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

Purpose of the document

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 establishes outputs, key deliverables, indicators and targets for the three outcomes identified in the strategy. The Office provides an update on progress on an annual basis. This paper provides an update on progress for the first year (2018) of the Strategy period.

Relevant strategic objective: None.

Main relevant outcome/cross-cutting policy driver: Enabling Outcome C: Efficient support services and effective use of ILO resources.

Policy implications: None.

Legal implications: None.

Financial implications: None.

Follow-up action required: None.

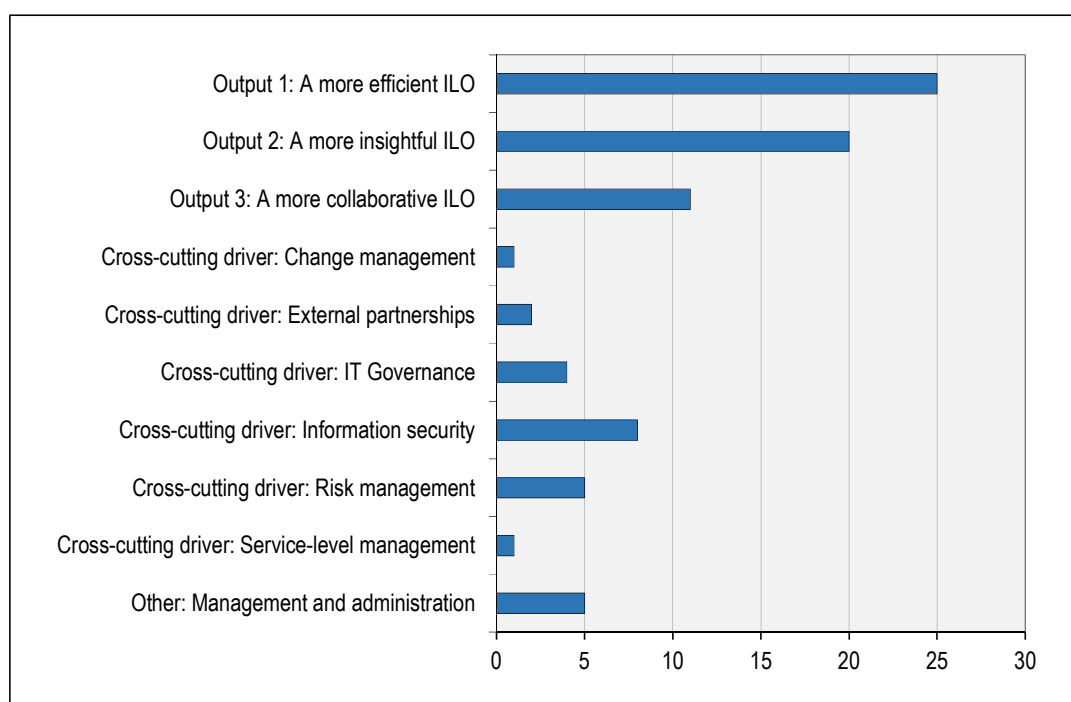
Author unit: Information and Technology Management Department (INFOTEC).

Related documents: GB.331/PFA/5.

Introduction

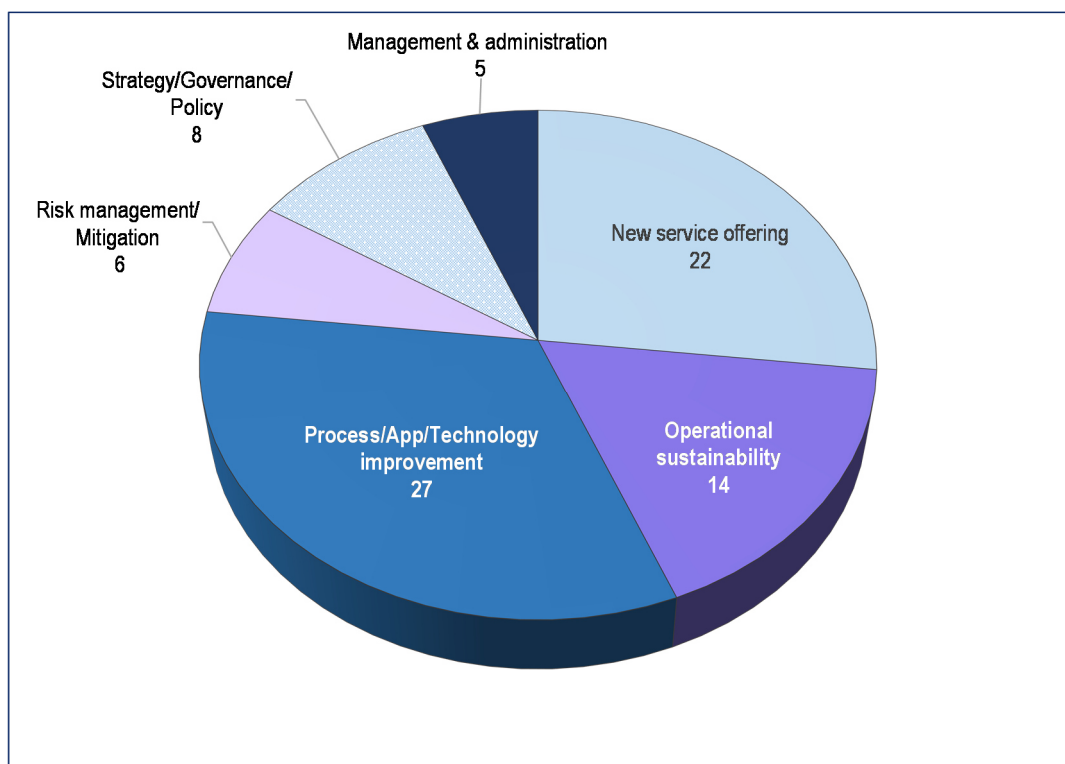
1. The ILO is in the first year of its four-year Information Technology (IT) Strategy 2018–21 (IT Strategy).¹
2. The IT Strategy established a vision and roadmap to leverage rapidly evolving technologies in the delivery of Office-wide reforms, strategies and initiatives. Underpinning the IT Strategy was the delivery of a modern digital workplace.
3. The ILO's Business Process Review (BPR) contributed to the framing of the IT Strategy.
4. The IT Strategy was structured around three outcomes and six cross-cutting drivers.
5. Over the first year of the Strategy period, the Office has made measurable progress towards achieving outcomes presented in the IT Strategy. Eighty-two IT projects in support of the IT Strategy outcomes will have been completed by the end of 2018. A list of these projects can be found on the INFOTEC website.² The following is a high-level summary of these completed projects, divided into: (a) Strategy outcome/driver; and (b) category:

Figure 1. Strategy outcome/driver



¹ GB.331/PFA/5.

² <https://www.ilo.org/public/english/support/itcom/index.htm>.

Figure 2. Category

6. This paper highlights progress made under each strategy outcome and cross-cutting driver.
7. Progress against outcome indicators will be reported to the Governing Body on a biennial basis (years 2019 and 2021).

Report on progress

Strategy outcome 1: A more efficient ILO

8. Outcome 1 of the IT Strategy highlighted the need for leveraging advances in technology to better support users of ILO IT services in their daily work, with the aim of improving staff productivity, morale and work-life balance.
9. 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 high availability of IT services. Specific emphasis was placed on improved accessibility and reliability of IT services in the field.
10. In conjunction with the ILO's building renovation project, the installation of a Wi-Fi network in the second third of the ILO building in Geneva was completed in February 2018 for floors 1 to 11. With nearly two-thirds of the building now Wi-Fi enabled, it is anticipated that the use of Wi-Fi will help reduce data and roaming charges for staff using either personal or ILO-provided mobile devices.
11. In support of mobile working, the Office released a new, secure application called "ILO Box" in March 2018. ILO Box is available for download on the Apple and Android App Stores for ILO officials. This application makes it possible for staff to access departmental

shared or individual user network drives over the Internet, anytime and anywhere. Files classified as sensitive or confidential can now be securely shared with ILO staff and constituents.

12. The Office has implemented virtual private network (VPN) technology that gives staff access to their Office desktop environment “virtually” from any PC, laptop or mobile device through an encrypted Internet connection. Applications that were only on the ILO network are now available when working remotely. When working on the go, traffic over the Internet is optimized to ensure the best performance possible. The ILO’s IT infrastructure in the field was also optimized to better support staff working in remote project locations.
13. New email anti-spam services for all staff were delivered in March 2018. These services filter out spam emails and quarantine them, instead of sending them directly to staff inboxes. Staff are then able to review their quarantined emails easily from a single location and then block, delete or release them at their leisure. Email archiving was also implemented to reduce the amount of older emails kept in inboxes. This speeds up access when staff are working on their emails remotely.
14. The ILO replaced all leased multifunction printers at headquarters in April 2018 with newer, fewer and more energy-efficient models, further reducing the ILO’s carbon footprint.
15. In conjunction with the replacement of printers, “follow-me” printing has also been implemented. This function allows users to release their print job from any printer connected to the ILO network in the building. Staff members determine when they want to print, scan or fax their documents by walking up to a printer, scanning their ILO badge and then selecting the document to print from their print queue. This ensures printing is confidential and eliminates the possibility of sensitive documents being left uncollected at the printer. If a printer is out of service, users can print their documents from any other available printer, without disrupting productivity. This also supports the greening of the ILO, as unwanted documents can be deleted from the print queue instead of printing automatically as before.
16. The ILO’s video streaming and recording infrastructure is currently being replaced. In the next few months, it will be possible to stream and record higher definition video and audio in various formats from a new fixed camera in the Governing Body room. A mobile station will also be available, which can be used to capture a video/audio feed from a hand-held camera. In conjunction with the new video streaming and recording infrastructure, a more user-friendly, “self-service” user interface will be available for ILO units to access the recorded video stream directly and post it to their various websites.
17. A number of manual, paper-based processes were automated and made available online for staff. These “self-service” applications make it possible for staff to access information and carry out work-related transactions/activities over the Internet 24 hours a day, seven days a week. Some of these key self-service applications are highlighted in the following paragraphs.
18. The education grant (claims) self-service application enables staff to submit their education grant claims online and track progress. Staff receive email notifications at various steps of the process and are notified when final payment is made through the Integrated Resource Information System (IRIS).
19. A new ORDIPRO self-service application allows staff members to request or renew their *carte de légitimation*. The application sends out electronic reminders to staff notifying them when their *carte de légitimation* is due for renewal. Staff can also update their personal data and data associated with their dependants, as well as upload copies of passports and photos. A final notification is sent to the staff member when their *carte de légitimation* has been

received by the ILO from the Permanent Mission of Switzerland to the United Nations Office and other international organizations in Geneva.

20. Staff will soon be able to submit their Staff Health Insurance Fund (SHIF) claims online. This will reduce administrative overheads and paper, printing and postage costs. Officials in the field, along with retirees, will particularly benefit from this new function, as they will no longer be required to physically mail invoices to headquarters, which results in unnecessary delays. Staff will also be able to view their entire claims history, current optical and dental credits and coverage period online. The SHIF claims self-service application is in the final phase of testing before acceptance and will be accessible to all staff by the end of 2018.
21. In 2018, the implementation of the IRIS financial modules to 12 external offices and five project offices in Asia was carried out in three waves, with the final wave of offices going live on 12 November. The rollout of IRIS continues to remain on schedule and within budget. The IRIS function has now been fully implemented in four of the five ILO regions, with implementation in the remaining offices in Africa planned for 2019.
22. The Office identified a number of efficiency and cost savings that could be made by automating onerous manual processes, or by replacing applications that are no longer fit for purpose. In this context, the following processes were identified as suitable for automation and are at various stages of implementation:

Department	Application
FINANCE	Results-based management (RBM) resource tracking
HRD	e-recruitment
RELMEETINGS	Meetings/events management
DCOMM	Digital assets management
INTSERV	Print and publishing production management
DDG/P	Global supply chains knowledge facility
NORMES	Computerization of the supervisory system *
* GB.331/INS/5 .	

Strategy outcome 2: A more insightful ILO

23. Outcome 2 of the IT Strategy highlighted the need to enhance the organization, structure and dissemination of ILO data to better inform decision-making, provide accurate and timely reporting, and improve overall operational effectiveness.
24. To achieve the expected benefits of outcome 2, targeted outputs focused on exploiting big data, building targeted data warehouses, developing personalized dashboards for staff and managers, and implementing modern electronic records and web content management systems.
25. Several reporting dashboards were implemented in 2018. These dashboards were designed to expedite management decision-making in support of both the administrative and substantive work of the Office through the aggregation, correlation and visualization of data. Areas of focus included travel, leave, project evaluations, project delivery, programme implementation reporting and RBM resource usage.
26. To promote resource transparency, the ILO provided its most recent (2016–17) financial data to the International Aid Transparency Initiative (IATI). The IATI data standard is widely recognized by over 800 organizations, with the aim of improving the transparency of aid, development and humanitarian resources in tackling poverty. ILO IATI datasets were

updated to include linkages to the goals of the 2030 Agenda for Sustainable Development (2030 Agenda) and the flagging of ILO projects supporting humanitarian objectives.

27. A number of steps were taken to improve access to core ILO content. These include digitalization of important historical documents, improved search capabilities and standardizing ILO metadata, taxonomies and thesauri. New search aids were also developed to help constituents and researchers locate difficult-to-find information in anticipation of the ILO Centenary.
28. Version 3.0 of the ILO Knowledge Management Gateway was released in April 2018, with several improvements. Users can now see data sources, which are continually updated. Navigation of the Gateway has also been streamlined and simplified.

Strategy outcome 3: A more collaborative ILO

29. Outcome 3 of the IT Strategy highlighted the need for staff, the constituents and the social partners to leverage advances in technology to more freely exchange ideas, work in virtual teams, and collaborate and communicate at a high level to deliver effectively on the ILO's mandate in an increasingly complex, connected and digital world.
30. To achieve the expected benefits of outcome 3, targeted outputs focused on delivery of fully integrated digital products to better support knowledge sharing, teamworking, communities of practice, targeted communications through social media and other channels, video streaming, videoconferencing and other messaging services.
31. Twenty-eight SharePoint sites were implemented in 2018. SharePoint is a collection of web-based tools and technologies to improve the way the Office organizes, finds, shares and manages digital information, thereby enabling a more collaborative and team-oriented culture. The SharePoint framework has also been enhanced to provide multilingual support and improved accessibility to staff with disabilities in accordance with guidelines developed by the World Wide Web Consortium's Web Accessibility Initiative (WAI).
32. Incremental improvements were made to the ILO's intranet. A new intranet home page (released in July 2018) provided unified and streamlined access to key services, information, news and events for all ILO staff worldwide. Replacement of the intranet home page was the first step in the transition to a new digital platform based on SharePoint. The intranet will gradually introduce a range of improvements to the way staff access information and collaborate, including direct access to key services and applications, as well as to staff news, events and announcements.
33. As the lead agency, the ILO partnered with other stakeholders in overseeing the development/enhancement of several websites designed to achieve ILO goals through peer-to-peer collaboration, advocacy and knowledge sharing. The following websites were set up in 2018:
 - Alliance 8.7 website. This website brings together a coalition of governments, business, workers' representatives and civil society committed to achieving target 8.7 of the Sustainable Development Goals (SDGs), which seeks to end forced labour, modern slavery, human trafficking and child labour.
 - Equal Pay International Coalition (EPIC) website. This coalition's goal is to achieve equal pay for women and men everywhere (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 their organizations in making concrete and coordinated progress towards this target.

- Global Business and Disability Network website. This is a network of multinational companies, national employers' organizations, business networks and organizations representing persons with disabilities working in collaboration to foster the development of a workforce culture that is respectful and inclusive of persons with disabilities, and to build "disability-smart companies".
- Decent Jobs for Youth website. Decent Jobs for Youth is the catalyst for globally harmonized action on youth employment, in line with the 2030 Agenda. It is a platform for promoting evidence-based strategies and interventions, a space for highlighting progress and sharing knowledge, and a hub for cooperation and collaboration.
- Future of Work website. The Global Commission on the Future of Work is carrying out an in-depth examination of the future of work to provide the analytical basis for the delivery of social justice in the twenty-first century. The website is designed to share documents, exchange views and post discussions between the members of the Commission.

Synergies and cross-cutting drivers

Information security

34. A major milestone was reached in February 2018 when the ILO achieved certification to ISO 27001 in meeting the requirements for an information security management system (ISMS). Achieving independent, accredited certification in ISMS demonstrates that the ILO complies with internationally recognized standards for information security best practices, validated through independent, expert verification.
35. The ILO has replaced its IT security awareness training programme with one that is more engaging, interactive and succinct. The programme is available in all ILO official languages and accessible through the ILO's e-learning platform.
36. The Office conducted two campaigns to assess phishing awareness by sending mock-phishing emails to all ILO email users in February and May 2018. The February campaign simulated a generic phishing pattern while the other simulated a targeted attack. Of the total number of 7,253 email recipients targeted in the two campaigns, nearly 10 per cent disclosed their password and received immediate feedback on how to avoid such scams in the future. Phishing still continues to be the most common source of information security incidents. The Office will need to maintain regular campaigns and targeted communications to help shape desired user behaviour going forward.
37. The INFOTEC Information Security and Assurance Services Unit developed an automated system to collect and analyse data from various sources to profile the level of information security risk at the ILO. Over 30 key risk indicators were monitored, and those remaining at high or critical levels continue to be reported to senior management on a biannual basis.
38. The Office has implemented a new information security incident reporting policy, which has measurably reduced the time to respond to and mitigate cyberattacks. This has been particularly beneficial in coordinating activities to block cyberattacks taking place in the field.

39. A number of operational measures have also been put in place to strengthen the ILO's cybersecurity infrastructure. These include implementing an endpoint security operations centre, strengthening controls on servers supporting custom applications and the ILO's back-up infrastructure, migrating to the latest version of the ILO's anti-virus software, and encrypting links between web servers and browsers.
40. The Office is currently in the process of implementing network access control to better detect who, where, when and how users or devices are accessing the ILO network. Once implemented, network services will only be accessible on devices that comply with ILO security policies.

IT governance

41. The BPR undertaken within INFOTEC provided a number of recommendations to improve the ILO's IT governance process. These were fully implemented in 2018. Of particular note was the recommendation to move from a "one-size-fits-all" approach when prioritizing and approving IT-related initiatives to one that is differentiated based on the scope, size and impact of the initiative. This has reduced the number of projects requiring review by the IT Governance Committee, and intervention is only required for initiatives with a high organizational impact.
42. The Project Governance and Management Services Unit (PGMS) function within INFOTEC worked closely with ILO business units to clearly qualify, quantify and link the contribution of proposed IT initiatives in efforts towards achievement of specific business outcomes and outputs. Increased involvement at the portfolio level has resulted in improved priority setting and long-term commitment to the funding of IT initiatives. Twenty-five proposed IT initiatives from departments/offices were vetted through the PGMS in 2018.

Service-level management

43. Following a BPR recommendation, INFOTEC implemented a dashboard to track performance at various stages of the application development life cycle, including variance tracking of estimated effort versus actual effort, compliance with project management principles, quality of documentation and other key performance indicators (KPIs).
44. In July 2018, the ILO partnered with an independent leading information technology research and advisory company to assess and benchmark the effectiveness of ILO IT services and capabilities against peer organizations considered best in class. The purpose of these assessments was to determine ILO IT expenditure in comparison with national and international governmental agencies of similar size and budget to that of the ILO, and to identify areas where costs could be contained, operational improvements introduced and the IT organization's ability to drive technology and process change. The following four assessments were carried out:
 - IT spend performance;
 - IT operations and infrastructure performance;
 - IT applications performance;
 - IT maturity.

45. Benchmarked results demonstrated that the ILO IT spend is below peers in its specific industry but generally in line with benchmarks aggregated across all industries (in other words, industry neutral).
46. Information technology operational performance assessments specifically focused on the management of services provided by INFOTEC's Technology Management Services and Applications Management Services branches. Areas assessed included process management, people management, business management and technology management. The results revealed that all ILO scores in these areas exceeded those of its industry peers.
47. The assessment of IT maturity is scored on a scale of 1 to 5. The ILO's score of 3.5 indicated that the ILO is also performing at a level above its peer group (2.8 score), with clear strengths noted in the areas of strategy and vision, executive leadership, business and financial management, technology leadership, and people and skills management.
48. An IT maturity score of between 3 and 4 demonstrates that IT technology strategy is explicitly aligned to business goals, IT performance measures are tied to KPIs, IT service and solution capabilities are reliable, IT sourcing is approached strategically and based on explicit business maxims, and the IT organization constructively and proactively engages with business to improve business operations, processes and information management.
49. Although ILO IT assessments revealed positive results when compared to industry peers, it was noted that improvement was required for IT to be a truly differentiating and transformational influence within the Office. INFOTEC is working closely with its independent advisory partner to implement recommendations arising from the assessments, with the aim of gradually increasing performance throughout the Strategy period.

Change management

50. INFOTEC worked closely with departments and offices to ensure communications about major IT-related change initiatives were frequent and effective. Key communication events and training sessions took place throughout the year when new applications and technologies introduced significant change underlying processes and ways of working.
51. The rollout of remaining IRIS functions to external offices in Asia required extensive efforts to prepare users for the introduction of the new system and influence attitudes towards change. This required stakeholder involvement, effective training and sufficient time to transfer and embed knowledge, as many functions introduced through IRIS required increased understanding of end-to-end processes as well as adapting to a new IT system. A combination of upfront planning, frequent communication, workshops, training sessions and dedicated, on-site post go-live support helped ensure a positive change outcome during the rollout. Nearly 350 days of workshops, training sessions and on-site support took place in 2018 to help with the rollout of IRIS to Asia.
52. INFOTEC worked closely with the Communication and Public Information Department to develop a communication strategy and plan for release of various technologies and applications during 2018. This strategy focused on utilizing a combination of staff information sessions, training sessions, briefing sessions, recorded interviews, kiosks, newsletter articles, email broadcasts, brochures, video demonstrations and other methods to reach targeted audiences.
53. To ensure effective communication and knowledge sharing with IT staff in the field, weekly information sessions were held throughout the year between INFOTEC and all IT staff in the ILO regions on a rotational basis.

External partnerships

- 54.** ILO senior IT professionals participated in various United Nations (UN) committees, advisory boards and networks in 2018. These included:
- Chief Executives Board for Coordination – Information and Communication Technology Network;
 - International Computing Centre Management Committee;
 - Special Interest Group for Oracle/PeopleSoft;
 - Information Security Special Interest Group;
 - Inter-Agency Telecommunications Advisory Group;
 - United Nations Library and Information Network for Knowledge Sharing;
 - High Level Committee on Management – Working Group on Document Standards.
- 55.** The ILO also worked on joint information technology/information management initiatives with the WHO, UNESCO, UNOG, WIPO and other UN agencies.
- 56.** In support of the 2030 Agenda, 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 (GOALI) web platform, which went live in March 2018. GOALI is a Research4Life programme that directly contributes to furthering the 2030 Agenda by providing developing countries with free or low-cost access to academic and professional peer-reviewed content online.

Risk management

- 57.** The ILO's IT risk register was updated to take into account all 13 outcome risks identified in the IT Strategy. Each identified risk was subjected to an impact assessment to determine the probability and consequences of associated risk events if they occurred. A number of remedial actions were put in place to ensure remaining residual risk was within acceptable levels for all 13 IT Strategy items.
- 58.** In support of the IT Strategy, the Governing Body approved the use of the Information Technology Systems Fund (IT 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 this context, a biennial provision was requested to ensure the IT Fund could support full delivery of the IT Strategy.
- 59.** If funding of the IT Fund is not possible due to other Office-wide priorities, delivery of some Strategy outputs will not be possible; in particular, replacement of ageing technologies underpinning the ILO intranet, ILO public website and electronic records management system. Depending on the outcome of the Programme and Budget for the period 2020–21, the IT Strategy may need to be adjusted accordingly. Any adjustments will be reported during the Office's annual report on progress in 2019.