

Update on the infrastructure fund

Update on information management and technology

Report by the Director-General

1. The present report responds to the request in decision WHA70(16) (2017)¹ for reporting to the Board at future sessions both on the implementation of the infrastructure fund and on the financing of the fund,² and to the request of the Programme, Budget and Administration Committee of the Executive Board that the Secretariat provide further updates on progress in information management and technology.³

THE INFORMATION MANAGEMENT AND TECHNOLOGY STRATEGY 2020: PROGRESS REPORT

2. In 2020, the Secretariat provided a revised strategy that is aligned with the Thirteenth General Programme of Work, 2019–2023. The **vision** was to use information technology to the maximum advantage in order to innovate, collaborate and transform the Organization for a healthier world. The **mission** is to connect and empower people, automate and optimize a digital World Health Organization so that it can achieve its strategic goals.

3. The strategy is focused on **eight key result areas**. Despite the pandemic of coronavirus disease (COVID-19), the Secretariat has maintained its progress and pursued these areas:

(a) **Data and analytics:** increasing focus was seen on data collection, aggregation, validation, and visualization through information technology initiatives on health and corporate programmes. Machine learning, artificial intelligence and bots are gradually becoming part of the solutions being implemented. Additionally, there is strong collaboration with the Division of Data, Analytics and Delivery for Impact to strategically approach one source of data through a single repository.

(b) **Innovation and digital transformation:** the Secretariat provisioned the budget from the infrastructure fund⁴ and launched a LEAD innovation challenge internally among staff which aims to create a collaborative environment to stimulate, steer and sustain innovation in an

¹ See document WHA70/2017/REC/1, p. 69.

² For information on a separate report considered by the Executive Board at its 148th session in January 2021, see document A74/9.

³ See document EB140/5.

⁴ See document EB146/40.

integrated way at WHO. Initiatives submitted and worked on globally have demonstrated a culture of innovative thinking and promoting new ways of working.

(c) **Mobile platforms:** work has been carried out to streamline the publication of mobile applications and the Secretariat has presence on the two major application stores. A global initiative was started to manage mobile devices as a global service. A number of mobile-friendly applications have been deployed, but it is recognized that more work is needed in developing an approach for a “mobile-first” strategy.

(d) **Advisory and consultancy:** a Business Relationship Management team was established to bridge the gap between business needs and technology. Apart from capturing business requirements and delivering solutions, the Department of Information Management and Technology has been providing advice and consultancy through business process optimization, and leveraging current tools to improve operational work.

(e) **Applications platforms and services:** the Secretariat is continuing the adoption of cloud-based technology. While evaluating technologies for the development of digital workplace and information management systems, cloud-based systems are preferred over those running in data centres on premises.¹ Further, even among cloud-based systems, software that can be acquired as ready-to-use subscription² is preferred over those that have to be installed and maintained by internal teams.³ This has helped with the rapid deployment and scaling up of new applications, and to gradually shift the focus of staff from managing complexities of maintaining infrastructure to delivering business capabilities.

(f) **Internal capabilities and staffing:** the organization of information technology services went through a transformation exercise and a revised structure was put into effect in January 2020. The following teams were established and focused on their respective areas:

- *Business Relationship Management:* business process and requirements
- *Chief Technology Office:* architecture, application and information management, information technology operations, and user support
- *Cybersecurity:* identification, prevention, detection, protection and response to cyberattacks
- *Frontier Technologies and Data:* innovation and technologies to manage data
- *Project Management Office and Governance:* solution delivery whilst adopting a project and change management approach

Moreover, the Secretariat established agreements and continues to work with trusted partners to be able to bring in skilled and competent resources relatively faster. This allows for quicker project start-up times and is one of several factors in reducing project duration.

¹ A strategy also known as “cloud first”.

² Software-as-a-Service (SaaS).

³ Platform-as-a-Service (PaaS) and Infrastructure-as-a-Service (IaaS).

(g) **Cybersecurity:** the Secretariat presented to the Executive Board at its 148th session an update on the cybersecurity programme, which was also discussed during the thirty-third meeting of the Board's Programme Budget and Administration Committee.¹ The Secretariat was encouraged to make further investments in order to respond more effectively and swiftly to cyberattacks.

(h) **Governance and processes:** the governance process is in place to review global strategic investments in information technology through the global IT Steering Committee. More work is needed to achieve full portfolio management which will include small- and medium-scale information technology initiatives across the Organization that are governed separately. As funding and resources are limited, it is important to have a full picture of business-as-usual change initiatives ("run the business") and strategic projects ("change the business"), and to allow for better prioritization.

IMPACT OF THE COVID-19 PANDEMIC

4. Since the declaration of the COVID-19 pandemic, the Secretariat has shifted quickly to new ways of working and has leveraged technology to support the response. As the majority of staff members are working from home over prolonged periods, previous decisions to implement cloud-based email and collaboration services for a digital workplace enabled a relatively seamless transition that ensured staff could continue to work from anywhere. Rapid deployment of a number of additional services for virtual meetings, electronic workflow and electronic signature made it possible for staff to work and collaborate with each other and continue the work of the Organization.

5. The Secretariat simultaneously worked on 37 projects in 2020, including emergency-related initiatives to support the pandemic response. By the end of the year, 20 projects had been completed.

6. Faced with the need to deploy new solutions as a matter of urgency, due consideration is given to cybersecurity during the selection and implementation of solutions. Risk assessments and penetration tests are carried out before systems and applications are rolled out for general use.

7. On top of this work, a number of entities collaborated with the Secretariat to provide solutions that generated over 26 engagements and led to some 47 initiatives, most of them headed by health programmes. Overall programme coordination and reporting was performed by the Department of Information Management and Technology.

8. It is not uncommon during emergencies for demand for new solutions to increase significantly. There is a desire to use new technologies and roll out tools quickly, but not all proposals bring medium- to long-term value. Notwithstanding the need for speedy delivery, a light-weight business case should be introduced to review and assess business value. This approach will also take into account the actual investment needed by the Secretariat to build new capabilities, such as platforms, skills and competencies, and identify a funding model for recurring costs in the long run.

9. The time involved in launching projects during pandemic conditions could also be shortened. Some of the lessons learned include the need for: clear minimum requirements for initiating the work; high availability of experts to work in an agile manner; and early access to funding sources in order to establish commercial agreements if required.

¹ See documents EB148/5 and EB148/30.

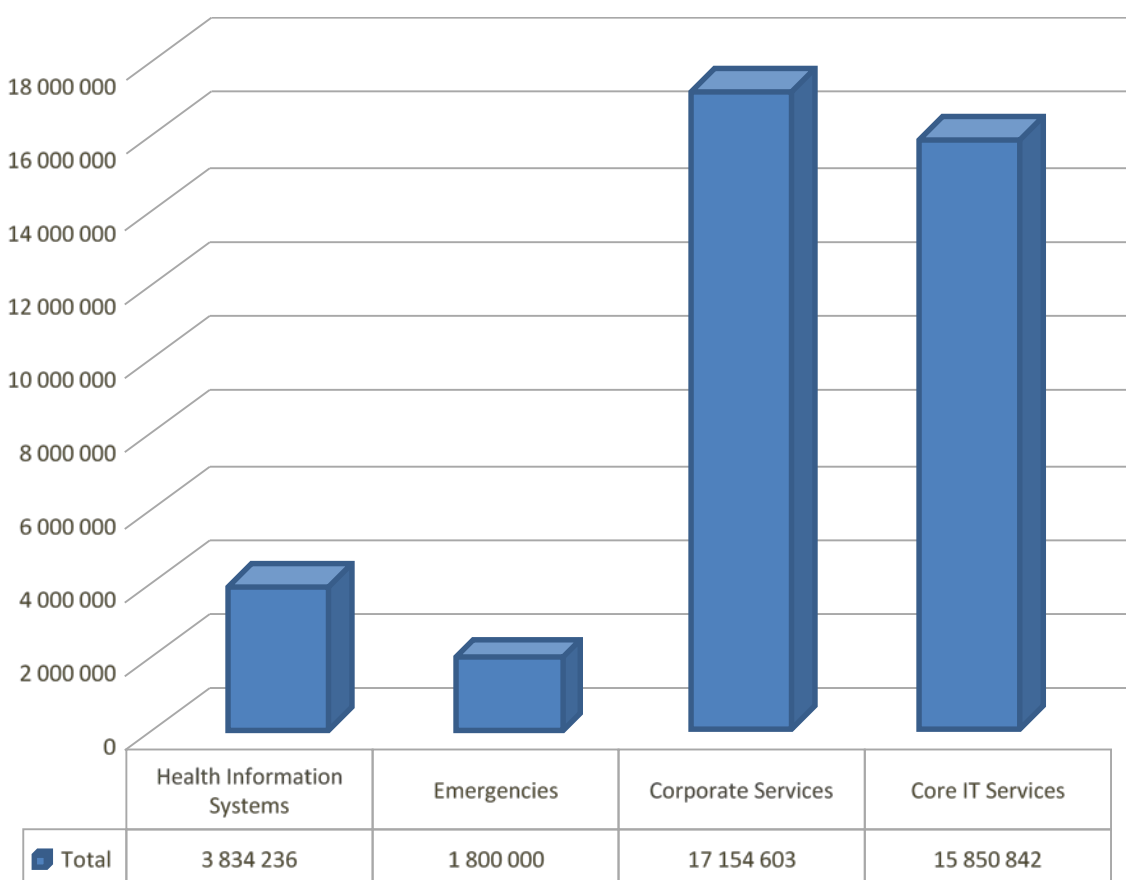
10. Prioritization and coordination could also be improved as both financial and human resources are limited. Pre-approved initiatives which are considered low-value or not time-sensitive could be de-prioritized to accommodate more urgent needs during emergencies.

UPDATE ON THE INFRASTRUCTURE FUND: INFORMATION TECHNOLOGY INVESTMENTS

11. Since 2017, 61 proposals have been received with a total estimated cost of US\$ 59.6 million, of which 55 have been approved, with a total approved value of US\$ 38.63 million (see Fig. 1).

12. A significant amount is allocated to both corporate and core information technology services in order to: adapt current systems and tools in supporting business operations; support the cybersecurity programme; strengthen the public website used globally, especially during the COVID-19 pandemic; initiate work on data and analytics; and launch implementation of the customer relationship management platform. Furthermore, significant investment in information technology infrastructure was needed to prepare the new headquarters building for occupancy.

Fig. 1. Total amounts approved by the Information Management and Technology Steering Committee for proposals in 2017–2020 in four areas



13. The balance of the information technology component of the Infrastructure Fund as at end-February 2021 is set out in Table 1.

Table 1. Balances and commitments of the information technology component of the Infrastructure Fund

Total income received since 2017	US\$ 41.10 million
Commitments made from 2017 to February 2021	US\$ 38.63 million
Uncommitted balance of the IT component of the Infrastructure Fund	US\$ 2.47 million

14. Over the four years, the pace of investment has been steady and consistent. The corollary to this achievement is the fact that the Secretariat is incurring additional operational costs that will have to be sustained for years to come. We have reached a point where the pace of investment is poised to overtake the speed and ability to financially support recurring costs.

15. As per decision WHA70(16), the infrastructure fund was designed to fund strategic investments in information technology. It is not meant to finance recurring or operational costs. The Independent Expert Oversight Advisory Committee has recommended that an overall review of the Organization's spending on information technology should be undertaken as part of the overall planning cycle. This review should consider both the costs of running the Secretariat's business and all information technology change initiatives.

16. The Secretariat has started discussions regarding sustainable funding for recurring costs of corporate systems. Factors such as the size of the portfolio of legacy systems, the size of the total WHO workforce, and the increasing use of cloud-based technologies (priced at named user per month/year), create an opportunity to review the way information technology services are costed and funded.

UPDATE ON KEY STRATEGIC INITIATIVES

17. **Next generation of the Global Management System (GSM).** The Global Management System Programme Board was established in early 2020 to govern the programme implementation of the new enterprise resource planning system. The project is estimated to cost around US\$ 70 million. The system for programme management is expected to be implemented in 2022, whilst the core enterprise resource planning module (which includes human resources, finance and procurement) is expected to be delivered in 2023. In order for the Secretariat to remain flexible and agile in the light of ever-changing business needs, whilst being mindful of recurring operational costs, cloud-based technology is preferred and customization in the new Global Management System will be avoided. The Secretariat will leverage other lower-cost cloud technologies, such as intelligent business process management systems and low-code platforms, to address its specific requirements.

18. **Customer relationship management.** In December 2019, the global IT Steering Committee approved the implementation of the customer relationship management platform for WHO. The first two-mover projects are namely: (a) contribution engagement management; and (b) pre-qualification of medical products. These are expected to be implemented in 2021. The cloud-based technology platform for the two projects provides a foundation for the Secretariat to deliver customer-facing information technology solutions in a relatively faster, standardized, consistent and secure manner.

19. **Digital transformation of WHO products content and services.** The Secretariat is working to facilitate the production and delivery of digitalized products, content and services. Several initiatives

have been launched in the area including the work on smart guidelines, health bots, artificial intelligence, mobile applications, and other innovations using frontier technologies. Moreover, there is strong collaboration between the departments of information management and technology and digital health and innovation to advance the work on digital transformation.

ACTION BY THE HEALTH ASSEMBLY

20. The Health Assembly is invited to note the report.

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