



Governing Body

326th Session, Geneva, 10–24 March 2016

GB.326/PFA/5

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

PFA

Date: 19 February 2016

Original: English

FIFTH ITEM ON THE AGENDA

Information and communications technology questions: Final report on the ILO Information Technology Strategy 2010–15 and proposed transitional strategy 2016–17

Purpose of the document

At its 306th Session (November 2009), the Governing Body approved the ILO Information Technology Strategy 2010–15. The Strategy establishes indicators, targets and milestones for each biennium of the six-year period. The Office has provided an update on progress on an annual basis; this paper outlines progress made in the Strategy's final year, 2015, and presents a proposed transitional information technology strategy for 2016–17 which the Governing Body is invited to endorse (see the draft decision in paragraph 55).

Relevant strategic objective: Governance, support and management.

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.306/PFA/ICTS/1; GB.306/PFA/ICTS/2; GB.306/9/1(Rev.); GB.306/PFA/11; GB.309/PFA/ICTS/1; GB.309/PFA/ICTS/2; GB.309/PFA/7; GB.310/PFA/3; GB.312/PFA/6/1; GB.312/PFA/6/2; GB.313/PFA/1; GB.313/PFA/INF/3; GB.316/PFA/4; GB.319/PFA/5/1; GB.319/PFA/5/2; GB.320/PFA/INF/3; GB.323/PFA/4.

Introduction

1. The ILO has completed its six-year Information Technology (IT) Strategy 2010–15.
2. The Strategy identified ways to elevate the role of IT as a strategic enabler for the Office and established a roadmap designed to foster innovation and to restructure and transform the IT function, with a view to improving the quality of IT services provided to the Office.
3. In order to deliver outcomes in the most efficient and cost-effective way, the Strategy promoted a holistic approach to the broad-based governance and management of IT resources across the Office through the consolidation, standardization and centralization of IT functions, infrastructure, processes, technologies, services and applications.
4. Specific areas for improvement identified in the Strategy include: strengthening and leveraging partnerships with other agencies in delivery of common IT services; facilitating process automation through the roll-out of the ILO's Integrated Resource Information System (IRIS), Electronic Document Management System (EDMS) and other applications; implementing technologies to support collaboration and knowledge sharing; formalizing IT service levels; improving the management of information assets; enhancing communication on the subject of IT; and improving IT security and training.
5. The Strategy was implemented with a focus on three key outcomes linked to the ILO's Strategic Policy Framework 2010–15. The Office has provided an annual update on the progress of the IT Strategy 2010–15; this paper outlines progress made in the Strategy's final year, 2015, and presents a proposed transitional strategy for 2016–17.
6. Of the 31 milestones and targets initially set out in the Strategy, 28 have either been met or exceeded. The Office completed 290 IT projects over the six-year period. The major improvements delivered include the following:
 - roll-out of full IRIS functionality to all regional offices and six Decent Work Teams/Country Offices;
 - roll-out of IRIS global human resources, payroll, leave and strategic management modules to the remaining 41 field offices;
 - establishment of a formal IT governance framework, committee and charter;
 - restructuring and consolidation of the IT function within the Office;
 - enhanced network connectivity in the field;
 - modernization of the ILO Data Centre;
 - standardization and consolidation of the ILO's IT infrastructure in the field;
 - implementation of Microsoft Windows 7, Outlook, Lync and File and Print;
 - implementation of performance and learning management systems;
 - implementation of International Public Sector Accounting Standards (IPSAS) and fixed assets functionality in IRIS;
 - modernization of the ILO Library;

- implementation of a data warehouse for human resources reporting to the Governing Body of the ILO;
 - technology refreshment of critical applications, including IRIS, the Information System on International Labour Standards (NORMLEX), the ILO's central statistics database (ILOSTAT) and the Health Insurance Information System (HIIS);
 - implementation of the ILO Knowledge Gateway; and
 - enhancement of information security policies, processes, systems and awareness programmes.
7. Previous progress reports submitted to the Governing Body provide a comprehensive overview of achievements against a background of outcomes, milestones and targets over the entire six-year period, from which a full picture of the value delivered can be ascertained.¹ A summary of all milestones and targets achieved and a detailed list of completed projects by biennium and strategic outcome can be found on the INFOTEC page of the ILO public website.²

Progress during 2015

Outcome 1

8. Outcome 1 of the IT Strategy accentuated the need to consolidate IT functions to better meet the needs of the Office and strengthen partnerships within the broader United Nations (UN) family to jointly deliver IT solutions of mutual benefit. In addition, it emphasized the importance of deploying IRIS and EDMS in the field in order to streamline, standardize and facilitate process automation. Moreover, it highlighted the need to implement technologies which promote improved knowledge sharing, communication and collaboration throughout the Office.

Consolidation of IT

9. The management of mobile telephones was transferred from the Internal Services and Administration Department (INTSERV) to INFOTEC in 2015. As the functionality of smartphones has evolved significantly and the BlackBerry infrastructure was ageing, staff requirements were re-evaluated, a cost-benefit analysis was undertaken and a new smartphone was identified to replace the BlackBerry. The migration of 292 devices was completed in 2015.
10. The need to improve the quality and alignment of IT services between headquarters and regional offices is highlighted in the IT technology investment study conducted in 2010. As a result of that study, the IT infrastructure in 46 country offices and eight large project offices was upgraded and consolidated. All data and systems supporting email, instant messaging, desktop videoconferencing, file systems, network and authentication for these

¹ GB.306/PFA/ICTS/1; GB.306/PFA/ICTS/2; GB.309/PFA/ICTS/2; GB.312/PFA/6/1; GB.312/PFA/6/2; GB.313/PFA/INF/3; GB.316/PFA/4; GB.319/PFA/5/1; GB.319/PFA/5/2; GB.320/PFA/INF/3; GB.323/PFA/4.

² <http://www.ilo.org/public/english/support/itcom/>.

offices are now located in the ILO Data Centre at headquarters and administered centrally by INFOTEC staff.

11. In addition to training 780 field staff in 2014, INFOTEC trained 350 field staff in 2015 on how to fully leverage the enhanced functionality provided by the new technologies.
12. A five-day workshop for 18 IT staff from the regions was held to explore the implications of these technology changes including user access management, support processes and working methods. Chiefs of regional administrative services were also briefed on the changes to administrative procedures introduced as a result of the consolidation.
13. Discussions are under way to ascertain whether remaining decentralized IT resources, functions, applications and services are viable candidates for further consolidation.

Joint UN initiatives

14. Through various committees, forums and working groups, the ILO collaborated with other agencies on advancing a number of UN-wide initiatives, including:
 - the interoperability of enterprise resources planning and harmonization of business processes;
 - the development of a common data catalogue;
 - a data visualization project;
 - an expanded proof of concept protocol for identity management;
 - the role of IT in achieving Sustainable Development Goals; and
 - the International Aid Transparency Initiative (IATI).
15. Leveraging work done by other agencies, the Office implemented the following systems and solutions:
 - IRIS self-service leave module;
 - IRIS human resources interface to the United Nations Joint Staff Pension Fund's new Integrated Pension Administration System (IPAS); and
 - UN's cyber-threat intelligence platform.

Roll-out of IRIS to the field

16. The 2015 targets for the roll-out of IRIS were met. The roll-out of IRIS human resources, payroll, leave and strategic management modules to 12 field offices in Africa and eight in Europe and Central Asia, in addition to the New York, Washington, D.C. and Tokyo offices, as well as access to view information pertaining to all ILO extra-budgetary technical cooperation (XBTC) projects, was completed.
17. Over 310 staff members in the field participated in IRIS training.
18. Since November 2015, IRIS payroll is processing salary calculations for all ILO staff. All 41 local payroll systems in the field have been decommissioned.

19. The operational model for the deployment of the remaining IRIS functionalities in the regions was completed and presented to senior management for review and approval. Initial discussions with the regional offices took place during the November 2015 session of the Governing Body.
20. Lastly, two IRIS superuser workshops took place in 2015. A superuser workshop took place in July with human resources focal points from regional offices. In November, INFOTEC and Financial Management (FINANCE) hosted 22 finance and programme staff from seven duty stations. The purpose of these workshops was to address complex business scenarios and their execution in IRIS and to strengthen skills and capacities locally prior to rolling out remaining IRIS functionality to the field from 2016.

Electronic Document Management System (EDMS)

21. In 2015, the Office assessed the feasibility of using Microsoft SharePoint for enterprise content and document management for the Office. Pilots were conducted to identify lessons learned and to validate recommendations from studies carried out by external consultants. Pilot results and estimated implementation costs will be presented to the Information Technology Governance Committee (ITGC) in early 2016 for decision.

Knowledge sharing and collaboration

22. Release 2 of the Central Information Services Gateway (Knowledge Gateway) went live and included the following additional elements:
 - country programme outcomes, results achieved and ILO contributions;
 - links to Decent Work Country Programmes;
 - details of projects funded through XBTC and the Regular Budget Supplementary Account (RBSA);
 - links to publications; and
 - good practices.
23. A collaboration and knowledge-sharing website was implemented for the Partnerships and Field Support Department (PARDEV). The site automates and streamlines key aspects of XBTC project-cycle management and provides ILO reference materials, online forums and communities of practice in support of XBTC projects.

Outcome 2

24. Outcome 2 of the IT Strategy highlighted the need for better IT governance and control of IT expenditure through the centralization of IT infrastructure, projects and resources within the Office.

IT governance

25. The IT governance process continued to mature in 2015 and became fully embedded within the Office. The ITGC met on five occasions during 2015 to discuss, prioritize and make strategic decisions related to key IT investments, projects, applications, policies and standards.

26. The INFOTEC project management function worked with ILO departments and country offices and ITGC advisory subcommittees to assess the business case, resource implications, benefits and risks of 12 proposed IT projects and to ensure that they were aligned with other Office strategies. Six of these projects were approved by the ITGC for implementation.
27. The Office issued a number of directives, procedures and guidelines to institutionalize ITGC policy-related decisions.

IT expenditure

28. In the context of follow-up to progress reported during the March 2014 session of the Governing Body,³ the Office benchmarked IT expenditure after the end of the 2014–15 biennium. It did so in order to determine the relative cost of such expenditure in comparison with that of national and international governmental agencies of similar size and budget to that of the ILO, and to identify areas in which costs could be optimized, investments given priority and operational improvements introduced, as well as opportunities for doing so.⁴
29. The benchmarking of IT expenditure showed that the ILO's IT operating budget and staffing levels were some 30–40 per cent lower than those of industry peers. Constraints on budget reduced the pace at which benefits could be realized and limited the ability of the Office to fully leverage the value of IT.
30. A number of cost-saving measures were instituted to leverage limited resources in delivering the IT Strategy. The Office reduced IT costs by:
- provisioning services from low-cost locations;
 - renegotiating licence costs with key suppliers;
 - leasing, rather than purchasing, equipment;
 - utilizing cloud services, where appropriate;
 - working with other agencies to leverage contracts awarded through competitive bidding;
 - working with other agencies to cost share and/or jointly develop solutions;
 - decommissioning obsolete systems;
 - implementing technologies which facilitate remote support;
 - deploying self-service applications;
 - partially automating the patching and testing of hardware/software; and
 - consolidating and standardizing infrastructure components in order to streamline system administration, maintenance and support.

³ GB.323/PFA/4, para. 27.

⁴ Gartner, *IT Key Metrics Data 2016: Key Industry Measures; Government – National and International Analysis: Current Year*, ID: G00291353.

31. The identification of further opportunities for cost optimization remains a challenge, as the volume, complexity and scope of the IT infrastructure, applications and services implemented over the past six-years have resulted in increased support and maintenance costs. In particular, the costs of securing, administering, maintaining and supporting infrastructure, email and IRIS in ILO external offices and extra-budgetary projects are being largely absorbed by headquarters. Analysis is under way to determine whether a more sustainable cost-sharing model between headquarters and the field could be put in place to offset these increased costs.

Outcome 3

32. Outcome 3 of the IT Strategy highlighted the need to professionalize the delivery of critical IT services through service catalogues, service level agreements and 24-hour service availability. In addition, it focused on the need to modernize the ILO's IT infrastructure in order to reduce energy consumption and in view of increased demand for computing resources.

Service catalogues and service level agreements

33. The implementation of a service catalogue and targeted service level agreements was completed ahead of schedule and reported to the Governing Body in March 2014.⁵

Provision of 24-hour support

34. The Office engaged with the United Nations International Computing Centre (UNICC) to assess the feasibility of hosting the ILO's email system at UNICC in order to provide 24-hour monitoring and incident response. The migration of ILO email for hosting at UNICC will begin in 2016.
35. IT staff in regional offices were provided with licences, documentation and training to utilize the ILO's centralized service desk management tool. This tool enables IT staff in field locations to register, troubleshoot and escalate incidents for resolution around the clock in collaboration with other colleagues throughout the Office.

Consolidation of hardware and efficiency of energy consumption

36. Projects to consolidate, virtualize and standardize hardware, thereby reducing the environmental footprint of the ILO Data Centre, were completed ahead of schedule and reported to the Governing Body in March 2015.⁶
37. It is important to note that while efficiency gains were achieved through the utilization of energy efficient servers and advances in cooling technology, the Office added 150 servers and 80 terabytes of disk storage to meet growing IT demand.

⁵ GB.320/PFA/INF/3.

⁶ GB.324/PFA/4.

Information security and risk management

38. In order to address the growing rate of cybercrime, malware and other cyber threats, the Office reallocated US\$2.4 million of the IT budget from process improvements and service enhancements with a view to mitigating potential infrastructure and information security risks highlighted in audit findings. Resource demands in the area of information security are expected to increase in future biennia.
39. INFOTEC's Information Security and Assurance Services Unit (ISAS) expanded its risk-management decision support systems with new processes, systems and technologies to capture, measure and report on key risk indicators in response to organizational demand. In particular, there was increased demand for the protection of confidential information, privacy protection and protection against cybercrime, in addition to information security requirements related to use of new technologies such as cloud computing and mobile devices.
40. The Office carried out an IT risk assessment in 2015, as a result of which the top inherent IT risks, their root causes and remedial actions were identified. The INFOTEC Risk Register can be found on the INFOTEC page of the ILO public website.⁷

Proposed transitional strategy 2016–17

41. The Office will submit a new IT strategy for discussion and decision during the November 2017 session of the Governing Body. The future IT strategy will cover a four-year period and will be included in the ILO Strategic Plan 2018–21.
42. For the period 2016–17, the following high-level transitional IT strategy is proposed, following its approval by the ITGC, membership of which includes senior management from across the Office,

Strategy formulation

43. The proposed transitional strategy 2016–17 applies input from various sources in laying out a roadmap to support the Organization in the delivery of its mandate. Those sources include:
 - ILO human resources, evaluation and knowledge strategies;
 - objectives of the Director-General's reform agenda;
 - Decent Work Agenda, including the centenary initiatives;
 - ILO Declaration on Social Justice for a Fair Globalization;
 - ILO information and document management study (forthcoming);
 - ILO organizational health survey;
 - INFOTEC Risk Register;
 - initiatives within the UN common system;

⁷ <http://www.ilo.org/public/english/support/itcom/>.

- requirements of the Multilateral Organization Performance Assessment Network (MOPAN) and other external assessments;
 - interviews with senior management and business process owners at headquarters and in the field;
 - IT-related audit findings; and
 - technology trends in the IT industry.
44. In setting and driving the proposed transitional strategy, the Office assessed the current and desired future state of IT at the ILO, in order to identify and address gaps in the decision-making process, structures and functions, infrastructure, portfolio of applications, resource capacity and risk profile.

Strategic drivers

45. The main drivers underpinning the proposed transitional strategy, which form the contextual basis for outcomes and deliverables, highlight the need for the Office to:
- reduce administrative costs;
 - facilitate process optimization, automation, innovation and continuous service improvement;
 - promote collaborative working, knowledge sharing and enhanced research capability at headquarters and in the field;
 - empower its workforce to work from anywhere, anytime; and
 - improve the management of information in order to strengthen reporting, analytics and decision-making.

Outcomes

46. The implementation framework for the proposed transitional strategy is based on outcomes linked to those identified in the IT Strategy 2010–15 but restructured in order to support the ILO in delivery of its current strategic objectives.
- Outcome 1 focuses on the standardization and modernization of IT to improve the efficiency, availability, sustainability and quality of IT systems and services being provided to the Office.
 - Outcome 2 sets out to institutionalize, streamline and automate business processes, with the goal of reducing administrative costs and facilitating consistent working methods across the Office.
 - Outcome 3 centres on the delivery of content management solutions in order to enhance teamwork and improve reporting of organizational performance.
 - Outcome 4 addresses key areas of information risk requiring mitigation in order to ensure that ILO information assets are safeguarded.

Deliverables

- 47.** The major deliverables of the proposed transitional strategy are set out in the following paragraphs, organized by outcome. Activities and resources associated with delivery of these initiatives have been earmarked; additional funding would be required to implement any other proposed initiatives.
- 48.** Deliverables under outcome 1 of the proposed transitional strategy are as follows:
- host the ILO's email system at UNICC;
 - upgrade the internal network and install Wi-Fi throughout the ILO headquarters building, in conjunction with the building renovation schedule;
 - consolidate and standardize database and application software underpinning key ILO systems; and
 - implement improved identity management and single sign on capabilities.
- 49.** Deliverables under outcome 2 of the proposed transitional strategy are as follows:
- roll out full IRIS functionality to the new Regional Office in Abidjan;
 - roll out IRIS financial modules to planned field offices;
 - apply staff entitlement changes in IRIS as approved by the UN General Assembly; and
 - implement optical character recognition software in order to automate the processing of IRIS supplier records and invoices Office-wide.
- 50.** Deliverables under outcome 3 of the proposed transitional strategy are as follows:
- expand and develop web-based dashboards, portals and visualizations to support collaborative working, knowledge sharing and improved communication of ILO results;
 - implement data warehouses for improved reporting and analysis of IRIS data;
 - enhance the Bureau of Library and Information Services' database (Labordoc), in addition to other collections, databases and guides, and digitize library documents to further strengthen the ILO's research capacity;
 - finalize the business case and costing for replacement of the ILO intranet; and
 - carry out business case analysis and costing for the implementation of electronic documents/records management functionality across the Office.
- 51.** Deliverables under outcome 4 of the proposed transitional strategy are as follows:
- replace, upgrade and/or enhance key ILO applications nearing technological obsolescence, including Voyager, Joint Medical Services (JMS), Internal Governance Documents System (IGDS), Donor Dashboard and others;
 - implement requirements to achieve ISO/IEC 27001 information security management certification; and

- put in place processes, procedures and technologies to monitor compliance with ILO information classification and security policies.

Challenges

52. The IT Strategy 2010–15 set out an aggressive course of transformation. At the end of the six-year period, the resulting increase in staff workload and fixed costs have increased dramatically and are only sufficient to sustain existing operations and deliver on already approved initiatives.
53. The proposed transitional strategy, which spans a two-year period, establishes a way forward to meet the near-term strategic and operational needs of the Office. In order to meet increasing demands on IT, the Office will need to carefully balance existing resource allocations to maximize value for money.
54. In this context, the ITGC will need to play a more pivotal role in ensuring that proposals for IT services and solutions are strategic, cost-effective, prioritized, funded and sustainable over the long term.

Draft decision

55. *The Governing Body takes note of the final report on the ILO Information Technology Strategy 2010–15 and endorses the proposed transitional IT strategy for 2016–17 (paragraphs 41–54).*