General Assembly

Seventy-second session
Agenda items 136 and 149

Proposed programme budget for the biennium 2018–2019

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

Ninth progress report on the enterprise resource planning project

Thirty-second report of the Advisory Committee on Administrative and Budgetary Questions on the proposed programme budget for the biennium 2018–2019

I. Introduction

1.   The Advisory Committee on Administrative and Budgetary Questions has considered the ninth progress report of the Secretary-General on the enterprise resource planning project (A/72/397), submitted pursuant to General Assembly resolution 64/243, in which the Assembly requested the Secretary-General to continue to ensure that the Assembly was kept informed, on an annual basis, of the progress regarding the enterprise resource planning project (Umoja). The Committee also had before it the sixth annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system (see A/72/157), submitted pursuant to General Assembly resolution 66/246.

2.   During its consideration of the above-mentioned reports, the Advisory Committee met with the representatives of the Secretary-General, who provided additional information and clarification, concluding with written responses received on 8 November 2017. The Committee also had an exchange with the members of the Audit Operations Committee.

II. Sixth annual progress report of the Board of Auditors on the implementation of the United Nations enterprise resource planning system

3.   The Board of Auditors indicates that its sixth annual progress report on the implementation of the United Nations enterprise resource planning system has been

prepared on the basis of audit examinations conducted from 9 January to 17 February 2017. The areas covered by the Board include: progress made in deploying Umoja; the stabilization of Umoja; the mainstreaming of Umoja; the costs and benefits of Umoja; and Umoja functionalities. The comments of the Advisory Committee on the Board's observations and recommendations are reflected in the context of its discussion on each subject, as relevant, in the paragraphs below. **The Committee commends the quality of the Board's report. The Committee expects the recommendations of the Board to be fully implemented in a timely manner.**

III. Ninth progress report of the Secretary-General on the enterprise resource planning project

4.   The Secretary-General indicates that his ninth progress report on the enterprise resource planning project provides an update on the implementation of Umoja since the issuance of the eighth progress report (A/71/390). Key issues covered in the report include: (a) project status; (b) preparations for future roll-outs; (c) an updated business case; (d) the mainstreaming, reorganization and reprofiling of resources; (e) staffing resources; and (f) resource requirements.

A.   Project status

5.   In table 1 of his report, the Secretary-General provides an overview of the major Umoja deployment milestones and achievements for the period from 2013 to 2018. In paragraphs 11 to 28 of the report, detailed information is provided on the deployments completed during the reporting period, from September 2016 to August 2017. The Secretary-General states that these comprise: (a) the deployment in November 2016 of cluster 5, consisting of the implementation of Umoja Extension 1 (workforce planning, personnel administration, benefits management, time management, payroll and organization management) for approximately 12,000 national staff and 8,000 individual uniformed personnel in 38 peacekeeping and special political missions, including employee self-service for national staff (see A/72/397, paras. 11–12); (b) the deployment in February 2017 of the financial statements module for all non-peacekeeping operations, used for the production of the United Nations volume I financial statements for 2016[1] (ibid., paras. 13–15); (c) the deployment in November 2016, with retroactive effect from 1 July 2016, of phase 1 of the changes related to the International Civil Service Commission (ICSC) compensation package (ibid., para. 17); (d) the deployment in January 2017 of an interim solution for phase 2 of the ICSC compensation package (ibid., para. 18); and (e) the deployment in September 2017 of phase 1 of the Umoja Extension 2 supply chain management project, including the decommissioning of Galileo, the system used previously in peacekeeping operations for inventory, warehouse, asset, equipment and fleet management (ibid., paras. 19–25).

6.   The Secretary-General also provides information on the activities undertaken within the Secretariat to address the growing demand for business intelligence, including: (a) the provision of advanced business intelligence training and extraction of special analytical data by the Office of Programme Planning, Budget and Accounts; (b) the development of managerial dashboards, additional reports and a portal for specialized reports for donors by the Office of Information and

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[1] Including the United Nations Secretariat, the United Nations Office on Drugs and Crime, the United Nations Human Settlements Programme, the United Nations Environment Programme, the International Trade Centre and the international tribunals.

Communications Technology; (c) the development of supply chain-related reporting by the Department of Field Support; and (d) the development of specifications for dashboards for operational indicators by the United Nations Office at Geneva, in consultation with stakeholders. In addition, information is provided on Umoja training, including activities undertaken to fill training gaps, build the capacity of end users, improve and update training content and modernize the delivery of training, as well as on the efforts being made to improve the usability of systems and reduce the need for training on the basis of user satisfaction surveys (ibid., paras. 36–40). Furthermore, the Secretary-General provides information on production support and the integrated service desks, including the Umoja Support Centre in Brindisi, Italy, and the Unite Service Desk operating from Bangkok, Geneva, Nairobi and New York, which shows a reduction in the number of incidents from a peak of more than 4,000 at the end of 2016 to approximately 1,200 in July 2017.

7. **The Advisory Committee notes that the activities proposed for implementation during the reporting period have been delivered, and welcomes the progress made towards the completion of the full deployment of Umoja Foundation and Umoja Extension 1.**

B. Preparations for future roll-outs

8. The Secretary-General indicates that future roll-outs comprise Umoja Extension 2 projects and an upgrading of the SAP software used for Umoja.

1. Umoja Extension 2 projects

9. In the eighth progress report, the Secretary-General presented a plan for the implementation of Umoja Extension 2, in which the 133 Extension 2 processes[2] were grouped into separate work streams or projects, which allowed them to be implemented concurrently, starting with preparatory work in 2017. In its resolution 71/272 A, the General Assembly requested the Secretary-General to implement the full scope of the project as set forth in the eighth progress report, without further delay and cost escalation, and to provide to the Assembly detailed information on the implementation of all of the remaining Extension 2 functions and processes at the main part of its seventy-second session.

10. In the ninth progress report, the Secretary-General provides details on each of the Umoja Extension 2 projects, including information on the solutions to be developed, the preparatory activities completed in 2017, the remaining activities to be undertaken in 2018 and the implementation timeline. A summary of the seven Extension 2 projects is provided in the paragraphs below.

(a) Strategic planning, budget formulation and performance management

11. The Secretary-General indicates that the strategic planning, budget formulation and performance management project will support the full performance management life cycle, covering strategic planning, resource planning, programme execution and performance management. A solution was finalized in March 2017

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[2] The full scope of Umoja encompasses a total of 321 processes, structured as follows: (a) Umoja Foundation, comprising 122 processes in the areas of finance, assets, procurement, property, equipment and inventory management to support the automation required for the adoption of the International Public Sector Accounting Standards; (b) Extension 1, comprising 66 processes for human resources, including payroll, and travel management; and (c) Extension 2, comprising the remaining 133 processes, including those for budget formulation, supply chain management, grant management and programme management.

following a series of workshops and multiple proofs of concept, and software development is in progress and planned to be ready for integrated testing and deployment by September 2018, as proposed in the eighth progress report (see A/72/397, paras. 49–55).

(b) Supply chain management (phases 2 and 3)

12. The Secretary-General indicates that the supply chain management solution has to cover four broad functional areas (demand planning, supply network planning, transport planning and management, and track-and-trace capability) and will have linkages to the budget formulation and force management functions. Following a series of workshops, an initial high-level recommendation for a solution architecture to support the United Nations supply change management vision was formulated in August 2017, with software development planned for completion by the end of 2018 and a phased implementation in 2018 and 2019 in a manner that ensures appropriate business readiness, including material master data management and change management (ibid., paras. 56–60).

(c) Fundraising and donor relationship management

13. The Secretary-General indicates that the Umoja fundraising module will provide the functionality to register and maintain donor profiles and interact with donors throughout the life cycle, from the appeal for funds to the signing of the grant agreement. He also indicates that the solution architecture and technology were finalized after the reconfirmation of business requirements gathered in 2010–2011, and that a demonstration of the solution was organized in early June 2017. A deployment plan is under development in consultation with stakeholders, with priority being given to the regional commissions and other entities that have a large voluntary contribution portfolio (ibid., paras. 61–65).

(d) Implementing partner management

14. The Secretary-General indicates that the project will use a "grantor management" module and cover the full life cycle of the management of implementing partner agreements, including the selection and assessment of implementing partners, strategic planning, financial management and performance management. The solution architecture was finalized following training for key stakeholders in February 2017 and a detailed fit-gap analysis workshop in June 2017. It is also indicated that the grantor management module is expected to be deployed in phases by clusters of entities from September 2018 (ibid., paras. 66–73).

(e) Conference and event management

15. The Secretary-General indicates that the processes for conference and event management are not harmonized globally at present, and involve multiple non-integrated solutions, with substantial gaps in areas such as participant management, cost estimates/quotations, billing and cost recovery and the reservation of resources. A plan has been developed for integrating iNeed, an enterprise system for service management, with Umoja for cost recovery and billing to manage a part of the life cycle of conferences and events by September 2018. A pilot solution for accreditation and participant management is being explored for possible deployment by the end of 2018. In addition, the Department for General Assembly and Conference Management will continue its ongoing development of a "one-stop-shop" solution to address requests by Member States to simplify the event coordination processes (ibid., paras. 74–77).

(f) Reimbursements and payments to troop- and police-contributing countries

16.   The Secretary-General indicates that the current process for reimbursements to troop- and police-contributing countries for contingent-owned equipment and personnel payments (troops and police) involves many non-integrated systems, including the electronic contingent-owned equipment application (eCOE) in missions, the government claims management system in the Department of Field Support and the troops database system in the Department of Management, although payments are being processed through Umoja. It is also indicated that the solution architecture has been finalized following multiple workshops to identify gaps in functionality and determine the scope of the solution, which is expected to be deployed in modules by the end of 2018, with priority given to the replacement of the government claims management system (ibid., paras. 78–82).

(g) Force management

17.   The Secretary-General indicates that the force management project includes the development of a plan to support his proposals for establishing a new mission or for adapting an existing mission by using system-generated templates and/or by adjusting the number of positions and related logistics/infrastructure components. It is also indicated that the planned deployment by the end of 2018 will be affected by the higher priority given to the project relating to reimbursements and payments to troop- and police-contributing countries, which has greater urgency (ibid., paras. 83–84).

18.   The Secretary-General indicates that the design, build and test activities for each of the above-mentioned Umoja Extension 2 projects would be completed in 2018 and that the solutions developed would be deployed mostly in 2018, with some remaining deployments and stabilization of the system carried out in 2019. The Advisory Committee recalls that the General Assembly has repeatedly requested the Secretary-General to ensure the full implementation of Umoja by December 2018, as approved in section III of its resolution 67/246 and reiterated in subsequent resolutions, the latest being its resolution 71/272 A. **The Committee notes that the Secretary-General is proposing to extend the timeline for the full deployment of Umoja Extension 2 into 2019. Upon request, the Committee was provided with an updated version of the chart depicting the Umoja schedule and workplan for 2016–2018 that had been included in the annex to its previous report (A/71/628). The updated chart provided is contained in annex I to the present report.**

19.   **The Advisory Committee emphasizes the need for strict management of the project and proactive measures to address all challenges and risks so as to avoid any further slippages and delays and ensure that the project remains on track (see para. 21 below). The Committee reiterates the importance of ensuring that all the lessons learned from previous deployments, including those regarding organizational readiness, are fully drawn and incorporated into project planning and management.**

20.   **The Advisory Committee also reiterates the views expressed in its earlier reports that the implementation of the full scope of Umoja is necessary to realize the benefits of the Umoja solution, as well as to protect the investment already made by Member States in this initiative. The Committee points out 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 (see General Assembly resolution 67/246, sect. III, para. 25; A/67/565, para. 53; and A/70/7/Add.19, paras. 25–27).

2. **SAP upgrade**

21.   The Secretary-General indicates that a software upgrade for Umoja, which is included in the existing contract, has to be implemented by 2020 in order to ensure continued support for the system by the software vendor. He also indicates that a preliminary evaluation of the upgrade has already commenced and testing will begin shortly, with a view to completing the upgrade by September 2018, given that the upgrade is required for the implementation of some of the Umoja Extension 2 projects. Upon enquiry, the Advisory Committee was informed that the availability of skilled resources for testing was likely to be a challenge, given that some functional areas, such as finance, were expected to be heavily affected by both the software upgrade and the Umoja Extension 2 projects. The process owners had therefore been alerted to plan for skilled resources for testing the upgrade. The Committee was also informed that the upgrade would improve the employee self-service functionality, thereby having an impact on more than 42,000 staff users, and that a change management plan would be required. **The Committee emphasizes the need for effective project planning and management in order to ensure that the SAP upgrade can be implemented without disruption and delays in the Umoja Extension 2 projects.**

C.   Updated business case

22.   In paragraphs 13, 14 and 15 of section XIV of its resolution 71/272 A, the General Assembly, recalling paragraphs 37, 46 and 55 of the report of the Advisory Committee (A/71/628), made a number of requests regarding benefits realization, in particular that the Secretary-General: (a) accelerate the development of a benefits realization plan, taking fully into account the relevant recommendations of the Board of Auditors; (b) use a common methodology in developing realistic benefits realization plans for implementing entities, and provide details on both qualitative and quantitative benefits; and (c) submit at the main part of its seventy-second session an updated business case for the Umoja project, including an analysis of the direct and indirect costs and benefits. In response to those requests, the Secretary-General, in section V of his report, provides information on such an updated business case, comprising details on: (a) qualitative benefits; (b) quantitative benefits; (c) direct and indirect costs of ownership; and (d) a programme for monitoring continuous improvements.

Qualitative benefits

23.   The Secretary-General provides background on the main arguments put forward in support of an enterprise resource planning system for the United Nations (see A/72/397, paras. 89–98) and an analysis of the changes resulting thus far from the introduction of Umoja (ibid., paras. 99–107). In table 2 of the report, the improvements are set out by functional pillar: human resources, finance, central support services, supply chain and logistics, and technology and data management. Upon request, the Advisory Committee was provided with further details on the improvements by functional area, together with some supporting data. The information provided shows improvements in several areas, for example: (a) with regard to the administration of time, attendance and leave records, which were previously handled by executive office staff and are now handled by employees themselves using employee self-service functions, an analysis of global Integrated Management Information System (IMIS) transactions revealed that some 15.3

million transactions related to such functions across all departments; (b) with regard to cash management and banking arrangements, bank charges were reduced by 10 to 15 per cent in peacekeeping operations from 2013 to 2016; and (c) the travel authorization process, which previously comprised between 8 and 12 steps, involves a 3-step process under Umoja. **The Committee trusts that the Secretary-General will provide the above-mentioned details on the improvements by functional area to the General Assembly at the time of its consideration of the present report.**

Quantitative benefits

24.   In paragraphs 108 to 119 of his report, the Secretary-General provides a history of the estimates of the projected quantitative benefits of Umoja and the methodologies applied to estimate those benefits since the inception of the project in 2008.

25.   The Advisory Committee recalls that the initial business case for Umoja was presented in the first progress report of the Secretary-General on the implementation of Umoja (A/64/380; see also A/64/7/Add.9). The methodology applied to estimate the project's qualitative and quantitative benefits, subsequently referred to as the "top-down methodology", was based on consultative visits to multiple duty stations, the collection of data for each functional area from the then-existing systems, cross-checking against industry benchmarks, and the validation of data, also taking into account that the data used were not always complete or fully reliable given the limitations of the systems in place, and that the assumptions made would change over time. The expected productivity and efficiency gains in each functional area by type of activity were translated in terms of a high and a low range of savings in staff time, consolidated as full-time staff equivalents, and converted to financial values using the average cost of the full-time staff equivalents performing those tasks. It was estimated that Umoja could deliver in the range of 705 to 1,180 full-time equivalents, or $133.9 million to $223.5 million in overall quantitative benefits, comprising: (a) $49.2 million to $74.7 million under the supply chain management functional area; (b) $34.1 million to $59.3 million under technology and data management: (c) $24.2 million to $44.1 million under human resources management: (d) $20.2 million to $34.9 million under central support services; and (e) $6.2 million to $10.5 million under finance. The qualitative and quantitative benefits were subsequently validated by the process owners and revised in 2010 to a range between $141 million and $223 million as more information became available during the detailed design phase (see A/65/389) and again in 2012, to a range between $140 million and $220 million, on the basis of a revised implementation strategy for the deployment of Umoja in three phases: Umoja Foundation, Umoja Extension 1 and Umoja Extension 2 (see A/67/360).

26.   In his ninth progress report, the Secretary-General indicates that, as recommended by the Board of Auditors (see A/70/158 and A/71/180), in September 2016, the process owners revised the quantitative benefits targets in each of their respective areas, taking into account the experiences gained after the deployment of Umoja Foundation and Umoja Extension 1, on the basis of a modified "bottom-up" approach that used, wherever available, measurements and comparisons between pre- and post-Umoja implementation transaction volumes, and other elements. The Secretary-General indicates that the process owners also reviewed all previously identified areas and explored new areas of potential impact and that, in assessing the benefits, they validated the quantitative benefits already achieved and took note of opportunities for re-engineering processes wherever possible. He also indicates that the revised quantification was distributed among the business entities in proportion to their share of the total for that process area (see also A/71/390, paras. 103–107).

Table 3 of the ninth progress report provides an updated summary of quantitative benefits, showing that the maximum annualized recurring benefits to be realized by 2021 amount to $156.6 million. In its sixth annual progress report on the implementation of Umoja (A/72/157), the Board expresses the view that the bottom-up approach is an improvement on the previous top-down approach. It notes that data for comparing pre- and post-Umoja implementation time savings are not available, and recommends that new baseline information be established on the basis of Umoja transaction/workflow time stamps to allow for more accurate measurement of efficiency gains in the future.

27.   The Advisory Committee recalls that, following the action taken by the General Assembly in its resolution 66/246 on the governance structure of the project, the Secretary-General, in his fourth progress report, reported on a number of measures introduced regarding the governance and management arrangements of the project, including the refinement of the concept of process owners,[3] indicating that: (a) they had a critical role as the principal change agents in their respective functional areas and were responsible for championing acceptance and ensuring readiness for change; and (b) they were also accountable for the statement of benefits associated with their processes and obtaining concurrence from the management of every entity and functional area expected to realize those benefits (see A/67/360). In its first progress report on the implementation of Umoja (see A/67/164, paras. 10–24), the Board of Auditors noted, however, that there were no agreed plans on what changes the Organization needed to make in order to realize such benefits, and that simply building and rolling out a new information technology system would not deliver the intended benefits. It emphasized that, without clear and transparent plans for the changes needed to deliver the expected benefits, there was a risk that stakeholders would not support the proposed changes. In its related report (A/67/565), the Advisory Committee noted that the assigning of responsibility and accountability to process owners for the development and implementation of a benefits realization plan constituted a step in the right direction, and recommended that the Secretary-General be requested to provide details on benefits realization plans in his subsequent reports. The Committee recalls that the Assembly has, on numerous occasions, commented on the insufficient progress made in the development of benefits realization plans, and requested the Secretary-General to accelerate the development of such plans, taking into account the relevant recommendations of the Board (see resolutions 68/248, 69/262, 70/248 A and 71/272 A).

28.   In its first report on the proposed programme budget for the biennium 2018–2019, the Advisory Committee noted that the Secretariat was unable to provide a consolidated list of the identified efficiencies of $64.3 million, or a detailed breakdown of the efficiencies directly attributable to the implementation of Umoja, in the amount of $27.8 million. The Secretariat had indicated that an exact distinction between Umoja-enabled and other efficiencies could not be drawn (see A/72/7, paras. 70–71). Furthermore, the efficiencies of $64.3 million identified for 2018–2019 included planned efficiency gains totalling $14.8 million across all special political missions (ibid., para. 55). However, in his report on estimates in respect of special political missions, good offices and other political initiatives authorized by the General Assembly and/or the Security Council (A/72/371), the

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[3] The process owners include five selected members of the Umoja Steering Committee: the Assistant Secretaries-General for Human Resources Management (responsible for 42 of the 321 Umoja processes), Programme Planning, Budget and Accounts (responsible for 148 processes), Central Support Services (responsible for 80 processes) and General Assembly and Conference Management (responsible for 15 processes) and the Director of the Logistics Support Division of the Department of Field Support (responsible for 36 processes).

Secretary-General indicates that a reduction of $698,900 only is attributed by one mission to Umoja or other efficiencies. **The Committee reiterates the expectation it expressed in its first report on the proposed programme budget for the biennium 2018–2019 that the General Assembly will be provided with a consolidated list of reductions categorized under "other resource changes" at the time of its consideration of the proposed programme budget for the biennium 2018–2019 (see A/72/7, para. 73). The Committee also reiterates the view it expressed in its previous report that the revised Umoja business case should reflect actual efficiencies and benefits achieved through the implementation of the solution rather than artificial budget reduction targets (see A/71/628, para. 37).**

29. **The Advisory Committee is also of the view that there is a need to establish a clear and transparent record of the realization of qualitative and quantitative Umoja benefits, including the impact of Umoja on the staffing and resource requirements of individual offices and departments. The Committee considers that the continued lack of progress made in the development of benefits realization plans has resulted in a lack of clarity regarding the Umoja benefits presented in the budgetary proposals, as well as among the implementing entities responsible for the realization of Umoja benefits, as was foreseen by the Board of Auditors (see para. 27 above).**

30. The Advisory Committee recalls that, in its first report on the proposed programme budget for 2018–2019, it indicated that, in view of the Secretariat's inability to provide sufficient information quantifying Umoja-related efficiencies and benefits in the context of the proposed programme budget for 2018–2019, as well as the serious gaps and flaws in the information-related benefits attributed to Umoja (see A/72/7, paras. 25–33), it intended to request the Board of Auditors to undertake a detailed verification exercise with a view to validating a statement of quantifiable Umoja-related benefits (ibid., paras 76–79).

Direct costs

31. In its previous report, the Advisory Committee expressed its view that further efforts should be made to conduct a more refined analysis of project expenditures and project deliverables on an annual basis since the inception of the project in 2008, with a view to linking the budget to the project milestones. Such an analysis should include details on the breakdown of the costs of contractual services and all other categories of expenditure and aim to provide the General Assembly with improved information on how the resources approved for the project have been used, including those resources that did not result in the realization of any project deliverables (see A/71/628, para. 46).

32. Figure VII of the report of the Secretary-General provides a high-level timeline and a breakdown of project expenditures by project phase from 2008 to 2017, as follows: (a) $4.3 million for project initiation in 2008 and 2009; (b) $107.0 million for process design from 2009 to 2013; (c) $48.1 million for infrastructure costs, including software licences, from 2010 to 2017; (d) $35.6 million for infrastructure, including hardware from 2013 to 2017; (e) $60.7 million for the implementation of Umoja Foundation in 2012 and 2013; (f) $94.1 million for the implementation of Umoja integration from 2013 to 2017; (g) $12.2 million for the implementation of Umoja Extension 2 in 2016 and 2017; and (h) $74.3 million for continuous improvement and production support from 2013 to 2017. Upon request, the Advisory Committee was provided with further details showing the project phases with the related expenditures and outputs for each biennium since 2008–2009 (see annex II).

33.   Upon request, the Board of Auditors provided the Advisory Committee with the table below, which shows the progression of the direct costs of the project, including planned project resources and actual expenditures incurred since 2007, under all funding sources. The Board indicated that the proposed implementation date of the Umoja project, which was originally proposed to be completed by 2012, was subsequently revised in 2011 to the end of 2015, and once again in 2012 to the end of 2018. The Committee recalls that the deployment strategy was revised multiple times with significant cost escalation (see A/64/380, tables 3–5). As indicated in table 1 of the ninth progress report of the Secretary-General (A/72/397), the first deployment of Umoja (cluster 1 for Umoja Foundation functions in peacekeeping missions) occurred in November 2013, some five years after the initial approval of the project.

Summary of project requirements and actual expenditures since 2007

(Millions of United States dollars)

Original projected requirement in 2007	248.30
Actual expenditure on the Umoja project from 2008 to 2015	367.19
Revised requirement for 2016–2017	98.97
Projected requirement for 2018–2019	77.80
Projected total resource requirements for the Umoja project up to 2019	543.96

34.   In its previous report, the Advisory Committee considered that further efforts should be made to conduct a more refined analysis of project expenditures and project deliverables on an annual basis since the inception of the project in 2008, with a view to linking the budget to the project milestones. Such an analysis should include details on the breakdown of the costs of contractual services and all other categories and items of expenditure and aim to provide the General Assembly with improved information on how the resources approved for the project have been used, including those resources that did not result in the realization of any project deliverables (see A/71/628, para. 46). **While noting that the information provided (see annex I) represents an improvement, the Committee notes that information on annual expenditures by category and item of expenditure and related outputs since the inception of the project still has not been provided. Given the project's history of cost escalation and delays, in particular during the initial period, and taking into account the magnitude of the resources already provided by the General Assembly ($466,163,400), as well as the additional resources proposed for 2018–2019 ($77,578,200) (see A/72/397, table 11), the Committee considers that there is a need for full transparency on the totality of the expenditures incurred thus far. The Committee therefore reiterates its earlier request and recommends that the General Assembly request the Secretary-General to provide in his next report, a detailed accounting of the project expenditures to date by year, with a breakdown by category and item of expenditure and details on the related outputs.**

Indirect costs and total cost of ownership

35.   In paragraph 18 of section XIV of its resolution 71/272 A, the General Assembly recalled paragraph 44 of the report of the Advisory Committee on the eighth progress report on the enterprise resource planning project (A/71/628) and regretted that little progress had been made to respond to the repeated requests of the Assembly to maintain a detailed accounting of the indirect costs absorbed by departments or to conduct an analysis of the total cost of ownership of the Umoja project, which is a key input for informed decision-making on investments.

36.   As indicated in paragraph 123 of the ninth progress report, the indirect costs relate to costs incurred by departments to facilitate operational readiness, including activities such as data cleansing and enrichment, user testing and deployment coordination. The Secretary-General further indicates that the measurement of indirect costs presents challenges when staff are working less than full-time on Umoja-related activities, but that an effort was made to estimate the indirect costs by analysing and collating information about each deployment and deriving costs on the basis of estimates of time worked by staff for each deployment, in roles such as deployment coordinator, site coordinator, communications focal point, data functional coordinator, data validator and local process expert. The Secretary-General indicates that, for Umoja Extension 2 projects, an indirect cost collection process has been instituted beginning in 2017, with periodic tracking and reviewing of indirect costs incurred in different business units. Table 4 of the ninth progress report provides estimates of indirect costs for each Umoja deployment, including estimates of the number of staff and person-months. Indirect costs are estimated at $90.3 million for Umoja Foundation and Extension 1 and $10.1 million for Umoja Extension 2 to date. **The Advisory Committee recommends that the General Assembly request the Secretary-General to continue to refine the cost collection process established for Umoja Extension 2 projects.**

37.   Background on the estimation of the total cost of ownership of the Umoja project is provided in paragraphs 125 to 130 of the ninth progress report. The Secretary-General indicates that the definition of total cost of ownership provided by the Board of Auditors in its sixth progress report (A/72/157) was used as a guide, assuming a useful life of 15 years, although the system is likely to be in use for longer. The Board defined the total cost of ownership as the sum of the direct and indirect costs, wherein indirect costs are composed of the people time (hours) of departments and entities for Umoja deployment and support, including legacy data cleansing and enrichment and training. Table 5 of the ninth progress report provides an estimate of the time spent by users on Umoja training (computer-based training, instructor-led training and other courses) and the related costs. The Secretary-General indicates that, while the training cost measurement has been automated, the isolation and tracking of the travel costs of Umoja trainees has not, as it would require customization to link travel for training to the logging of Umoja course attendance in Inspira. **The Advisory Committee recommends that the General Assembly request the Secretary-General to continue to refine the estimates of indirect and training costs and to update the total cost of ownership of Umoja accordingly. The Committee trusts that, pending customization of Umoja, efforts will be made to estimate the travel costs of Umoja trainees and to update the estimates of the total cost of ownership of Umoja accordingly.**

38.   Table 6 of the ninth progress report provides information on the total cost of ownership of Umoja estimated to 2030, with details on the direct costs, indirect costs, training costs (see para. 37 above) and maintenance costs. In his eighth progress report, the Secretary-General indicated that post-deployment operating, maintenance and support costs (including production hardware, software licence maintenance, hosting services, telecommunications and technical support) were recurring business operating costs and were therefore not included in the Umoja project budget, but rather in the budget of the Office of Information and Communications Technology, as well as in peacekeeping budgets (see A/71/390, para. 184). In its related report, the Advisory Committee stressed that regardless of where such costs are budgeted, they should be included and transparently reflected in the analysis of the total costs of ownership (see A/71/628, para. 47).

39.   Table 6 of the report of the Secretary-General shows that the costs of the maintenance of Umoja amounted to $118,600,000 for the period from 2016 to 2019.

While noting that these costs, which cover post-deployment recurring business operating requirements, are not included in the Umoja project budget, but rather in the budgets of the Office of Information and Communications Technology and of peacekeeping missions (see para. 38 above), the Advisory Committee is of the view that the progress reports on Umoja should include information on such costs, with a breakdown of the budget sections/missions under which the costs are presented, as well as the related categories/items of expenditure (hardware, software licences, hosting services, telecommunications and technical support and any other contractual services). The Committee intends to request the Board of Auditors to audit the Umoja maintenance costs and reflect its observations and recommendations in the context of its reports on the financial statements of the United Nations (Volume I) and of United Nations peacekeeping operations (Volume II).

40. **The Advisory Committee welcomes the efforts made to estimate, for the first time, the indirect costs of the project as well as the total cost of ownership of Umoja. It recommends that the General Assembly request the Secretary-General to include updated and refined information on indirect costs and total cost of ownership in future progress reports.**

Programme for monitoring continuous improvements

41. The Secretary-General indicates that the objective of the programme for monitoring continuous improvements is to implement a capability for monitoring and tracking performance of any selected Umoja process area to provide continuous insight on key operational questions, such as the number of activities executed, the number of users involved, the number of tasks needed to complete an activity, the duration and volume of tasks for the activity and performance trends for the activity. Such measures provide a methodology and monitoring capability to support both detailed analysis for problem resolution and decision support for remedial actions, which will allow realization of the full benefits of Umoja. The Secretary-General further indicates that introduction of the programme for monitoring continuous improvements responds to the directive by the General Assembly to develop benefits realization plans and the recommendation of the Board of Auditors to leverage process time measurements captured by Umoja (see A/72/397, paras. 135 and 138). **The Advisory Committee notes the approach taken to develop a comprehensive and systematic capability for measuring Umoja performance. The Committee recommends that the Assembly request the Secretary-General to apply the capability to establish a baseline of the performance of Umoja processes prior to the implementation of Umoja Extension 2 projects against which future improvements can be assessed in an objective and quantifiable manner.**

D. Mainstreaming, reorganization and reprofiling of resources

42. Information on the mainstreaming, reorganization and reprofiling of resources is provided in paragraphs 139 to 149 of the ninth progress report. The Secretary-General indicates that from May 2016 to July 2017, staff received technical training in specialized areas (travel, human capital management, finance, project systems, business planning, supplier relationship, security and process integration) and that the Umoja team is now self-sufficient for the deployed functionality and augmented readiness for Umoja Extension 2 projects (ibid., para. 142). The Advisory Committee recalls that it has consistently stressed the need to develop in-house capacity and expertise on the enterprise resource planning system, to ensure the transfer of knowledge from consultants to programme and project staff and reduce

dependency on contractual services, which represent a large proportion of project costs. Those recommendations have been endorsed by the General Assembly, including in paragraph 9 of section XIV of its resolution 71/272 A. **The Committee encourages the Secretary-General to continue to strengthen in house capacity and expertise on Umoja.**

E. Staffing resources

43.   With regard to staffing resources, the Secretary-General proposes to continue the trend initiated in 2016 towards progressively consolidating functions and skills to better align capacity and skills with the evolving programme of work (see A/72/397, para. 146, and A/71/628 para. 40). It is proposed that a total of 13 senior-level posts be abolished in 2018 (1 D-1, 7 P-5, and 5 P-4) and that a total of 7 junior-level posts be created, comprising 3 P-3 and 3 P-2 posts to be hired through the young professionals programme and 1 General Service (Principal level) post. **The Advisory Committee welcomes the Secretary-General's proposals for the restructuring and gradual downsizing of the Umoja project team. It is of the view that the proposed changes, including the proposed reduction in the number of senior-level posts, offset in part by the proposed establishment of junior-level posts, represents a positive approach, which will result in a less top-heavy post structure, support the transfer of knowledge from consultants to staff and better align the resources of the project to the requirements of the project activities to be completed in 2018.**

44.   **The Advisory Committee also reiterates the importance of retaining skilled personnel within the project. In its report on the seventh progress report, the Committee had noted that the lack of availability of the requisite skills posed one of the highest risks to the successful completion of the project. It also stressed the need for strengthening in-house capacity for supporting the core activities and needs of the Organization in order to prepare for the institutionalization of Umoja support (see A/70/7/Add.19, paras. 44 and 45). The Committee further reiterates the view expressed in its previous reports that strong authority and leadership of the project's governance and management structures is required to deliver a complex business transformation such as Umoja Extension 2, and must be maintained while planning for the mainstreaming of Umoja (see A/67/565, para. 55, and A/68/7/Add.7, para. 51).**

F. Other matters

Annual programme budget

45.   The Advisory Committee enquired about the impact of the possible replacement of the current biennial programme budget with an annual cycle, as proposed by the Secretary-General in the context of his proposals for management reform (see A/72/492/Add.1) and whether any adjustments would be required to the Umoja Extension 2 project for the strategic planning, budget formulation and performance management functions. The Committee was informed that the budget formulation module of Umoja was designed to accommodate biennial resource planning for programme budgets, annual planning for peacekeeping and special political mission budgets and varying budget periods for voluntary contributions. Should the General Assembly decide to replace the biennial programme budget cycle with an annual budget cycle in 2020, the budget formulation module would have to be adjusted accordingly. However, the change required would be relatively

simple given that the system was already being designed for annual budgets for peacekeeping operations. The Committee was further informed that the direct costs of the necessary adjustments could be absorbed from within the project budget, and that the changes could be deployed in time for the implementation of an annual budget in 2020 if the decision were made by the end of 2017.

G. Resource requirements

46. The estimated requirements for 2018–2019, which are summarized by category of expenditure in table 10 of the ninth progress report, amount to $81,945,000, comprising the unused balance of $4,366,800 from the 2008–2017 period and additional resources proposed in the amount of $77,578,200. The total amount for 2018–2019 comprises $50,575,000 for 2018 and $31,370,000 for 2019. The Advisory Committee recalls that, in the eighth progress report, the projected resource requirements for Umoja were estimated at 78,800,000, comprising $45,900,000 for 2018 and $31,900,000 for 2019. Information on expenditure for 2016–2017 is provided in paragraphs 153 and 154 of the report.

47. **The Advisory Committee notes that the report does not provide a detailed breakdown of the expenditures incurred in 2016–2017 by category and item of expenditure. The Committee further notes that few details are provided on the proposed resource requirements for 2018–2019 in the amount of $81,945,000 (see A/72/397 table 10; see also para. 46 above) and the related outputs. The Committee considers that the Umoja progress reports should provide a greater level of detail and explanation on expenditures as well as on proposed resources requirements. Accordingly, the Committee recommends that the General Assembly request the Secretary-General to provide detailed information on the proposed requirements and expenditures of the project in his next progress report and, furthermore, that such details be provided as a matter of routine in future progress reports. Pending submission of such details, and subject to any decisions that the General Assembly may take to extend the duration of the project, the Committee recommends that the level of the additional proposed resources for 2018–2019 be reduced by 20 per cent, from $77,578,200 to $62,062,600.**

48. **The Advisory Committee notes that the proposed resources for 2018–2019 in the amount of $77,578,200 would bring the overall project budget to a total amount of $543,741,600, more than double the original projected amount of $248.3 million presented in 2007 (see para. 33 above). While it strongly believes and recommends that the full scope of the project as proposed in the report of the Secretary-General should be implemented according to the schedule approved by the General Assembly in its resolution 71/272 A, the Committee is of the view that the ninth progress report of the Secretary-General does not provide sufficient detail on the proposed additional resource requirements for 2018–2019 or on the expenditures incurred in 2016–2017 to allow the General Assembly to make a fully informed decision on the proposed additional resource requirements of the project. The Committee also considers that the available information on the total project costs since the inception of the project and on benefits realization (see paras. 30 and 34 above) is insufficient to provide the Assembly with adequate assurances that project costs can be brought under control and that the project benefits can be realized over the remaining implementation period. Pending the submission of the next progress report of the Secretary-General, as well as the next progress report of the Board of Auditors (see para. 30 above), the Committee recommends that, at**

this stage, the Assembly approve resources in the amount of $62,062,600 to provide for the requirements of the project in 2018–2019.

IV. Conclusions and recommendations

49. The actions requested of the General Assembly are set out in paragraph 171 of the ninth progress report of the Secretary-General. **Subject to its comments and recommendations in the paragraphs above, the Advisory Committee recommends that the General Assembly:**

(a) **Take note of the progress made in the implementation of Umoja since the issuance of the eighth progress report;**

(b) **Approve the resource requirements of the project until 31 December 2019, in the amount of $62,062,600;**

Programme budget

(c) **Approve an amount of $9,309,400 under the proposed programme budget for the biennium 2018–2019 under section 29A, Office of the Under-Secretary-General for Management, representing the regular budget share for the Umoja project costs until 31 December 2019;**

Support account for peacekeeping operations

(d) **Note that resource requirements in the amount of $28,859,100 will be included in the subsequent requirements for the support account for peacekeeping operations for the financial period from 1 July 2018 to 30 June 2019 and $9,619,700 for the financial period from 1 July 2019 to 30 June 2020;**
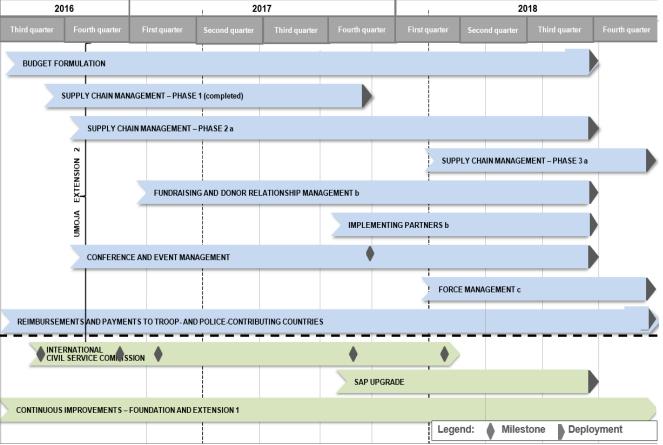
Extrabudgetary resources

(e) **Note that requirements in the amount of $14,274,400 will be funded from extrabudgetary resources in the financial periods from 1 January 2018 to 31 December 2019.**

Annex I
Updated Umoja schedule and workplan, 2016–2018

	2016		2017				2018			
	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter

BUDGET FORMULATION

SUPPLY CHAIN MANAGEMENT – PHASE 1 (completed)

SUPPLY CHAIN MANAGEMENT – PHASE 2 a

SUPPLY CHAIN MANAGEMENT – PHASE 3 a

UMOJA EXTENSION 2

FUNDRAISING AND DONOR RELATIONSHIP MANAGEMENT b

IMPLEMENTING PARTNERS b

CONFERENCE AND EVENT MANAGEMENT

FORCE MANAGEMENT c

REIMBURSEMENTS AND PAYMENTS TO TROOP- AND POLICE-CONTRIBUTING COUNTRIES

INTERNATIONAL CIVIL SERVICE COMMISSION

SAP UPGRADE

CONTINUOUS IMPROVEMENTS – FOUNDATION AND EXTENSION 1

Legend: ◆ Milestone ▶ Deployment

a Phased implementation in 2018 and 2019 to ensure appropriate business readiness (including material master data management) and significant change management in all active peacekeeping and special political missions (see A/72/397, para. 60).
b To mitigate change management risks, deployment will be phased by clusters of entities in 2018 and 2019 (see A/72/397, paras. 65 and 73).
c Planned deployment by the end of 2018 will depend on how the business requirements match the functionality of the defense force planning module (see A/72/397, para. 84).

Annex II

Umoja deliverables mapped to project expenditures since 2008 (supplement to figure VII of the ninth progress report of the Secretary-General on the enterprise resource planning project (A/72/397))

Project phase	Expenditure (United States dollars)	Date	Outputs delivered
2008–2009			
Project initiation	4 338 935	February 2009	Completed the preparation phase
		July 2009	A comparative analysis of implementation strategies and scenarios, including costing models; a comprehensive analysis of benefits; and other deliverables that support the ongoing design of a "business blueprint" of the future resource management solution
Process design	11 016 665	July 2009	Finalized current process documentation; an inventory of existing systems; documentation of results and conclusions from high-level design workshops, which involved over 220 subject matter experts from key offices, duty stations and missions; costing models for different implementation scenarios; a comparative analysis of implementation strategies and scenarios; and a comprehensive business case
		July 2009	Completed the initial design: produced the preliminary business case and high-level design
2010–2011			
Process design	69 580 600	May 2010	Completed the detailed design, in which the first draft of design documents: produced a set of re-engineered processes
		August 2010	Finished the detailed design of future business processes. Produced an updated benefits case. Launched change management and communication programmes. Analysed potential changes to the Organization's rules, regulations, policies and procedures to optimize business processes
		August 2011	Completed the enterprise structure of the enterprise resource planning system
		August 2011	Finalized the documentation, prototyping and refinement of the design of "to-be" processes, within the areas of finance, human resources, central support services, supply chain procurement logistics, and programme and project management
		August 2011	Created the database of all existing information systems for possible replacement or integration with Umoja
Infrastructure (software)	24 433 200	January 2011	Software licences and maintenance
2012–2013			
Process design	26 435 964	August 2012	Completed the design of Foundation processes
Infrastructure (software)	18 342 500	January 2013	Software licences and maintenance
Infrastructure (hardware)	22 807 035	October 2013	Hardware
Foundation	53 672 689	March 2013	Developed training materials and provided training
		May 2013	Completed Umoja Foundation solution build and test
		July 2013	Pilot at the United Nations Interim Force in Lebanon and the Office of the United Nations Special Coordinator for Lebanon
		November 2013	Cluster 1: deployed Foundation to all peacekeeping missions
Integration	26 156 279	December 2013	Designing, building and testing of the integrated solution — in progress

Project phase	Expenditure (United States dollars)	Date	Outputs delivered
2014–2015			
Infrastructure (software)	3 694 000	January 2015	Software licences and maintenance
Infrastructure (hardware)	9 530 655	December 2015	Hardware
Foundation	7 032 578	March 2014	Cluster 2: deployed Foundation to all special political missions; deployed real estate to United Nations Headquarters, the United Nations Office at Nairobi and the Economic Commission for Africa
		November 2014	Deployed real estate to the entire Secretariat
Continuous improvement and production support	49 185 062	March 2014	Completed production support readiness activities for cluster 2: Foundation "go-live" for hypercare and production support
		July 2014	Completed production support readiness activities for MINUSTAH pilot go-live for hypercare and production support
		June 2015	Completed production support readiness activities for cluster 3: Foundation and Extension 1 go-live for hypercare and production support
		November 2015	Completed production support readiness activities for cluster 4: Foundation and Extension 1 go-live for hypercare and production support
Integration	40 966 637	May 2014	Developed training materials and provided training
		May 2014	Completed Umoja integration solution build and testing (human resources and travel processes)
		July 2014	Deployed Extension 1 pilot to the United Nations Stabilization Mission in Haiti
		June 2015	Deployed cluster 3: Foundation and Umoja Extension 1 to the Office for the Coordination of Humanitarian Affairs, the United Nations Office at Nairobi, the United Nations Environment Programme (UNEP), the United Nations Human Settlements Programme (UN-Habitat), the Economic and Social Commission for Asia and the Pacific and the United Nations Assistance to the Khmer Rouge Trials
		November 2015	Deployed cluster 4: Foundation and Umoja Extension 1 to United Nations Headquarters, the United Nations Office at Geneva, the United Nations Office at Vienna, the Economic Commission for Africa, the Economic and Social Commission for Western Asia, the Economic Commission for Latin America and the Caribbean, the Economic Commission for Europe and the international tribunals
		November 2015	Deployed cluster 4: Extension 1 to special political missions and peacekeeping missions
2016–2017 (through 25 Aug 2017)			
Infrastructure (software)	1 630 264	January 2017	Software licences and maintenance
Infrastructure (hardware)	3 236 605	August 2017	Hardware
Continuous improvement and production support	25 155 223	July 2016	Deployed service delivery to special political and peacekeeping missions
		September 2016	Provided global production support and implemented several enhancements to the transaction systems, self-service portal and business intelligence. Umoja training has focused on building local capacity to facilitate the mainstreaming of sustainable training
		May 2017	Resolved cluster 3 and cluster 4 Umoja post-implementation task force items

Project phase	Expenditure (United States dollars)	Date	Outputs delivered
Integration	26 951 153	August 2016	Financial statements for peacekeeping
		October 2016	Implemented business to business exchange with Office Depot
		November 2016	Implemented cluster 5: Extension 1 for national staff and individual uniformed personnel in special political and peacekeeping missions
		February 2017	Financial statements for the United Nations, UNEP, UN-Habitat, the United Nations Office on Drugs and Crime, the international tribunals and the International Trade Centre
		July 2017	Completed phase 1 of the centrally maintained tables interface with the International Civil Service Commission
		August 2017	Financial statements for peacekeeping — post-regression testing
Umoja Extension 2	12 240 868	September 2017	Completed supply chain management (phase 1) — Galileo decommissioning project
		January 2017	Design and development of Umoja Extension 2, specifically budget formulation, fundraising, implementing partners, payments to troop- and police-contributing countries, conference and events management

Notes:

It was not possible to accurately capture costs for hypercare that started in July 2013. Figure VII of the report of the Secretary-General accurately indicates the start of the continuous improvement and production support phase.

Ongoing process design costs in 2014–2015 were consolidated with the costs for the previous biennium.

Service delivery is included as continuous improvement, as it was a roll-out of an improvement of an existing Foundation functionality.

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