilities support portal, the United Nations Secretariat workforce portal and the contributions portal.

47. Keeping an up-to-date Umoja training landscape is vital for users to learn how to use the Umoja system effectively. Training environments require data that are realistic but that do not disclose confidential information that may compromise individuals or the Organization. To that end, data scrambling mechanisms have been put in place to provide enhanced data security for sensitive data in training environments.

48. To further improve the system's uninterrupted operation and its reliability, the Enterprise Resource Planning Solution Division, in conjunction with the Office of Information and Communications Technology, has continued to strengthen the Umoja infrastructure through the implementation of a state-of-the-art high availability solution, based on state-of-the-art database replication technology. In case of a system failover from one data centre to another, this solution will reduce the recovery time in support of business continuity. The implementation of this technology is based on the lessons learned from the prior disaster recovery exercise, and the Organization is planning a tabletop disaster recovery exercise to be undertaken by the end of 2022.

49. The Enterprise Resource Planning Solution Division is continually innovating to improve the user experience and streamline and automate processes. The extension of mobile technologies, through Umoja Mobile, is planned across many functional areas. Examples are inventory and asset barcode scanning, which will improve both data accuracy and verification processes in inventory and property management; and the modernization of the approvals for user access provisioning requests.

50. The upgrade to SAP ERP 6.0 enhancement package 8 will ensure continued support from the vendor, provide valuable innovations to users and enable the Umoja system to keep pace with technological advances. In addition, it will open opportunities for an improved user experience. In its final meeting, the Umoja Steering Committee endorsed the upgrade to enhancement package 8 and acknowledged that the upgrade would be complex and would require significant effort and resources in 2023 from the Enterprise Resource Planning Solution Division, the Office of Information and Communications Technology and the business functional subgroup to ensure success.

E. Governance model

51. Since the previous report, as planned, two additional meetings of the Umoja Steering Committee were held. At its final meeting, in May 2022, the Umoja Steering Committee endorsed, inter alia, the governance model comprising the Umoja Change Board, the functional subgroups and the Benefits Working Group. Both at this meeting and in the Management Committee, senior management noted the effective functioning of the Umoja Change Board and directed committee members to continue to make proper use of the Board as the appropriate channel through which to request, evaluate and prioritize enhancements to the Umoja system.

52. The strategic direction was approved by the Umoja Steering Committee during its tenure and regularly reported upon. Following the conclusion of the work of the Committee, the Enterprise Resource Planning Solution Division will report on the

strategic direction of the Umoja system to the Management Committee, including through the Information and Communications Technology (ICT) Steering Committee, where technical feedback is required.

53.   The Director of the Enterprise Resource Planning Solution Division continued to meet regularly with the Under-Secretary-General for Management Strategy, Policy and Compliance and the Under-Secretary-General for Operational Support to brief them and solicit their input and guidance on all important matters relating to the Umoja system and the Division.

54.   The Umoja Change Board remains the primary governance mechanism for the enhancement of the Umoja system. The Board meets every two months, as well as ad hoc if requested by members, to review proposed enhancements and additional integrations, as determined by business needs, to the Umoja system.

55.   In April 2022, the Umoja Change Board approved a new, cross-cutting user access functional subgroup. The membership of the subgroup includes representation across all functional areas and focuses on the oversight and monitoring of all Umoja user access-related matters, including segregation of duties and update of user provisioning-related documentation. The subgroup will also address related audit recommendations and initiate process and system improvements, such as automating the user access deprovisioning process. Figure IV shows the current configuration of the Umoja governance framework.

Figure IV
Umoja governance
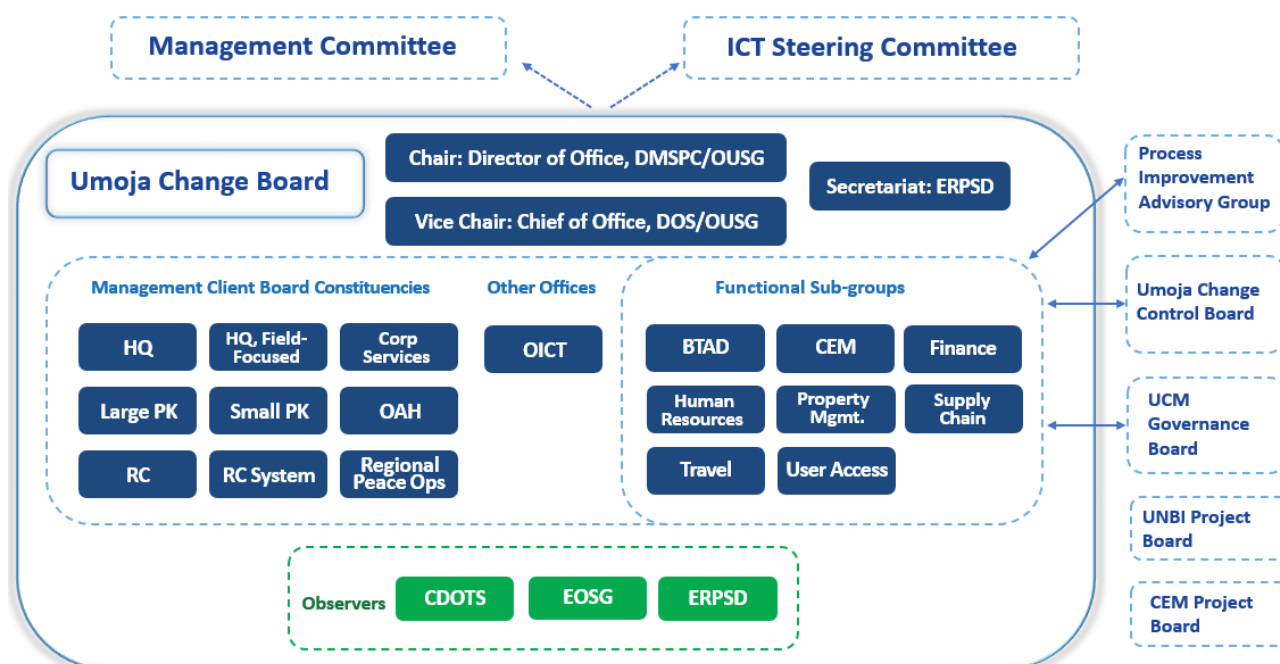
Abbreviations: ICT, information and communications technology; OUSG, Office of the Under-Secretary-General; HQ, Headquarters; Corp Services, Corporate Services; PK, Peacekeeping; OAH, offices away from Headquarters; RC, regional commissions; RC System, resident coordinator offices; Regional Peace Ops, regional peace operations; BTAD, Business Transformation and Accountability Division; CEM, conference and events management; Property Mgmt., property management; CDOTS, Capacity Development and Operational Training Service; EOSG, Executive Office of the Secretary-General; ERPSD, Enterprise Resource Planning Solution Division; UCM, uniformed capabilities management; UNBI, United Nations Business Intelligence.

56.   The Umoja Change Board met six times in the year from September 2021. Since the previous report, 251 improvements have been delivered. The Board members and observers acknowledged the excellent collaboration between the members of the change governance framework in delivering the vast amount of work supporting the priorities set by clients. The constituencies of the functional subgroups and the Management Client Board have proved to be an indispensable part of the success of the development of Umoja through continuous improvements. The Office of Information and Communications Technology and the Capacity Development and Operational Training Service were also vital to the delivery of the programme of work. Member States acknowledged the contribution of the uniformed capabilities support portal and the United Nations Secretariat workforce portal as tools that ably supported their strategic decision-making. These portals are the result of successful partnerships with business stakeholders in the Uniformed Capabilities Support Division, the Department of Operational Support and the Office of Human Resources of the Department of Management Strategy, Policy and Compliance.

F.   Benefits realization

57.   The Benefits Working Group, which oversees the progress of benefit realization relating to the Umoja programme of continuous improvement, has been operating since March 2021.

58.   The membership of the Benefits Working Group comprises the functional subgroups of the Umoja Change Board, who are responsible for identifying, recording, monitoring and realizing expected benefits; the Enterprise Resource Planning Solution Division, which is responsible for carrying out the programme of continuous improvements; and the Business Transformation and Accountability Division, which serves as the coordinator. The focus of the Group has widened to include the review of expected benefits. At its meetings, the Group also shares lessons learned in the benefits realization process. Since the previous report, the Group has met five times and identified for tracking an additional 23 enhancements with important benefits for the Organization.

59.   The Benefits Working Group has transitioned benefits recording and tracking from Excel to the tool used to manage requests for enhancements to Umoja. Following the enhancement of the tool with benefits tracking fields, users recording or updating the change requests can now consider and record the benefits easily at the same time. This enhancement has made the benefits realization process easier and more intuitive and has increased the automation of data collection, allowing for faster verification of information for benefits reporting.

60.   At its meeting in September, the Benefits Working Group decided not to review the benefits from the original Foundation and Umoja Extension 1 deployments, noting that these benefits had become an indistinguishable part of the Umoja system. The effort and cost required to attempt such a retroactive review would severely and negatively impact ongoing Umoja continuous improvement and was unlikely to provide meaningful information.

61.   The Benefits Working Group will begin its review of Umoja Extension 2 benefits according to an updated time-bound plan, which will be finalized at its meeting in December 2022. In the meantime, the Group will continue to track benefits from continuous improvements to all phases of Umoja. Faster and more complete benefits recording will be done through increased monitoring of approved change requests by the Group focal point. An agreement to increase communication between the Umoja Change Board and the Benefits Working Group focal point will strengthen the benefits realization process.

G.   Risk management

62.   By the final meeting of the Umoja Steering Committee, the four outstanding key Umoja project risks had been mitigated and were endorsed for closure. Noteworthy risks are now being reported to the Umoja Change Board and, in exceptional situations, risks may be reported to the Management Committee and/or the ICT Steering Committee. Within the framework of Secretariat risk management, the functional subgroups, the Enterprise Resource Planning Solution Division and the Office of Information and Communications Technology are responsible for addressing relevant risks related to the Umoja system. Secretariat-level risks are captured within the enterprise risk management solution.

H.   Training

63.   In line with the Umoja learning strategy for 2021–2025, the Capacity Development and Operational Training Service has been working with the functional subgroups and the Enterprise Resource Planning Solution Division to create and update Umoja training courses with an emphasis on online learning. The Service developed the Umoja certification programme for human resources partners, which consists of 11 e-learning courses. Further training courses were developed for the integrated planning, management and reporting module in Umoja, taking into account the expansion of delegated authority in management matters, which has been a key area of reform in the administration of the United Nations. In addition, the Service and the Division have collaborated on a new training programme for Umoja Analytics, which will also support the portals for Member States, with corresponding training videos and online manuals to guide users as they navigate the system.

64.   The Capacity Development and Operational Training Service has set up an Umoja learning hub as a single point of access to Umoja training resources. This initiative included the development of an online Umoja course catalogue, an enterprise roles-to-course mapping application and consolidation of hundreds of Umoja job aids and other reference information.

65.   The Capacity Development and Operational Training Service will be launching a comprehensive training needs assessment by the end of 2022 to determine the future learning needs of Umoja users. This global survey will help the Service to redesign and improve certification training programmes across different operational areas. In parallel, the Service is collaborating with the supply chain functional subgroup in undertaking a performance gap analysis aimed at identifying priority areas to direct learning efforts for staff with supply chain responsibilities in the years to come. The newly designed overview course "Umoja – working smarter" will replace legacy introductory courses developed in the past for Umoja implementation.

I.   Production support

66.   The Organization maintains a four-tiered Umoja system production support model, which is a shared responsibility between the Office of Information and Communications Technology, the functional subgroups and the Enterprise Resource Planning Solution Division, with overall oversight coordination and monitoring provided by the Division. Within this tiered model, tier 1 and tier 2a service desk support is provided by the Office of Information and Communications Technology, tier 2b process expert support is provided by the functional subgroups and tier 3 techno-functional support is provided by the Division.

67.   Through strengthened monitoring procedures, the Organization has significantly reduced the Umoja support ticket backlog. Compared with the statistics reported by

the Board of Auditors, in its eleventh and final progress report on the implementation of the United Nations enterprise resource planning system (A/77/135), as at 15 September, the Administration had reduced the backlog of unresolved tickets by 17.1 per cent and the average age of tickets by 61.8 per cent. This was achieved through regular monitoring and monthly Umoja production support coordination meetings between the Enterprise Resource Planning Solution Division, the Office of Information and Communications Technology and the functional subgroups to assess the performance of production support.

68. Through an ongoing evaluation of Umoja production support cases and resolution rates, at the tier 1 level and overall, the Administration continues to revise service-level agreements and standard operating procedures with the objective of updating them, as needed.

J. Total cost of ownership

69. The updated total cost of ownership is presented in table 1. The total cost of ownership is a management estimate that reflects current and projected costs to 2030.

Table 1
Total cost of ownership (estimated to 2030)
(Thousands of United States dollars)

Cost category	Period	Amount
Direct costs (Umoja)	2008–2022[a]	601 734.2
	2023[b]	24 571.8
	2024–2030	172 002.6
Business support costs	2021–2022[c]	5 509.4
	2023[b]	3 219.2
	2024–2030	22 534.4
Indirect costs	2013–2022	186 436.3
	2023–2030[d]	33 349.2
Training costs	2013–2022	97 165.7
	2023–2030	19 819.2
Maintenance costs	2016–2022	150 034.9
	2023[e]	25 371.4
	2024–2030	178 110.2
Total	**2008–2030**	**1 519 858.5**

[a] Includes $577,216,400 in actual expenditures for the budget period 2008–2021.
[b] As presented in the proposed programme budget for 2023.
[c] Includes $2,290,200 in actual expenditures for the budget period 2021.
[d] Projected indirect costs are based on 15 per cent of direct costs, reflecting the reduced scale and frequency of deployments.
[e] Included in the budget of the Office of Information and Communications Technology.

K. Implementation of oversight bodies' recommendations

70. The eleventh and final annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system (A/77/135) was published on 2 September 2022. The audit consisted of over 300 in-depth questions, dozens of hours of interviews and demonstrations of the system and an estimated 2,500 person-hours of effort to respond to the audit's requirements. The

Board noted that Umoja remained a key enabler for modernization and reforms in the administration of the United Nations. The Board appreciated the efforts of the Administration towards multiple deployments and continuous improvements in a challenging technical landscape and in the face of competing demands on resources. The Board also noted that Umoja had been mainstreamed into the Secretariat and that the cumulative actual expenditure for the period 2008–2021 had been within the approved budget.

71. Since the previous audit, the Administration had made considerable efforts to implement the outstanding recommendations of the Board of Auditors, which resulted in an unprecedented reduction rate of 62 per cent, reducing the number of outstanding recommendations from 60 to 23. The Administration will continue to proactively work towards addressing the 23 remaining recommendations, as well as addressing the 14 new recommendations from the eleventh audit. Over the course of the 11 audits of the Umoja system, the Board made a total of 149 recommendations, of which 112 have been closed or considered overtaken by events and 37 remain open.

72. Even though the Umoja system has been audited annually by the Board of Auditors, it is also indirectly audited through audits of Secretariat entities conducted by the Board. This resulted in a high volume of mentions of Umoja and recommendations for the Umoja system.

73. The Umoja system was audited by the Office of Internal Oversight Services (OIOS) 14 times during the period from 2011 to 2020. In 2021, the Enterprise Resource Planning Solution Division was audited by OIOS directly or indirectly seven times in the following areas: cloud services; data governance, management and reporting; network access management and security in the United Nations Secretariat; network access management in the Pension Administration of the United Nations Joint Staff Pension Fund; the unmanned aerial vehicle system at the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo; business intelligence and data warehousing systems; and employee self-service/ management self-service and related processes for uniformed personnel and national staff at the United Nations Interim Force in Lebanon. In 2022, planned and completed OIOS audits will include: Umoja user access management; Umoja education grant module at the Regional Service Centre in Entebbe, Uganda; and Umoja Extension 2 – implementing partner management for Geneva-based entities. There are seven open OIOS recommendations pending, two of which were issued in 2022.

L. Lessons learned

74. Table 2 highlights the internal lessons learned since the mainstreaming of Umoja responsibilities.

Table 2
Lessons learned

Area	Description
Change management	Change management is essential to overcome change resistance and ensure ongoing user acceptance and adoption.
	High-quality and accurate transactional data are vital for a well-functioning system as they underpin planning, reporting and analytics capabilities, which, in turn, inform effective decision-making.
	Reskilling of staff continues to be essential to current and future success in overcoming these change management challenges.

Area	Description
Documentation	Significant investment goes into configuring and implementing enterprise resource planning systems. It is imperative to document the detailed technical aspects to ensure business continuity and technical handover. Resources dedicated to technical writing are essential to this requirement.
Proliferation of systems	Umoja functionalities should be leveraged to the extent possible to reap the full benefits of the investment in the enterprise resource planning system. Duplicative solutions should be prevented.
Oversight and formal reporting	Oversight and formal reporting on the functioning of the Umoja system is crucial. The partnership between the oversight bodies and the Administration should be leveraged to benefit the Umoja system. The resources required to adequately support oversight and formal reporting functions are significant and the diversion of resources from core functions adversely affects the continuous improvement of the system.
Recruitment	Supporting the Umoja system requires specialized skills that are scarce and in high demand and therefore expensive. It continues to be difficult to attract qualified candidates as a result, particularly within the constraints of the Organization's policies.

III. Closure of the enterprise resource planning project

Completion of mainstreaming

75.   In its final report (A/77/135), the Board of Auditors noted that Umoja had been mainstreamed into the Secretariat and a new governance model had been introduced that would continually drive improvement. The completion of mainstreaming was also endorsed both in the final meeting of the Umoja Steering Committee and in the subsequent Management Committee meeting. In addition, the Umoja Steering Committee noted the timely deployment of all Umoja Extension 2 functionality by the end of 2020, which allowed for the planned closure of the Umoja project on 31 December 2020 and the end of the hypercare and stabilization period of Umoja Extension 2 on 31 December 2021. The Umoja Steering Committee also noted that the Management Committee and the ICT Steering Committee would receive biannual updates from the Enterprise Resource Planning Solution Division on Umoja system developments. The Management Committee reaffirmed that updates from the Division on the Umoja system twice a year were sufficient and that any ad hoc requests would be sent to the Management Committee.

IV. Request for action by the General Assembly

A. Proposed financing model for the Enterprise Resource Planning Solution Division, related maintenance costs of the Office of Information and Communications Technology and business support resources

76.   As indicated in the previous report (A/76/386), the proposed funding model for the post-project phase builds on the previous model and is similarly based on a cost-sharing arrangement between the regular budget, the support account for

peacekeeping operations and voluntary contributions (the special accounts for programme support costs), with the relative shares of these three funding sources being updated in order to take into account the shifts that have taken place over the course of the past 13 years. The shares would be reviewed every five years to ensure that the proportions are adapted to the evolving composition of United Nations budgets. Based on the averages from the 2016–2017 biennium to the financial year 2021 of the regular and peacekeeping budgets approved by the General Assembly and actual voluntary contributions available (as reflected in the audited financial statements), the apportionment ratios proposed for 2024 and beyond would be 25 per cent from the regular budget, 60 per cent from the support account for peacekeeping operations and 15 per cent from voluntary contributions, as compared with the current ratios of 15 per cent, 62 per cent and 23 per cent, respectively. This would represent an increase of approximately $5.1 million for the regular budget share and decreases of approximately $0.9 million for the peacekeeping share and $4.2 million for the share funded from voluntary contributions. Table 3 shows the basis for the calculation of these percentages.

Table 3
Proposed cost-sharing arrangement for 2024 and beyond, by source of funding

	Average yearly amounts from 2016 to 2021	
Source of funds	*Billions of United States dollars*	*Percentage*
Regular budget (as approved by the General Assembly)	2.9	25
Peacekeeping budgets (as approved by the General Assembly)	7.2	60
Extrabudgetary (according to the financial statements)	1.8	15
Total	**11.9**	**100**

77. As the enterprise resource planning solution is a core system of the Organization, upon which critical activities depend for the successful implementation of mandates, its funding must be assured and predictable. For this reason, and as voluntary contributions remain unpredictable, it is still proposed, as explained in the previous report (A/76/386), that the extrabudgetary share of 15 per cent (approximately $7.9 million) be appropriated through the regular budget, with a similar amount reflected under income section 2 of the programme budget so that only the regular budget share is assessed on Member States. This would provide full visibility at the beginning of the financial period of the funding available for the year, allowing the Enterprise Resource Planning Solution Division and the Office of Information and Communications Technology to enter into contracts and manage their staffing complement.

B. Recommended action to be taken by the General Assembly

78. **The General Assembly is requested:**

(a) **To take note of the present report;**

(b) **To approve the financing model for the Enterprise Resource Planning Solution Division, related maintenance costs of the Office of Information and Communications Technology and business support resources for 2024 and beyond.**

Annex I

Justification of positions for supply chain management initiative support

The 24 positions for supply chain management initiative support, as indicated in paragraph 15 of the report of the Advisory Committee on Administrative and Budgetary Questions (A/76/808), were previously authorized under the Umoja project. The incumbents of those positions have been working since 2014 under the Department of Operational Support (previously named the Department of Field Support) to support Umoja deployments in different supply chain business processes. The Umoja Coordination Service, which was established initially as the Deployment Coordination Team for the Galileo decommissioning project, worked in partnership with the Umoja project team in developing, implementing and subsequently sustaining Umoja supply chain modules for all client entities of the Department of Operational Support. In 2022/23, building on Umoja modules that have been successfully delivered, these business resources have been developing a new wave of supply chain initiatives to leverage Umoja capabilities for supply chain modernization, including improving user adoption, improving data accuracy, implementing e-tendering and developing digital support for data-driven decision-making and to seamlessly support end-to-end supply chain management processes. These resources form the core business capabilities of the Department of Operational Support needed to support the dynamic and evolving supply chain operations, which are now fully enabled by Umoja functionalities and data in every aspect of operations.

Annex II

Overview of all resources proposed or estimated for 2023 across all funding sources for Umoja-related costs

(Thousands of United States dollars)

Funding source by entity	Enterprise Resource Planning Solution Division		Umoja business support resources		Umoja global master data management		Umoja global maintenance costs		Umoja operational support for peacekeeping operations		Operational support and support desk costs linked to Umoja		Applications costs in support of Umoja Extension 2 solutions		Training costs for Umoja Extension 2 modules		Total	
	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
Regular budget	**3 902.0**	**16**	**490.7**	**15**	**240.6**	**15**	**3 441.8**	**15**	**–**	**0**	**–**	**0**	**–**	**0**	**–**	**0**	**8 075.1**	**14**
DGACM	–	–	45.4	–	–	–	–	–	–	–	–	–	–	–	–	–	45.4	–
DMSPC	3 902.0	–	123.5	–	240.6	–	–	–	–	–	–	–	–	–	–	–	4 266.1	–
DOS	–	–	321.8	–	–	–	–	–	–	–	–	–	–	–	–	–	321.8	–
OICT	–	–	–	–	–	–	3 441.8	–	–	–	–	–	–	–	–	–	3 441.8	–
Support account for peacekeeping operations	**15 201.0**	**61**	**1 995.9**	**62**	**992.6**	**62**	**14 225.9**	**62**	**2 931.4**	**100**	**906.9**	**100**	**665.9**	**100**	**1 797.3**	**100**	**38 716.9**	**66**
DGACM	–	–	184.7	–	–	–	–	–	–	–	–	–	–	–	–	–	184.7	–
DMSPC	15 201.0	–	502.3	–	992.6	–	–	–	2 335.9	–	–	–	–	–	–	–	19 031.8	–
DOS	–	–	1 308.9	–	–	–	–	–	595.5	–	–	–	–	–	1 797.3	–	3 701.7	–
OICT	–	–	–	–	–	–	14 225.9	–	–	–	906.9	–	665.9	–	–	–	15 798.7	–
Extrabudgetary	**5 639.1**	**23**	**740.4**	**23**	**367.8**	**23**	**5 277.3**	**23**	**–**	**0**	**–**	**0**	**–**	**0**	**–**	**0**	**12 024.6**	**20**
DGACM	–	–	68.5	–	–	–	–	–	–	–	–	–	–	–	–	–	68.5	–
DMSPC	5 639.1	–	186.3	–	367.8	–	–	–	–	–	–	–	–	–	–	–	6 193.2	–
DOS	–	–	485.6	–	–	–	–	–	–	–	–	–	–	–	–	–	485.6	–
OICT	–	–	–	–	–	–	5 277.3	–	–	–	–	–	–	–	–	–	5 277.3	–
Total	**24 742.1**	**100**	**3 227.0**	**100**	**1 601.1**	**100**	**22 945.0**	**100**	**2 931.4**	**100**	**906.9**	**100**	**665.9**	**100**	**1 797.3**	**100**	**58 816.6**	**100**

Abbreviations: DGACM, Department for General Assembly and Conference Management; DMSPC, Department of Management Strategy, Policy and Compliance; DOS, Department of Operational Support; OICT, Office of Information and Communications Technology.

Annex III

Updates on vacancies in the Enterprise Resource Planning Solution Division

1.   The Enterprise Resource Planning Solution Division made significant progress in filling vacancies. Since the previous report (A/76/386), 9 of the then 11 vacancies have been filled. The two remaining vacancies, which are both at the P-3 level and have specialized profiles, were repeatedly advertised during the reporting period to attract suitable candidates. The Division is currently in the process of conducting written assessments for one of the vacant P-3 posts, and the candidates recommended for the second P-3 post are pending endorsement by the central review bodies.

2.   As at 28 September 2022, 55 out of 68 posts were encumbered. As summarized in the table below, 13 vacancies were in various stages of the recruitment process.

Grade	Functional title	Vacant since	Status of recruitment	Expected conclusion of recruitment
P-5	Senior Management and Programme Officer[a]	4 February 2022	Recommended candidate pending internal review	October 2022
P-4	Information Systems Officer	1 August 2022	Recommended candidate pending internal review	October 2022
P-4	Information Systems Officer	1 September 2022	Pre-posting of job opening	December 2022
P-4	Information Systems Officer	1 September 2022	Pre-posting of job opening	December 2022
P-4	Information Systems Officer	9 September 2022	Pre-posting of job opening	December 2022
P-4	Information Systems Officer	1 October 2022	Pre-posting of job opening	December 2022
P-3	Information Systems Officer	1 January 2019	Assessment in progress	October 2022
P-3	Information Systems Officer	1 January 2019	Pending review and endorsement by the Central Review Board	October 2022
P-3	Information Systems Officer	1 May 2022	Pre-posting of job opening	December 2022
P-3	Enterprise Resource Planning Finance Specialist Officer	22 September 2022	Pre-posting of job opening	December 2022
G-7	Senior Information Systems Assistant	1 February 2022	Job opening advertised	December 2022
G-6	Information Systems Assistant	1 January 2022	Job opening advertised	November 2022
G-6	Information Systems Assistant	1 June 2022	Pre-posting of job opening	December 2022

[a] Temporarily vacant until 30 December 2022.

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