

Reporting on operational efficiencies

1. CONTEXT

1. In the context of development and international aid, there is broad consensus that development funds should be used as efficiently and effectively as possible without jeopardizing the equity and ethical dimensions of development efforts. Following the endorsement of the 2030 Agenda for Sustainable Development in 2015, reforms and transformations were proposed in the United Nations system and its entities (including WHO) in order to position them as the primary vehicles for supporting countries in implementing the 2030 Agenda.

2. WHO's Thirteenth General Programme of Work and the WHO transformation are aligned with the current reform of the United Nations development system (United Nations reform), which was initiated through the Secretary-General's December 2017 report,¹ with the aim of improving the overall efficiency and effectiveness of operations. It is anticipated that evidence-informed changes in operations will potentially achieve cost efficiencies in operations as well as in the programmes themselves, the benefits of which could be redeployed into development activities and programmes. In WHO Programme Budget 2020-2021, WHO committed to achieve savings through reallocation and efficiencies to offset part of the proposed budgetary increase.²

3. WHO aims to improve the efficiency and effectiveness of operational activities across its three levels, as reflected in outcome 4.3 of the Programme budget 2020–2021 and Programme budget 2022–2023, which is concerned with the efficient and effective management of financial, human and administrative resources, elements that are covered under the United Nations reform efficiency agenda. As indicated in the Programme budget and evidenced by the initiatives listed in Table 1, efforts have been made to transform management and administrative processes and to implement measures to gain efficiencies in processes and transactions that benefit operations and programmes alike.

4. It is important to point out at the outset that (in line with the United Nations methodology described below) efficiency savings do not always lead to decreased expenditures: often it is a matter of achieving more with the same amount of resources or improving quality and results while avoiding increased expenditures. This approach is also in line with the value for money strategy of WHO, noted by the Executive Board at its 142nd session.³

5. The value for money strategy focuses on how an organization achieves results.⁴ The Organization has been documenting and quantifying cost savings and efficiency gains within this context, rather than

¹ UN document A/72/684-E/2018/7.

² See documents A72/4, and A72/INF./2.

³ See documents EB142/7 Rev.1 and EB142/2018/REC/2, summary record of the fourth meeting.

⁴ Document EB142/7 Rev.1.

focusing exclusively on cost savings or economizing. Several high-profile efficiencies identified in this exercise focused on the impact achieved with similar amounts of resources rather than merely on the monetary or cost savings realized.

6. The COVID-19 pandemic radically transformed the way WHO provided technical cooperation during the biennium 2020–2021, which also had an impact on the potential savings the Organization could have achieved and on the additional costs it had to incur to deliver similar results. For example, 40% of the cost savings estimated for the operationalization of the Programme budget 2020–2021¹ were related to travel and meeting management savings thanks to new policies set in place. The shift away from in-person activities and related travel towards a situation in which most work was undertaken in a virtual environment meant that the savings attributable to the recent implementation of travel-management policies also ceased. Relevant savings will be measured again as the Organization establishes its post-COVID-19 operations. At the same time, the pandemic opened doors to new and transformative ways of working that positively affect WHO's effectiveness and that are expected to be incorporated as part of WHO's new normal for the delivery of technical cooperation.

7. As WHO learns and improves the way it documents its cost savings and efficiency gains, there are also some other areas that are outside of the scope of this document but may have an impact on the documentation of cost savings and efficiency gains in future reports. One is the important discussion led by the Member State Working Group on Sustainable Financing. The current approach of WHO to financing its budget has been identified (in particular by the Independent Expert Oversight Advisory Committee) as a major driver of inefficiencies, as technical and enabling staff have to dedicate their attention to the preparation, mobilization, negotiation, monitoring and reporting of thousands of donations that together make up more than 80% of WHO's financial resources. Reducing the dependency on voluntary contributions to perform core work will have direct implications on costs and the efficient use of staff skills and will better enable the Organization to achieve its programmatic priorities.

2. ADOPTION OF UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP METHODOLOGY FOR WHO EFFICIENCY REPORTING

8. The United Nations Sustainable Development Group, which is tasked with operationalizing the United Nations efficiency agenda, defines the parameters and activities for that agenda and monitors efforts to achieve operational effectiveness and efficiencies. It proposed a methodology for measuring and tracking progress over time. In 2021, WHO adopted and fully aligned with the Sustainable Development Group methodology in order to estimate its efficiencies in business operations. The United Nations methodology can be applied to the calculation of efficiencies in the areas of administration, finance, human resources, information management and technology (IMT), logistics and procurement. Three types of efficiencies are considered in this methodology:

(1) **Cost savings:** reducing the level of financial resources disbursed to achieve a given outcome. This, calculated in US dollars, could reduce current spending and/or avert potential future cost increases and can be further broken down into:

- cost reduction: the reduction of an existing cost, for example the relocation of activities and staff to a lower-cost duty station; and

¹ See document A72/INF./2.

- cost avoidance: the reduction of an expected future cost, for example expanding a function by new hires in a lower-cost duty station.

(2) **Time savings:** reducing the overall effort to achieve a given task. This is first calculated in reduced time (hours/days) and then converted into a US dollar equivalent.

(3) **Effectiveness improvements:** initiatives that result in a qualitative improvement, for example a reduced risk or better quality of service. These improvements do not necessarily lead to an explicitly quantifiable saving.

3. WHO'S COST SAVINGS AND EFFICIENCY GAINS

9. The WHO business operation departments at headquarters, in collaboration with the regional offices, documented 79 cost saving and efficiency gains initiatives in the six enabling services streams of administration, finance, human resources, IMT, logistics and procurement for the period 2019–2021 (Table 1). Enabling services are a key driver of efficiencies, the benefits of which have the potential to impact the breadth of activities performed by the Organization. Of these, 29 initiatives were documented as exclusively achieving qualitative benefits. The remaining 50 were quantifiable in terms of cost or time savings.

Table 1. Qualitative or quantifiable efficiency initiatives by service stream

Service stream	Qualitative initiatives	Quantifiable initiatives	Grand total
Administration, including common facilities/premises	7	6	13
Finance	10	22	32
Human resources	4	11	15
Information and management technology	2	3	5
Logistics	1	1	2
Procurement	5	7	12
Total	29	50	79

10. The baseline year of implementation was set at 2018 to coincide with the year of initiation of the WHO Transformation reform agenda. This non-exhaustive list (Annex) includes initiatives that have been implemented since 2018 and resulted in savings since 2019. Savings attributed to the COVID-19 pandemic (i.e., those that may not be sustained post-pandemic, for example, savings related to reduced travel during the pandemic) were not considered to be efficiency savings.

11. Most of the reported initiatives were undertaken at headquarters and therefore the cost savings and efficiencies included in this document are assumed to be conservative and under-reported. As the next step for future reporting, the Organization is assessing how to systematically, transparently and efficiently document cost savings efficiencies that have occurred across the three levels of the Organization, while minimizing the potential additional administrative burden this could create.

12. For those initiatives that were quantifiable, total cost or time savings amounted to US\$ 113 911 920 (Table 2). Savings resulted from initiatives such as policy changes, automation of

processes, optimization of workflows, outposting to lower-cost duty stations, transitioning of manual monitoring to automatized monitoring, shared procurements and quantifiable time savings. As seen in the Annex, initiatives vary in magnitude and impact. While some are specific to a unit of operation, others expand across the Organization.

13. Initiatives are also often interlinked within streams, so that categorizing by stream may not always be accurate. Two examples of these interlinkages are the automatization of processes in the areas of human resources and finance, for instance, which cannot happen without IMT support; and the cost avoided by not having to build temporary workplace accommodations for staff while the main headquarters offices are being renovated (this is accounted in administration but could equally well be seen from a human resources perspective).

Table 2. WHO cost savings and time savings by service stream

Service stream	2019	2020	2021	Grand total
Administration, including common facilities/premises	18 171 750	16 625 188	2 064 250	36 861 188
Finance	14 520 646	26 026 459	24 786 959	65 334 064
Human resources	1 305 500	1 629 667	3 627 984	6 563 151
IMT	1 067 308	1 066 166	1 066 166	3 199 640
Logistics	233 500	183 500	183 500	600 500
Procurement	240 190	450 177	663 010	1 353 377
Total	35 538 894	45 981 157	32 391 869	113 911 920

14. About 88% of the savings – US\$ 100 169 172 – represented cost savings, the biggest of these (in order of volume) were driven by the areas of finance, administration and human resources. These usually involved specific costs incurred by the Organization that were compared with the new costs after the implementation of a policy, methodology or contractual arrangement. The highest single line of cost savings was reported in 2019, resulting from significant changes to the duty travel policy implemented in April 2018, which introduced changes to business class entitlements and the determination of flight itineraries and added a preferred hotel programme as a means to reduce per diem costs. Given the impact of the pandemic on travel and meetings, there were additional savings in travel that were not driven by this efficiency measure and were therefore not considered here. As the Organization normalizes operations that involve those activities, savings from these travel measures will be tracked again.

15. A total of US\$ 13 742 748 time savings were reported, the biggest of these (in order of volume) in the areas of finance, human resources and procurement. Time savings are almost exclusively achieved by the automation or streamlining of processes across the Organization. Streamlining often leads to efficiency gains as well.

16. A total of 29 initiatives are reported under the effectiveness improvements category. These are initiatives that resulted in a qualitative improvement rather than savings, such as mechanisms set up to expedite support for emergency operations or enhancements made to the Global Management System (GSM) enterprise resource planning that improve workflows and make processes more efficient but are not readily quantifiable.

17. The level of the Organization's operational maturity may influence the magnitude of efficiency savings. It is widely recognized that efficiency gains in business operations arise from economies of scale. Since 2008, WHO has had a global shared service centre in Malaysia that provides services to all its offices. The centre also provides human resources back-office services to Joint United Nations Programme on HIV/AIDS (UNAIDS), the United Nations International Computing Centre (UNICC) and Unitaïd. Since this important cost-saving initiative was undertaken more than a decade ago, gains from its operations are not reported among the initiatives listed in the Annex.

4. CONCLUSION

18. As the data indicate, along with its key role during the COVID-19 pandemic and building on WHO Transformation and United Nations reform, WHO continued to enhance the efficiency and effectiveness of its operations by adopting best practices and proven strategies. While all planned efficiencies as per the Programme budget 2020–2021¹ were considered, the reported cost savings and/or efficiency gains may be an underestimation of the true picture since the limitations of manual tracking and reporting did not allow the reporting of an exhaustive list of efficiency initiatives across the three levels of the Organization. Other initiatives were not measurable due to the pandemic. In addition, the benefits arising from some of these efficiency measures and savings may fall outside the departments in which they originate, making it more difficult to quantify them; alternatively, some of them may be attributed to only one functional stream while in reality they reflect the joint efforts of multiple streams.

19. The efficiency gains summarized in this report should not be considered exclusively from a monetary savings perspective. Some initiatives required an up-front investment to be implemented. Others did not yield monetary savings but instead enabled procuring and delivering a higher volume of goods or services or resulted in faster service delivery, thereby enhancing the programmatic capacity of the Organization. In addition, several initiatives are under development, such as the replacement of the current GSM enterprise resource planning system with the more modern Business Management System, will further contribute in the future to efficiencies through the rigorous optimization and automation of business processes.

20. The information documented in this report reflects the concerted effort of the Organization to improve the ways it does its work from a managerial perspective. The automation of processes and reports and the optimization of workflows and simplification of processes save time and allow staff effort to be redirected to other activities, including technical work and analysis, and in general this motivates staff by allowing them to work better and faster. Joint efforts for procurement, either centrally for the Organization or along with other agencies, allow the sharing of the workload related to paperwork, and also makes it possible to take advantage of related economies of scale. The renegotiation of contracts involves one-off situations that can bring benefits over the years. "Greening" initiatives to reduce the use of paper and physical machines, the construction of environmentally-conscious buildings and the use of energy-efficient cars establish WHO as an example of sustainability; when appropriate, the relocation or use of staff in duty stations that are more economical allows the Organization to do more with the same resources (sometimes even with fewer resources). New and improved technologies have allowed WHO staff to work from everywhere and the Organization to have a wider reach than through traditional in-person activities. Streamlined procurement practices have delivered thousands more medical kits to extremely vulnerable populations in times of need. Together, such initiatives have allowed for the improved deployment of effort and resources to ensure that the Organization continues to deliver results and achieve its mission.

¹ See document A72/INF./2.

ANNEX

WHO EFFICIENCY DATA**Administration, including common facilities/premises and Logistics**

Several measures and policies have been introduced in the areas of facility and logistical management, which contributed to the overall efficiency gains realized by headquarters and regional offices. The travel and fleet management policies are two good examples of policies implemented recently by the Secretariat on this stream. The travel management policy alone already produced the largest tangible savings in 2019; these savings will be measured again once the Organization resumes its normal operations related to travel. The fleet management policy takes advantage of economies of scale across UN agencies in relation to the operation, maintenance, road safety and security of vehicles.

Policies were coupled with key transformation activities to leverage the use of technology such as electronic paper flow (eWorkflow) and the use of virtual meeting platforms, outsourcing key functions such as facility management and conference management, and eventually the use of the lower cost hub in Tunisia to support the operation of a few global functions, such as talent management and the administration of medical evacuation. The ability of WHO to fully operate on a remote basis also spared the Organization the cost of building temporary solutions to house staff while the renovation of the main building in Geneva was completed.

Sustainability is also at the centre of new initiatives in WHO, including paperless initiatives for everyday work and for official meetings; reduction of physical equipment that reduces waste, maintenance costs and electricity use; and the construction of the new headquarters building conforming to state-of-the-art environmental and safety norms. All these bring day to day small savings while also contribute with the health of our planet.

Additional measures are under way to increase United Nations inter-agency collaboration and joint operation at the three levels of WHO in the areas of facility, fleet and logistics management, which are estimated to yield further efficiencies and increase the effectiveness of operations.

Finance

The efficiency and cost savings for finance stems from the need to improve customer satisfaction (internal and external clients) and to benchmark against other UN organizations as well as the private sector. This is evidenced in some of the automation of business processes implemented in treasury payments as well as in the area of payroll to reduce processing time and the use of resources, increase centralization and in turn improve controls and financial reporting.

The Department of Finance constantly exchanges best practices with other organizations to harness finance technology in order to deliver faster, efficient and more reliable services and reporting to all our clients. This also has results in financial savings for the Organization.

Apart from that, training for users in collaboration with the regions, technical units and the Department of Finance have been organized on the new processes, as well as systems to reduce rejection rates and improve performance globally for WHO. The Department regularly reviews the business processes in order to achieve more in this area, with continuous improvement as an objective. The

information captured in the table below demonstrates the Secretariat's commitment to elevate its service levels and improve internal controls.

Human resources

Since 2017, the Secretariat has placed significant emphasis on the rationalization and automation of processes that impact staff in their daily lives and/or appointments with the Organization. Among the initiatives which have resulted in efficiency savings in terms of both staff resources and time, of particular note are the online tools and portals that have been developed to allow the workforce immediate access to real time information, such as calculators for salaries and entitlements and portals for requesting, monitoring and tracking applications for legitimation cards (residence/work permits granted by the host Government for all WHO, UNAIDS and UNICC Geneva-based workforce), United Nations travel documents and visa support letters for meeting participants. Other initiatives include the rationalization and updating of policies, such as the determination of steps on appointment; the establishment of a single end-to-end process for managing rest and recuperation travel; and the offshoring of functions and tasks that can be done in other locations and at a reduced cost, allowing for additional support to improve turnaround times. Examples of the latter are: (a) the offshoring from Geneva to the global human resources team in Kuala Lumpur of step determination and the onboarding of staff on appointment; and (b) the offshoring from Geneva to Budapest of the sourcing and recruitment function and the establishment of the team in Budapest.

Information Management and Technology (IMT)

The IMT function within the Secretariat has the mission to connect and empower people, automate and optimize digital WHO to deliver its strategic goals. IMT delivers IT services and projects for business units to digitalize and transform their processes in order to make them more efficient and effective. This is evident in the many initiatives listed, which achieve efficiency through the application of technology and also underline information technology as a key enabler for making business processes better.

In addition to IT services for business units, cybersecurity services and services are also provided for the digital workplace. These services target all the Organization's workforce and provide tools that help improve productivity and collaboration. In the context of the COVID-19 pandemic, these services have ensured the continuity of the Organization's operations. At the same time, the need to work remotely in a unique circumstance has accelerated digitalization, driving rapid changes to existing services and the roll-out of new ones.

Global shared services have also been expanded to cater to the common needs of all WHO offices. These services are standardized, making their operations and support more efficient and cost-effective. They are also scalable to a larger user base globally, without the need for major additional investment and resources. In many cases, the costs of IT service delivery are also being driven down through retendering, contract negotiations and partnering with other UN agencies for collective procurement.

WHO is continuing the adoption of Cloud-based technology. Cloud-based systems are now preferred over systems that run in data centres on the premises. Within Cloud-based systems, solutions that can be acquired as ready-to-use subscriptions are preferred over those that have to be installed and maintained by internal teams. This has helped to ensure the rapid deployment and scaling up of new applications and in many cases to reduce the cost of existing services as well. It also enables the Secretariat to gradually shift the focus from managing the complexities of maintaining infrastructure to delivering business capabilities, thus allowing them to add more value.

Procurement

Traditionally, the measure of success for a procurement function has been savings; however, this definition fails to realize the role of procurement in generating value for the Organization. Value can be generated directly through a cost reduction or indirectly through, for example, increasing quality or supply surety without incurring associated budget or resource increases.

The procurement information presented in the table below quantifies an example of direct cost savings through rebates gained after engaging in collaborative long-term agreements with another United Nations agency, as well as an example of indirect impact through the work WHO has led to develop standardized, modular health kits with medicines and medical supplies that meet different health needs in humanitarian emergencies. The health kits deliver efficiencies by avoiding increases in costs related to staff capacity, logistics, assembly, storage and transportation, while improving forecasting, reporting and distribution of supplies during health emergencies and ensuring that quality standards are maintained.

At WHO, the procurement policy is the main driver of decision-making and within the policy the key elements are the procurement principles, including value for money. Value for money means that WHO seeks procurement at the best price with the best quality and delivery schedule to match its needs and budget.

The procurement and supply services function within the Secretariat does not have a defined “savings” methodology to capture the impact of its procurement activities and given the decentralized organization of procurement this will remain a difficulty. In the future, the aim will be to better capture efficiency and cost savings through long-term agreements, which are established and managed globally.

Detailed list of cost savings or efficiency gains identified

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
Stream: Administration, Including common facilities/premises									
ADM.1	Going paperless-Go green initiative for human resources processes. With the introduction of PDF split and merger software, documents can be sent for review without printing, resulting in savings of printing cost and papers	8000	8000	8000				24 000	For processing, the following documents used to be printed and compiled into a single stack of documents for review: terminal payments processing, to consolidate the feedback from global human resources, travel, pension, personal accounts, La Mutuelle and inputs of local clearance certificates; 10 pages were saved for each separation case.
ADM.2	Geneva campus building renovation: staff moved to the new building at the end of 2021								The strategy aims to upgrade the campus and create a balanced environment that will be energy-efficient, conform to Swiss environmental and safety norms and reduce the cost of operation and maintenance.
ADM.3	Fleet management, in collaboration with other United Nations entities								WHO fleet management function aims to address challenges with the operation and maintenance of vehicles, as well as road safety and security. An effective fleet management function will minimize occupational health risks, lower crash rates and reduce carbon emissions. In summary, the following are the benefits derived from an effective fleet management function: enhanced WHO operational capacity; improved efficiency of WHO's vehicle fleet; improved road safety of WHO's vehicle fleet; minimized environmental impact of WHO's vehicle fleet; and reduced CO ₂ emissions. Efficiencies are achieved through sharing of the fleet management function, which will impact fuel consumption; frequency of maintenance costs; annual cost of vehicle purchases; rate of road accidents; and income derived from the disposal of vehicles.
ADM.4	Investment in state-of-the-art conference and management system								The outsourcing of audio and video services under the conference management function to a commercial service provider will yield the same benefits as outsourcing facility management. Hence, it will realize substantial efficiencies.
ADM.5	Implementation of travel management policy	17 800 000						17 800 000	Note that only 2019 will be indicated. Significant changes to the duty travel policy were implemented in April 2018 – the most significant savings were related to business class entitlements, flight itinerary determination and the introduction of a preferred hotel programme as a means to reduce per diem costs. Since COVID-19 drastically reduced travel in 2020 and 2021, it is very difficult to ascertain/claim savings on travel during those years.
ADM.6	Implementation of Xerox project, to reduce paper usage and printers								Greener WHO by reducing printing, number of printers, electricity and other related costs.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
ADM.7	Automation of annual verification of staff fixed assets in South-East Asia Region and country offices								2021 fixed asset data using an online fixed assets register tool. All staff can access information on the fixed assets assigned to them. Staff can remotely access the online tool via Sharepoint from any place and verify without having to visit office premises. Automation created and installed by in-house expertise. Cost savings on third-party services. Training to all country office focal points through management system teams. Cost efficiency in terms of training and material costs and meeting expenses. Savings on staff time and effort spent on visiting all workstations in the building to verify assets manually. Recovery of many unused and missing assets as staff made concerted efforts to surrender unused/missing assets recorded in their names. Improved management of fixed assets due to transparency and information-sharing with all staff. Also, quicker resolution of discrepancies through online queries raised by staff
ADM.8	Disposal of obsolete equipment/assets								Online auctions conducted by contracting a specialized e-Auction service provider. Higher revenue earned by sale of obsolete vehicles, ICT and building equipment and furniture through e-Auction. No physical visits by bidders in office premises ensuring observance of COVID-19 protocols. Best market rates obtained through highly competitive online bidding and foolproof documentation audit trail. These e-Auction tools also introduced to country office in India to manage disposal by sale of large number of obsolete vehicles in field offices, which generates higher revenue.
ADM.9	Outsourcing of South-East Asia Region premise security services								Outsourcing of premises security services, including provision of all required consumables for COVID-19 preventive measures (contracted under the One-UN procurement plan) for Regional Office for South-East Asia. Process is more efficient.
ADM.10	Conference services provided by Tunis service centre	63 750	90 375	120 500				274 625	
ADM.11	Implementation of paperless initiative for governing bodies meetings	300 000	300 000	300 000				900 000	Considerable reduction in paper. First phase was in 2018 with no pre-session documents printed and distributed for World Health Assembly and conferences. Second phase in 2019, in-session documents only printed on demand and tablets provided to participants. This is measured in number of "clicks" that can also be translated into savings
ADM.12	Tunis service centre has been repurposed to service conference services for functions that otherwise would have been performed in Geneva		1 226 813	1 635 750				2 862 563	

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
ADM.13	Telework as an alternative to building temporary space at headquarters to accommodate staff during headquarters building renovation	–	15 000 000	–	–	–	–	15 000 000	With the implementation of full telework after March 2020, the Organization was able to reduce expenses in the amount of US\$ 15 million (14 million Swiss francs). This was the minimum cost required to build temporary structures to house staff displaced from their office due to the renovation of main headquarters building. During the pandemic, all staff started teleworking full time, making the additional space unnecessary. Please note that this was the cheapest option being considered: if building the temporary structures would not have been possible, the estimated expense of renting external space to replace the office space would have amounted to US\$ 23.7 million (22 million Swiss francs) over a period of five years.
Total		18 171 750	16 625 188	2 064 250	–	–	–	36 861 188	
Stream: Finance									
FIN.1	Savings from centralized competitive bidding for foreign currency purchases through headquarters (instead of non-competitive purchases by country offices)	3 900 000	10 700 000	9 400 000				24 000 000	Competitive bidding results in significant savings (subject to fluctuation based on volume and market liquidity).
FIN.2	Centralized payment automation through the global service centre (Kuala Lumpur) reduces the burden of manual payment processing in regional and country offices					1 182 382	1 182 382	2 364 764	Significant reduction in costs as well as gaining efficiency through reducing manual work at country and regional levels. Payments and account reconciliation are generally faster and for the most part automated, thus reducing manual work and improving reconciling accuracy.
FIN.3	The use of secured interfaces for payments (less manual intervention) lowers risk of error/fraud			–	1587	1803	1803	5193	Banking relationship management is processing more volumes through international banks that have higher credit ratings and are financially healthier, with reduced risks of error and fraud.
FIN.4	Using local payment services (instead of international payments through Citibank) has significantly reduced bank charges in recent years	360 000	321 000	348 000				1 029 000	Better monitoring and lower costs.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
FIN.5	Implementation of a user-friendly Excel-based tool for monthly payroll deductions and subsequent reconciliations				12 773	13 252	13 252	39 277	The tool has restricted access to predefined focal points in each region, restricted to only one specific set of deductions to create the batches. The solution cuts out manual interactions, resulting in cleaner corrections; reconciliation is facilitated as rejections/errors are minimized, leading to substantial savings in time spent each month in all regional offices.
FIN.6	Automation for mass update and more efficient management of staff banking information				7615	8654	8654	24 923	Updates/changes from payments/treasury are now easily implemented to update staff bank records, cutting out manual steps for staff member updates. Copying of existing bank details and creating new bank account record automatically for payroll payment rejections.
FIN.7	Technical enhancement allows re-run of payroll process (e.g. after abrupt system errors), which mitigates the risk of non-completion of payroll on time				29 631	34 062	34 062	97 755	Implementation has led to timely closure of internal and external audit recommendations. Improved performance and 90% system resource savings by processing only 10% of the payroll population every month that require retroactive payroll run. Automated audit trail report on retroactive events containing the details of human resources action implemented, action implementation date, action implemented by and effective date will improve the quality of review and mitigates the risk of fraudulent entry being approved and paid (if any).
FIN.8	Automated pre-financial clearance process using (robotic process automation)				12 482	12 290	12 290	37 062	Process includes verifying relevant items, sending emails to staff to notify them of outstanding items such as pending education grant claims and travel claims; seek confirmation on bank details etc. to process terminal benefits; and provides staff information on clearance turnaround times. Significant savings achieved in staff time as this was formerly a completely manual process.
FIN.9	An automatic reminder functionality sending periodic reminders to staff, pending claim submissions for educational grant				10 000	9910	9910	29 820	If staff do not submit claims even after reminders are sent, the system places an automatic recovery instruction with number of recovery instalments per e-manual provisions. This automation is working seamlessly and providing much-needed controls as education grant entitlement is a high-value transaction. In the past, this process was fully manual and error-prone.
FIN.10	Improvements related to pensions								Implemented to improve client services. Enables monitoring volumes, timelines, service level agreements through statistics available within MyService (ServiceNow). Went live in pension as of September 2020, go-live for Advisory Committee on Compensation Claims is starting now; vendor proposals are being reviewed; go-live expected in 2022.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
FIN.11	Staff Health Insurance online portal: paperless/automated operations replaced previously manual activities					2 705 525	2 705 525	5 411 050	Online claim submission implemented and made mandatory for all active staff and former staff members (except Pan American Health Organization (PAHO)). Attestations made available through Staff Health Insurance online portal. Electronic insurance card available via Staff Health Insurance online portal. New automated claim validation process time saved is now used to process payments more often. Automated electronic transmission of annual statement for all retirees, which used to be fully manual, therefore saving time and paper
FIN.12	Sharepoint sites for various Staff Health Insurances units implemented								Sharepoint sites for Staff Health Insurance governance committees, Staff Health Insurance secretariat implemented. Used extensively by all Staff Health Insurance colleagues and committee members. Power BI dashboard created for the Global Oversight Committee. Power BI dashboard created to integrate PAHO.
FIN.13	Automated processes aiming at integrating information from PAHO and Staff Health Insurance				6975	7010	7010	20 995	Member data is now automatically transferred from PMIS (PAHO's system), saving time at both PAHO and WHO headquarters. Eligibility data to third-party administrators, namely; Aetna, CVS, COGNA, Navitus. Claims data from third-party administrators and streamlined reconciliation of PAHO accounts also saves time both at PAHO and WHO headquarters.
FIN.14	Increased agreements with health care providers, global agreements, preferential price lists and maps implemented	10 000 000	10 000 000	10 000 000				30 000 000	Many new agreements with health care providers finalized. Preferential price lists agreed to improve cost structure and avoid excessive charges. Global list and map created of all conventions signed by Staff Health Insurance with health care providers worldwide.
FIN.15	Online trainings on health insurance claims processing and validation								Online training (monthly) in three languages for former staff. Weekly training via Microsoft Teams for Staff Health Insurance teams in all locations on claim processing and validation. Video tutorials in three languages being created (launch 2022) within Staff Health Insurance online portal to train participants, health care providers on staff health insurance rules. This reduces time for consultations, reduces errors and improves overall client satisfaction.
FIN.16	iSupplier: self-service portal for corporate suppliers rolled out					791 811	791 811	1 583 622	Savings achieved by making self-service portal available through which corporate suppliers can manage their own master data in two United Nations languages. The self-service portal eliminates the need for most of the manual processing by requestors. Trained over 800 new users in the new process and system.
FIN.17	Automated processing of invoices using optical character recognition and other system integrations				96 042	113 682	113 682	323 406	Automated non-purchase order-based payments using iSupplier. Deployed self-service inquiry on status of invoice and payments. Trained hundreds of users worldwide on the new process. Enabled 43% performance improvement for the team.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
FIN.18	Implemented automated sanction screening of all WHO suppliers and anti-fraud controls. Established operational risk management and improved efficiency of payment processes					42 142	42 142	84 284	Introduced self-service option to request ad hoc screening of suppliers or payees through ServiceNow. Introduced supplier call backs. Introduced new policy on third-party payees. Introduced centralized validation of banking information with supporting documentation. Deactivated thousands of inactive suppliers and bank headers. Strengthened additional screening of outgoing payment records.
FIN.19	Training on how to reduce rejection rates; clinics provided to train hundreds of staff worldwide to improve efficiency				793	901	901	2595	User feedback allows further process improvements such as handling of minor name changes. Provided extensive library of about 200 frequently asked questions through MyService and offline to address recurring issues and guide users to solutions. Deployed new key performance indicator dashboards to highlight opportunities to improve process efficiency and effectiveness (encumbrances, accounts payables, award operations).
FIN.20	Report automation pipeline; extensive technology training to enable more effective use of software tools and low tech automation of manual tasks				2285	2596	2596	7477	Better use of existing software tools.
FIN.21	Mechanisms set up to expedite support for emergency operations								Introduced on-call mechanism to provide extended support to emergency operations. Deployed an emergency flag on supplier master data creation and modification requests to allow expedited processing of emergency transactions. Provided support for COVID-19 emergency supply chain operations within existing resources.
FIN.22	Improved account reconciliations and display of ageing balances								Clean-up of historical issues facilitates accounts reconciliation and review. Improved presentation of accounts analysis facilitates clearance of aged items. Better transparency and accountability
FIN.23	Savings achieved by transfer of records and archive services to the Coordinator, Global finance; improved integration of award activation process and workflow				3970	4218	4218	12 406	Savings achieved by transfer of records and archive activities to Coordinator Global finance. Improved integration with award activation process and workflow.
FIN.24	Contributor engagement management system: implementation for grant and award management								In progress. Once up and running, Contributor Engagement Management system will channel pipeline agreement data and have a partial (minimal) interface with GSM (or replacement system). It includes filling and approval of forms online and removes the need to replicate information and for printing, signing and scanning. Manual errors minimized. Accountability and transparency increased.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
FIN.25	Automated PowerBI dashboards to manage exceptions by finance and other departments								Time previously spent extracting this information could be spent on analysis and follow-up, for example on revenue reporting dashboard data back to 2012 (previously maintained manually).
FIN.26	Automated Power BI expenditure reports are being created for expenditure monitoring				9738	9831	9831	29 400	Saving of staff time used to create statistics, etc. Dynamic reports for management and other users create client satisfaction and willingness to review reports and comply with report recommendations, improving compliance and accountability across technical units, regional offices and country offices.
FIN.27	Automated PowerBI dashboards for monitoring and reconciliation of cash and bank accounts				41 414	40 633	40 633	122 680	Savings in manual input and potential human error. Improved data quality, transparency and accountability.
FIN.28	Enterprise resource planning system enhancements to improve workflows and increase efficiency								Many GSM enhancements were undertaken to improve workflows and make processes more efficient – these have wide time-saving implications across the Organization: hard coding account code based on type of procurement. Self-service request for closure of encumbrances, eReceipt workflow.
FIN.29	Increased automation of donor reporting				25 341	24 757	24 757	74 855	Automated processes to produce donor reports and verify award, financial and activity information. This resulted in being able to process increased volumes of donor reports without increasing the staffing.
FIN.30	Training videos for all staff on financial processes (fraud awareness, award management)								Fraud awareness video. Principal risks videos – especially for country office staff. Award management videos. Provide easy access and user friendly platform to disseminate important financial information and procedures to staff – available also on mobile applications. Improved transparency, compliance and accountability across the Organization, including at country office level.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
FIN.31	Global harmonized assurance activities on WHO grants to external implementing partners			33 500				33 500	Created team to coordinate and harmonize assurance activities globally in Budapest. Reporting on assurance activities has been performed by Geneva-based finance staff until September 2021; moving this function to lower-cost Budapest will create savings moving forward. Geneva-based staff will be able to focus on other urgent priorities, while dedicated staff will be focusing on assurance and regional office/country office support thereof full time. Full transparency and global oversight of assurance activities will contribute to faster response rates to inquiries from oversight bodies and other stakeholders (e.g. donors) on funds utilization according to agreements, leading to improved confidence in WHO. Harmonization of practices across all WHO regions will ensure better and more efficient and effective practices across offices. Development and facilitation of global templates and reporting, coordination and monitoring of third-party maintenance contracts, expert guidance to colleagues across WHO on correct application of policies and procedures, leading to fewer audit observations and reducing time spent on dealing with/ closing these across offices.
FIN.32	Introduction of online portal for exceptional approval workflows (procurement and travel-related exceptions), Contract Review Committee and eMemos in South-East Asia Region								The online service portal strengthened the following: audit trails; time efficiencies and easy tracking; and reporting access to policy and manual links in exceptional approvals to support decision-making. Additional benefits include substantial reduction in paper usage and more work efficiencies leading to less staffing involvement, eventually leading to better human resources planning.
Total		14 260 000	21 021 000	19 781 500	260 646	5 005 459	5 005 459	65 334 064	

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
Stream: Human resources									
HUM.1	Centralization/offshoring of staff onboarding		176 500	176 500		–		353 000	In its endeavour to gain efficiencies by centralizing human resources operations, the human resources and talent management function has offshored its staff onboarding service for headquarters staff to the global service centre in Kuala Lumpur. The operation was earlier distributed among human resources focal points at headquarters in Geneva. Now it is a focused task managed by a team in Kuala Lumpur Malaysia. The efficiency measure released capacity at headquarters in Geneva and the task is now processed as per the defined turnaround time by local staff at Kuala Lumpur, which is cost-effective.
HUM.2	Step determination policy revised and implemented	–	–	–	403 000	396 500	207 000	1 006 500	The new step determination policy, implemented in 2017, enabled immediate and systematic processes for a clear reviews of a candidate's education and experience to determine the accuracy of the step included in the offer to staff in the professional and higher categories on appointment before the contract start date. The onus was no longer on staff members to request a review up to one year after appointment. This ensured equitable and transparent treatment for all staff on appointment, increasing trust in the process and reducing the volume of administrative reviews related to this element. Savings in terms of time and improved efficiencies in the process. Staff member no longer required to request a review within a year of the appointment; instead, the review is done systematically for all staff members.
HUM.3	Centralization/offshoring of step determination		–	84 000		–		84 000	The centralization served twin benefits. The process is more consistently applied as per the existing policy. The existing arrangements can be grouped with onboarding, ensuring parallel processing and quick turnaround time. A dedicated team is available for responding to customer queries
HUM.4	Centralization of COVID-19 testing and quarantine cost reimbursement processing		56 167	337 000				393 167	The biennium 2020–2021 posed additional challenges for all staff members who had to undertake travel for various reasons. All statutory travel transactions required additional review when COVID-19 testing and quarantine cost reimbursement was requested. Global human resources formed a centralized team that learned the complexities of the ever-changing COVID-19 testing and quarantine protocols related to travel in each country. The dedicated team ensured on-time processing and customer query response all through the biennium 2020–2021.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
HUM.5	Establishment of one single end-to-end process to manage rest and recuperation travel		–	123 984		–		123 984	Current statutory travel process consists of four parallel subprocesses. It involves leave administration followed by travel administration. For staff at hardship duty stations, it was quite demanding to manage the process. In addition, process ownership was distributed, resulting in challenges in tracking down the current status. By monetizing the rest and recuperation statutory travel, global human resources brought the entitlement ownership under one umbrella. The previously multistep process is now just one end-to-end process like all other entitlements. GSM (current enterprise resource planning system) was enhanced to make rest and recuperation-related information initiation an integral part of the leave application. Staff are now paid their rest and recuperation entitlements via payroll and can be verified using Payslip.
HUM.6	Development of seven online calculators for human resources-related estimations		–	–		183 500	183 500	367 000	To address various staff queries related to “what-if” scenarios, global human resources has developed seven online calculators, which are available on the WHO Intranet. These calculators are serving the task of level 0 user support. Staff can access these calculators and generate estimates, which answer most of their queries, reducing consulting time and staff time in making manual calculations.
HUM.7	Introduction of on-call services for emergency response		–	–		–		–	Global human resources customers are spread across more than 150 countries where WHO has a physical presence. In addition to regular transaction processing, global human resources is committed to expediting World Health Emergency transactions. Global human resources has introduced a second shift on weekdays, a Sunday shift and an on-call shift on Saturdays and public holidays. Global human resources has introduced five dedicated numbers for five services, where a staff member can reach immediate assistance for specific transactions.
HUM.8	Global human resources implemented case management tool with ServiceNow for accurate work allocation, transaction queue management, tracking transaction status, productivity reporting and ensuring record-keeping of all past staff health risk assessments interactions, all managed within one tool		–	–		–		–	The tool ensures the efficient implementation of service level agreements in line with agreed terms. Event-based e-mails to the client ensure that the client is in touch with the current status of transaction processing. It provides accurate status reporting for global human resources supervisors to track productivity and team member performance.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
HUM.9	Automated online portal for the submission and tracking of all requests for legitimation cards (work/residence permits) with the host Government at Geneva duty station	336 000	316 000	316 000	302 500	302 500	302 500	1 875 500	Development and implementation of an automated online portal for the submission and tracking of all requests for legitimation cards (work/residence permits) with the host government for all WHO, UNAIDS and UNICC workforce staff at Geneva duty station. Requests for all legitimation cards (work/residence permits). The tool ensures the efficient monitoring, tracking and processing of all requests for permits to the host government for WHO/headquarters, UNAIDS and UNICC for all the workforce (both staff and non-staff) of these agencies. The tool has been so successful that other UN agencies based in Geneva have acquired the tool from WHO for their use. All requests are submitted on time and respect the requirements of the host government. Efficiency dramatically increased for members of the workforce as physical queuing is no longer necessary to submit requests and they receive automated messages to remind them when permits are expiring. A total of 4500 registrations for permits are submitted each year.
HUM.10	Development and implementation of an automated on-line portal for the submission and tracking of all requests for UN travel documents for WHO, UNAIDS and UNICC	84 000	79 000	79 000	–	–	–	242 000	Requests for United Nations travel documents are made directly by the staff member or consultant or administrative support staff through the online tool. All approvals are made directly within the tool by approving authorities. The tool ensures the efficient monitoring and tracking of all United Nations travel documents directly by the requestor and any United Nations laissez passer focal points globally and enables immediate follow-up and reporting to management on the status of any request.
HUM.11	Automation of UN travel documents back-charging for WHO, UNAIDS and UNICC	108 000	106 050	106 050	–	–	–	320 100	Global tool engendering savings for WHO headquarters and regional offices, as well as UNAIDS and UNICC, in terms of automated upload of Project Task Activity Expense Organization (PTAEOs) and has eliminated much of the previous need for constant individual follow-up. No need to enter manual corrections. Reduced risk of error.
HUM.12	Automation of requests for visas for those attending meetings in Geneva	72 000	13 450	13 450	–	–	–	98 900	Visa support letters for meeting participants to all meetings (including governing body meetings) held in Geneva no longer prepared and signed manually by the human resources liaison team. Requests submitted directly by the traveller through INDICO (reduced savings in 2020 and 2021 due to COVID-19 and very little physical travel as the majority of meetings have been virtual).
HUM.13	Global sourcing and recruitment offshoring	–	–	1 699 000	–	–	–	1 699 000	Team relocated to Budapest. Use of United Nations volunteers: access to prequalified profiles. Forward-looking: use of innovations, such as artificial intelligence, in screening and matching processes.
HUM.14	Flexible working arrangements	–	–	–	–	–	–	–	Development of teleworking: better work–life balance, reduced stress and decrease in sick leave. Direct cost savings (building management).

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
HUM.15	Power BI dashboards, Sharepoint sites for human resource transactions		–	–		–		–	Power BI dashboard to be created for enhanced and monitoring of human resource transactions. Sharepoint sites established to facilitate information sharing for major initiatives.
Total		600 000	747 167	2 934 984	705 500	882 500	693 000	6 563 151	
Stream: information management and technology (IMT)									
ICT.1	Online electronic workflow for initiating and approving supporting documentation and requests				17 308	16 166	16 166	49 640	Faster, traceable, confidential and mobile path to approvals. Paperless process reduces costs and environment footprint. Essential for the continuity of operations during the pandemic.
ICT.2	eSignature implemented; electronic signature platform for legally binding contracts with partners and suppliers								Accelerates the contract signature process with secure creation, routing and exchange of signatures. Supports the continuity of operations during the pandemic.
ICT.3	Microsoft 365 and Zoom solutions for productivity, communications, collaboration, meeting and events	250 000	250 000	250 000				750 000	Reduction of cost for in-house infrastructure and support. Improved user experience and productivity. Reduction of telephony and meeting costs. Essential for the continuity of operations during the pandemic. Increased opportunities for participation and inclusion in governing body meetings, conferences and events.
ICT.4	Conducted a competitive bidding process for mobile services	800 000	800 000	800 000				2 400 000	Increased data capacity for users. The savings are reflected as reduction in monthly invoices from the service provider and passed on to business units who pay for mobile services for their staff personnel.
ICT.5	Expansion of synergy-managed desktop environment to Regional Office for Africa (in addition to existing usage in other regional offices and at headquarters)								Standard configuration for lower management overheads, faster deployment of hardware and software and better security. Better user experience, with a consistent user interface globally.
Total		1 050 000	1 050 000	1 050 000	17 308	16 166	16 166	3 199 640	

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
Stream: Logistics									
LOG.1	Outsourcing facility management function								By outsourcing this function, WHO headquarters was able to realize a number of benefits: reduction in fixed term staff or repurpose them to fill other functional gaps; lower operational costs and reduced overhead expenses; access to skilled resources and hiring of the right talents; increased productivity and efficiency by acquiring the right specialized knowledge and experience; savings on the cost of investment in infrastructure and technology; and reduction of risks and shifting them to commercial service providers.
LOG.2	Relocation of fleet management positions to Budapest from Geneva	233 500	183 500	183 500				600 500	
Total		233 500	183 500	183 500	–	–	–	600 500	
Stream: Procurement									
PRO.1	Deployed self-service tool for purchase order closure				63 882	63 011	63 011	189 904	This tool enabled an automated and more efficient process.
PRO.2	Efficiencies in Contract Review Committee process					157 500	157 500	315 000	Policies and procedures around Contract Review Committee are being reviewed with a view to focusing on higher-risk procurement proposals and reducing case load, leading to a more efficient and risk-based approach to oversight on high-value procurement and to a reduction in Review Committee secretariat time used on reviewing and summarizing cases.
PRO.3	Joint request for proposal with the ILO for personal computing equipment; preferential long-term agreement (result of competitive bidding process) for the supply of standard personal computers and accessories globally			157 000				157 000	The annual discounts under the long-term agreement are applicable upon reaching a cumulative procurement value across all agencies. Overall, WHO procured US\$ 17.10 million worth of IT equipment (laptops, computers and related accessories) through joint tender n 2020–2021 and estimated savings of US\$ 157,000 approximately under this United Nations collaboration, plus time savings.
PRO.4	Screening of applicants to vacancy notices outsourced								Pre-screened “long” list provided within three to five working days of the closure of the vacancy notice. Fees renegotiation in light of a United Nations agency existing long-term agreement and revised volume at the end of pilot period.

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
PRO.5	21 counts of WHO long-term agreements established through piggybacking from other organizations				79 500	106 750	106 750	293 000	Supply department engaging in collaborative procurement initiatives with other UN agencies and by piggybacking on long-term agreements, most recently on a sister agency long-term agreement for e-Vehicles, as well as in approach to development and management of emergency health kits.
PRO.6	54 WHO long-term agreements established or in process via UN joint tender				79 500	106 750	106 750	293 000	Supply department engaging in collaborative procurement initiatives with other United Nations agencies and by piggybacking on long-term agreements, most recently on a sister agency long-term agreements for e-Vehicles, as well as in approach to development and management of emergency health kits.
PRO.7	Automation of centralized purchase order processing				17 308	16 166	16 166	49 640	Reduce and automate repetitive processing tasks in purchase order creation.
PRO.8	Development of standardized kits with medicines and medical supplies to meet different health needs in humanitarian emergencies								The following are examples of increasing effectiveness of supply services with the implementation of new and revised standardized health kits containing life-saving commodities, which provide a bundled modular response to support health care systems. Efficiencies have been achieved with similar staff capacity and related costs for WHO, avoiding increases in logistics, assembly, storage and distribution costs, while improving forecasting, reporting and distribution of supplies in response to health emergencies. The Interagency Emergency Health Kit has been procured 23 times more often when compared with 2020, and even more compared to 2019; while the requesting countries are almost the same, the large increase reflects the more aggravated emergency context. The pneumonia kit was launched in late 2020 and in 2021 provided medicines to treat 114 300 cases of pneumonia, of which 68 500 cases were among children less than 5 years old. The Trauma and Emergency Surgery Kit was launched in 2019 and is now a widely adopted resource, used to support about 63,000 patients requiring surgical care in emergency situations, assuming an average of two operations per patient. The Paediatric Kit was launched in late 2020 and in 2021 supported treatment for about 180 000 hospitalized children and about 82 000 children visiting outpatient services or mobile clinics. Other recently released kits procured in 2021 to support the treatment of chronic disease patients in emergency settings include the Noncommunicable Diseases Kit 2017 (1774 procured of any of the five different modules) and the recently revised cholera kit 2020, used to tackle outbreaks of cholera in Africa and Middle East (2550 orders of any of the 15 modules).
PRO.9	Director, Procurement and Supply Services relocated in Budapest from Geneva			55 833				55 833	

Initiative	Detail	Cost savings			Time savings			Total	Qualitative detail
		2019	2020	2021	2019	2020	2021		
PRO.10	Procurement planning								Seeking economies of scale and process optimization by planning and grouping in advance.
PRO.11	Consolidation of all laptops requirements in the Regional Office for the Western Pacific to make bulk purchases								Western Pacific Regional Office consolidated the requirements for laptops and accessories of all budget centres so that the Information Technology Group can review and validate the requirements in one go for the year. The Supply Department then placed one order for the region. This is to avoid budget centres having to repeat the process, while ensuring regional oversight on IT procurement.
PRO.12	Establishment of long-term agreements for ongoing and recurring services in the Regional Office for the Western Pacific								Long-term agreements were established by the Regional Office for the Western Pacific for janitorial services, travel, pest control, counselling, customs clearance. This is to save time and efforts in doing each separate process whenever the need arises. The process is more efficient.
Total		–	–	212 833	240 190	450 177	450 177	1 353 377	
Grand total		34 315 250	39 626 855	26 227 067	1 223 644	6 354 302	6 164 802	113 911 920	