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**Programme, Financial and Administrative Section**  
*Programme, Financial and Administrative Segment*

**PFA**

## FOR INFORMATION

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## Progress report on the implementation of the Information Technology Strategy 2018–21

**Summary:** At its 331st Session (October–November 2017), the Governing Body approved the ILO's Information Technology (IT) Strategy for the period 2018–21. The IT Strategy 2018–21 established outputs, key deliverables, indicators and targets for three outcomes identified in the Strategy. The Office provides an update of progress on an annual basis. This paper covers the second year (2019) of the Strategy period.

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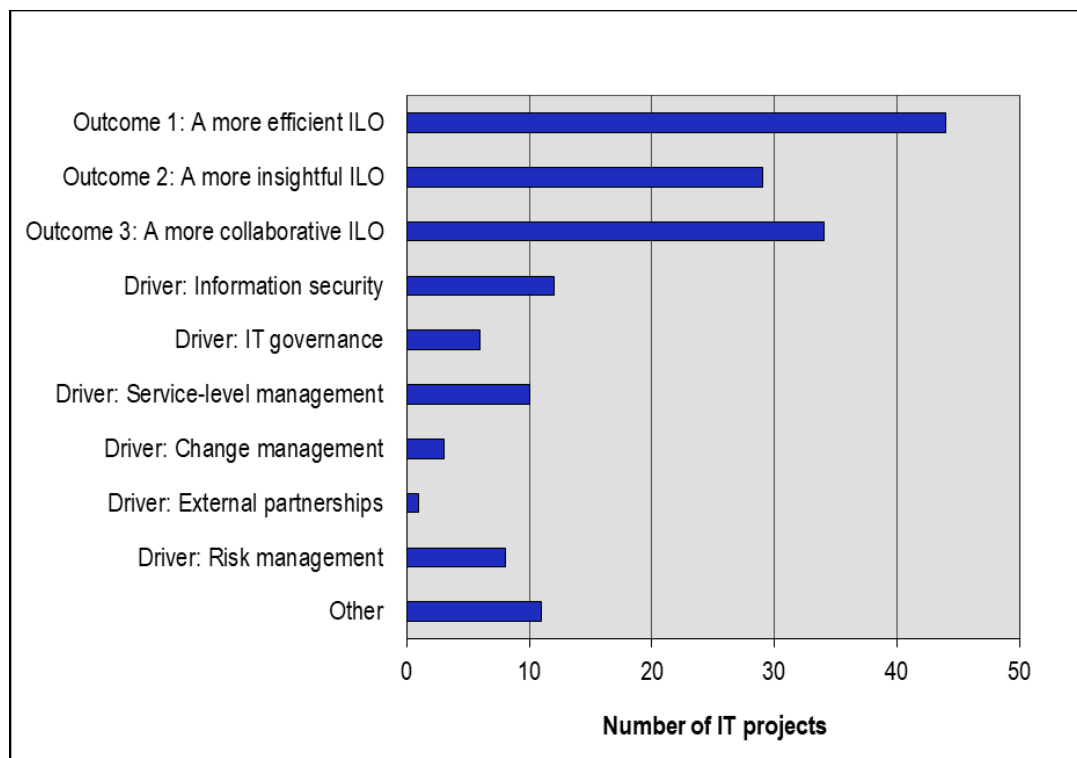
**Related documents:** GB.331/PFA/5; GB.334/PFA/3.



## Introduction

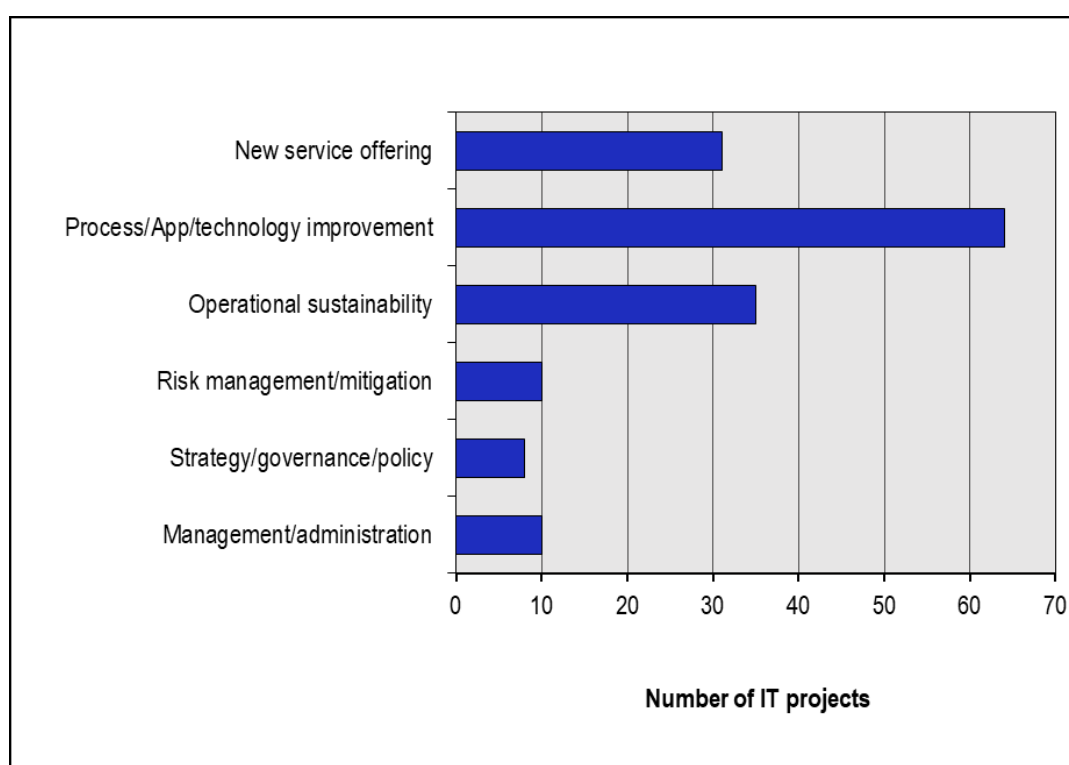
1. The Information Technology (IT) Strategy 2018–21 (IT Strategy)<sup>1</sup> established a vision and road map to leverage rapidly evolving technologies to more effectively support the delivery of Office-wide reforms, strategies and initiatives. Underpinning the IT Strategy is the delivery of a modern digital workplace. The IT Strategy is structured around three outcomes and six cross-cutting drivers.
2. The Office has made measurable progress towards achieving the outcomes identified in the IT Strategy. A total of 158 projects commenced in the second year (2019) of the IT Strategy, of which 121 have been completed. This represents a 50 per cent increase in projects compared with the first year of the IT Strategy (2018), reflecting the increased role of technology in helping the Office to deliver on its mandate; innovate; improve its working methods; and reduce costs through streamlined and automated processes. The 37 pending projects are at various stages of implementation and will be completed in early 2020; all 158 projects are listed on the [INFOTEC web page](#).
3. Of the 158 projects commenced in the second of the Strategy, 96 (60 per cent) focused on providing value-added services to benefit staff and constituents by way of new service offerings or major improvements to existing services. The figures below provide a breakdown of the projects carried out in 2019.

**Figure 1. IT Strategy 2018–21 – 2019 workplan – IT projects by outcome/cross-cutting driver**



<sup>1</sup> [GB.331/PFA/5](#).

Figure 2. IT Strategy 2018–21 – 2019 workplan – IT projects by category



4. This progress report provides an overview of the key IT projects delivered in 2019, grouped by IT Strategy outcome and cross-cutting driver.
5. Progress against outcome indicators is reported on a biennial basis. The report for the period covering 2018–19 can be found on the public website.<sup>2</sup>

### Strategy outcome 1: A more efficient ILO

6. Outcome 1 of the IT Strategy highlighted the need to leverage advances in technology in order to better support users of the ILO's IT services in their daily work, with the goal of improving staff productivity, morale and work–life balance.
7. To achieve the expected benefits of outcome 1, targeted outputs focused on strengthening mobile working, reducing administrative overheads and costs, enhancing and modernizing ILO applications, improving the user desktop experience and ensuring the high availability of IT services. Specific emphasis was placed on improved accessibility and reliability of IT services in the field.
8. In relation to IT services “on the go”, Wi-Fi was installed in the northern third of the ILO building in Geneva in September 2019 for floors 1–11. ILO staff in Geneva can now access the same IT services that are available at their desk in all areas of the building covered by Wi-Fi, such as meeting rooms, conference rooms and in any renovated office at headquarters.

<sup>2</sup> IT Strategy – 2018–19 indicators.

9. Competitive bidding for hosting the Integrated Resource Information System (IRIS) was also completed in 2019 and IRIS will be migrated to a new hosting provider in early 2020. Improved global service levels and performance at a lower cost are anticipated with the new provider.
10. With regard to a more enriched and secure desktop experience, all ILO staff were upgraded to the latest version of the Microsoft Office Suite in 2019. In addition, staff at headquarters were migrated to the Microsoft Windows 10 desktop operating system, resulting in improved performance, usability and security for users of the ILO's IT services. Staff in external offices will be migrated to Microsoft Windows 10 in 2020.
11. The Office has implemented a new contract with the ILO's mobile phone provider. New mobile subscription plans deliver comparable levels of coverage based on a flat monthly fee. New functionalities provide better cost-control features and alert staff to potential cost increases associated with roaming.
12. The infrastructure underpinning the ILO's network was upgraded during the third phase of the Building Renovation Project at headquarters, including components to support the future rental of office space.
13. The ILO's video-streaming infrastructure was replaced in the Governing Body Room, making it possible to stream (and record) higher definition video and audio in various formats. In addition, a more user-friendly "self-service" capability was made available for ILO units to directly access recorded streams and post content on their various websites.
14. In relation to more "fit for purpose" applications, a number of solutions were delivered during the reporting period. A significant milestone was achieved with the completion of the ILO's worldwide roll-out of IRIS, which concluded with the implementation of the full suite of IRIS financial modules to 13 external offices and 2 project offices in Africa.
15. A new Staff Health Insurance Fund (SHIF) online self-service application was implemented in February 2019, reducing administrative overheads, increasing awareness of the status of claims and decreasing paper, printing and postage costs. The results of a recent staff survey indicated that 87 per cent of staff were satisfied with processing their SHIF claims online. The roll-out of the application to ILO retirees is scheduled for release in early 2020.
16. In 2018, the ILO Business Process Review (BPR) recommended a number of process efficiencies and cost-saving initiatives that could be realized through the automation of onerous manual processes or by replacing and modernizing no longer fit-for-purpose applications. In support of BPR recommendations, the following major IT applications were delivered in 2019.

Department	Application
FINANCE	ILO resource-tracking
HRD	e-Recruitment; Carte de Legitimation renewal; education grant claims
RELMEETINGS	Meetings/events management; interpreters enrolment and mass hire; document templates
DCOMM	Digital assets management
INTSERV	Print and publishing management; travel planning; inventory of gifts
NORMES	Document repository and document templates for the Committee of Experts on the Application of Conventions and Recommendations and the Committee on the Freedom of Association

**Strategy outcome 2: A more insightful ILO**

17. Outcome 2 of the IT Strategy highlighted the need to enhance the organization, structure and dissemination of ILO data in order to provide better informed decision-making, more accurate and timely reporting and improved overall operational effectiveness.
18. To achieve the expected benefits of outcome 2, targeted outputs focused on exploiting big data, building data warehouses, developing personalized dashboards for staff and managers, and implementing modern electronic records and web content management systems.
19. Several new reporting dashboards were implemented in 2019, designed to expedite management decision-making in support of both administrative and substantive work through the aggregation, correlation and visualization of data. Areas of focus included travel, finance, project evaluation and procurement.
20. Of particular importance was the release of the ILO Managers' Dashboard pilot, which brings together content from key ILO systems and key performance indicators to help managers proactively plan and monitor activities and resources associated with staffing; budgets; projects; travel; leave; performance management; recruitment; and other key areas of work under their responsibility. At the conclusion of the pilot, the ILO Managers' Dashboard will be released to all ILO managers.
21. To improve and promote the use of ILO data and content, a new semantic web-based tool was implemented to better manage the ILO's thesauri, taxonomies and master data. It also provides the capability to generate an integrated view of ILO data and existing knowledge objects.
22. To enhance and improve actionable business intelligence, a dashboard with reports and access to financial data was provided to the Financial Management Department (FINANCE). The Office can now reconcile its accounts and evaluate the utilization of funds more effectively.
23. To promote resource transparency, the ILO provided its most recent (2018–19) financial data to the International Aid Transparency Initiative (IATI). The IATI data standard is widely recognized by over 800 organizations, with the goal of improving the transparency of aid, development and humanitarian resources in tackling poverty. The ILO's IATI datasets also include linkages to the Sustainable Development Goals (SDGs) and flagging of ILO projects supporting humanitarian objectives.
24. The ILO Database of Labour Statistics (ILOSTAT) and the ILO's Department of Statistics (STATISTICS) public website were integrated and modernized to provide improved, contextual access to country profiles; key topics; statistical briefs; guidelines and methods; labour force survey resources; statistical databases; and other resources that support member States and researchers.
25. A chatbot tool was developed to track ILO training beneficiaries and capture information about their pretraining expectations, the vocational training received and the post-training results, in particular whether or not they were able to attain employment. The goal of this tool was to aid the Office in designing vocational training programmes that are more closely aligned with the expectations of those being trained, thereby making technical and vocational education and training institutions more effective in countries of intervention.

26. To better manage enterprise content, a new ILO Digital Repository was implemented to collect, preserve and provide free access to a comprehensive collection of ILO publications; ILO books; flagship reports; research outputs; journal articles; working papers; bulletins; official Governing Body and International Labour Conference documents; and Regional Meeting and other documentation issued since 1919. The new Repository stores and preserves institutional assets in digital form, making them easily accessible to the public, constituents and staff for search and retrieval. Improvements have also been made to provide access to electronic journals and other subscription-based materials for external ILO offices.
27. In addition, digital photos, videos, historical documents, memorabilia and other digital tools were developed to support ILO Centenary initiatives. Of particular note was the creation of the ILO historical documents collection and the digitization of Governing Body documents issued prior to 1960.

### Strategy outcome 3: A more collaborative ILO

28. Outcome 3 of the IT Strategy highlighted the need for staff, constituents and social partners to leverage advances in technology in order to more freely exchange ideas, work in virtual teams, and collaborate and communicate at a high level to effectively deliver on the ILO's mandate in an increasingly complex, connected and digital world.
29. To achieve the expected benefits of outcome 3, targeted outputs focused on delivery of fully integrated digital products to better support knowledge-sharing, teamwork, communities of practice, targeted communications through social media and other channels, video streaming, videoconferencing and other messaging services.
30. In support of this outcome, ten ILO Intranet SharePoint sites were implemented to facilitate better internal communications. In addition, a new website (ILO 100) was launched to mark the ILO Centenary and provide the general public with an immersive, multimedia journey through the ILO's past, present and future.
31. As the lead agency, the ILO partnered with other stakeholders in overseeing the development and enhancement of several public-facing websites designed to achieve ILO goals through peer-to-peer collaboration, advocacy and knowledge-sharing. The following websites were enhanced or implemented in 2019.
  - **Global Slavery Observatory (GSO).** This website serves as a public knowledge hub for the GSO database, consisting of a collection of data on relevant laws and policies and the prevalence of forced labour and trafficking in ILO member States. The goal of GSO is to leverage and influence policy action on these issues.
  - **Decent Jobs for Youth (DJY) Knowledge Platform.** DJY is the global initiative to scale up action and impact on youth employment under the SDGs. It builds upon the existing DJY website and provides a space for policymakers, practitioners and the global development community to collaborate, share knowledge and find innovative ways to improve labour market outcomes using evidence-based strategies and interventions.
  - **Alliance 8.7 (release 3).** Alliance 8.7 is the digital platform for engaging member States and the general public on effective measures to eradicate forced labour, modern slavery, human trafficking and child labour, in accordance with target 8.7 of the SDGs. The latest release makes it possible for member States and the general public to register as participants and participate in the dialogue.

- **Equal Pay International Coalition (EPIC) (release 2).** This Coalition's goal is to achieve equal pay for women and men everywhere, in accordance with target 8.5 of the SDGs. By bringing together a diverse set of actors with different areas of focus and expertise, EPIC supports governments, employers, workers and organizations in making concrete and coordinated progress towards this target. The latest release of EPIC provides language support in French and Spanish.

## **Synergies and cross-cutting drivers**

### ***Information security***

32. Protecting information in interconnected digital processes that link the supply chains of multiple public and private stakeholders is important for the ILO. In order to maintain the trust of implementing partners, the Office established baselines for compliance with data protection requirements, transparency and the quality and integrity of data exchanged with third parties. High-level principles for personal data protection have been defined and integrated into ILO internal policies, procedures and work practices.
33. Information security management processes at the ILO were audited and retained their certification as compliant with the international standard ISO/IEC 27001. To maintain this certification, the Office aligned its information security management process with the ILO enterprise risk-management process.
34. Cybersecurity risk has been identified as one of the top strategic risks at the ILO. To contribute to international efforts to address cybersecurity risk factors, the Office actively participated in multi-stakeholder forums organized by the United Nations (UN) and member countries, such as the Internet Governance Forum and internal UN system inter-agency forums.
35. The Office expanded its inter-agency collaboration activities in the areas of threat intelligence exchange, situational awareness-reporting and cybersecurity incident-reporting, through coordination with the UN International Computing Centre and its external public and private partners.
36. During 2019, nearly 1 million computer viruses were detected and blocked on the ILO's IT systems. While the majority were contained by automated protection systems, manual intervention was required in more than 1,000 cases. Thanks to near real-time detection supported by a 24/7 security operations centre, the response time for reported incidents was under four hours (on average) and the potential impact on operations was minimized to acceptable risk levels; 33 digital forensic examinations were also carried out in 2019.

### ***IT governance***

37. The Project Governance and Management Services Unit (PGMS) within INFOTEC worked closely with ILO business units to clearly qualify, quantify and link the contribution of proposed IT initiatives to the achievement of specific business outcomes and outputs. Increased involvement at the portfolio level resulted in improved priority-setting and long-term commitment to funding IT initiatives; 18 proposed IT initiatives of departments or offices were vetted by the PGMS in 2019.
38. Following BPR recommendations on improving the IT governance process, the PGMS implemented the following four quantifiable key performance indicators (KPIs) to measure the effectiveness of the IT project proposal process:



- time elapsed between the submission of the request for an IT initiative and the assessment of the PGMS;
  - actual versus agreed-upon time to calculate the total cost-of-ownership estimation and complete other necessary documentation;
  - percentage of submitted, costed business cases that resulted in approval, deferral or rejection by the Information Technology Governance Committee (ITGC);
  - percentage of request for an IT initiative discarded at the first INFOTEC assessment phase.
39. Having assessed 41 proposed IT initiatives against the KPIs, baselines were established for each of them in July 2019. Progress will be measured on an annual basis and results published in the future.
40. With the rate of change in technology, the focus on innovation and the external factors that require the Office to respond in a more agile and efficient manner to constituents, the ITGC decided to review, approve and prioritize IT projects on an annual basis. In preparation for the annual review, ILO portfolios were required to prioritize their IT project requests and ensure that funding was available prior to submission to the ITGC.
41. The ILO's IT Governance Framework was expanded to include the Office of the Director-General (CABINET) and the Department of Communication and Public Information (DCOMM) as standing members. The Information Security and Assurance Services Unit (ISAS) was also included as an advisory subcommittee to the ITGC to ensure that proposed IT initiatives comply with the ILO's IT and information security architecture, policies, processes and standards. More details on the functions and roles of ITGC members and advisory subcommittees can be found in the ITGC Charter.<sup>3</sup>
42. The ITGC determined that owing to the increasing cyber risks associated with the digital landscape, all staff would be required to complete the ILO's Information Security Awareness Training Programme before accessing the ILO network and systems on their ILO PCs, laptops, tablets and smartphones. This training will be mandatory as of 2020.

### ***Service-level management***

43. INFOTEC captured and monitored KPIs for various IT services. The Service Desk tracked response and resolution times for incidents raised by headquarters and the regions, along with other indicators. Additional KPIs were also established for the fulfilment of application development and support requests, PGMS processes and information security and assurance functions, which are published on the INFOTEC Intranet.
44. Initial baselining and annual comparisons of indicators enabled INFOTEC to identify work areas that were candidates for process redesign. Areas targeted for improvement included problem and release management processes, as well as activities associated with tracking, assessing and costing IT-related projects.
45. The evaluation of KPIs for the procurement and shipping of IT hardware for new development cooperation projects revealed a need for INFOTEC to work more closely with the Partnerships and Field Support Department (PARDEV) to ensure that IT

<sup>3</sup> [ITGC Charter](#).

infrastructure requirements were explicitly identified early in the project proposal process. Going forward, this will ensure that such projects are sustainable and that associated institutional data is appropriately protected. It will also enable INFOTEC to better anticipate the acquisition of hardware so that IT equipment is ready for deployment when project staff are recruited.

46. INFOTEC intends to establish additional KPIs in the upcoming biennium in order to better assess known process bottlenecks and how best to address them.

### ***Change management***

47. INFOTEC worked closely with portfolios, departments and offices to ensure that the communication of major IT-related change initiatives was frequent and effective. Key communication events and training sessions were conducted throughout the year, whenever new applications and technologies introduced significant changes to underlying processes and ways of working.
48. The roll-out of remaining IRIS functionalities to external offices in Africa required extensive efforts to prepare and train users on new ways of working and influence attitudes toward change. This required stakeholder involvement, effective training and sufficient time to transfer and embed knowledge, since many functions introduced through IRIS required an increased understanding of end-to-end processes and the ability to adapt to a new IT system. A combination of advance planning, frequent communication, workshops, training sessions and dedicated, on-site, post-go-live support helped to ensure a positive change outcome during the roll-out. Approximately 420 days of workshops, training sessions and on-site support were completed in 2019 to ensure the successful roll-out of IRIS to Africa.
49. To strengthen skills and further build autonomy in the regions, a four-day global IRIS super user training workshop was held at headquarters in Geneva for 25 core finance staff from throughout the field.
50. Social engineering and phishing are among the most critical ILO cybersecurity risks. To address them, the Office conducted four information security awareness campaigns, with very positive results. Simulated phishing attacks targeted all users of ILO email, with 6.4 per cent of staff clicking on compromised links – a decrease of 54.6 per cent over 2018, when approximately 14.1 per cent of staff clicked on compromised links. With the ITGC decision to make the Information Security Awareness Training Programme mandatory for all staff, the Office anticipates that it will achieve its target of less than 5 per cent of staff succumbing to phishing attacks in 2020.
51. In support of an inter-agency initiative, the ILO held an exposition in October 2019, utilizing games, humanoid robots, fireside chats and other approaches to engage staff and raise the level of awareness of cyber threats in their professional and personal life. Presentations and discussions on how the ILO identifies and responds to cyber threats and risks were also organized for the Independent Oversight Advisory Committee, the ILO Risk Management Committee, ITGC and the ILO Decent Work Technical Support Team and Country Office for Central and Eastern Europe in Budapest, as well as for several other departments and offices at their request.
52. To ensure effective communication and knowledge-sharing with IT staff in the field, weekly information sessions continued throughout the year between INFOTEC and IT staff in the regions on a rotational basis. In the second part of 2019, INFOTEC also held

two virtual workshops in all three official languages to assist IT staff in the regions to plan for the IT changes in the pipeline for the next biennium.

53. To assist staff to transition to their new Windows 10 desktop environment, training courses were offered in English and French for staff at headquarters and six information sessions were held. Supporting user documentation was drafted and published in all three official languages. Training sessions were also held and briefing documents created for staff at headquarters to facilitate the transition to the new Swisscom mobile subscription plan.
54. INFOTEC worked closely with DCOMM to develop a new ILO branding strategy and vision for a new ILO public website to be implemented in 2020.

### ***External partnerships***

55. A number of ILO senior IT professionals participated in various UN committees, advisory boards and networks in 2019, including:
  - United Nations System Chief Executives Board for Coordination (CEB): Digital and Technology Network and Infrastructure Transformation Subgroup;
  - United Nations International Computing Centre: Management Committee and Advisory Group;
  - United Nations Enterprise Resource Planning Special Interest Group;
  - United Nations Disability Inclusion Strategy Working Group;
  - United Nations Information Security Special Interest Group;
  - United Nations Inter-Agency Telecommunications Advisory Group;
  - United Nations Library and Information Network for Knowledge Sharing;
  - High-Level Committee on Management of CEB: Working Group on Document Standards and Working Group on the Future of the UN Workforce.
56. The ILO also worked on a number of joint IT/information management initiatives with the World Health Organization, the United Nations Educational, Scientific and Cultural Organization, the United Nations Office at Geneva, the Food and Agriculture Organization of the United Nations, the World Intellectual Property Organization and others.
57. In support of the 2030 Agenda for Sustainable Development, the ILO Library partnered with the Cornell Law School Library and the Lillian Goldman Law Library at Yale Law School in providing IT and user support for the new Global Online Access to Legal Information web platform. In 2019, the ILO took ownership of managing new user registrations and providing help desk support.

### ***Risk management***

58. The ILO's IT risk register was updated in 2019. Each identified risk was subjected to an impact assessment to determine the probability and potential consequences of associated risk events. A number of remedial actions were implemented to ensure that any remaining risk was within acceptable levels (low/medium) for all 13 identified risks.

59. To reduce the risks associated with the use of obsolete or outdated software, a number of ILO systems were decommissioned or replaced in 2019. Of particular note are the introduction of templates used by the Official Meetings, Documentation and Relations Department (RELMEETINGS) and the International Labour Standards Department (NORMES) in the production of key ILO documents; the Financial Information System for External Offices (FISEXT); and other enterprise technologies used across the Office (such as Microsoft Office 2013, Windows 7, Visual Basic and Oracle Discoverer).
60. An emergency notification system was implemented to communicate with staff in the event of an unforeseen disaster or crisis impacting ILO headquarters premises.
61. In support of the IT Strategy, the Governing Body approved the use of the Information Technology Systems Fund to replace obsolete hardware and software underpinning essential ILO systems; carry out major technology upgrades; and resource new, strategic, large-scale IT initiatives. In that context, the Governing Body approved a 2020–21 biennial provision of US\$6.9 million in 2019 to address the most vulnerable IT infrastructure and systems in the ILO.
62. The Governing Body did not approve a funding request for the replacement of the ILO Intranet and the implementation of an Electronic Records Management System (ERMS) in 2019 and therefore, these two major initiatives will not be delivered during the 2018–21 Strategy period.
63. Without funding for full replacement of the ILO Intranet, progress towards a fully digital workplace as envisioned in the Strategy can only proceed on a very limited and piecemeal basis. Going forward, intranet sites can only be replaced for those departments or offices that are able to self-fund the replacement of their site. This fragmented approach to replacing the ILO Intranet will limit efforts to streamline communication, promote collaboration and improve knowledge-sharing.
64. Without funding for an ERMS, the Office will continue to rely on the storing of records in paper format or on network drives. Continuing with this primarily manual approach to records management makes it difficult for staff to search for documents and determine the final version since documents can be easily shared, modified or destroyed. Lack of an ERMS negatively impacts productivity, makes it difficult to comply with legal and regulatory processes, hinders knowledge capture and puts the ILO's history at risk. Funding an ERMS should be a top priority for the Office in the 2022–23 biennium.