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Proposed programme budget for 2021

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

Twelfth and final progress report on the enterprise resource planning project

Report of the Secretary-General

Summary

The present report is submitted pursuant to General Assembly resolution [64/243](#), in which the Assembly requested the Secretary-General to provide annual updates on the progress of the enterprise resource planning project, Umoja. The report provides an update since the issuance of the eleventh progress report ([A/74/478](#)) in October 2019. This is the twelfth and final annual update on the progress of the enterprise resource planning project, Umoja, as requested by the General Assembly.

The deployment of Umoja Extension 2, comprising 41 per cent of Umoja processes, will be completed by 31 December 2020. Additional integration and other enhancement opportunities identified during the design and development phases will be pursued as part of continuous improvements.

The Umoja user base is currently 46,731 users across 449 locations. The user base has diversified significantly through the expansion to new categories of users.

The present report contains a proposal to end the project phase of Umoja at the end of 2020 and includes a mainstreaming plan effective 1 January 2021, as requested by the General Assembly. It also includes resource requests for 2021 for the mainstreamed functions and indicates that unspent funds at the end of 2020 will be returned to Member States, as decided by the General Assembly in its resolution [74/263](#). Updates on benefit realization and the total cost of ownership are also included.

The General Assembly is requested to: take note of the final progress report on the enterprise resource planning project; approve the resource requirements for the Enterprise Resource Planning Solution Division for 2021 and the dual reporting line



of the Division; revise accordingly the appropriation under the proposed programme budget for 2021; note the resource requirements to be included in the subsequent requirements for the support account for peacekeeping operations and those to be funded from extrabudgetary resources in the financial year 2021; and approve the resource requirements for 2021 for business support activities, to be funded from the unused balance at the end of 2020.

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I. Introduction

1. The present report is submitted pursuant to General Assembly resolution [64/243](#), in which the Assembly requested the Secretary-General to provide annual updates on the progress of the enterprise resource planning project, Umoja. It provides an update on the project since the issuance of the eleventh progress report ([A/74/478](#)) and General Assembly resolution [74/263](#).

II. Project review

A. Business case for Umoja and its subsequent development

2. The Umoja project was originally conceived as a successor to the Integrated Management Information System and as a means of replacing a patchwork of information technology systems whose technical capabilities could not keep pace with the business requirements of the Organization. A modern enterprise resource planning system would help support the effectiveness and accountability of the Secretariat by improving business continuity, facilitating greater transparency and safeguarding credibility by mitigating the risks of erroneous information. The General Assembly approved the replacement of the Integrated Management Information System in its resolution [60/283](#), section II, and approved a governance framework, seed funding and the creation of a multi-year account in its resolution [63/262](#), section II.

3. Umoja is now an end-to-end solution, and its functionality has been continually enhanced to take on the functions of additional legacy systems, therefore providing an integrated and harmonized set of business processes to an ever-wider number of clients. It is now a global system with a large functional footprint, robust technical architecture and infrastructure and a strong business intelligence platform. Its user base extends beyond the Secretariat to include external partners, including Member States and meeting participants. In addition to facilitating the day-to-day work of the United Nations, Umoja has been essential in allowing the Secretariat to manage its persistent liquidity challenges, as well as in maintaining business continuity during the ongoing coronavirus disease (COVID-19) pandemic.

4. The vast scope of the project and its many discrete elements necessitated a phased approach to completing the design and build activities while simultaneously planning and implementing the necessary global deployment and change management activities. An “agile” software development approach was adopted to allow the deployment of Umoja in phases because of the complexity of the functionality and the aggressive timelines set by the General Assembly.

5. The Board of Auditors, in its eighth annual progress report on the implementation of Umoja ([A/74/153](#)), noted that the implementation of Umoja globally across more than 40,000 staff in 400 locations was a significant achievement, given the project’s complexity and difficult start. In its resolution [73/279](#) A, the General Assembly welcomed the expansion of the Umoja user base to 46,500 users across 420 locations and noted that this was a significant achievement.

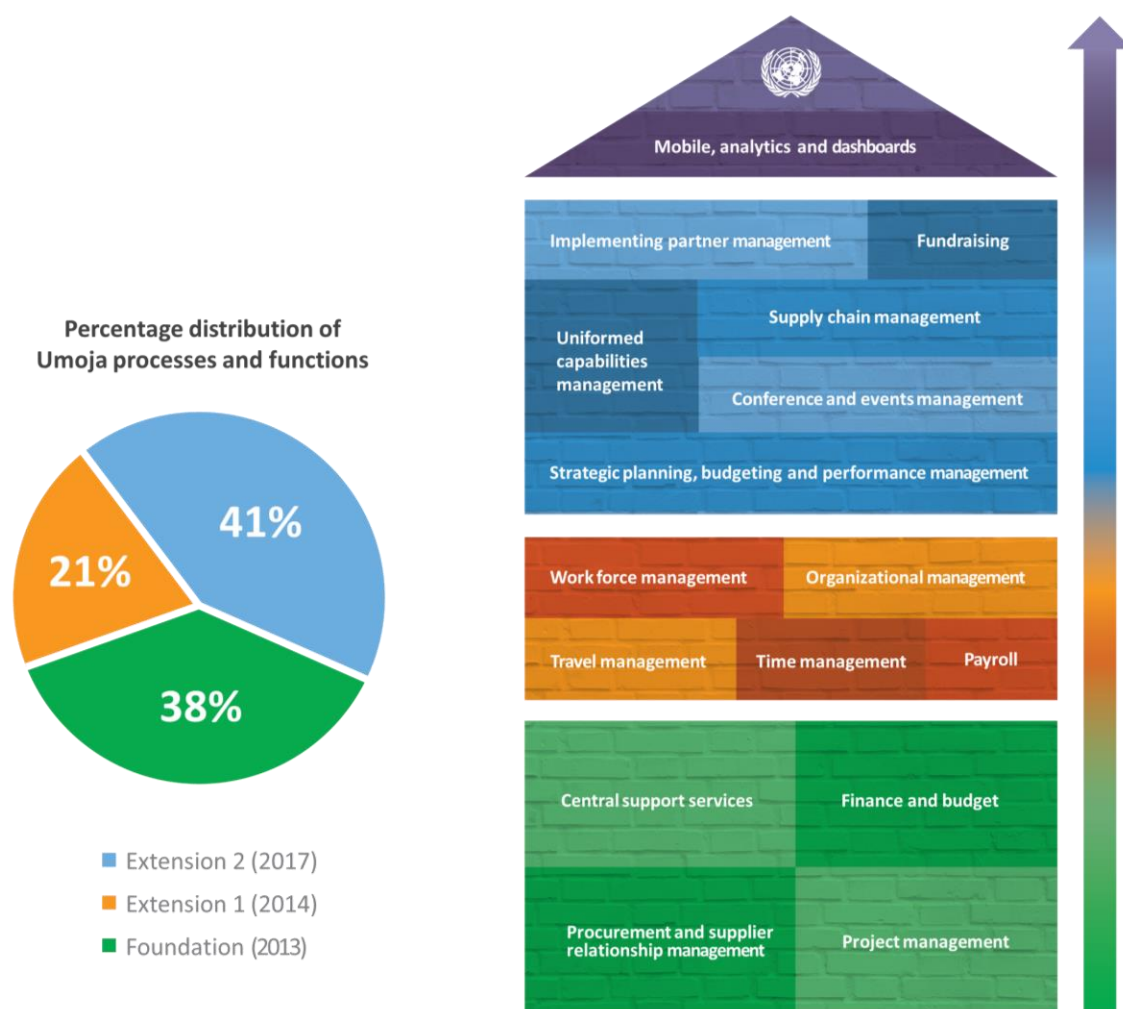
B. Project update

6. Umoja, which is based on SAP enterprise resource planning software, was deployed in three phases: Foundation, Umoja Extension 1 (UE1), and Umoja Extension 2 (UE2). Umoja Foundation consisted of 122 processes related to central support services, finance and budget, procurement and supplier relationship

management and project management. It also included processes required to support automation for the adoption of the International Public Sector Accounting Standards (IPSAS). UE1 included 66 processes in relation to workforce management, organizational management, travel management, time management and payroll. UE2 included 133 processes, the complexity and scope of which necessitated a further breakdown into six major subprojects in order to ensure their timely implementation. Figure 1 outlines Umoja processes and functions.

7. UE2, which is extensive in both volume and in scope, includes many new complex functions within interdependent work streams and involves additional categories of users. UE2 utilizes a unique set of SAP technologies that complement and supplement existing SAP modules in combinations not previously implemented by any other SAP customer, making the United Nations solution one that goes beyond the functionality of a traditional enterprise resource planning system. All the functionalities included in the UE2 sub-projects have now been deployed. During their design and deployment, additional integration and enhancement opportunities were identified, which are being addressed as part of continuous improvement processes.

Figure 1
Umoja processes and functions



8. The Umoja deployment timetable for 2013–2017 is reflected in annex I, while annexes II, III and IV reflect Umoja deployments from 2018–2020. All project direct costs by phase are outlined in annex V.

9. The deployment of UE2 and major infrastructure upgrades have been the primary focus of the Umoja project since the issuance of the previous progress report. These are outlined in more detail in this section.

Strategic planning, budgeting and performance management

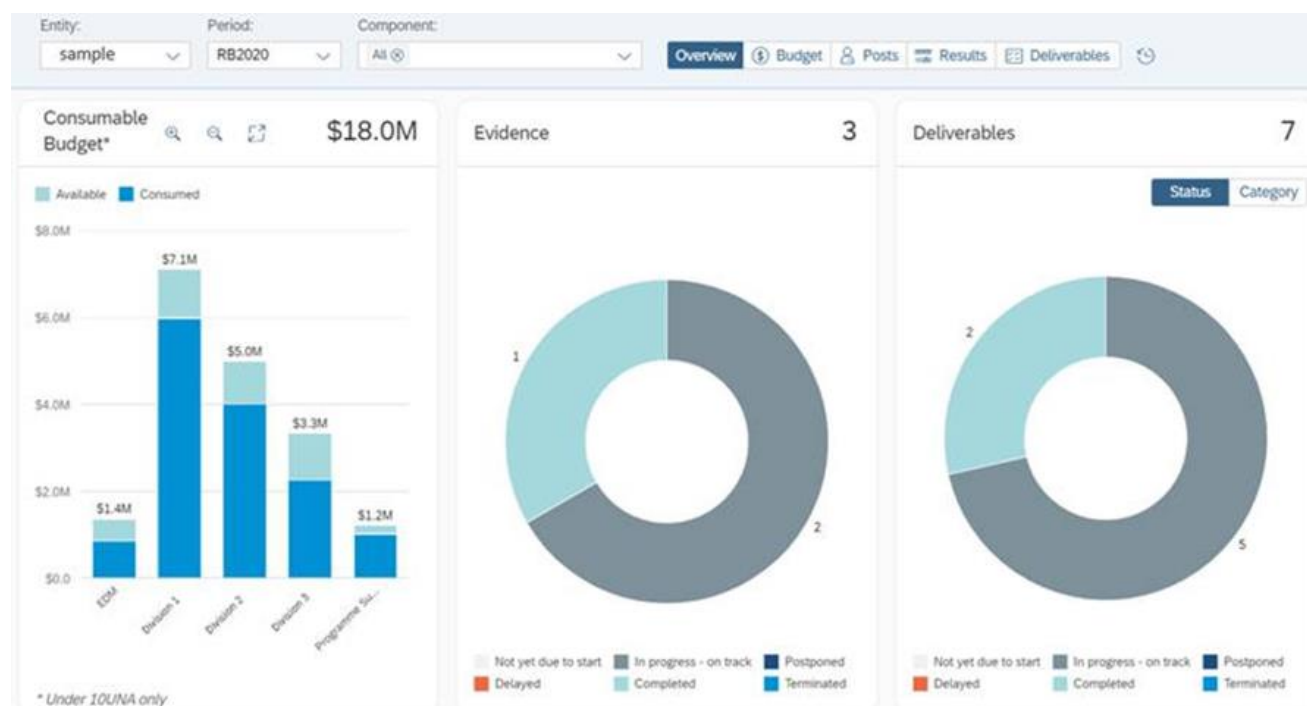
10. The strategic planning, budgeting and performance management solution has been deployed to all Secretariat entities. Following the deployments in 2019, the solution was enhanced with an additional model for travel budgeting, significant changes to the position model and further streamlining of the summary model. This enhanced solution enabled the planning of the proposed programme budget for 2021, in January 2020, followed by the peacekeeping budget for 2021/22 in July 2020. During 2019 and 2020, the solution was also extended to: (a) include a new recosting model that allows more accurate costing by applying better currency usage patterns, and therefore more realistic exchange rate and inflation adjustments; (b) prepare revised estimates; (c) prepare the revised estimates recosting report; and (d) process programme budget implications for the proposed budget.

11. The performance monitoring module within the strategic planning, budgeting and performance management solution is used for recording programme implementation and supporting performance management for the regular budget was deployed to all entities in January 2020. The performance monitoring module for the peacekeeping budget, deployed in July 2019, was enhanced in May 2020.

12. The complementary performance dashboard is a key component of the strategic planning, budgeting and performance management solution, combining strategic planning and programme performance with budget consumption and post-incumbency data in a user-friendly interface. The performance dashboard was initially deployed for six pilot peacekeeping missions in October 2019. The dashboard for the regular budget entities, including special political missions, was deployed in May 2020, following the adaptation to the new regular budget annual results framework (a sample is shown in figure II below).

13. A significant enhancement to the strategic planning, budgeting and performance management solution for integrated planning, management and reporting will be deployed in the fourth quarter of 2020. The new integrated functionality will enable a holistic, end-to-end capability, using several new and existing UE2 modules, to manage the life cycle of projects from beginning to end and across funding sources. Staff and managers will gain the ability to plan, manage, monitor and track projects, using a results-based management methodology, by leveraging qualitative and quantitative information for their projects and establishing linkages between projects and programmes, as well as multi-year strategies and the overarching mandates and goals of the United Nations, such as the 2030 Agenda for Sustainable Development, and Agenda 2063: The Africa We Want. The solution will empower programme managers to plan resource requirements, proactively monitor and manage programme implementation, including risks, and deliver results more effectively, while holding them accountable for better management of the resources of the Organization. This improvement will directly support the management reforms, which promise transparency and accountability in the management of resources, programmes and projects across the Secretariat.

Figure II
Performance dashboard – main page



Fundraising and donor relationship management

14. The fundraising and donor relationship management solution has functionality for managing fundraising programmes, managing donor information and tracking fundraising opportunities. A dedicated business lead and extended business teams are now engaged to reinvigorate the project and drive the user adoption of the solution. In view of the liquidity concerns, the solution is also now being leveraged to track the status and to track communications with Member States regarding the payment of assessed contributions. In addition, the solution is being used to provide a library of standard agreements and terms and conditions to all Secretariat entities, which will be relevant in the context of the delegation of authority and the decentralization of funds management.

Implementing partner management

15. The implementing partner management solution encompasses the full life cycle of collaboration with implementing partners and improves the collaboration by providing them a portal and tools to assist them in becoming eligible partners, requesting scheduled payments, recording the progress of their implementation and submitting other performance details. The United Nations is the first SAP customer to implement this solution along with the SAP grant management application. After an initial roll-out to a small number of entities at the end of 2018, so as to minimize risks, the implementing partner management solution was deployed to all entities in December 2019. By July 2020, usage had grown, as represented by the increase in the value of agreements recorded in the system, from \$412 million to \$2.2 billion, in the value of related payments, from \$227 million to \$1.4 billion, and in the number of implementing partners, from 852 to 1,676.

16. In response to user feedback after deployment, improvements have been introduced to support additional funding during the life cycle of an agreement, and

tools are being developed to assess and evaluate implementing partners, which is expected to be completed by the end of 2020.

Supply chain management

17. The supply chain management solution covers four broad functional areas: planning for the demand for goods and services, determining the sources of supply, managing transportation and tracking the movement of goods. An integrated architecture of on-premise and cloud-based technologies, which build on existing Umoja supply chain modules and processes, underpin the solution.

Transportation management

18. Following the confirmation of software readiness in December 2018, release 1 of the transportation management solution was deployed in January 2019, on a selective basis, covering the transportation movements of contingent-owned equipment and the rotation of military and police contingents, as well as the transportation of commercially procured vehicles.

19. The scope was expanded in December 2019 to cover transportation operations for all goods procured commercially. The release included enhanced functionalities to manage the automatic execution and tracking of movements of military and police contingent personnel undertaken through long-term charter arrangements with commercial aircraft. Also included were capabilities supporting the transportation management of United Nations-owned inventory between entity locations.

20. The solution has delivered functionalities for enabling the execution and monitoring of these movements through an integrated solution architecture that includes capabilities to track and monitor (“track-and-trace”) incoming and outgoing shipments and to generate alerts for the management of exceptions and contingency planning. It also includes integration with a geographic information system and an external portal allowing for access by partners, such as vendors and freight forwarders, to capture events and upload relevant documentation. Communications with external partners have been further enhanced through the deployment of electronic data exchange interfaces for the integrated, automated transmission of data. As the solution expands to more external partners, it will improve the real-time visibility of the United Nations supply chain.

Demand planning and supply planning

21. Progress in this area had been hindered since 2017, originating from complications with respect to software selection due to the decision of SAP to discontinue enhancements to its mature on-premise product, Advanced Planning and Optimization, and instead offer a cloud-based subscription service called Integrated Business Planning. In July 2018, following a 10-month period of multiple engagements with SAP experts and architects, the suitability of the cloud-based service was confirmed and negotiations were initiated for acquisition of the service, with the aim of completion of a pilot by the end of 2018.

22. Despite progress in the negotiation of financial terms before the end of 2018, the finalization of the contract was delayed until September 2019 owing to numerous challenges in negotiating acceptable legal terms and conditions for the use of the SAP cloud-based service. The negotiation was critical considering the legal and contractual precedents it would set for the other SAP cloud-based solutions that the Organization would inevitably require in the future.

23. SAP experts working with the Umoja team and the business teams were able to complete the initial build and technical set-up by the end of 2019, connecting the

cloud-based Integrated Business Planning system to the Umoja system in Valencia and Brindisi, including the appropriate security connections.

24. Gross demand functionality was designed and configured and will soon become available to all users. It will allow for the development of the gross demand planning requirement that initiates the planning process, incorporating historical consumption patterns for goods and services, product segmentation and sophisticated statistical forecasting models to project potential future demand. Net demand and source planning functionality, which follows logically after gross demand planning, is under development and will be designed and configured by the fourth quarter of 2020, with progressive roll-out to users synchronized with fiscal cycles. Net demand functionality will take into account additional sources of supply in the planning process to rationalize needs, including existing inventories and stock-in-transit. Source planning focuses on establishing sources of supply to meet requirements, such as inventories and equipment surplus in other entity locations, as well as procurement contracts.

25. The implementation of the cloud-based Integrated Business Planning system as part of Umoja constitutes the first major public sector implementation among SAP customers.

Uniformed capabilities management

26. The uniformed capabilities management solution is another example of a UE2 element which is not part of a traditional enterprise resource planning implementation. The solution is unique to the United Nations and is designed to facilitate the crucial work undertaken in collaboration with troop- and police-contributing countries. The solution has built the foundation for tying together the end-to-end planning and associated processes of uniformed capabilities management, such as statements of unit requirements, memorandums of understanding with troop- and police-contributing countries, field inspections and verifications of contingent-owned equipment, troop strength reporting and the calculation of claims and reimbursements to troop- and police-contributing countries. It improves complex processes involved in force generation, force management and claim reimbursements to troop- and police-contributing countries. It hosts a central repository of all key information and documents and significantly streamlines workflows involved in inspections, verifications and claims management. The system also provides greater process transparency for better tracking and monitoring, minimizes errors in a time-sensitive process, enhances reporting capabilities and facilitates the accurate calculation and timely processing of reimbursements to Member States.

27. Release 1 of the uniformed capabilities management solution was deployed in December 2018. It included the master data and foundation modules of the solution, including functionality to enable military and police planners to develop statements of unit requirements. The release also included several significant enhancements to the contingent-owned equipment inspection and verification modules of the uniformed capabilities management solution (previously known as the electronic contingent-owned equipment (eCOE) system), thereby improving the work of contingent-owned equipment units in field missions and further facilitating automation in claims processing.

28. The deployment of release 2 of the uniformed capabilities management solution in August 2019 covered the handling and oversight of memorandums of understanding and the processing of quarterly reimbursements and payments to troop- and police-contributing countries for contingent-owned equipment. Also introduced were new functionalities for the processing and tracking of ad hoc and non-verification report claims, such as those for loss of or damage to contingent-owned equipment on account

of hostile action, and relating to the death of or disability caused to uniformed personnel. Between August 2019 and September 2020, 3,423 major equipment and self-sustainment claims with a value of nearly \$1.14 billion were processed through the uniformed capabilities management solution. Over the same period, there were 1,023 non-verification report claims totalling \$450 million.

29. In July 2020, changes to the uniformed capabilities management system were deployed to incorporate the recommendations of the 2020 Working Group on Contingent-Owned Equipment, as approved by the General Assembly in its resolution [74/279](#). The changes were successfully implemented on schedule.

30. The functionality for troop and formed police strength reporting and troop cost reimbursement will be delivered by end of 2020, concluding the scope of the uniformed capabilities management within UE2.

Conference and event management

31. The original Umoja scope includes 16 business processes for conference and event management. Owing to the absence of any standard capabilities in SAP for many of the specialized functionalities, selected non-SAP applications already in use or being developed by the Department for General Assembly and Conference Management are used to cover the 16 processes. These conference and event management applications are comprehensive workflow systems for meetings and documentation that automate various processes and enable data-sharing across the conferencing supply chain. Benefits to Member States include improvements to the processes for registering participants to meetings and requesting meetings services, as well as increased efficiencies across the conferencing ecosystem.

32. The suite of applications developed and managed by the Department for General Assembly and Conference Management includes: Indico.UN for meeting participant management; gDoc for the workflow management of multilingual intergovernmental documentation; and gMeets for meetings management. gMeets provides information for the calendar of conferences and meetings of the United Nations, entitlements for meeting bodies and enables the management of venue and staffing resource allocation, including by leveraging its One-Stop Shop interface for booking meeting services.

33. As part of UE2 conference and event management, the meetings participant management team will complete the roll-out of Indico.UN version 2 for conference registration to existing clients by the end of 2020. The upgrade of gDoc to gDoc 2.0 will roll out key features by the end of 2020.

34. The measures to contain the COVID-19 pandemic have challenged the Organization to expand the conference and event management business model to facilitate multilingual remote participation in meetings, whether they are conducted in fully virtual or hybrid formats. The Department for General Assembly and Conference Management is prioritizing its software development to incorporate these new requirements into the relevant conference and event management systems, in particular gMeets, which will facilitate and control access to remote participation platforms and allow for enhanced reporting.

Infrastructure

35. Taking into consideration the growing functional scope of the Umoja solution and its vital role in supporting the day-to-day business operations of the United Nations, a comprehensive health check of the infrastructure and its related information technology components was completed in the third quarter of 2019. As a result of this safeguarding exercise, several components of the Umoja information

technology infrastructure underwent numerous upgrades to guarantee support compatibility and to mitigate possible security gaps. The infrastructure optimization objective took eight months of coordinated effort by multiple teams and involved meticulous planning, design, testing and implementations. Over 300 servers and 100 different databases were upgraded to the latest software release in order to deliver a consistent, simplified infrastructure and augmenting of information technology support operations.

36. In addition, as every facet of United Nations business depends on Umoja, the Umoja information technology solutions were further reinforced to maximize the application availability by safeguarding all single points of failure for both the software and the hardware.

37. In 2020, the Umoja team successfully completed a proof of concept to connect both Umoja HANA and Business Warehouse with the SAP Analytics Cloud environment, as a prelude to launching a portal that will greatly facilitate access to information by Member States.

38. Even though integration brings complexity, integration agility that goes beyond the core enterprise resource planning system's functions such as finance, supply chain and human resources brings flexibility to adapt in an ever-changing environment. The launch of Umoja mobile and the features it offers will allow the United Nations to be more transparent and efficient in providing information to Member States

Training

39. The training strategy with respect to Umoja has evolved over the years. With the launch of the online learning portal in September 2018, the focus for Umoja training shifted away from instructor-led, classroom training towards a continuous, self-paced learning approach. The change was in response to feedback that just-in-time training and longer hypercare periods support a more conducive learning experience and strengthen learning retention, compared with lengthy classroom training too far ahead of deployment. Modular online courses on the iLearn Umoja platform are easily accessible, allowing staff to learn "just in time" to effectively deliver their work using Umoja, without depending on trainers or funding for travel. iLearn Umoja has also facilitated peer-to-peer learning using topic-based learning forums, through which interested learners can contribute to or follow the training topics and collaborate with a community of experts to share information, akin to a social media platform. As at 31 July 2020, there are 13 topic-based forums available in iLearn. Online learning is cost-effective, scalable, provides staff with ongoing access to key resources and is significantly faster than classroom training.

40. Enrolment in Umoja training has continued to increase. As at 31 July 2020, there were 86 courses on UE2 published across seven thematic areas, with 12,727 courses completed. During the period from 1 August 2019 to 31 July 2020, 36,131 courses were completed, covering foundation, UE1 and UE2. Of those, 95 per cent were for computer-based learning, compared with 90 per cent during the period covered in the previous progress report.

41. In addition to the existing end-of-course mandatory training evaluation by learners, a follow-up survey is being developed to measure ongoing training effectiveness. The survey will be content-specific, linked to the course learning objectives and will be sent to all learners approximately three months after they have completed Umoja training. That work is ongoing, in close collaboration with the Capacity Development and Operational Training Service in the Department of Operational Support.

C. Implementation of oversight bodies' recommendations

42. During the reporting period, the project was audited again by the Board of Auditors. In its ninth annual progress report on the implementation of the United Nations enterprise resource planning system (see [A/75/159](#)), the Board again focused heavily on UE2 project management and governance and the risks associated with full deployment of UE2 by the end of 2020.

43. The Board has made 115 recommendations since the inception of the project. Of the 53 recommendations pending as at the end of 2019, 8 have been fully implemented and 45 are under implementation. Of the 18 recommendations contained in its most recent report covering project governance and management, Umoja application controls, support functionalities and the Umoja business case, 8 have already been fully implemented.

44. The Umoja project was audited by the Office of Internal Oversight Services (OIOS) 14 times between 2011 and 2020. The OIOS assignments included audits of the human resources management of the Umoja project, the technical infrastructure in support of IPSAS, the SAP software itself, business intelligence, change management and the security of the Umoja system. In addition, there were eight audits of entities or departments in the context of the implementation of Umoja.

45. The audits resulted in a total of 65 recommendations. The project has closed 55 recommendations, leaving a balance of 10 that are under implementation. The project expects to close most of the open recommendations during the fourth quarter of 2020.

D. Risk management

46. In its eighth annual progress report ([A/74/153](#), para. 50), the Board of Auditors recommended that the Administration continuously review the risks to achieving the full deployment of Umoja and implement appropriate mitigation strategies. As presented to the Independent Audit Advisory Committee on 22 July 2020, all risks are reviewed with the business owners and the Umoja Steering Committee, whereby the risks are mitigated to ensure full UE2 deployment as scheduled.

47. In line with the Board's recommendation that identified business readiness gaps be reviewed and addressed in a timely manner ([A/74/153](#), para. 52), the Umoja team continued to deploy UE2 solutions in a phased approach throughout 2019 and into 2020 so as to ensure appropriate business readiness and change management. Business readiness is addressed as part of the individual deployments and formally assessed during the respective operational readiness reviews before each deployment commences.

48. From 1 August 2019 to 31 July 2020, there were a total of 13 risks categorized at the Steering Committee level, 46 per cent of which have been mitigated or closed, 8 per cent of which are being prepared for closure by the end of 2020 and the remainder of which will continue to be monitored and mitigated.

49. A major risk to the continued operability of the Umoja solution linked to the obsolescence of its infrastructure was successfully mitigated by identifying, acquiring and implementing new hardware and software. The associated upgrades were meticulously planned for several months and successfully implemented over successive weekends so as to minimize disruptions to operations. Another major risk to the ongoing maintenance of the solution, in view of its growing complexity caused by UE2 requirements and the absence of a systems integrator, was successfully mitigated by continually reprofiling the core team, including by training key personnel.

E. Lessons learned

50. In section XVII, paragraph 21, of its resolution [73/279](#) A, the General Assembly stressed the importance of ensuring that lessons learned from previous deployments continued to be fully taken into account in preparing future roll-outs in order to ensure smoother deployments and avoid extensive stabilization efforts that would result in further delays, cost escalation and other risks.

51. Table 1 highlights the internal lessons learned from the project.

Table 1
Lessons learned

<i>Area</i>	<i>Description</i>
Funding	<p>Major transformation projects must be adequately funded for indirect costs such as testing, training and change management</p> <p>Business and technology support structures for global projects need to be funded</p>
Governance	Governance structure may evolve but the fundamental structure and terms of reference must be enshrined from the start
Change management	<p>A phased implementation approach must be taken to ensure appropriate business readiness and change management</p> <p>A high level of participation of senior and mid-level management and staff is critical to organizational readiness</p> <p>Early, extensive, sustained business engagement is critical for improving adoption and ensuring future ownership of the solution. Extended business teams are one way to assist in this regard through requirement gathering, solution design, development of training content and hypercare</p>
Training	<p>Just-in-time training and longer hypercare support are more helpful than courses too far ahead of deployment</p> <p>Continuously align and adapt training strategies based on feedback from learners and experience gained</p> <p>Umoja training must be owned by the business as it is responsible for keeping the training content up-to-date and aligned with its needs</p>
Deployment	<p>Deploy methodically and focus strategically on functionality that is critical to overarching goals</p> <p>A user role guide and an early and concerted effort at user access mapping is critical to effective deployment</p> <p>New data need to be collected, cleansed, managed and validated by the business. An early start is crucial in this regard</p>

<i>Area</i>	<i>Description</i>
Operations	Operational excellence can be achieved and sustained only when management structures, policies and procedures are aligned to support business process performance
Mainstreaming	Mainstreaming takes time to ensure a smooth transition. The functions also need to be properly staffed and funded for long-term sustainability
Benefits	A cautious approach to benefit quantification is recommended Benefits must be kept up-to-date from project launch to close-out A benefit management framework is needed throughout the life of the project

III. Umoja mainstreaming

52. When Umoja ceases to be a project at the end of 2020, it has to be mainstreamed fully into the Secretariat with a sustainable business model that can ensure that the solution remains fit-for-purpose and continues to support the business case that drove its approval by the General Assembly. This section outlines the mainstreaming plan.

A. Governance model

53. Umoja has a very broad functional scope covering a wide range of processes and functions, as shown in figure I. In order to deliver this broad functionality, Umoja has leveraged different software solutions in an integrated manner, using SAP as the core platform but integrating also with other United Nations enterprise platforms. The broad functional scope makes it imperative to create a governance model that can provide the right direction and support to ensure that the solution keeps adapting to the evolving needs of the business areas, while also ensuring that its extensive technical footprint conforms to the United Nations information and communications technology standards and policies.

54. The Department of Management Strategy, Policy and Compliance and the Department of Operational Support will provide the joint business leadership necessary to ensure that the Umoja solution remains fit-for-purpose for the Organization globally. The two departments will use the Management Client Board – the standing forum through which all types of entities in the Secretariat provide feedback to the departments on administrative policy, process, strategy and support – to engage with clients on the strategic and operational needs addressed by Umoja.

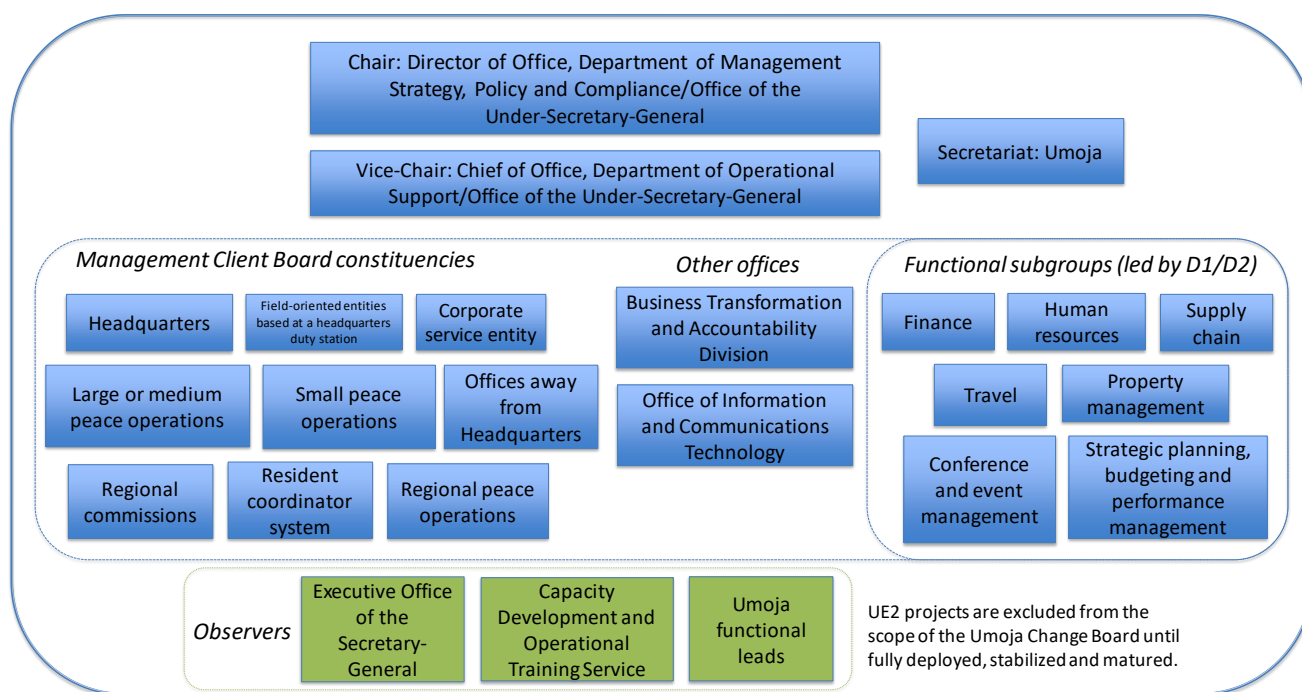
55. The Umoja Steering Committee, which has been providing leadership and strategic guidance to the Umoja programme since its inception, will be retained until the end of 2021 to support the mainstreaming process by focusing on ensuring that Umoja Extension 2 is technically stable and user adoption is sustainable. The membership of the Committee has also been adjusted during 2020 as part of the mainstreaming strategy. The Umoja Steering Committee will support the Information and Communications Technology Steering Committee, which oversees information and communications technology activities across the Secretariat, which will assume the responsibility for providing overall direction and guidance to the Umoja

programme as well as related matters such as integration of Umoja with other enterprise resource planning solutions servicing the Secretariat and compliance with stringent cybersecurity standards.

Umoja Change Board

56. As part of the mainstreaming strategy and to ensure Umoja continues to be a business-driven solution, the Umoja Change Board was established in April 2020. The responsibilities of the Board include: (a) evaluating change requests submitted through the functional subgroups; (b) prioritizing and deciding changes based on their impact on policy and operations across all functional areas, by reviewing implications such as resources, timeline and budget; and (c) escalating, as necessary, any requests that significantly affect scope, resources, timeline or quality to the heads of the Department of Management Strategy, Policy and Compliance and the Department of Operational Support. The Board includes representatives from all functional areas of Umoja, representatives from the various types of Secretariat entities, the Business Transformation and Accountability Division, the Office of Information and Communications Technology, the Executive Office of the Secretary-General, the Capacity Development and Operational Training Service and Umoja functional teams, as shown in figure III.

Figure III
Umoja Change Board



57. Board members work across functional pillars and clients to facilitate the development of solutions guided by business needs for the benefit of the Organization as a whole.

Functional subgroups

58. The functional subgroups are a fundamental component of the Umoja Change Board. The subgroups represent each Umoja functional area and are chaired by directors in the Department of Management Strategy, Policy and Compliance and the Department of Operational Support. The subgroups are accountable for driving

process improvement and efficiency in Umoja, and executing all change management activities, by (a) evaluating all requests for Umoja changes; (b) prioritizing requested changes; (c) coordinating with other functional areas regarding changes with cross-functional impacts; (d) consulting with the Umoja functional lead(s) on technical change impact analysis; (e) finalizing prioritized requests for change and submitting change requests to the Board for approval; (f) overseeing the testing and deployment of approved changes; and (g) managing all other relevant change management activities. Membership of the functional subgroups includes subject matter experts from the respective functional areas within the business. Due to the integrated nature of the Umoja modules, most change requests are likely to be cross-functional in their impact, thereby requiring intergroup coordination; an agile project mode will be applied wherever warranted by the complexity of the change.

59. It is through the principal and director level representation on the functional subgroups that business owners will coordinate prioritization, communication, the deployment of enhancements and associated change management, including suggested training strategy. These subgroups will strengthen business transformation and enable business units to drive a culture of continuous improvement and innovation, leveraging the capabilities of Umoja and its potential for enhanced process efficiencies to meet business needs. These activities, in the various business areas, will require both subject matter expertise and dedicated capacity depending on the complexity or volatility of the processes.

60. While the UE2 projects are currently excluded from the scope of the Umoja Change Board until they are stabilized and matured by the end of 2021, the Board will cover the full scope of Umoja thereafter; accordingly, the functional subgroups will be expanded at that point to cover the UE2 functional areas. From that point on, the Board will be able to present, to the Information and Communications Technology Steering Committee, priorities for business changes for all Umoja functionalities, including UE2, with respect to the allocation of resources.

B. Transforming a business need into a solution

61. Transforming an approved business need into a software solution under the umbrella of the enterprise resource planning system involves a number of discrete steps and functions. The roles and responsibilities relating to these functions as from January 2021, when Umoja ceases to be a project, are outlined below.

62. In section XVII of its resolution [73/279 A](#), the General Assembly reiterated its earlier request to the Secretary-General to strengthen in-house capacity and expertise on the enterprise resource planning system, ensure knowledge retention and reduce dependency on contractual services. With the approval of the General Assembly, the Umoja team has been steadily downsized since mid-2016, and reorganized and reprofiled into fewer integrated teams for greater consolidation of business and technical functions, as outlined in section VI of the eighth and ninth progress reports ([A/71/390](#), [A/72/397](#)), section III of the tenth progress report ([A/73/607](#)), and section VIII of the eleventh progress report ([A/74/478](#)).

63. This team now has the knowledge and skills collectively to maintain the full suite of SAP software comprising the Umoja solution. Therefore, this team, with additional reductions proposed later in the present report, is proposed to be converted into an Enterprise Resource Planning Solution Division from 1 January 2021, to provide many of the functions needed to adapt Umoja to meet evolving business needs, as well as ensure its continued maintenance. The organizational structure of the proposed Division, its placement and reporting lines are discussed in more detail in section IV.

64. Many of the business functions outlined below in this section, including in relation to the above-mentioned functional subgroups, will require dedicated capacity in the respective functional areas to provide a sustainable business model for maintaining Umoja. Resources for business support are proposed to be established for 2021 in each functional area in the Department of Management Strategy, Policy and Compliance, the Department of Operational Support and the Department for General Assembly and Conference Management, as outlined and more fully explained in section IV.

Business change requests

65. As mentioned above, all business change requests will be channelled through the functional subgroups and the Umoja Change Board. Among other responsibilities, each business area has a key role in defining and documenting business requirements and functional specifications for the design of Umoja functionalities.

Solution design (architecture) and build (integration and delivery)

66. For any business requirement or new project that is envisioned, within the governance framework outlined above, the Enterprise Resource Planning Solution Division will undertake a review and thorough assessment in order to determine the process, functional, technical, architectural, security and integration-related impacts of the requested changes. The Division will work with the business areas to translate business requirements into integrated functional solutions that are built, whenever possible, through out-of-the-box solutions that have sustainable road maps and meet Umoja architectural standards. These solutions may require additional tailoring to meet the needs of the end user through enhancements that are managed by the team during the design and build phase. This may include collaboration with teams that are managing other enterprise applications or third-party systems in order to implement any required integrations or interfaces. Any proposed changes undergo robust internal change control review procedures through two standing bodies within the Division.

67. Unit testing and integration testing are part and parcel of the build and delivery process. Such testing is defined in close consultation with the business focal points. The Enterprise Resource Planning Solution Division will also support business teams in final pre-production testing activities, with a view to ensuring that the software delivery is fit for purpose, meets the intended objectives and has been reviewed and signed off by respective business teams. The Division will also continue its role of initiating and enabling business transformation by evaluating and providing proposals for leveraging current trends in enterprise resource planning.

68. The Umoja solution comprises numerous SAP modules that can also be used independently. When used together, they are integrated through a special SAP module. Since Umoja also comprises non-SAP solutions, these require an additional level of integration to ensure a smooth flow of information throughout the business process without duplicative data entry into multiple solutions. Therefore, integration design requires a careful analysis of the volume, frequency and downstream impact of information exchange. This may also entail functionality-versus-performance comparisons or an analysis of licence usage and related cost implications. With the frequent changes in SAP products, it is also important to keep current and new solutions aligned with future road maps, thereby ensuring continuity of support and enhancements from SAP. Customizations should be minimized, as they can present future upgrade bottlenecks or entail reconfiguring the software at additional cost. The Enterprise Resource Planning Solution Division will manage the integration design and the associated analyses.

Business testing and testing coordination

69. Product integration testing ensures that all business requirements and end-to-end business processes in the Umoja solution have been designed and developed in accordance with the agreed specifications. The test scenarios are to be developed, coordinated and run by the functional subgroups. Such testing may be performed over one or more cycles and it may include application enhancement, interface, integration and conversion testing, as well as security and authorization testing.

70. User verification testing is a formal test upon completion of product integration testing to obtain confirmation and sign-off from the business owner that the solution fully meets United Nations business needs. User verification testing covers all documented business requirements and scenarios. While product integration testing and user verification testing will be performed by the designated business subject matter experts across the Organization, the testing support and coordination will be conducted by the Enterprise Resource Planning Solution Division.

Application security

71. The Enterprise Resource Planning Solution Division will continue to design and manage the application security and access control of the Umoja applications based on best practices recommended by SAP and in adherence with the Organization's security policy, in close consultation with the Office of Information and Communications Technology. The application security process also encompasses measures taken to improve the security of the application, often by finding, fixing and preventing security vulnerabilities, and a periodic review to ensure that the correct system configuration and parameter settings have been used.

Reporting and analytics: design, data modelling, extraction, transformation and load

72. Reporting is the process of organizing data into information summaries for various business needs. Analytics is the process of exploring data and reports in order to extract meaningful insights, which can be used to better understand and improve business performance. Traditional business intelligence reporting comprises standard reports that present Umoja data in a meaningful way with respect to specific business requirements. Business analytics leverages predictive capabilities and "what-if" analysis for improved decision-making. Typically, such analytics combine powerful visualization through the use of interactive dashboards. Business-case driven interactive dashboards that include such analysis and contextual visibility are essential for improving decision-making using real-time information.

73. Building on the prototypes developed during 2020, the plan for analytical reporting would include both internal data sources and key external data sources. The combined data would be valuable to support more comprehensive monitoring, reporting and decision-making capabilities, which will provide Management and Member States with more frequent and up-to-date programmatic information, including automatic updates to United Nations websites, where feasible.

74. The Enterprise Resource Planning Solution Division will, as part of its key deliverables moving forward, implement new tools such as interactive dashboards and a digital boardroom to enable such analytical reporting for decision-making. Working with all the business areas, the Business Transformation and Accountability Division and the Enterprise Resource Planning Solution Division will design and deliver common data models and customized visualizations for Member States, leveraging rich data from Umoja and other internal and external systems.

75. The data strategy recently issued by the Secretary-General¹ will extensively leverage authoritative data from Umoja. The Business Transformation and Accountability Division and the Enterprise Resource Planning Solution Division will work with partners in the Department of Management Strategy, Policy and Compliance, the Department of Operational Support, the Executive Office of the Secretary-General and with the client entities to strengthen Umoja in line with the focus on the outcomes of the data strategy, specifically in stronger cross-pillar decision-making, greater data accessibility and sharing of data internally and externally, greater efficiency in programmes, operations and management, improved transparency within and across the United Nations system and enhanced data-driven services for clients and stakeholders.

SAP administration, licensing control and maintenance

76. As noted in the eleventh progress report ([A/74/478](#)), the technical complexity of Umoja has increased markedly with the deployment of the UE2 solutions. To address the ongoing need to maintain the complex functional and technical environment, the project team has continued to upskill and cross-train key personnel, utilizing specialized expertise from the software vendor as needed. The Enterprise Resource Planning Solution Division will continue to manage the administration of SAP products, including licensing control and audit compliance, and to coordinate global maintenance with the Office of Information and Communications Technology and business areas, as needed.

Infrastructure maintenance

77. Umoja is hosted in the Brindisi and Valencia enterprise technology centres managed by the Global Service Centre within the Department of Operational Support. The maintenance of all Umoja infrastructure will continue to be carried out by the Office of Information and Communications Technology, in cooperation with the Enterprise Resource Planning Solution Division and the Global Service Centre as necessary. Infrastructure management has been incrementally mainstreamed to the Office of Information and Communications Technology since 2014.

78. The Office of Information and Communications Technology also conducts security assessments for Umoja and coordinates the Umoja disaster recovery exercises in close consultation with the Umoja team. The Office sources the management of the Umoja infrastructure from other entities, such as the Global Service Centre, or vendors that provide the hardware and associated services for Umoja technical landscape management. The Enterprise Resource Planning Solution Division will continue to partner closely with the Office, providing requirements and overseeing the quality of the delivery by such vendors wherever the Office needs such assistance.

User access provisioning

79. A key component of application security involves ensuring that users have only the appropriate levels of capabilities within the system. This is done by designing user roles with specific capabilities and then assigning roles to users through a user access provisioning process. The Enterprise Resource Planning Solution Division will continue to maintain the user access provisioning tool that enables easy request, approval and provisioning of enterprise roles and workflow entries associated with organizational units, business areas, cost centres, funds and other categories that define the limits of a user's capabilities. Currently, security liaison officers in each

¹ *Data Strategy of the Secretary-General for Action by Everyone, Everywhere: with Insight, Impact and Integrity.*

entity manage the user access provisioning process from end to end; they ensure all prerequisites are met prior to the provisioning of roles, including training requirements and related delegations of authority. This function will continue to be performed by the security liaison officers.

Training

80. It should be recalled that the General Assembly, in paragraph 17 of section XVII of its resolution [73/279](#) A, reaffirmed the importance of effective and high-quality training for the successful implementation of Umoja, and requested the Secretary-General to continue to ensure that senior managers adopt a comprehensive and sustained approach to training and capacity development in their work units and make certain that all users are properly trained before the deployment of any functionality.

81. As indicated in the eleventh progress report ([A/74/478](#), para. 115), Umoja training will be transitioned to the Capacity Development and Operational Training Service in the Department of Operational Support as part of mainstreaming.

82. The Capacity Development and Operational Training Service envisages a closer integration of training relating to broader operational capacities and Umoja-related functions, with the overall objective of improving capacities in the application of United Nations policies, procedures and related business processes and in the effective stewardship of resources, ensuring that the learning needs of both practitioners and managers are met.

83. The Service will strengthen the knowledge of local and regional training capacities through the involvement of experienced business partners and subject matter experts, who would assist in ensuring skills transfer to the broader user community across the Secretariat.

84. The Service will seek to retain and leverage existing training capacities and apply the experience gained in different learning methodologies. The intention is to design integrated online and blended courses, using state-of-the-art e-learning technologies to replace the face-to-face and instructor-led Umoja training courses for foundation and UE1 to bring them in line with the more advanced UE2 course offerings in iLearn Umoja, as stated in the tenth progress report ([A/73/389](#), para. 100). The Service has already launched the design of all future Umoja human resources training in a self-paced, self-certification online format, in collaboration with identified business partners and mentors, with 12 modules becoming available by the end of 2021. UE2 training content currently published in iLearn will also need to be maintained and updated to incorporate enhanced system functionalities.

85. This approach will have a positive impact in terms of reducing the reliance on official travel for Umoja classroom training and broadening the potential reach of these courses to users across the Secretariat. This will also include the Umoja business intelligence and reporting training, which is cross-functional.

86. Learning specialists will be responsible for specific training project portfolios, usually relating to a functional area. The Service will ensure the consistent design of training courses, the integration of operational and systems training, a coordinated approach to training delivery and support, and consolidated performance reporting on the training impact. Each business area will support the Service in the development of an overall training strategy for its respective area, and contribute to capacity-building and training efforts by providing subject matter expertise.

Change management

87. The functional subgroups of the Umoja Change Board, working closely with the Business Transformation and Accountability Division and the Enterprise Resource

Planning Solution Division, will ensure that deployment-oriented communications and general information about the enhancements to the system, related policy changes and process improvements are adequately disseminated through the appropriate communications channels, on a timely basis and in a user-friendly and visually appealing manner, in alignment with major solution delivery milestones that may be set by the Division, in order to promote the successful deployment and subsequent adoption of new or enhanced solutions. Depending on the scope and complexity of changes, especially when they entail the harmonization of processes and practices across the Secretariat, change management efforts may be resource-intensive for the concerned business areas.

Production support (tier 0 to tier 3)

88. Umoja production support is structured in four tiers so as to best serve users and achieve self-sufficiency in each location. It has relied on strengthening the role of local process experts in order to increase access to local support and reduce tickets, as well as progressively strengthening the capacity of the lower tiers in order to reduce escalation to higher tiers.

89. The first level of support, tier 0, resolves issues informally and operates locally through local process experts, communities of practice and other resources such as job aids. Tier 1 consists of the local information technology help desks for peace operations budgeted under their respective budgets and the Unite Service Desk of the Office of Information and Communications Technology for all others. However, tier 1 resources are not solely dedicated to Umoja support. Peacekeeping missions are further supported, except for human resources, by tier 2a support provided by the Global Service Centre. Both tier 2a and the Unite Service Desk escalate to Tier 2b, which is separately managed by each business area at United Nations Headquarters using a common enterprise system, iNeed. In line with management reform principles, tier 1 and tier 2a production support have to be consolidated and harmonized to ensure consistency in the advice provided to all Secretariat entities.

90. Tier 2b, which requires business process expertise in each functional area, has been consistently underfunded and caused a lot of the dissatisfaction in providing prompt support and resolution to end users. Providing dedicated capacity based on the volume and complexity of tickets escalated to tier 2b will be essential to ensure a consistent, effective and timely approach to production support for the global Secretariat.

91. Tier 3 service requests will continue to be handled by development and configuration experts in the Enterprise Resource Planning Solution Division.

Organizational positioning of the Enterprise Resource Planning Solution Division

92. Umoja, the system, is a strategic enterprise resource with a global operational impact. The Board of Auditors, in its sixth annual progress report, emphasized that Umoja remained central to the successful reform and modernization of the administration of the United Nations and had the potential to generate major benefits for the Organization and for Member States ([A/72/157](#)). In its ninth annual report on the enterprise resource planning project, the Advisory Committee on Administrative and Budgetary Questions reiterated its earlier views that “Umoja Extension 2 comprises some of the more strategic functions, including planning and programming, budget formulation and supply chain management, and that the poor coverage of such functions under the previous systems was one of the main factors leading to the decision to shift to an enterprise resource planning system” ([A/72/7/Add.31](#), para. 20). A consulting firm engaged in 2018 for independent quality assurance, in response to an external audit recommendation, had recommended to

more clearly and visibly connect Umoja to the Secretary-General's reform agenda, deploy UE2 slowly and focus strategically on functionality critical to the reform agenda. In accordance with the vision of the Umoja solution being an enabler of change across the organization, the proposed Enterprise Resource Planning Solution Division will continue to be a key enabler of business transformation, with the governance and processes in place to ensure client needs are met.

93. As mentioned in the report of the Secretary-General on shifting the management paradigm in the United Nations: ensuring a better future for all ([A/72/492](#), para. 80), the Department of Management Strategy, Policy and Compliance assumed the functions of policy guidance, strategy, planning and independent quality assurance functions and exercises these functions across the areas of budget and finance, supply chain, human resources management and information and communications technology. In the area of budget and finance, the Department oversees Secretariat-wide financial planning, budgeting and the production of financial statements. It is also responsible for the strategic and policy aspects of the supply chain, including asset management and procurement policies. The Department of Operational Support is now the primary operational arm of the Secretariat and exercises those functions in three broad areas: operational support, transactional services, and surge, transition and special activities, with a particular emphasis on the requirements of all United Nations field activities. As such, it is proposed that the Enterprise Resource Planning Solution Division will report to both the Department of Management Strategy, Policy and Compliance and the Department of Operational Support, and it will appear in the organizational structure of both departments. For budgeting purposes, however, the resources comprising the Division will be presented under section 29A of the programme budget (Department of Management Strategy, Policy and Compliance). The Umoja maintenance cost will continue to be budgeted under the Office of Information and Communications Technology, under section 29C (Office of Information and Communications Technology) of the programme budget and under the support account for peacekeeping operations. Annexes IX and X show the proposed placement of the Division within the organizational structures of the two departments.

C. Total cost of ownership

94. In section XVII, paragraphs 2 and 3, of its resolution [74/263](#), the General Assembly endorsed the conclusions and recommendations contained in the reports of the Board of Auditors ([A/74/153](#)) and the Advisory Committee ([A/74/7/Add.17](#)), who, respectively, noted the effort made by the Secretary-General to estimate the indirect costs and total cost of ownership of the project, and in that regard requested the Secretary-General to continue to refine the estimates of the total cost of ownership of the project.

95. The estimates for the total cost of ownership have been updated, as presented in table 2, considering the most recent observations of the Board of Auditors, to the extent feasible. It should also be noted that the methodology for calculating the total cost of ownership has been refined with each iteration since the ninth progress report, taking into consideration the feedback each year from the Board of Auditors to add additional elements, as well as increase the time horizon of some of the elements.

Table 2
Total cost of ownership (estimated to 2030)

(Thousands of United States dollars)

<i>Cost category</i>	<i>Period</i>	<i>Amount</i>
Direct costs (Umoja) ^a	2008–2020	565 324.3
	2021	25 997.0
Indirect costs ^b	2013–2020	163 548.9
	2021–2030 ^c	28 909.1
Training costs ^d	2013–2020	88 782.5
	2021–2030	34 140.7
Maintenance costs	2016–2020 ^e	97 560.0
	2021 ^f	24 439.6
	2022–2030	450 000.0
Total	2008–2030	1 478 702.1

^a Does not take into account the return of unused funds at the end of 2020. 2021 cost as proposed in the present report.

^b Includes \$16,106,900 for UE2 and \$2,952,000 for continuous improvements during August 2019–July 2020.

^c Continuous improvement for foundation and UE1 for 2021 is estimated to be 50 per cent of the expenditure for 2020 and is trending downwards at a slow step rate. UE2 continuous improvement is estimated from 2021 onwards. The estimate is subject to a high degree of variation owing to the lack of reliable precedents.

^d Includes \$1,757,900 for training-related travel for 2014–2020.

^e Included in the budget of the Office of Information and Communications Technology.

^f \$16,777,800 already included in the budget of the Office of Information and Communications Technology, the remainder is estimated.

96. Direct costs represent project costs approved by the General Assembly. Maintenance costs have been approved under the Office of Information and Communications Technology for the regular budget and peacekeeping support account. For 2021, the maintenance costs are reflected in table 3. It is important to note that only project costs and maintenance costs have been explicitly financed. All other costs presented in table 2, except past training travel costs, are only estimates using methodologies reviewed by the external auditors; these have not been explicitly financed for Umoja.

Table 3
Umoja maintenance costs for 2021

(Thousands of United States dollars)

	<i>Proposed under regular budget, section 29C, 2021</i>	<i>Approved under support account for 2020/21 (January–June 2021)</i>	<i>To be included under support account 2021/22 (July–December 2021)</i>	<i>To be funded from extrabudgetary sources</i>
Umoja maintenance costs	3 598.4	7 661.8	7 661.8 ^a	5 517.6

^a Based on initial estimate.

D. Benefit realization

97. In its seventh annual progress report on the implementation of the United Nations enterprise resource planning system ([A/73/169](#)), the Board of Auditors recommended that the Administration develop an Umoja benefit realization plan, with an emphasis on improvements resulting from Umoja-based business processes and monitoring of those processes to leverage further benefit realization. The Umoja benefit realization plan was initially developed on the basis of that recommendation. Later, the plan was aligned with the Secretary-General's benefits management framework, which was launched in 2019 to manage the benefits from all reform pillars. This alignment has enhanced the Umoja benefit realization process, the continuous improvements to which directly support the delivery of reform benefits.

98. In its report, the Advisory Committee on Administrative and Budgetary Questions recommended that the General Assembly request the Secretary-General to expedite the finalization and implementation of the Umoja benefits realization plan and provide an update in his final report on the Umoja project (see [A/74/7/Add.17](#), para. 15). The recommendation was endorsed by the General Assembly in its resolution [74/263](#) and is addressed in the present section.

99. The requirement for the enterprise resource planning system was driven by necessity, as outlined by the Secretary-General in May 2006, when he made the case for an enterprise system to facilitate the effective use of the Organization's resources and stated that the Secretariat's current and projected business needs were outpacing the technical capabilities and business functionality of its current patchwork of information technology systems, thereby necessitating a system to address functionality gaps and better align systems with business needs (see [A/60/846/Add.1](#), paras. 39 and 42).

100. Thus, the business case for Umoja was rooted in the need for a modern, global enterprise resource planning system to replace the ageing, fragmented and siloed systems in existence in order to secure the continued operation of the Organization.

101. In his report of April 2008 on enterprise systems for the United Nations Secretariat worldwide ([A/62/510/Rev.1](#)), the Secretary-General set out the main objectives of the enterprise resource planning project, which were: (a) to provide a global system that captured accurate and timely core resource data from all operations, including those in the field; (b) to support decision-making by linking programmes and operations with the resources allocated and utilized; (c) to reduce the average time required for administrative processes by streamlining and integrating business processes and using greater automation; (d) to increase organizational efficiency by reducing manual processes and redirecting resources to value-added work; (e) to support the implementation of IPSAS; (f) to enable easy access to reports for Member States, staff and the public, as appropriate; and (g) to enhance accountability, transparency and internal controls.

102. The paragraphs below reflect on how Umoja has performed with reference to some of the key elements of the original business case.

Provide a global system that captures accurate and timely core resource data from all operations, including those in the field

103. The Foundation and UE1 stages of the Umoja project, encompassing processes in core administrative areas across the Secretariat, captured, in a single enterprise-wide system, data housed previously in hundreds of siloed systems across the Organization. The labour-intensive cleansing of data from legacy systems and the harmonization of such data, before each Umoja deployment, have provided, in one

global system, a single source of accurate and up-to-date information on Secretariat-wide operations, including access to historical information in many cases.

Support the implementation of the International Public Sector Accounting Standards

104. Umoja was key to the Organization's successful adoption of IPSAS in 2014. Foundation and UE1 incrementally enabled the full integration of IPSAS accounting requirements and the preparation of IPSAS-compliant financial statements. The initial phase of the UE2 supply chain management functionality involved the replacement of the legacy asset system, Galileo, with Umoja, which brought the asset accounting systems across the Organization into a single IPSAS-compliant financial system.

Reduce the average time required for administrative processes by streamlining and integrating business processes and using greater automation

105. The introduction of harmonized business processes across the Secretariat was one of the key benefits of Foundation and UE1. The consolidation of disparate applications into a single system eliminated numerous redundant processes and duplicative data entry, and resulted in many quantitative benefits that were realized in the first few years after the deployment. Detailed usage statistics revealed by over 45 workflows provide rich empirical evidence of the improvements in throughput or reductions in steps.

Increase organizational efficiency by reducing manual processes and redirecting resources to value-added work

106. Before Umoja, routine administrative processes in areas such as finance and human resources were often manual, labour-intensive and different across duty stations. The automation, streamlining and harmonization of those processes means that staff working with Umoja spend less time, in many cases, on manual processes and routine administrative tasks and deliver services more quickly, working in teams with colleagues across offices and geographical locations. These globally linked and cross-functional teams foster increased staff expertise and expand the pool of talent and expertise across the Organization.

Support decision-making by linking programmes and operations with the resources allocated and utilized

107. The strategic planning, budgeting and performance management solution in UE2 brings together resource and programmatic information for better results-based management. Since its first deployment in 2013, Umoja has been building up its functionalities; with UE2, Umoja now offers the capability to capture programme and project planning, budgeting, programme monitoring and performance information and a robust reporting tool for better internal management and greater transparency for Member States and other stakeholders.

108. Umoja now gives programme managers the ability to formulate their programme plan or strategic plan on an annual or multi-year basis, with an accompanying proposal on resource requirements. Strategic plans and results frameworks of different types and durations can be created and linked to one another hierarchically, if needed. They can also systematically capture results at the frequency of their choice or when milestones are achieved. Budgets can be formulated at the activity-based level or at an aggregated level, depending on the need to track and manage them during the execution phase. During execution of the work, programme managers now have a tool to monitor the progress of implementation of the programme or project, on the basis of defined activities, tasks and timetables, to link programmes and operations with the resources allocated and to make decisions to reallocate resources,

if necessary. Information on the actual results is used for accountability and reporting while feeding into the design, resourcing and delivery of projects and operational activities for future periods.

109. Using both programmatic and resource information captured in one system, a performance dashboard helps programme managers to visualize the link between their entity's work and the larger goals of the Organization, such as the Sustainable Development Goals.

110. Reporting on results of a programme or project by geographical location, funding type, thematic area or the Organization's strategic priority area, which used to involve arduous manual data collection, would be improved as the relevant data are stored in one enterprise solution. However, the continued divergence between peacekeeping operations and the regular budget in relation to budget periods, strategic framework structures, budget classes and performance reporting methodologies, among other things, creates perpetual challenges in maintaining complex software solutions on two diverse tracks. Without harmonization across funding sources, some of the Umoja solutions will remain discordant and present challenges to the consolidation of data in dashboards. A concerted effort on the business side, including engagement with Member States, will be needed to reduce the divergence and ensure the value of a solution of this nature.

111. As emphasized in the reports of the Secretary-General on the repositioning of the United Nations development system to deliver on the 2030 Agenda, partnerships are critical to the implementation of the 2030 Agenda. Diverse partnerships are needed at the global, regional, country and local levels to enable all relevant stakeholders to engage and strategically leverage the collective insights, networks, resources and capacities of the global community. Similarly, the need to improve peacekeeping partnerships and spur stronger collective action by all stakeholders was also highlighted in the Action for Peacekeeping initiative launched by the Secretary-General in 2018. Those commitments acknowledge that the Organization can address highly complex and interlinked global issues only through collective action and partnerships.

112. The Umoja implementing partner management solution allows the Organization to capture the full life cycle of engagement with implementing partners and improve collaboration with those partners, by providing one gateway to partners. It will increase transparency, not only on the amount and purpose of funding given to partners, but also through improved and systematic monitoring of whether the outcome is achieved within agreed timelines. It will also improve visibility of engagement with partners by programme, project and geographical location.

Enable easy access to reports for Member States, staff and the public, as appropriate

113. As a single source of global, authoritative data, Umoja provides information from the Organization's business and processes to a variety of audiences, such as specialist staff users, senior management and Member States. Report creation and delivery have been incrementally automated and increasingly tailored to specific audiences, while the introduction of visualization tools such as dashboards has popularized access to data and enhanced their usefulness in making decisions.

114. Initially, dashboards were created for several key groups for internal use. For example, the management dashboards empower managers to monitor progress against key business performance indicators and delegation of authority programme indicators.

115. The Umoja Mobile application provided self-service and some reporting capability for staff, allowing them to manage leave requests, verify related entitlements and retrieve their payslips.

116. At the end of July 2020, a new Member States' contributions portal was launched as part of the Umoja suite of applications. The portal provides comprehensive and timely information about Member States' contributions through a user-friendly interface that is also available on mobile devices. It contains daily data from Umoja on the status of Member States' contributions for assessed budgets. The launch marks the first time that Member States can access Umoja data online and is aligned with the Secretary-General's commitment to transparency.

117. Leveraging the work done on the contributions portal, a budget information pilot was deployed in September 2020 to the Advisory Committee on Administrative and Budgetary Questions and the Fifth Committee. The pilot has been custom-designed to provide budget data from Umoja to meet the special requirements of the Advisory Committee and the Fifth Committee for highly detailed information found in the budget documents and supplementary information. The Umoja project, working closely with the secretariat of the Advisory Committee, developed this interim pilot, which has created the infrastructure and processes for releasing all budgetary information to the Advisory Committee and the Fifth Committee in an easily retrievable and usable format.

118. To support the review of the budget, the pilot initially provides access to budgetary information in Microsoft Excel files with numerous analytical capabilities through a user-friendly interface that is accessible on desktop computers, tablets or other mobile devices, using a secure login. As a pilot, the solution will remain flexible to evolve with feedback from both the Advisory Committee and the Fifth Committee before a budget information portal is developed to make Umoja information accessible through an interactive visual dashboard.

119. The pilot will be expanded in a phased manner on the basis of feedback from the Advisory Committee and the Fifth Committee. The first phase of the pilot was deployed, showing travel data for the 2021 programme budget proposals and the 2020/21 peacekeeping budget proposals. More data related to financial and post resources will be added to the portal incrementally in consultation with the Advisory Committee and the Fifth Committee.

Enhance accountability, transparency and internal controls

120. A substantial benefit of the Umoja solution is that its processes and functionality directly improve accountability through greater transparency. The real-time visibility of global and granular information enables greater delegation of authority and facilitates a culture of empowerment throughout the Organization for decentralized decision-making. The new system of delegation of authority and accompanying accountability framework, introduced by the Secretary-General on 1 January 2019, identified 16 key performance indicators, most of which are based on data extracted from Umoja and Inspira. At the same time, the accurate, readily available and auditable data are used in the establishment of mechanisms for better internal control, which are aligned with monitoring mechanisms created by the reform programme to ensure strengthened internal controls.

121. An illustrative list of the qualitative benefits and a table of the quantitative benefits realized from Umoja and reported previously are contained in annexes VII and VIII.

122. Central to the Umoja benefits realization plan is the management of processes to leverage further benefit realization or continuous improvements. A clear

understanding of what the different stakeholders expect, and the problems they face, is integral to establishing an effective system of continuous improvement.

123. The Board of Auditors, in its seventh annual progress report, recommended that the Administration identify a coordinating division/unit as a primary process owner of benefit realization responsible for monitoring the process of benefit realization, engaging stakeholders of the various units and divisions, and continuous monitoring. As outlined in the 2020 Umoja benefits realization plan, the Business Transformation and Accountability Division, which is also represented in the Umoja Change Board, will have responsibility for coordinating benefit realization in Umoja. In so doing, the Division will also monitor whether benefits owners in the respective functional areas are keeping the benefits cards in sync with the United to Reform benefits tracker.

124. In Umoja, continuous improvements are recorded, evaluated, processed and implemented through an established change control mechanism, comprising SAP tracking tools (ChARM and the Requirements Management solution) and processes that record the nature, impact and progress of the requested change, from creation to approval to implementation; regular reporting to the Umoja Change Board on the progress of change requests forms part of the control mechanism. The entire process of a continuous improvement, from creation to implementation, is under the review and control of the business by means of the Umoja Change Board, directed by the Management Client Board. The process establishes the baseline against which the benefits realized will be monitored and reported on.

125. The Umoja benefits realization plan thus applies an interconnected system of business ownership, layered governance and mechanisms for managing continuous improvement, to ensure that the business case for Umoja is reviewed regularly and that the solution is adapted to ensure its continuing relevance and value.

IV. Resource requirements for 2021

126. The approved cumulative funding for the project up to the end of 2020 is \$565,324,300. The projected expenditure by the end of 2020 is \$553,242,100, leaving an unused balance of \$12,082,200, as shown in table 4.

Table 4
Cumulative resource requirements, 2008–2020

(Thousands of United States dollars)

	<i>2008–2020 approved budget</i>	<i>2008–2019 expenditure</i>	<i>2020 projected expenditure (as at 31 December 2020)</i>	<i>Total projected expenditure to end of 2020</i>	<i>Projected unused balance to be returned</i>
Posts	138 129.8	120 939.6	10 753.5	131 693.1	6 436.7
Other staff costs	66 458.4	64 247.8	3 713.5	67 961.3	(1 502.9)
Consultants	3 478.9	3 643.2	308.1	3 951.3	(472.4)
Travel of staff	8 099.0	6 884.1	60.0	6 944.1	1 154.9
Contractual services	272 133.6	249 311.5	17 854.9	267 166.4	4 967.3
General operating expenses	28 657.1	25 611.8	1 497.9	27 109.7	1 547.4
Supplies and materials	1 102.7	1 005.4	87.0	1 092.4	10.3
Furniture and equipment	47 264.8	47 169.5	32.0	47 201.5	63.3
Improvement of premises	–	20.4	–	20.4	(20.4)
Grants and contributions	–	101.9	–	101.9	(101.9)
Total	565 324.3	518 935.2	34 306.9	553 242.1	12 082.2

127. As recommended in paragraph 28 of the report of the Advisory Committee on Administrative and Budgetary Questions (A/74/7/Add.17) and endorsed by the General Assembly in section XVII, paragraph 3, of its resolution 74/263, the unused balance, if any, at the closure of the project should be returned to Member States.

128. The projected balance of unused funding at the end of 2020 reflects the trend since 2017 of reducing costs through the continuing reorganization of posts and the related reduction in the numbers and hourly rates of contractors. The cost reduction has been aided by the continuing decision to train staff and avoid the use of a systems integrator for UE2 solutions; deep discounts negotiated with SAP for its products and services have also contributed.

129. The projected unused balance does not take into account the potential outcome of an ongoing negotiation with SAP for the licensing of a relatively new and advanced analytics product launched by SAP to replace some of the older technologies licensed to the United Nations. The Umoja project undertook a proof of concept that affirmed the high value of this solution for the Organization, especially Member States. The analytics product will provide Member States with the ability to access the breadth of data from Umoja and other United Nations enterprise systems with powerful visualization, an intuitive and interactive interface with drill-down dashboards, and strong analytic capabilities, including what-if scenarios; the plan would be to enhance the budget information pilot with this product. The negotiation is also tied to the obtention of a credit for SAP software licensed to the United Nations that the project has determined, in consultation with the vendor, as no longer being needed. The acceptance of such a credit could pave the way for similar future credits. The net outlay for the licensing of this software for a five-year period would be about \$5 million and would include a deep discount.

130. The final unused balance at the end of 2020 will be proposed for return to Member States, in the proportion of the cost-sharing for the Umoja project, in the context of the upcoming performance report on the programme budget for 2020, to be considered by the General Assembly at the main part of its seventy-sixth session.

Enterprise Resource Planning Solution Division

131. As described in paragraph 63 above, it is proposed that an Enterprise Resource Planning Solution Division be established as of 1 January 2021. Resource requirements in the amount of \$25,997,000 proposed for the Division in 2021 are detailed in table 5 and explained further in the paragraphs below.

Table 5

Enterprise Resource Planning Solution Division: proposed resources for 2021

(Thousands of United States dollars)

	<i>2020 approved budget</i>	<i>2021 proposed resources</i>	<i>Variance</i>
Posts	12 053.4	12 971.6	918.2
Other staff costs	3 499.7	3 412.1	(87.6)
Consultants	392.6	408.1	15.5
Travel of staff	438.8	305.7	(133.1)
Contractual services	15 890.4	7 030.0	(8 860.4)
General operating expenses	1 893.1	1 735.0	(158.1)
Supplies and materials	108.7	95.2	(13.5)
Furniture and equipment	40.0	39.3	(0.7)
Total	34 316.7	25 997.0	(8 319.7)

Posts

132. The General Assembly, in paragraph 20 of section XXI of its resolution [72/262 A](#), recalled paragraph 43 of the report of the Advisory Committee ([A/72/7/Add.31](#)), and welcomed the proposals of the Secretary-General for the restructuring and gradual downsizing of the Umoja project team.

133. In accordance with the request of the General Assembly, the project has been reprofiling its resources since mid-2016 with a view to ensuring the right mix of skills and a suitable grade structure for the post-project phase. The reprofiling entailed the abolishment of 45 posts and the establishment of 27 new comparatively junior posts to create a more balanced structure suitable for building and sustaining capacity, as reflected in table 6. In parallel, and as vacancies arose, 25 posts (4 P-5, 11 P-4, 5 P-3, 1 P-2 and 4 General Service (Other level)) have been reprofiled during the four-year period to supplement the reorganization.

Table 6
Posts abolished or established as part of reorganization

Grade	Posts abolished, 2017–2019				Posts established, 2017–2019			
	1 Jan. 2017	1 Jan. 2018	1 Jan. 2019	Total	1 Jan. 2017	1 Jan. 2018	1 Jan. 2019	Total
D-1	3	1	–	4	–	–	–	–
P-5	4	7	–	11	–	–	–	–
P-4	10	5	4	19	–	–	2	2
P-3	–	–	4	4	3	3	5	11
P-2	–	–	–	–	2	3	1	6
GS (PL)	–	–	–	–	4	1	3	8
GS (OL)	4	–	3	7	–	–	–	–
Total	21	13	11	45	9	7	11	27

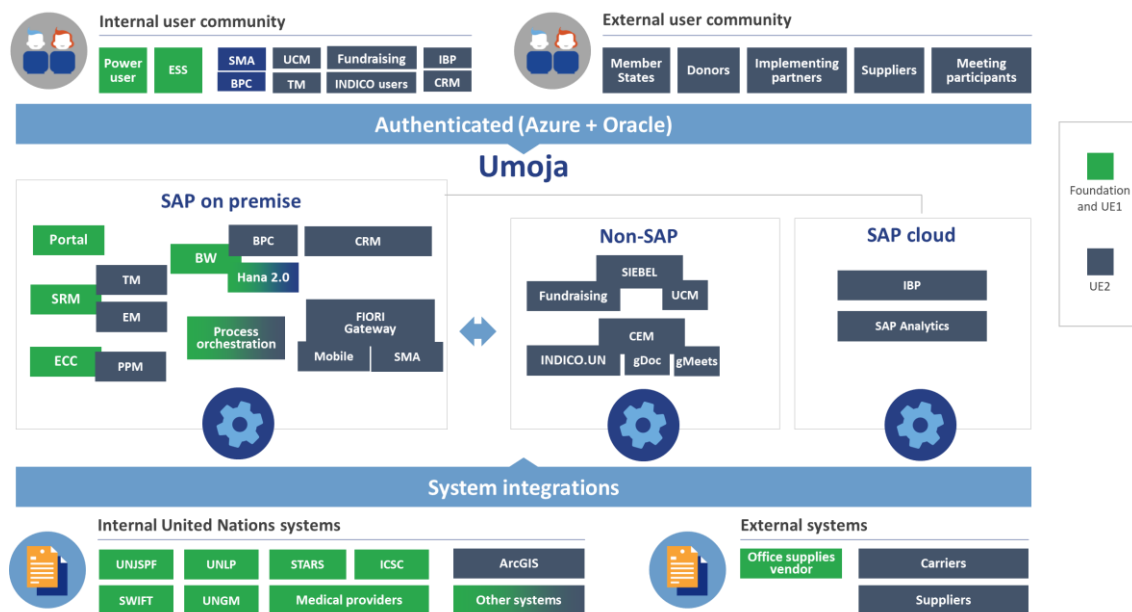
Abbreviations: GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

134. The volume and complexity of the four-year reorganization and reprofiling of the project's post and staffing structure cannot be overstated, as it underpins the reduction in staffing costs, the reduced dependency on contractors and the resultant reduction in contractual services. Accordingly, of the 72 project posts approved by the General Assembly, 52 have either been newly established since 2017 or have been reprofiled to concurrently align the skills base with the evolving needs of the Umoja solution, and the team has been drawn down into a sustainable structure, as requested by the General Assembly.

135. Since 2016, the project has been organizing specialized training for its staff to ensure institutional capacity to support Umoja. From mid-2016 through September 2020, 1,231 technical training courses delivered by SAP Education have been completed by the project staff using individually customized training curricula based on learning requirements for specific technology components. These courses leveraged different learning methods, including on-site workshops, e-learning, off-site instructor-led courses and virtual lectures. The cumulative investment of \$3.6 million in this technical training and upskilling programme has obviated the need for a costly systems integrator to build the UE2 solutions and has, therefore, reduced the cost of knowledge transfer from contractors, as repeatedly requested by the General Assembly.

136. The reorganization was necessary to support and sustain the massive expansion of the technical landscape of Umoja over the past four years to design and implement UE2 functionality. The technical architecture expanded significantly, adding several additional SAP on-premise products, new SAP cloud solutions and integration with other on-premise and cloud enterprise applications, as shown in figure IV.

Figure IV
Umoja integration architecture



Abbreviations: BPC, budget planning and consolidation; BW, Business Warehouse; CEM, conference and events management; CRM, customer relationship management; ECC, ERP Central Component; EM, event management; ESS, employee self-service; IBP, integrated budget planning; ICSC, International Civil Service Commission; PPM, portfolio and project management; SMA, strategic management application; SRM, supplier relationship management; STARS, Settlement of Tax Advances and Reimbursements System; SWIFT, Society for Worldwide Interbank Financial Telecommunication; TM, transportation management; UCM, uniformed capabilities management; UNGM, United Nations Global Marketplace; UNJSPF, United Nations Joint Staff Pension Fund; UNLP, United Nations laissez-passier.

137. The expansion translated into the addition of 64 application and software instances to the Umoja solution. The more complex system landscape involves the management of more system upgrades and expanded interdependencies among all of the SAP software components. Where custom solutions had to be built using SAP technology to meet United Nations-specific business requirements not catered to by standard SAP software, notably for human capital management, payroll, and strategic planning and budgeting, highly specialized skills and capacity are required to maintain the solution. There are also risks in terms of evolving requirements to handle the impact of specific SAP software components that become obsolete or are no longer supported. Notwithstanding the growing complexity, the Umoja team has the skills and capacity to maintain the solution without a systems integrator.

138. Continuing the trend of reorganization and restructuring, in line with the evolution of the solution, the Secretary-General proposes the abolishment of the post of Assistant Secretary-General, two P-5 posts and one General Service (Principal level) post effective 1 January 2021.

139. The evolution of the grade structure resulting from the reorganization, including the currently proposed abolishment of four posts, which started in mid-2016 for the purpose of mainstreaming, is shown in table 7.

Table 7

Past, current and proposed post structure of the Enterprise Resource Planning Solution Division

<i>Year</i>	<i>ASG</i>	<i>D-2</i>	<i>D-1</i>	<i>P-5</i>	<i>P-4</i>	<i>P-3</i>	<i>P-2</i>	<i>GS (PL)</i>	<i>GS (OL)</i>	<i>Total</i>
2010–2016	1	1	7	21	37	9	1	1	12	90
2017	1	1	4	17	27	12	3	5	8	78
2018	1	1	3	10	22	15	6	6	8	72
2019–2020	1	1	3	10	20	16	7	9	5	72
2021 (proposed)	–	1	3	8	20	16	7	8	5	68

Abbreviations: ASG, Assistant Secretary-General; GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

140. The resulting organization of the 68 posts proposed for 2021 is shown in annex VI, which structures the Enterprise Resource Planning Solution Division into two solution architecture teams and one solution delivery management team. The Director (D-2) would direct the work of the Division, overseeing the above-mentioned teams and coordinating both the internal and the business-facing workings of the Umoja solution across the Organization. The solution architecture teams would be responsible for the work streams and integration of finance, human capital management and supply chain management. The solution delivery management team would, inter alia, be responsible for the development and delivery operations, including SAP integration, release management, SAP security, Business Warehouse and licensing controls, and integration with or interfaces to other systems. The teams' work would inherently be tightly interconnected owing to the highly integrated nature of the solution and the cross-functional and hybrid techno-functional nature of the teams.

141. A total of \$12,971,600 for posts would provide for salary and common staff costs for the 68 posts, comprising 1 D-2, 3 D-1, 8 P-5, 20 P-4, 16 P-3, 7 P-2, 8 General Service (Principal level) and 5 General Service (Other level) posts. This structure is critical for implementing the directive from the General Assembly to assure autonomous and sustainable capacity to support the solution in the long run.

142. As at 1 October 2020, 62 out of 72 posts were encumbered, including five temporarily. Ten posts were vacant, including two earmarked for abolishment and one blocked for staff on internal assignment. Currently, 12 posts are in various stages of the recruitment process, including a small number of posts that have been repeatedly advertised during 2019 and 2020 for specialized profiles.

Other staff costs

143. Similar to the reorganization of posts, general temporary assistance and contractual personnel have also been continually reprofiled over the past four years on the basis of evolving needs and with a view to mainstreaming.

144. During 2021, the estimated requirements for temporary positions will continue to decline, from 23 temporary positions in 2020 to 17 initially and 14 by the end of the year. The associated resource requirements total \$3,412,100.

Consultants and experts, and contractual services

145. As explained above, since the technical landscape has become more complex and a systems integrator (specialist vendor) is no longer utilized, the core team is being complemented by a mix of consultants with specialized expertise and contractual services through vendors.

146. A provision of \$408,100 will be required for the continued services of four full-time consultants during 2021, including Siebel developers within the Office of Information and Communications Technology in New York and Valencia.

147. Projected resource requirements for 2021 of \$7,030,000 for contractual services would cover a variety of products and specialist services. A provision of \$1,200,000 would cover the cost of a premium support service for resolving product-related problems, including performance issues, directly provided by the software vendor, SAP. The core team relies on two vendors to provide experienced developers to flexibly complement its capacity in specific SAP components on the basis of its changing workload, at a cost of \$4,980,000. Such individuals are managed by the Enterprise Resource Planning Solution Division. Overall, approximately 25 such personnel would be assisting the Division during 2021, tapering to about 15 by the end of the year as UE2 continues to stabilize. In 2015 and 2016, the project had approximately 110 such contractors; the average during 2020 was 32, and there were 27 at the time of reporting.

148. A total of \$400,000 is budgeted for additional licences to accommodate growth in the use of the numerous UE2 components recently deployed as their usage stabilizes.

149. An estimated requirement of \$450,000 is included within the budget class of contractual services for specialized SAP technical training for the continued development of the SAP technical skills of the Division's staff. This continued investment in the skills of the core team is critical to sustaining the solution with autonomous capacity, given that the Organization is no longer using a systems integrator vendor who typically provides skilled personnel. The core team has to be current in its knowledge and skills because technology evolves rapidly and SAP will be constantly upgrading its software.

Travel and training of project staff

150. As in previous years, the staff of the Enterprise Resource Planning Solution Division will need to continue upskilling and reskilling in order to assure optimal capacity to maintain the solution, as explained above. An amount of \$263,800 would provide for travel to attend specialized technical training that is only available off-site according to a calendar established by SAP Education. An amount of \$41,900 is provided for other official business travel of the team to attend and lead workshops in support of continuous improvements to the solution.

General operating expenses

151. Estimated requirements of \$1,735,000 for general operating expenses would provide for rent of \$1,445,000 based on a charge of \$17,000 for 85 personnel, service-level agreements of \$187,275 for computer maintenance, including network accounts and network ports, and communication charges of \$102,725, including for virtual private networks and Citrix, in addition to low-value ad hoc charges for teleconferencing.

Supplies and materials, and furniture and equipment

152. The estimated requirements of \$95,200 for supplies and materials and \$39,300 for furniture and equipment are necessary to support the needs of the Division's personnel, including the replacement of equipment (laptops) and low-value software.

Resources for business support

153. An independent consulting firm engaged to review the Umoja project, pursuant to a recommendation of the Board of Auditors, had highlighted that the often overlooked, or at least underestimated, element of successful implementation is the investment in maintenance and enhancements, change management and training activities both leading up to but especially post go-live. Organizations that fail to adequately invest in those activities could run the risk of undermining their investment altogether.

154. Throughout the project's life cycle, indirect costs have not been properly funded. Business support has been key to the success of the project and will continue to play a vital role in the steady state phase. Business stakeholders have supported the project by retasking and reprioritizing their staff to accommodate Umoja deployment. Historically, tier 2b support has been difficult for the business to manage, leading to frequent backlogs and long wait times for the resolution of end user requests, resulting in a suboptimal user experience. Many of the delays encountered by the project have been due to the underfunding of business support, leading to delays in the signing-off of requirements, testing, training and production support.

155. The increased responsibility of the functional subgroups from April 2020 was part of the review of the Umoja support model, as part of mainstreaming, to better serve users and meet current and future requirements. The structures put in place and the capacity requested will not only serve to meet those needs but also ensure that the critical administrative functions of the Organization can be optimally executed, including by the Enterprise Resource Planning Solution Division.

156. There is also a pent-up demand for process improvements, including addressing recommendations of the Board of Auditors that could not be undertaken owing to the prioritization of UE2 design, development and deployment over the past three years. Implementing these improvements will also entail testing support, communication, change management, the updating of training materials and production support.

157. Section III above, on mainstreaming, includes information on the various functions that must be undertaken by other entities in partnership with the Enterprise Resource Planning Solution Division. The Department of Management Strategy, Policy and Compliance, the Department of Operational Support and the Department for General Assembly and Conference Management have responsibilities with regard to the ongoing maintenance of Umoja separate from those of the Division, as outlined in section III. Moreover, the Capacity Development and Operational Training Service will take on responsibility for training on the Umoja solution. Accordingly, the sustainable mainstreaming of Umoja requires that these ongoing functions – which are outside of the remit of the proposed Enterprise Resource Planning Solution Division – be adequately resourced, as summarized in table 8. These business support resources have been prioritized on the basis of the anticipated needs of each of these areas during 2021.

Table 8
Business support resource requests

	P-5	P-4	P-3	P-2	GS (OL)	Total
Capacity Development and Operational Training Service, Department of Operational Support	–	2	2	2	1	7
Human Resources Services Division, Department of Operational Support	1	1	1	–	3	6
Department for General Assembly and Conference Management	–	–	1	–	1	2
Business Partner Service, Department of Management Strategy, Policy and Compliance	–	–	–	–	1	1
Business Transformation and Accountability Division, Department of Management Strategy, Policy and Compliance	–	–	1	–	–	1
Office of Human Resources, Department of Management Strategy, Policy and Compliance	–	–	–	–	2	2
Office of Programme Planning, Finance and Budget, Department of Management Strategy, Policy and Compliance	1	–	–	–	2	3
Total	2	3	5	2	10	22

Abbreviation: GS (OL), General Service (Other level).

158. It is proposed that these resources be provided as general temporary assistance in the amount of \$3,695,400. Any related support costs will be absorbed by the respective departments.

V. Summary of resource requirements and request for action by the General Assembly

A. Overall resource requirements for 2021

159. The total resource requirements for 2021 for the Enterprise Resource Planning Solution Division and the business support areas in the Department of Management Strategy, Policy and Compliance, the Department of Operational Support and the Department for General Assembly and Conference Management are summarized in table 9.

Table 9
Total resource requirements for 2021

(Thousands of United States dollars)

	Enterprise Resource Planning Solution Division	Other support areas	Total
Posts	12 971.6	–	12 971.6
Other staff costs	3 412.1	3 695.4	7 107.5
Consultants	408.1	–	408.1
Travel of staff	305.7	–	305.7
Contractual services	7 030.0	–	7 030.0
General operating expenses	1 735.0	–	1 735.0

	<i>Enterprise Resource Planning Solution Division</i>	<i>Other support areas</i>	<i>Total</i>
Supplies and materials	95.2	—	95.2
Furniture and equipment	39.3	—	39.3
Total	25 997.0	3 695.4	29 692.4

B. Proposed financing of projected resource requirements for 2021 for the Enterprise Resource Planning Solution Division

160. In its resolution [63/262](#), the General Assembly endorsed the cost-sharing arrangement for the financing of the enterprise resource planning project proposed by the Secretary-General in paragraph 79 of his report on enterprise systems for the United Nations Secretariat worldwide ([A/62/510/Rev.1](#)). The approved cost-sharing arrangement is 15 per cent from the regular budget, 62 per cent from the support account for peacekeeping operations and 23 per cent from the special accounts for programme support costs. This formula, as approved, has been applied throughout the life cycle of the Umoja project. However, as the project will close on 31 December 2020, a new funding modality will need to be introduced.

161. In his report entitled “Shifting the management paradigm in the United Nations: funding model for the Department of Management Strategy, Policy and Compliance and the Department of Operational Support” ([A/74/761](#)), the Secretary-General set out a proposal whereby the two departments would continue to be financed through both the programme budget and the support account; however, the totality of post and non-post requirements would be presented under the programme budget, with the support account share of the appropriation contributed as a grant to the programme budget on the basis of a methodology detailed in section III.B of that report. Should the General Assembly approve the proposal, the arrangements contained therein would provide the budgetary process and funding model for the proposed Enterprise Resource Planning Solution Division beginning with the budget proposal for 2022.

162. Pending the approval of a new funding model, the Secretary-General proposes that the resource requirements of \$25,997,000 for 2021 for the Division be apportioned by the General Assembly using the previously approved cost-sharing arrangement, as illustrated in table 10.

Table 10
Summary of proposed resource requirements for 2021, by source of funding

(Thousands of United States dollars)

<i>Source of funds</i>	<i>Proposed resources for 2021</i>	<i>Percentage</i>
Regular budget	3 899.6	15
Support account for peacekeeping operations	16 118.1	62
Extrabudgetary	5 979.3	23
Total	25 997.0	100

C. Proposed financing of the resource requirements for 2021 for business support

163. It is proposed that the resource requirements of \$3,695,400 be financed from the unused balance of the Umoja project's funding at the end of 2020.

D. Recommended actions to be taken by the General Assembly

164. The General Assembly is requested:

(a) To take note of the twelfth and final progress report of the Secretary-General on the enterprise resource planning project;

(b) To approve the resource requirements of \$25,997,000 for 2021 for the Enterprise Resource Planning Solution Division and the dual reporting line to the Department of Management Strategy, Policy and Compliance and the Department of Operational Support;

Programme budget

(c) To approve an amount of \$3,899,600 under the programme budget for 2021 under subprogramme 1, component 1, Enterprise resource planning solution, of section 29A, Department of Management Strategy, Policy and Compliance, representing the regular budget share for the costs of the Division for 2021;

(d) To revise the appropriation under the proposed programme budget for 2021 by reducing the provisions under section 29A, Department of Management Strategy, Policy and Compliance, by an amount of \$400;

Support account for peacekeeping operations

(e) To note that resource requirements in the amount of \$16,118,100 will be included in the subsequent requirements for the support account for peacekeeping operations for the financial period from 1 July 2021 to 30 June 2022;

Extrabudgetary resources

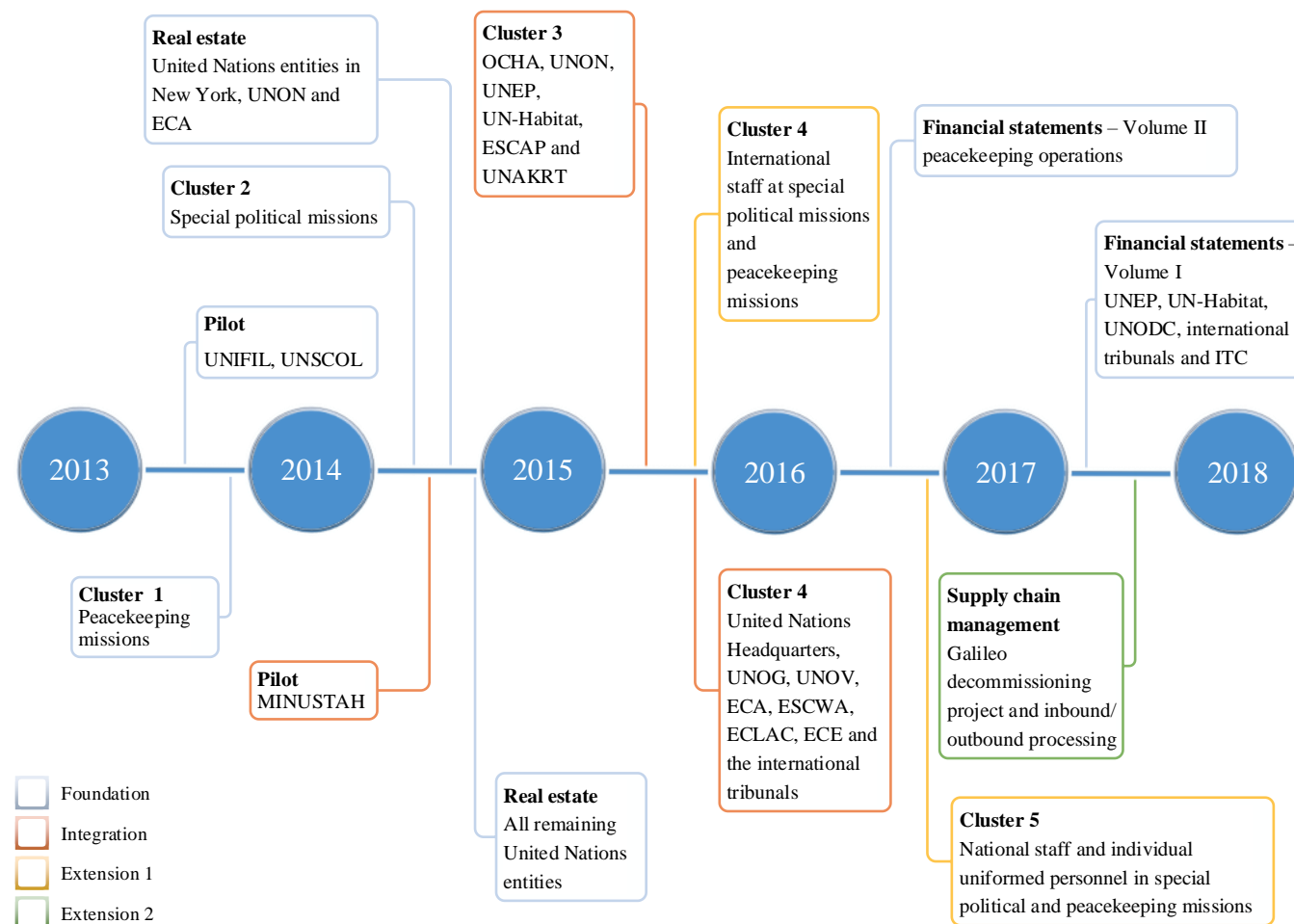
(f) To note that requirements in the amount of \$5,979,300 will be funded from extrabudgetary resources in the financial year 2021;

Business support activities

(g) To approve the resource requirements of \$3,695,400 for 2021 for the business support activities summarized in paragraphs 153 to 158 above, to be funded from the unused balance at the end of 2020, currently estimated at \$12,082,200.

Annex I

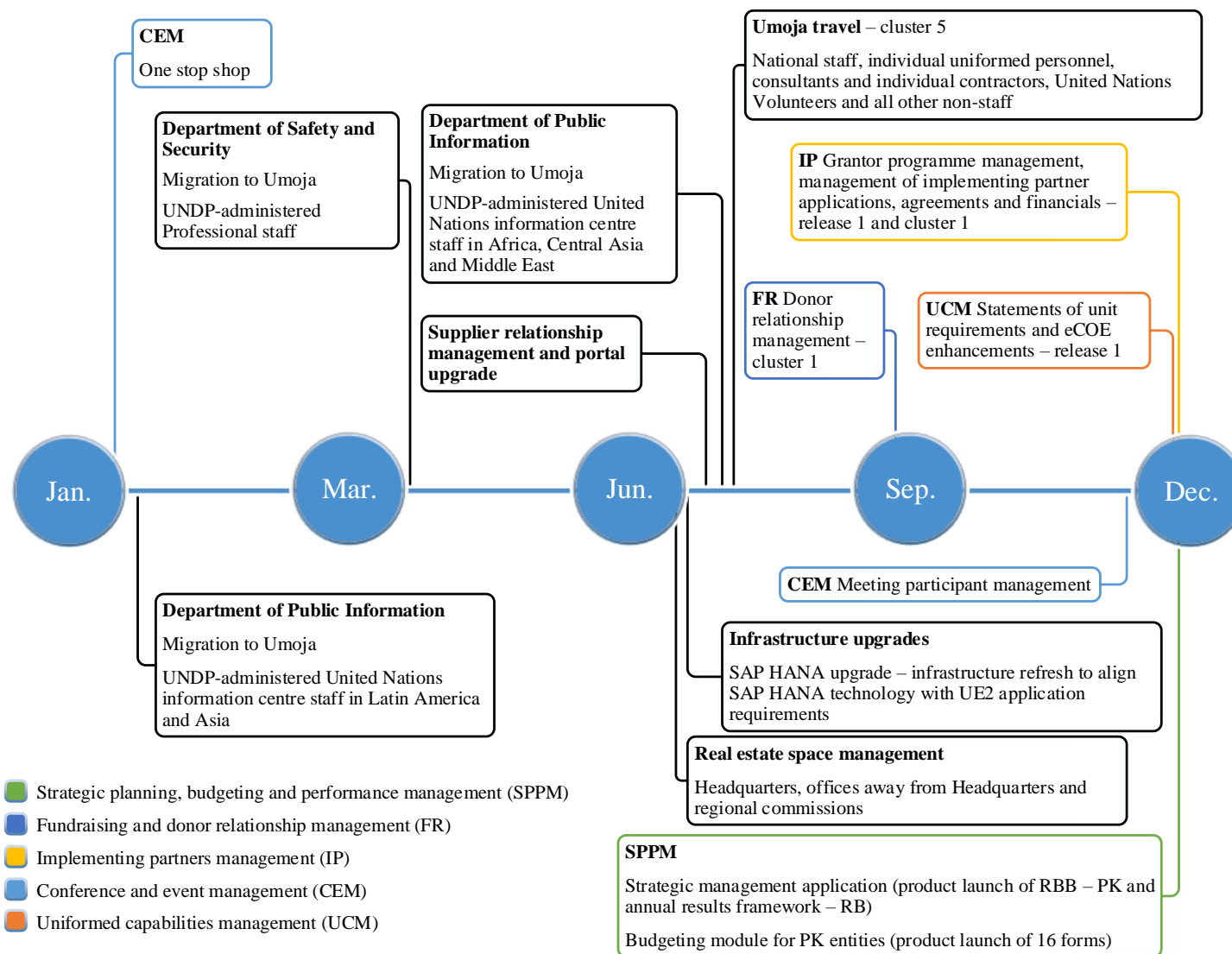
Umoja deployments, 2013–2017



Abbreviations: ECA, Economic Commission for Africa; ECE, Economic Commission for Europe; ECLAC, Economic Commission for Latin America and the Caribbean; ESCAP, Economic and Social Commission for Asia and the Pacific; ESCWA, Economic and Social Commission for Western Asia; ITC, International Trade Centre; MINUSTAH, United Nations Stabilization Mission in Haiti; OCHA, Office for the Coordination of Humanitarian Affairs; UNAKRT, United Nations Assistance to the Khmer Rouge Trials; UNEP, United Nations Environment Programme; UN-Habitat, United Nations Human Settlements Programme; UNIFIL, United Nations Interim Force in Lebanon; UNODC, United Nations Office on Drugs and Crime; UNOG, United Nations Office at Geneva; UNON, United Nations Office at Nairobi; UNOV, United Nations Office at Vienna; UNSCOL, Office of the United Nations Special Coordinator for Lebanon.

Annex II

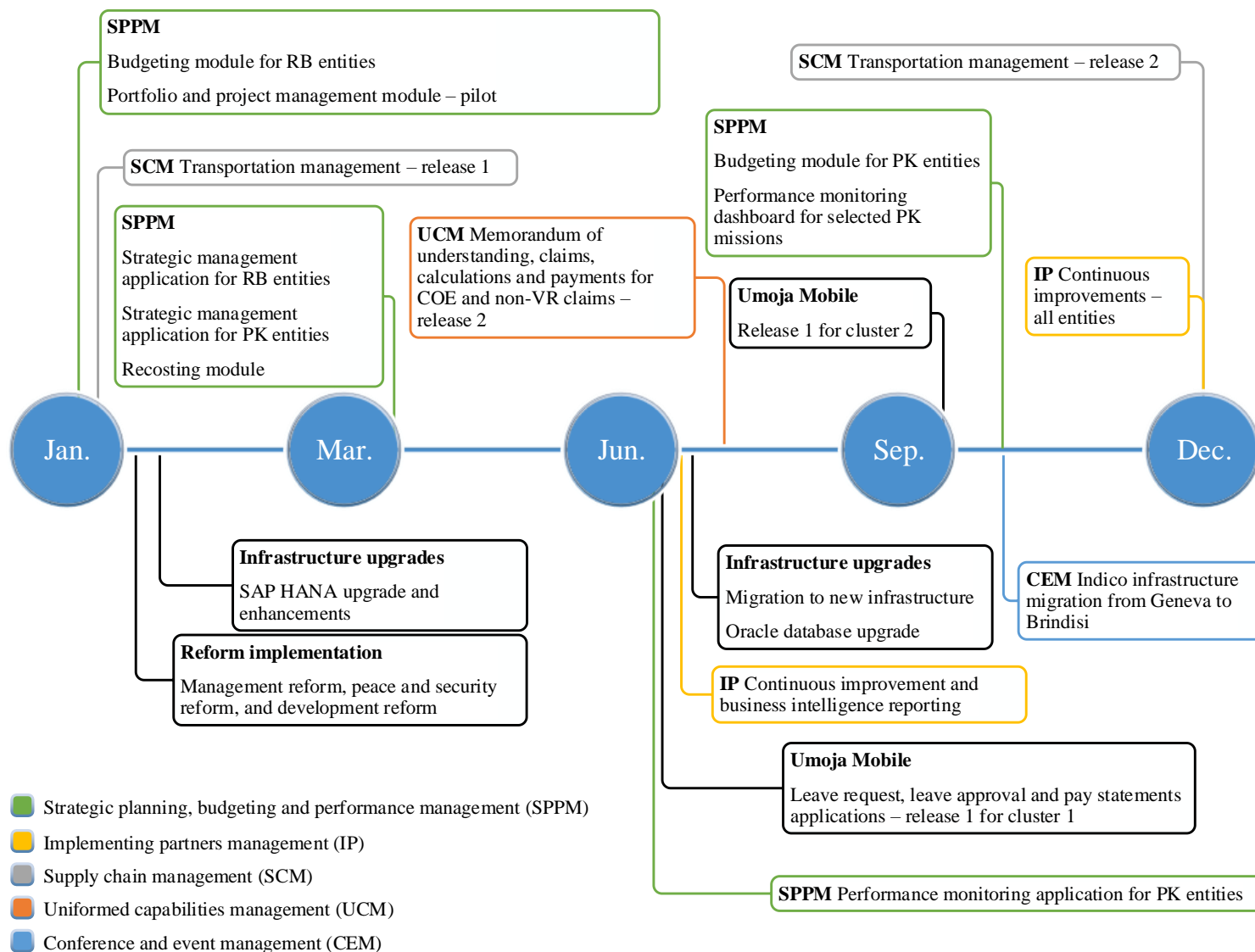
Umoja deployments, 2018



Abbreviations: eCOE, electronic contingent-owned equipment system; PK, peacekeeping; RB, regular budget; RBB, results-based budgeting; UNDP, United Nations Development Programme.

Annex III

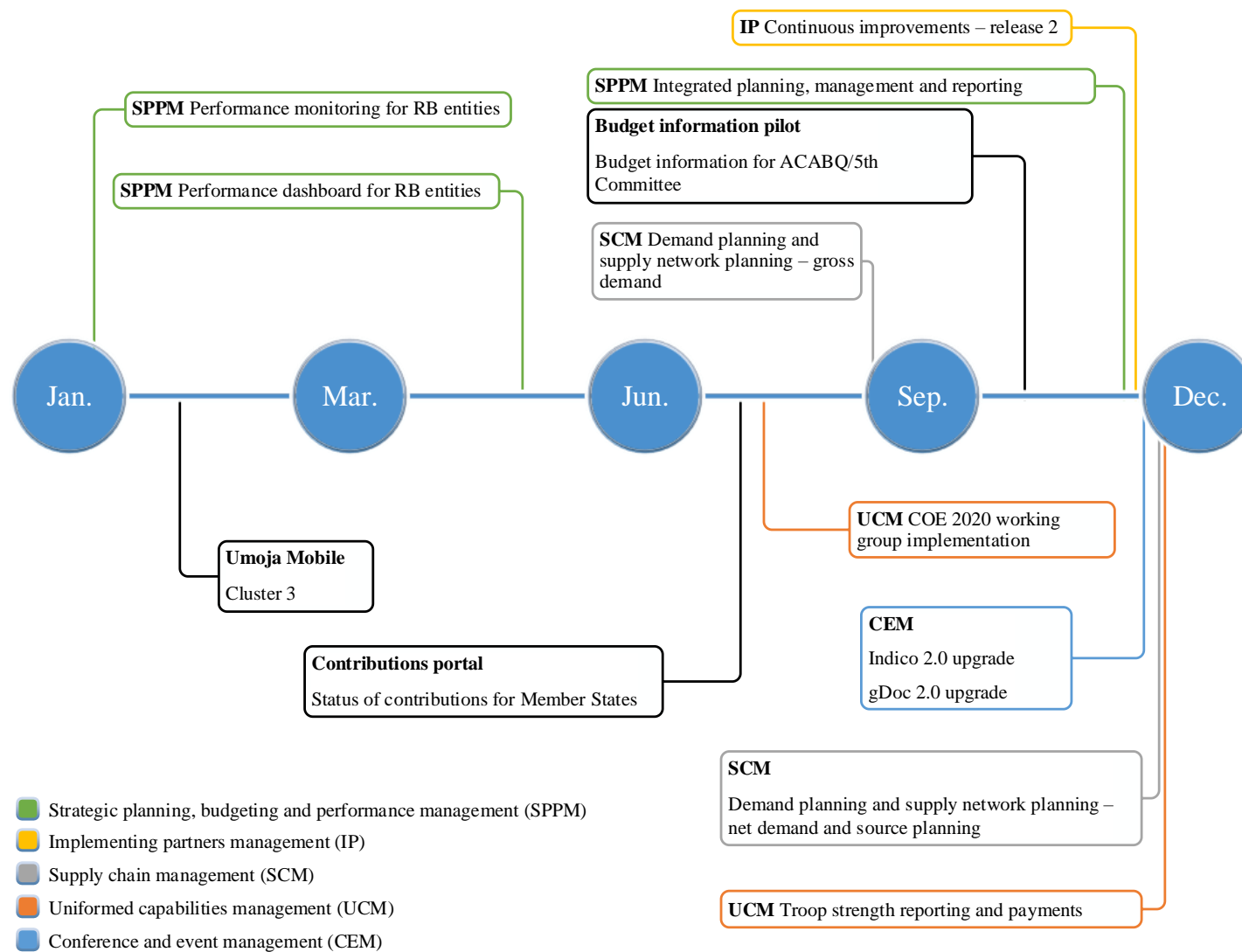
Umoja deployments, 2019



Abbreviations: COE, contingent-owned equipment; PK, peacekeeping; RB, regular budget; VR, verification report.

Annex IV

Umoja deployments, 2020



Abbreviations: ACABQ, Advisory Committee on Administrative and Budgetary Questions; COE, contingent-owned equipment; RB, regular budget.

Annex V

Umoja project expenditures by phase

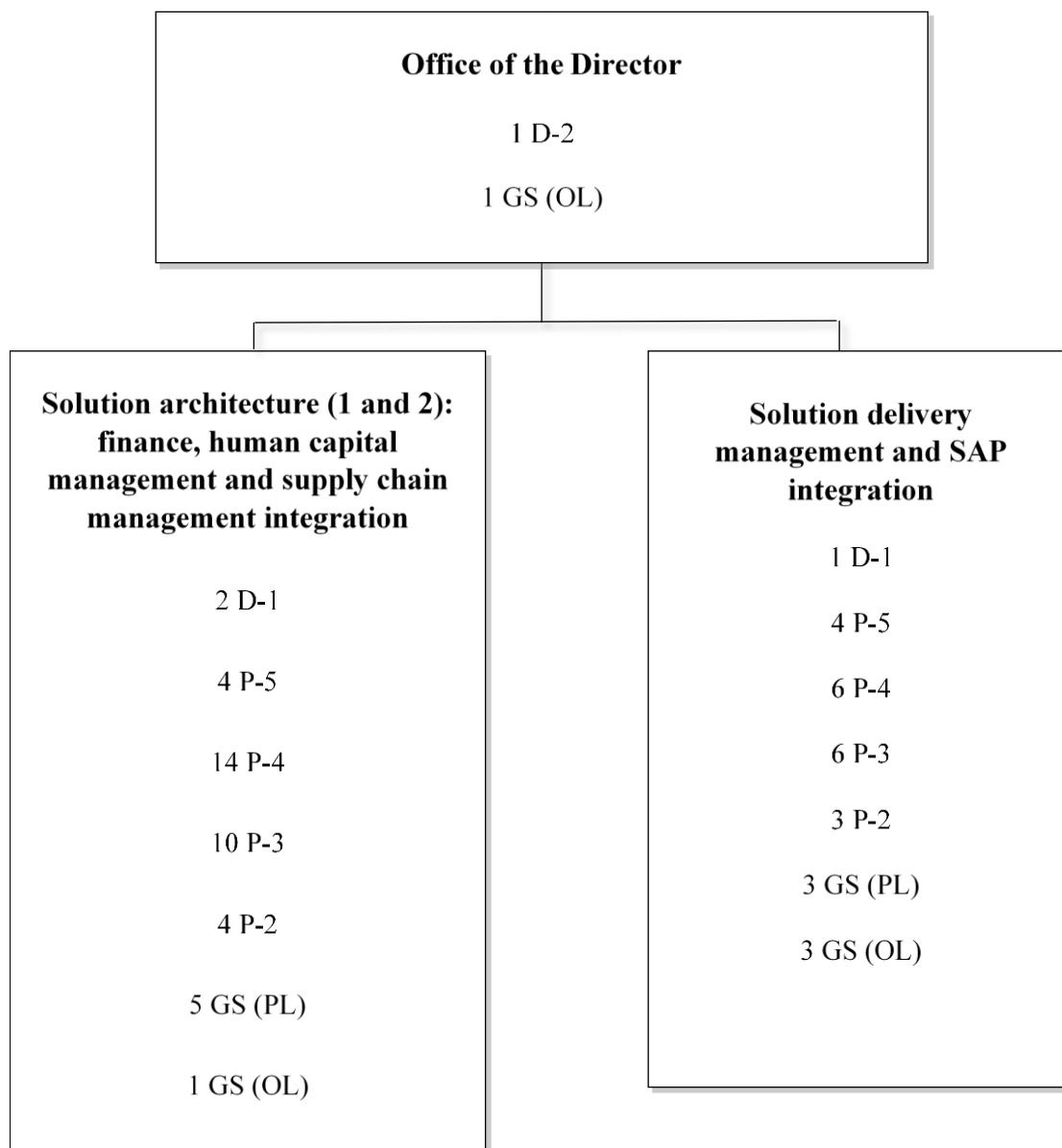
Umoja project expenditures by phase (as at 1 October 2020)

(United States dollars)

<i>Year</i>	<i>Project phase</i>	<i>Staff costs</i>	<i>Non-staff costs</i>
2008–2009	Project initiation	3 974 084	274 017
2008–2015	Process design	31 468 527	76 495 544
2008–2020	Infrastructure hardware	2 655 881	33 368 146
2010–2020	Infrastructure software licences and maintenance	0	60 484 981
2012–2015	Foundation	12 178 343	51 274 054
2012–2020	Integration	71 568 760	47 149 962
2014–2020	Continuous improvement and production support	39 256 877	37 453 343
2016–2020	Umoja Extension 2	30 370 949	43 846 456
Total		191 473 421	350 346 503

Annex VI

Proposed organizational structure and post distribution for the Enterprise Resource Planning Solution Division



Abbreviations: GS (OL), General Service (Other level); GS (PL), General Service (Principal level).

Annex VII

Umoja qualitative benefits

Umoja qualitative benefits, across the Organization and by functional pillar

Organizational

- Supporting the management reforms, improving accountability, transparency and decision-making through access to more and better data, and allowing better alignment of resources with results
- Supporting the Secretary-General's vision of a data-driven Organization, with richer data, better analytical tools and advanced dashboards for forecasting, risk assessment and decision-making in support of mandates
- Seamless integration among enterprise solutions, for greater data consistency and user-friendliness
- Consistent, shared master data across processes, thereby increasing data reliability
- Ability to efficiently set up, downsize, expand or close entities, as determined by mandates
- Delivering a single source of certified, business-endorsed data under a rigorous governance structure, thereby enabling consistent and transparent reporting across the Organization
- Enhanced business continuity through location-agnostic, remote access to all functions, with resilient infrastructure for disaster recovery
- Improved user experience by enabling newer technologies that work on mobile devices

Human resources

- Standardization and automation of human resources processes
- Improved time and sick leave management
- Real-time visibility of global personnel data
- Simplification of staff movements across duty stations
- Employee and manager self-service capabilities, including mobile access
- Faster processing of entitlements

Finance

- Integrated processes for enabling International Public Sector Accounting Standards (IPSAS) compliance
- Optimization and harmonization of payroll processing
- Real-time visibility of global resource mobilization and utilization
- Improved cost measurement, allocation and recovery
- Improved cash management and banking arrangements, including optimization of the house bank networks supporting global operations

- Accurate and automatic expenditure classification based on materials and services enabled through integration of supply chain and finance
- More efficient management of accounts payable and receivable, including global netting of payables and receivables and effective management and monitoring of prompt payment discounts
- Electronic interfaces with vendors for ordering goods and services and settling invoices
- Elimination of inter-office vouchers
- Electronic interface with the United Nations Development Programme for automating manual and resource-intensive procedures
- Vastly more efficient processes for preparing the financial statements; faster consolidation of financial statements
- Release of skilled resources for better analytical reporting
- Robust and more transparent and accessible audit trails

Central support services

- Full visibility of the global real estate portfolio, including lease contracts
- Ability to record and monitor occupancy across the Organization's real estate portfolio, providing information on space utilization and assignment
- Automatic scheduling of preventive maintenance activities, improved planning, tracking and reporting of maintenance and equipment performance
- Harmonization of property management and accounting processes
- Increased delegation owing to real-time access to transactions in progress

Travel

- Global view of travel operations, allowing operating models to simplify and harmonize the network of travel and shipment processing offices
- Self-service functionalities, reduction in workflow steps and better monitoring of compliance
- Transparency in travel processing; greater accountability for processing actions
- Global travel and expenses solution integrated with finance, human capital management, projects, shipments and payroll modules, thereby allowing for budget, commitments, payments and recoveries to be managed in real-time
- Automation of recovery of advances

Supply chain and logistics

- End-to-end supply chain solution enabling integrated operations covering planning, procurement, transportation, receiving, inventory management, inventory utilization and equipment tracking and management
- Integration with common United Nations supplier database, global view of suppliers, statuses and associated transactions
- Global procurement operating model, allowing for distribution and workflow of procurement activities across Secretariat entities

- Holistic visibility of business relationships and access to all contracts globally
- Availability of goods/services provided by suppliers under contracts through contract catalogues available to requisitioners
- Global inventory management enabling entity-wide visibility of inventories, materials, warehouses and storage locations
- IPSAS-compliant goods receipt and inventory management
- Global visibility of the Organization's transportation network and operations to support planning and execution of transportation of contingent-owned equipment, personnel (troops and police) and goods procured commercially
- Re-engineered and standardized processes for engagement and planning between the United Nations and troop- and police-contributing countries
- Track-and-trace functionality to monitor delivery status along the transportation network, incorporating a warning system for delays and electronic data interchanges, thereby obviating manual updates
- Optimizing inventory management through effective demand planning and forecasting for materials and services, thereby providing a source plan to entity planners
- Reduction in stock holdings through effective planning

Annex VIII

Umoja quantitative benefits

(Millions of United States dollars)

<i>Regular budget</i>		<i>Peacekeeping</i>	
2014–2015	2.3	2013–2016 ^a	21.9
2016–2017	47.7	2016/17	18.5
		2017/18	4.7 ^b
2018–2019	27.8 ^c	2018/19	33.0
		2019/20	9.6
Total	77.8	Total	87.7
Annualized benefit	38.9		87.7
Maximum annualized, recurring benefits to be realized by 2021			126.6
Cumulative benefits to be realized by 2021^d			624.4

^a Includes the 2013/14, 2014/15 and 2015/16 periods and reflects efficiency gains for peacekeeping missions of \$20.2 million enabled by Umoja as a platform to streamline processes.

^b A total of \$4.7 million in benefits was identified at the time of issuance of the proposed budget for 2017/18 of the individual peacekeeping components.

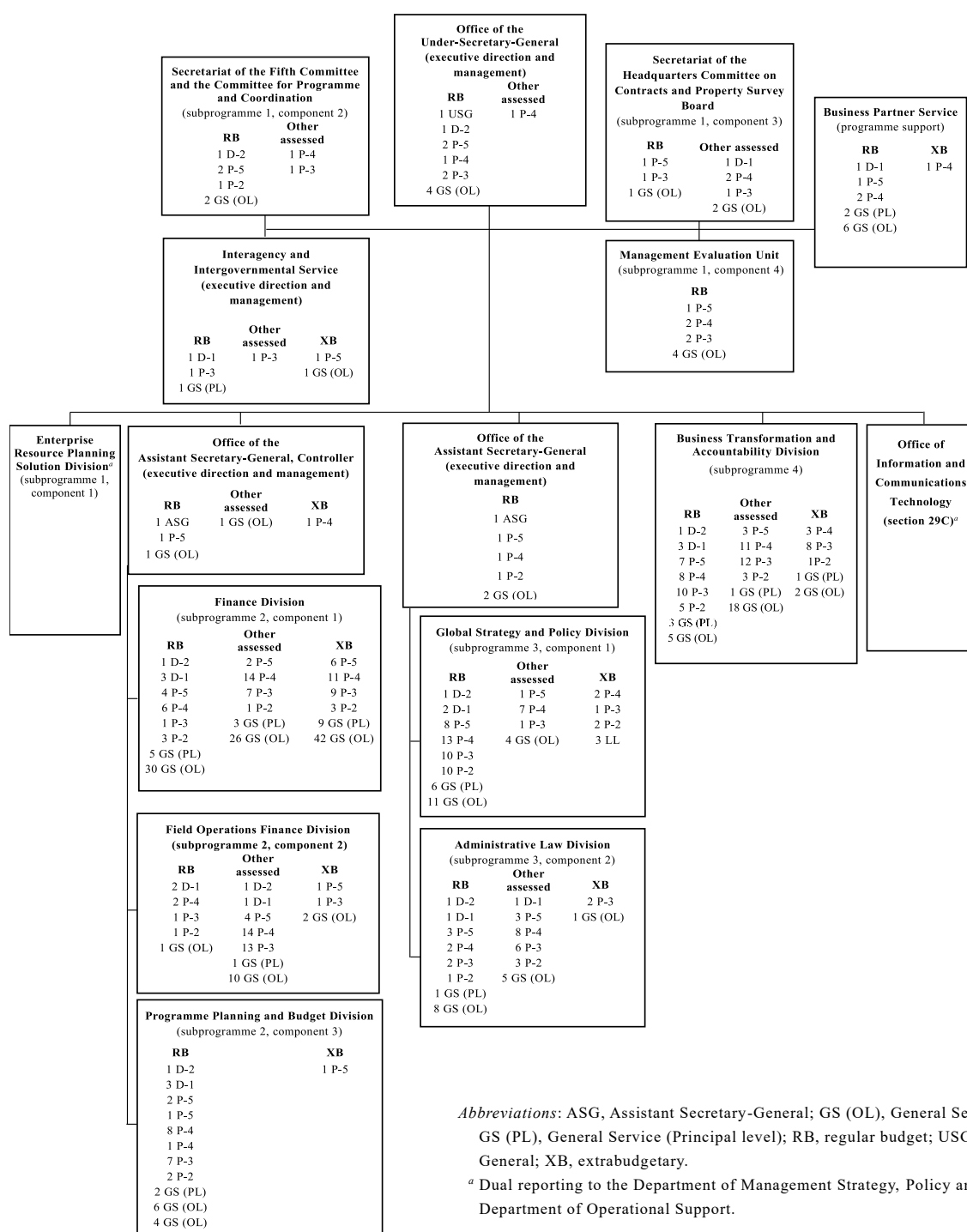
^c On the basis of the budget formulation process, in which departments and offices translated the estimated efficiencies to budgetary impact, a total of \$64.3 million in reductions was identified in the proposed programme budget for the biennium 2018–2019, including other efficiencies that, while enabled by Umoja, are not entirely attributable to Umoja.

^d Recurring benefits from 2013 have been aggregated biennially, for the regular budget, and annually, for peacekeeping, to compute cumulative benefits.

Annex IX

Proposed placement of the Enterprise Resource Planning Solution Division within the Department of Management Strategy, Policy and Compliance

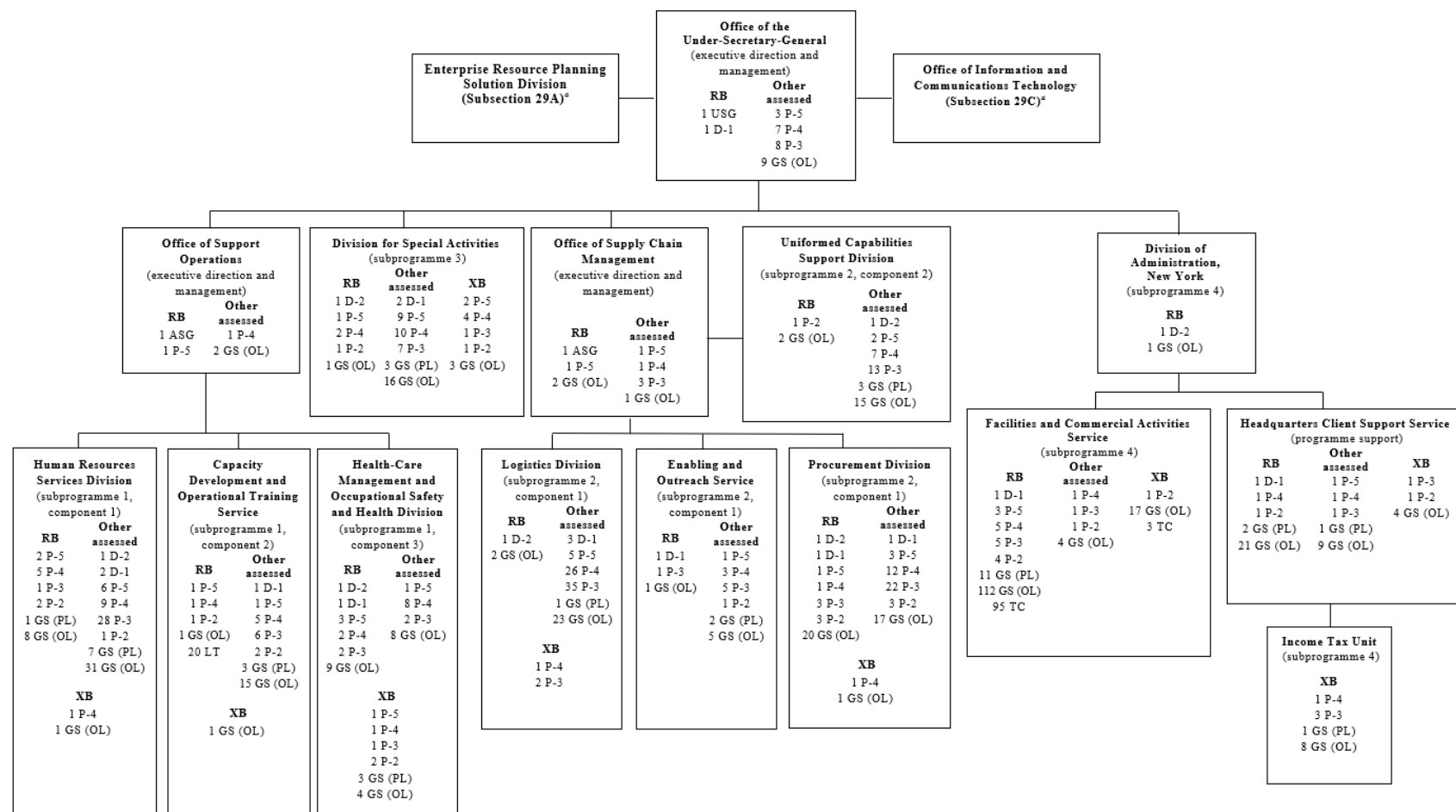
Proposed programme budget for 2021, section 29A: organizational structure and post distribution for 2021



Annex X

Proposed reporting line of the Enterprise Resource Planning Solution Division within the Department of Operational Support

Proposed programme budget for 2021, section 29B: organizational structure and post distribution for 2021



Abbreviations: ASG, Assistant Secretary-General; GS (OL), General Service (Other level); GS (PL), General Service (Principal level); LL, Local level; LT, Language teacher; RB, regular budget; TC, Trades and crafts; USG, Under-Secretary-General; XB, extrabudgetary.

^a Dual reporting to the Department of Management Strategy, Policy and Compliance and the Department of Operational Support.