INTERNATIONAL LABOUR OFFICE

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Programme, Financial and Administrative Segment

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FIFTH ITEM ON THE AGENDA

Information Technology Strategy 2018–21

Purpose of the document

This document establishes the ILO's proposed Information Technology (IT) Strategy 2018–21 and provides a final report of progress on the implementation of the transitional IT Strategy for 2016–17. Paragraph 76 contains the points for decision.

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: Annual report of progress planned for November 2018.

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

Related document: GB.326/PFA/5.

Executive summary

1. The ILO is increasingly dependent on information and technology to effectively deliver its mandate. Information and technology are cornerstones which support every aspect of the work of the ILO.

2. The IT Strategy 2018–21 establishes a vision and roadmap to leverage rapidly evolving technology to more effectively support the delivery of Office-wide reforms, strategies and initiatives. The key challenge for IT is to remain both disciplined and agile in an environment where change has become the new norm.

3. The modern digital workplace consists of tools and content which target individual needs, promotes mobile working, utilizes cross-functional collaboration, applies machine learning to automate processes, encourages innovation, improves decision-making and harnesses vast amounts of institutional data to gain actionable insight into areas of opportunity and areas for improvement.

4. The IT Strategy 2018–21 sets in motion a more agile ILO, where technology and information are fully leveraged to bring about:

- a more efficient ILO;
- a more insightful ILO;
- a more collaborative ILO.

5. In order to ensure the ILO's IT infrastructure and applications remain reliable, secure and fit for purpose, it is imperative to upgrade and/or replace IT hardware and software underpinning critical ILO systems and services when they are no longer supported by the vendor. The typical replacement cycle for hardware and software is six years.

6. At its 277th (March 2000) Session, the Governing Body approved the establishment of an Information Technology Systems Fund, [1] subject to decision by the Conference. The purpose of this Fund was to finance essential information technology systems. The Conference approved the recommendation of the Governing Body at its 88th Session (May–June 2000). Initial funding of US$25 million was provided from the 1998–99 surplus which was utilized to contribute to the development costs of the enterprise resource planning system, IRIS. A proposal in 2006–07 to provision the Fund on a regular basis was only partially accepted by the Governing Body and as such the Fund has remained inactive for many years. [2]

7. To fund major upgrades, replacement of obsolete hardware and software underpinning essential ILO systems and the development of new strategic large-scale IT initiatives, the Office now requests the Governing Body to endorse in principle the provision of $9 million to the Fund every biennium from the regular budget.

[1] GB.279/PFA/5.

[2] Of the proposed $3.3 million an ongoing provision of $270,000 was retained which, due to its size, for efficiency purposes was subsequently allocated directly to the Information and Technology Management Department (INFOTEC).

8. More detail on the proposed use of the Fund is provided in paragraphs 21–32.

9. Information technology services are provided to all activities undertaken by the Office. Development cooperation activities demand the same high level of IT support, ability to carry out global research, protection from cyber-attacks, access to content in real-time, backup and recovery of key systems in the event of a disaster, etc. The demand and costs of providing these services have followed the same trend as for regular budget activities. In respecting the principle that extra-budgetary activities are self-financing and do not create a financial liability for member States, the Office is reviewing its practices to ensure that an appropriate share of IT costs are reimbursed from extra-budgetary projects and programmes.

10. In 2017, INFOTEC participated in the ILO Business Process Review (BPR). The BPR team assessed and analyzed INFOTEC's current strengths and weaknesses and provided recommendations for improvement. These recommendations have been incorporated into the IT Strategy 2018–21.

Key lessons learned from previous work

11. Key lessons learned during the delivery of the IT Strategy 2010–15 and the Transitional IT Strategy 2016–17 were applied in the framing of the IT Strategy 2018–21. These key lessons learned can be found in progress reports submitted to the Governing Body in prior years and summarized below.

12. Demand for IT services and solutions increased by 48 per cent over the previous biennium, far outpacing existing resource supply. Much of this increased demand was driven by BPR recommendations to automate manual processes or replace no longer fit-for-purpose applications. The Office was able to address some of this increased demand through organizationally repurposed funding and the shifting of many time-bound activities such as software development to lower cost locations. Going forward, the Office will explore options to align increased demand with existing supply through improved governance, retiring of seldom-used systems and diverting resources to greater areas of need wherever possible.

13. The Office-wide consolidation of IT infrastructure at ILO headquarters brought significant benefits to the field in terms of modernization and standardization, improved service availability and performance, reduced risk and better protection of ILO data in the event of an unforeseen disaster. With the field IT infrastructure being located at ILO headquarters, the Office will need to rely on external service providers to ensure 24/7 support coverage for the field.

14. The availability of commoditized IT services, instantly available via the "cloud" with minimal start-up costs, has made it easier for departments and external offices to unilaterally engage with vendors and procure cloud-based IT solutions. This use of cloud services has expanded the ILO's IT infrastructure beyond its traditional span of control and added elements of complexity and risk. Addressing this challenge will require a change to the ILO's IT governance process to ensure that the purchase of any IT offering in the cloud fits within the ILO's enterprise IT architecture and proposed cloud solutions are carefully evaluated, selected, managed and negotiated. INFOTEC will also need to ensure that it has sufficient capacity, skills and competencies in the areas of information security, information management, project and contract management, enterprise architecture and strategic vendor relationship management to better manage increased demand for cloud services.

15. The costs to secure and protect the Office against mounting cyber threats tripled during the past two biennia. A study carried out by the International Business Machines Corporation (IBM) in 2017 concluded that the average cost of a single, enterprise data breach was estimated at approximately $3.6 million. Although the ILO has implemented a number of operational measures to help prevent and mitigate cyber-attacks, more will be needed to educate staff on the importance of adhering to cyber security policies, procedures and best practices.

Strategy formulation

16. In formulating the IT Strategy 2018–21, the Office carried out both internal and external consultations, utilizing expertise from independent IT research and advisory companies to better anticipate future trends and changes in technology over the four-year strategy period.

17. The IT Strategy 2018–21 was reviewed and endorsed by the ILO's Information Technology Governance Committee (ITGC), chaired by Deputy Director-General for Management and Reform and comprising of senior management from across the Office.

18. Consultation with key stakeholders in the development of the IT Strategy 2018–21 revealed three key requirements:

- The need for a more agile, responsive and enabling IT function.
- The need for a more balanced partnership between INFOTEC and ILO business units in delivery of IT solutions.
- The need for increased IT innovation to facilitate change in current working methods and processes.

19. As a living document, the IT Strategy 2018–21 will be reviewed and adjusted on a yearly basis to accommodate any change in Office priorities, direction or resource allocation.

20. The following summarizes key inputs used in formulating the IT Strategy 2018–21.

ILO IT Strategy 2018–21 inputs

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 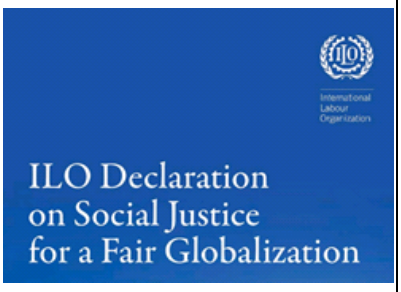
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 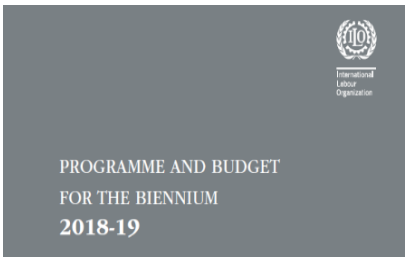
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 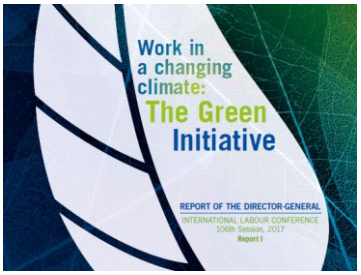
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 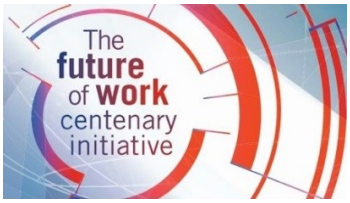
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Financial report
and audited consolidated
financial statements for the
year ended 31 December 2016

and Report of the External Auditor</td>
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 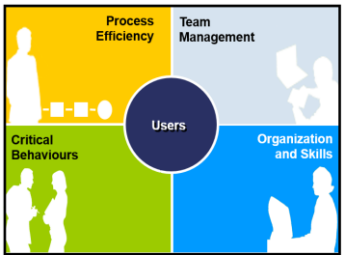
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<td>ILO Strategic Plan 2018–21
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<td>Knowledge Strategy 2018–21
 
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<td>HR Strategy 2018–21
 
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Use of the Information Technology Systems Fund

21. The ILO's IT Governance framework [3] ensures that any proposed IT initiative undergoes rigorous assessment to confirm that it complies with IT policies and standards, provides measurable value, aligns with Office strategies and outcomes, and is cost-effective. This assessment includes a detailed review of the expected benefits and estimated one-off and ongoing costs over a five-year period.

22. The ILO's ITGC, under the responsibility of the Director-General, determines which of the initiatives to approve based on existing IT capacity, business value, risk and required funding.

23. The BPR determined that the ITGC is effective in deciding the right mix of IT-related projects to implement based on business need and quantifiable costs and benefits. It was also noted that the process to ensure funding was available to implement and sustain delivered solutions required significant improvement. In particular, the BPR determined that the Office needed to take a more deliberate and forward-looking approach to IT capital investment planning. In this context, the BPR team recommended the use of the Fund to finance critical hardware and software requiring upgrading or replacing on a cyclical basis; and to fund new, large-scale IT projects that span multiple biennia.

24. IT costs have increased significantly over the past biennia making it difficult for the Office to sustain delivered services with no corresponding increase in resources. In addition, many software and hardware vendors have shifted their pricing model from a user-based license to a license based on device. A user who has a desktop, laptop and mobile device is now required to have three software licenses for a single software product. Recent benchmarks have also revealed that funding of IT within the Office is generally 15–20 per cent below those organizations of similar size and scope.

25. To counteract these cost increases within a constrained budget, the Office has taken a number of measures over the past biennium to deal with deficits in IT budget through temporary redeployment of funds, providing services from low-cost locations, leveraging work done by other agencies, reinvesting resources attained from internal cost-savings initiatives and delaying or not undertaking recommended work. With the completion of the IT transformation, IRIS rollout and other large-scale projects nearing completion, amplified ongoing IT maintenance and support costs will ensue, making this current approach to funding budget deficit unsustainable.

26. In preparing for the IT Strategy 2018–21, the following were identified at risk and addressed in the IT investment planning process. Detailed analysis was also carried out to determine the level of funding that would be required, taking into account savings associated with decommissioning legacy hardware, software and systems where feasible.

Hardware/equipment renewal

27. The estimated biennial investment for major upgrade/replacement of in-house, obsolete and unsupported hardware every six years is $2.6 million which includes:

[3] http://www.ilo.org/public/english/support/itcom/.

- servers and racks;
- storage arrays;
- network cabling, switches, routers, firewalls and Internet traffic accelerators;
- shared file systems;
- physical and virtual tape libraries; and
- Wi-Fi devices.

Software/application renewal

28. The estimated biennial investment for major upgrade/replacement of in-house, obsolete and unsupported software every six years is $4.4 million which includes the following software categories:

- Desktop (Microsoft Windows, Microsoft Office, anti-virus, etc.).
- Communications (ILO Email, Skype for Business, etc.).
- Datacenter management (virtualization, network monitoring, systems management, etc.).
- Enterprise applications (IRIS, ILO Intranet, ILO public website, ILOSTAT, etc.).
- Collaboration (Asia Knowledge-Sharing Platform, Plone sites, etc.).
- Database (Oracle Database Management System, Microsoft SQLServer, etc.).
- Business intelligence (Development Cooperation Dashboard, etc.).

Unfunded IT projects

29. The estimated biennial investment for implementing new, strategic, large-scale IT projects targeted over the four-year strategy period is $2 million which includes:

- electronic records management;
- mobile device management;
- network access control.

30. For unfunded IT projects, the Office recommends providing the detailed business case with costs, benefits, risks and expected savings; a five-year total cost of ownership (TCO) calculation; and a proposed implementation plan and schedule for each of these unfunded projects during the March 2018 Governing Body session.

31. The Office proposes that the financing of these three categories of investment needs to be achieved through the reactivation of the Fund. A biennial provision in the regular budget would ensure sufficient funding and enable the Office to realize the goals of this strategy.

32. It should be noted that the above projects are currently included in the IT Strategy 2018–21. If funding for these above initiatives is not approved, in particular in the context of the programme and budget for the period 2020–21, the IT Strategy 2018–21 will be adjusted accordingly during the Office's annual report on progress.

Strategy outcomes

Outcome 1:
A more efficient ILO

Challenge to address

33. The mobile revolution is transforming the way organizations operate in today's digital economy. Over 10 billion devices are connected to the Internet today. In line with global trends, ILO staff and constituents are becoming increasingly reliant on mobile capabilities and require access to ILO applications and information when away from their desk. The challenge of IT is to provide staff and constituents with an integrated, secure, performant and consistent user experience across any device when accessing the ILO network, from almost anywhere and at any time. The ILO's IT infrastructure, operations and applications will need to evolve to support the mobile worker and digital workplace.

Expected changes

34. Key expected changes are:

- improved scope and availability of IT services;
- reduced administrative overhead;
- improved process efficiency;
- improved staff morale and work–life balance;
- a more "green" ILO.

Means of action

35. The Office will focus on delivering secure IT services which are easy to use, integrated and accessible on mobile devices. Increased emphasis will be placed on delivering digital content, automating paper-based and manual processes and upgrading key applications to take advantage of new functionality in order to achieve productivity gains. To ensure the high availability and performance of IT services, the Office will ensure the ILO's underlying IT infrastructure, operations and applications are responsive to meet demand.

Key outputs

Output 1.1: Increased scope and availability of IT services "on the go"

36. To include activities/deliverables:

- Implementing Wi-Fi throughout ILO headquarters.
- Providing access to key applications and files on mobile devices.
- Ensuring operational excellence in delivery of IT infrastructure, operation and support services.
- Implementing a Bring Your Own Device (BYOD) policy.
- Utilizing cloud and other managed services to provide near 24/7 IT service availability.
- Providing improved access to network files while traveling.
- Implementing solid state storage devices to improve the speed in which data and applications can be accessed.
- Delivering online self-service applications so staff can access information or carry out business transactions/activities 24/7 without the assistance of another individual.
- Upgrading the ILO's network infrastructure during the building renovation to ensure a high availability, improved performance and enhanced quality of service.

Output 1.2: A more enriched and secure desktop experience

37. To include activities/deliverables:

- Upgrading to the Microsoft Windows 10 and Office 2016.
- Upgrading to later versions of smartphones and tablets.
- Using short video clips to complement existing IT support and training.
- Providing access to most key ILO applications with a single username and password.
- Implementing network access control (NAC) to:
  - detect who, where, when and how users or devices are accessing the ILO network;
  - restrict network services to only endpoint devices that comply with ILO security policies;
  - providing a consistent user experience when connecting to the ILO network in all ILO offices.

Output 1.3: More "fit for purpose" administrative applications

38. To include the following activities/deliverables:

- completing the rollout of remaining IRIS functionality to all offices in Asia and Africa by the end of 2019. This will complete the rollout of IRIS and decomissioning of legacy systems globally;
- facility for constituents to fill out and submit reporting forms online in support of the functioning of the ILO supervisory system consistent with the decisions taken in the context of the Standards Initiative; [4]
- digitizing existing paper-based business processes;
- delivering new/improved administrative applications including:
  - mass hiring of staff for major ILO events;
  - resource tracking;
  - strategic management;
  - e-Recruitment;
  - digital assets management;
  - print and publishing production management;
  - customer relationship management;
  - supplier management;
  - facilities management;
  - contract management;
  - NORMES online reporting;
  - service desk ticketing.

[4] GB.331/INS/5.

Indicators

39. The following are key indicators, criteria for success, baselines, targets and means of verification for strategy Outcome 1:

Indicator 1.1	
Per cent increase in the number of staff who feel that improvements in IT services, tools and applications have helped them to be more productive at work	
Criteria for success: – Effective communication to ensure staff are aware of IT services that are available. – Effective training. – IT tools, systems and applications are fit for purpose and meet the needs of staff. – Global connectivity is sufficient to support all aspects of work over the internet in support of remote working.	**Target** 10 per cent a biennium **Baseline** To be established in January 2018 **Means of verification** Biennial staff survey
Indicator 1.2	
Overall compliance to IT key performance indicators and service level agreements	
Criteria for success: – Clearly defined and communicated key performance indicators (KPI) and service level agreements (SLA). – Tools are fully implemented to monitor KPI and SLA compliance. – Negotiated and agreed-upon levels of acceptable performance are established with business units.	**Target** 95 per cent average compliance rate per quarter for candidate SLAs **Baseline** To be established in January 2019 **Means of verification** Automated data collection and monitoring of IT infrastructure and support services
Indicator 1.3	
Per cent of IT-related projects completed	
Criteria for success: – Effective project management. – Timely decision-making. – Enforcing strict change control. – Availability of project resources. – Timely testing. – Appropriate contingency planning.	**Target** 80 per cent per biennium **Baseline** Number of IT projects approved by the ILO's governance process **Means of verification** Sign-off from business process owners and migration of solutions into the ILO production environment

Risks

40. The following are key risks associated with strategy Outcome 1:

- Disruption in services delivered by external providers results in downtime and unavailability of IT services over an extended period of time.
- Changes to the model of service delivery being provided by external providers resulting in increased costs and constraints on allocated budget.

- The ILO's IT disaster recovery plan is not aligned with the Office's business continuity plan resulting in loss of key services.
- Change management and training are insufficient to obtain staff buy-in. Resistance to new ways of working results in increased demand for IT services support and less-productive staff.
- Insufficient requirements consideration leads to increases in scope and deficiencies in software development. Testing results in solutions which do not work as expected, require remedial action, and necessitate significant re-working.
- An increased reliance on mobile devices and ILO applications running over the web which are not adequately secured and are breached, leading to loss/corruption of data and unavailability of services.

Outcome 2:
A more insightful ILO

Challenge to address

41. As the ILO is a knowledge broker, data is one of its most valuable assets. The amount of data being generated across the Office has increased 535 per cent over the previous two biennia and it is expected that this trend will continue throughout the course of this strategy. The majority of this data is stored in a myriad of applications, databases, spreadsheets, reports, documents, websites, logs and network drives with approximately 70 per cent of the data being unstructured. The often fragmented, redundant, and distributed nature of data at the ILO makes it difficult to rationalize and leverage this critical asset to deliver best value. Having to re-key data without proper data validation leads to human error, increased operational costs and ultimately inefficient decision-making.

42. Studies have shown that on average, users spend 30 per cent of their working day searching for information. [5] Without a single, consistent, easy-to-find and readily available "source of truth", it is difficult for the Office to carry out the in-depth analysis that is needed to continually improve ILO processes, products and services in support of constituents.

Expected changes

43. Key expected changes are:

- better informed decision-making;
- more accurate and timely reporting;
- improved trust in data;
- reduced miscommunication;
- retained institutional knowledge;

[5] https://www.articlecube.com/research-shows-searching-information-work-wastes-time-and-money.

- improved operational effectiveness;
- increased transparency of ILO performance;
- strengthened analysis and research;
- improved financial and operational controls.

Means of action

44. The Office will focus on improving the quality and governance of key data by implementing data management and data governance policies, procedures, standards and metrics. A key focus will be placed on analyzing and streamlining the flow of data through its life cycle, from creation to retirement, to ensure data is accurate and available when needed. The Office will rationalize and consolidate widely used data into thematic digital warehouses to develop role-based, contextual portals/dashboards in support of staff and constituents. Tools will be provided to better manage content and to correlate and find patterns in large volumes of both structured and unstructured data to gain actionable business insight and better address risks and opportunities.

Key outputs

Output 2.1: Improved quality and use of ILO data

45. To include the following activities/deliverables:

- Implementing data governance, master data and metadata strategies and standards.
- Developing a training programme to educate staff on how to apply metadata standards when contributing content.
- Expanding ILO taxonomies and thesauri to better categorize and index data for improved search and retrieval.
- Documenting data flows, data ownership and associated roles and responsibilities.
- Implementing a data quality plan.

Output 2.2: Enhanced and actionable business intelligence

46. To include the following activities/deliverables:

- Converting static financial and other operational reports used in IRIS with dynamic reporting from a data warehouse.
- Upgrading infrastructure performance to better support increased volumes of data used by STATISTICS and RESEARCH.
- Implementing additional data warehouses to facilitate improved cost and spend analysis against procurement, travel and substantive programmatic activities.

- Automating the collection and dissemination of data and content in support of the International Aid Transparency Initiative (IATI) and Multilateral Organization Performance Assessment Network (MOPAN).

- Analyzing ILO social media sites to extrapolate key customer messages and sentiments and more effectively respond to events inside and outside the organization.

- Correlating data stored in network logs and other files to identify outliers and anomalies in typical user behavior and more effectively mitigate potential cyber threats.

- Gaining better insight into IT service requests in order to address areas of deficiency and improve the ILO customer experience.

Output 2.3: More fit-for-purpose web-based dashboards

47. To include the following activities/deliverables:

- Tracking of progress made towards delivery of the 2030 sustainable development goals (SDGs).

- Implementing dashboards with personalized or role-based content to assist staff in their daily activities and decision-making.

- NORMES Country Reporting Dashboard.

Output 2.4: Better managed enterprise content

48. To include the following activities/deliverables:

- Implementing an Office-wide electronic records management system (ERMS) to enforce retention, disposal and archiving policies.

- Replacing the ILO's existing web-content management system (WCMS) which are nearing obsolescence, difficult to maintain and lacking effective search and retrieval capabilities.

- Rendering important documents and other content in the ILO Library, official archives and other physical repositories in digital form to support historical research and ILO Centenary Initiatives.

Indicators

49. The following are key indicators, criteria for success, baselines, targets and means of verification for strategy Outcome 2:

Indicator 2.1	
The quality of critical reference data use at the ILO is improved	
Criteria for success: – Relevance of the metric to improved business performance. – Determining and prioritizing which critical data has the most impact on administrative and operational activities. – Defining the rules to verify the quality of the underlying data.	**Target** 20 per cent reduction in targeted critical reference data anomalies (e.g. accuracy, completeness, etc.) per year **Baseline** Identification of targeted critical reference data anomalies as of January 2018 **Means of verification** Yearly reporting on the number of targeted critical reference data anomalies
Indicator 2.2	
Increased use of delivered web portals and dashboards for staff and constituents	
Criteria for success: – Including feedback loops during the design phase through use of mock-ups, question flows, etc. – Defining metrics that are meaningful to the business. – Focusing on visual presentation of data. – Ensuring graphics and data points are interactive. – Ensuring dashboard data is near real-time. – Ensuring dashboard is intuitive to use.	**Target** 15 per cent year-over-year **Baseline** To be established in January 2018 **Means of verification** Yearly assessment of web portal activity (i.e. page hits, time on website, number of return visitors, etc.)
Indicator 2.3	
Per cent decrease in the number of documents being stored in physical archives	
Criteria for success: – Drafting an effective data handling and use policy. – Implementation of effective retention and disposal policies. – Implementing an ERMS. – Ensuring effective change management and training delivery. – Simplifying and automating the creation of electronic records from existing digital content (emails, publications, project documents, etc.).	**Target** 10 per cent per year **Baseline** To be established in January 2018 **Means of verification** Yearly report on the number of physical archives created.

Risks

50. The following are key risks associated with strategy Outcome 2:

- Increased growth of data volumes, variety and velocity outpaces computing and storage capacity resulting in solutions which cannot produce timely results.
- Data stored outside of the ILO with third-party providers makes it difficult to integrate in real-time.
- Concerns with litigation and compliance with international laws make it difficult for the ILO to effectively store and manage records in electronic format only.

Outcome 3:
A more collaborative ILO

Challenge to address

51. In order for the ILO to effectively deliver on its mandate, staff must be able to exchange ideas, work in teams, collaborate and communicate effectively. The ILO's constituents demand increasingly complex, rapid and precise delivery of information. This necessitates the efficient pooling and coalescing of a set of diverse skills and competencies from across the Office to be successful. In today's digital world, collaboration and communication are primarily taking place online. For the ILO to remain the definitive information source about the world of work, the Office must continue to evolve, leveraging technology, working practices and cultural diversity to better collaborate in an increasingly connected world.

Expected changes

52. Key expected changes are:

- greater agility to respond to increasing demand from donors and constituents;
- a more informed, knowledgeable and capable workforce;
- a more unified workforce in support of common objectives;
- improved innovation;
- improved buy-in on large-scale change initiatives; and
- improved staff satisfaction.

Means of action

53. The Office will focus on unifying offline and online communications so staff can stay connected, whether working on ILO premises or remotely. The Intranet will be transformed to a place where staff can collaborate and share knowledge and content across organizational and geographical boundaries, quickly find information they need to fulfill their role, catalogue important documents, carry out administrative tasks and access key applications.

Key outputs

Output 3.1: Enriched collaboration tools in support of substantive delivery

54. To include the following activities/deliverables:

- Implementing collaboration tools which are fully integrated with Microsoft suite of products used at the ILO to facilitate information and knowledge flow more freely throughout the organization.

- Creating digital team workspaces for real-time co-authoring of documents in particular in support of the Committee on the Application of Standards.
- Implementing communities of practice to enable dialogue and share content in delivery of key cross-cutting initiatives (i.e. SDGs, Future of Work (FOW), etc.).
- Facilitating blogging to promote internal news, events, and achievements.
- Promoting instant messaging for rapid communication.

Output 3.2: An Intranet that is tailored to the needs of staff based on their role and preferences

55. To include the following activities/deliverables:

- Replacing the existing Intranet to more effectively leverage desktop tools, enterprise applications and data to deliver relevant content to staff including:
  - Ensuring departmental site administrators can maintain Intranet content without requiring IT intervention.
  - Functionality for staff to contribute ideas.
  - Smart search and discovery so staff can easily find what they are looking for.
  - A consistent ILO branding and "look and feel" of the user interface.
  - Enabling staff to rank, rate and promote content based on relevance.
  - Implementing automated workflows to improve turnaround times for activities requiring routing of approvals and notifications.

Output 3.3: An improved website that more effectively promotes the ILO's purpose and contribution to the world of work

56. To include the following activities/deliverables:

- Utilizing more video, charts, images and other visualizations to attract the modern consumer of information.
- Strengthening access to contact information.
- Integrating with social media.
- Ensuring the website instinctively adapts to fit the screen of a smartphone, tablet, laptop, desktop, etc.

Output 3.4: Fully-integrated and unified communications

57. To include the following activities/deliverables:

- Replacing and expanding the ILO's video streaming and recording platform to support high-definition video, multiple streaming protocols in support for streaming ILO content over Facebook, YouTube and other services.

- Moving from fixed-line voice communications to Voice over the Internet Protocol (VoIP) to reduce telecommunication costs.

- Promoting the use of Skype for Business, web conferencing and instant messaging to reduce travel and other communication costs.

Indicators

58. The following are key indicators, criteria for success, baselines, targets and means of verification for strategy Outcome 3:

Indicator 3.1

Increase in per cent of staff using team sites to collaborate on specific deliverables on a monthly basis

Criteria for success:

- Ensuring each team site has an ILO staff member assigned as a facilitator.
- Ongoing support and training for team site facilitators.
- Senior management commitment and contribution to the site.
- Applying lessons learned to improve future sites.

Target

10 per cent a year

Baseline

To be established in January 2018

Means of verification

Yearly report on the number of individuals who have contributed content to selected team sites on a monthly basis

Indicator 3.2

Percent increase in use of targeted areas of ILO public website

Criteria for success:

- Identifying the target audience and tailoring the site to their needs.
- Identifying target areas of the ILO public website to measure.
- Ensuring the site is simple, clean and visually appealing.
- Ensuring content is kept up to date and relevant.

Target

10 per cent a year

Baseline

To be established when the new ILO public website is implemented

Means of verification

Yearly assessment of visitor activity

Indicator 3.3

Per cent decrease in the number of days ILO staff travel on mission

Criteria for success:

- Ensuring effective communication in promoting features and benefits of Skype for Business, VoIP and videoconferencing.
- Ensuring sufficient Internet bandwidth in field offices.
- Senior management commitment to a "green" ILO by promoting virtual meetings over physical meetings wherever possible.

Target

5 per cent per year

Baseline

To be established in January 2018

Means of verification

Yearly reporting of total mission travel days in locations that have IRIS

Risks

59. The following are key risks associated with strategy Outcome 3:

- Collaboration is not carefully managed, increasing opportunity costs and ultimately resulting in lower delivery.
- Facilitation and use of collaborative technologies is not promoted in a sustained manner resulting in stale sites and loss of interest.
- The underlying complexity of digital communications in the workplace results in loss of connectivity and delays in delivery.
- Insufficient training on tools and technologies used in collaboration and communication leads to staff anxiety and frustration, wasted time, reverting to old ways of working and ultimately decreased staff morale.

Synergies and cross-cutting issues

Information security

60. Proactively managing risks associated with misuse, breach, corruption or loss of ILO information assets is a cross-functional responsibility that requires the active participation of every ILO official and external partner. To ensure that ILO information is protected from next-generation malware and other cyber-attacks, much more will need to be done. Cross-portfolio collaboration and communication supported by effective decision-making will be critical.

61. The strategic approach over the strategy period is to more effectively identify external and internal risk factors and their potential impact on strategic organizational objectives and to take the necessary measures to reduce these risks.

62. During the strategy period, the Office will:

- implement an effective communication programme to promote ILO information security policies, improve compliance and raise awareness;
- strengthen the ILO's information security awareness training programme and make it mandatory for all staff;
- expand current capacity to collect and analyze internal and external information security risk intelligence and to generate early signals for growing strategic risks;
- leverage advanced data analytics and machine learning to identify and prioritize risk indicators;
- strengthen the incident reporting process to align with the ILO's overarching risk-management framework and crisis management process;
- build capacity for effective information security risk response and incident management process.

IT Governance

63. With limited resources to fully balance demand for IT services with existing supply, it will be critical that the IT Governance process remains effective to ensure that IT initiatives are fully aligned with the strategic outcomes of the Office.

64. In determining which IT initiatives are of most strategic value, the IT Governance process will place increased emphasis on assessing business-value drivers. In this context, the Project Management Office (PMO) function within INFOTEC will work closely with ILO business units to clearly qualify, quantify and link the contribution of any proposed IT initiative towards achievement of specific business outcomes and outputs.

65. The INFOTEC BPR also highlighted a number of areas where the IT Governance process could be improved. In particular, recommendations were made 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 project. This will facilitate a more streamlined, responsive and transparent IT governance process. Recommended improvements will be fully implemented during the strategy period.

66. To ensure IT initiatives of a smaller scale are aligned strategically, the BPR recommended that going forward, the INFOTEC PMO function interacts directly with portfolio DDGs to ensure that priorities and funding are set at the portfolio level and framed within INFOTEC's existing resource capacity to deliver.

Service-level management

67. The INFOTEC BPR highlighted the need for INFOTEC to establish key performance indicators to measure, monitor and manage performance and to ensure staff are aligned on what needs to be done to improve the quality of service being delivered. A revised INFOTEC Intranet site will highlight progress against KPIs to ensure IT is performing in line with expectations.

68. To underpin KPIs, INFOTEC will work with business process and application owners to refine existing service levels in support of key outputs defined in the IT Strategy 2018–21.

69. To strengthen the relationship between INFOTEC and departments/offices, single points of contact from each business unit will be assigned to work closely with INFOTEC. These focal points will be responsible for coordinating all activities within their respective business units to ensure effective and timely delivery of IT solutions. In addition, regular status meetings will be held to review priorities with senior management from each department/office to ensure project-related activities are on schedule.

Change management

70. The IT Strategy 2018–21 proposes a significant amount of change to processes, technologies, applications and ways of working. To be successful, the Office will be reliant on effective delivery of the Human Resources Strategy in cultivating a qualified and motivated workforce. It will also be important for the Office to review and improve existing job descriptions of staff to more effectively align them with the skills required for staff to be effective in the modern digital workplace. It is expected that over the four-year strategy period, resources will need to be directed to training of staff on how to best leverage new tools, technologies and applications in carrying out their daily work.

71. In delivery of the IT Strategy 2018–21, the Department of Communications will play a key role in ensuring communication with staff and constituents on major IT-related change initiatives is effective. The Office will also rely on HRD, INFOTEC, ILO senior management and others responsible to lead and drive change to successfully deliver on outcomes in the IT Strategy 2018–21.

External partnerships

72. To fully deliver on the IT Strategy 2018–21, the ability of the Office to leverage policies, procedures, contracts, application software, shared infrastructure and lessons learned from others in the private and public sectors is integral in containing costs and reducing time to market for delivery of IT services. In this context, the Office will look beyond its traditional base to strengthen existing partnerships and develop new partnerships with external parties through active participation in joint committees, strategy councils, advisory boards and United Nations (UN) networks.

73. At a strategic level, the ILO's Chief Information Officer and Chief Technology Officer will continue to participate as members of the UN Chief Executives Board for Coordination (CEB) Information and Communications Technologies Network (ICTN) and the United Nations International Computing Centre's Management Committee. These forums bring together senior IT leadership from the organizations in the UN system with a mandate to advise the High-Level Committee on Management (HLCM) on how to best leverage IT technologies, services, policies and practices system-wide.

74. At a tactical level, the Office will also continue to actively participate in a number of subcommittees within the framework of the UN-CEB-ICTN including the Special Interest Group for Oracle/PeopleSoft (CABIO) and the Information Security Special Interest Group (ISSIG) and Inter-Agency Telecommunications Advisory Group (ITAG).

75. In support of the 2030 Agenda, the ILO Library has recently partnered with Cornell Law School Library and 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. This programme will contribute to furthering the 2030 Agenda.

Draft decision

76. ***The Governing Body:***

(a) endorses the Information Technology Strategy 2018–21, taking into account the views expressed during its discussion; and

(b) endorses, in principle, the reactivation of the Information Technology Systems Fund, the biennial contribution to be determined in the context of future programme and budget discussions and the implementation of the IT Strategy to be adjusted according to the available level of funding.

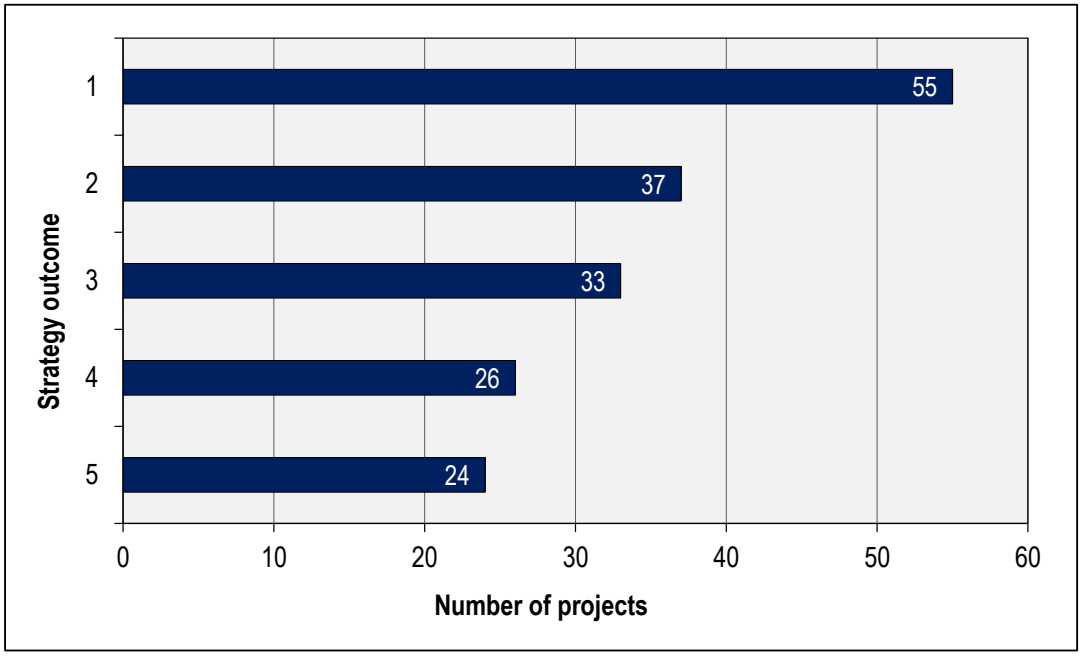
Appendix

Final progress report on the transitional IT Strategy of 2016–17

Executive summary

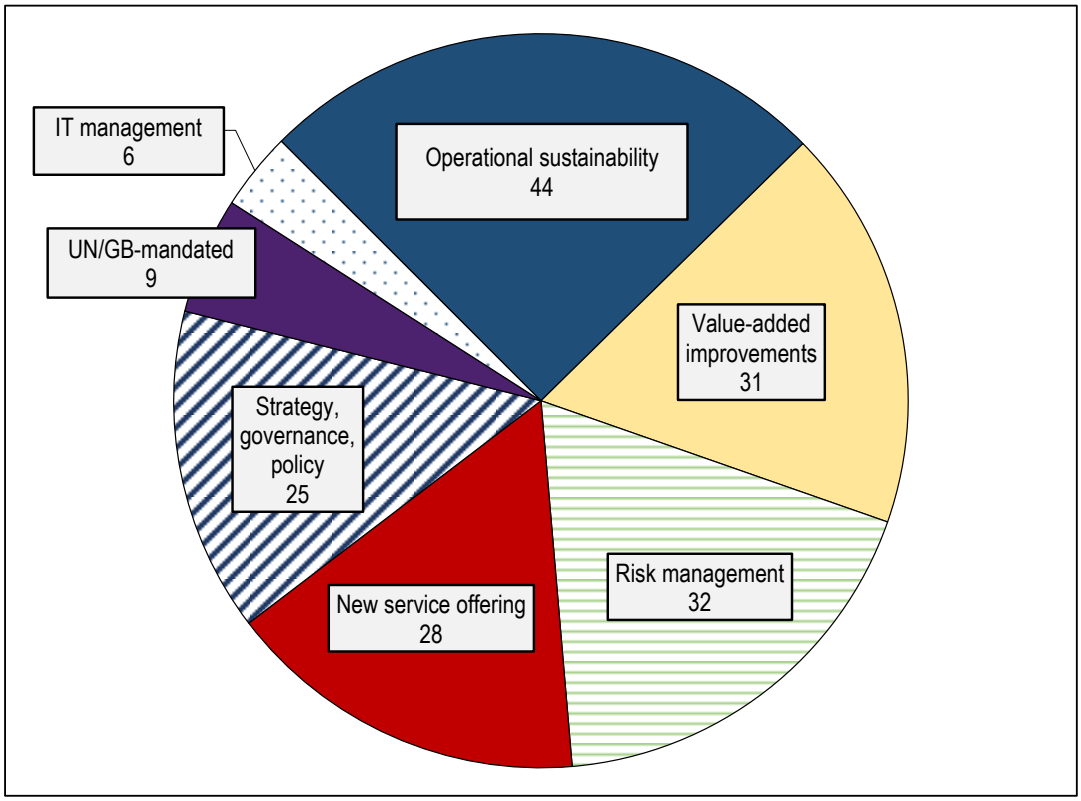
1. The Office delivered on the majority of outcomes and outputs targeted in the 2016–17 Transitional IT Strategy (IT Strategy 2016–17). A list of the 175 specific IT projects underpinning these outcomes and outputs can be found on the INFOTEC public website. [1] The following is a summary of these 175 completed projects by strategy outcome and project category.

Figure 1. 2016–17 IT Strategy – Projects by outcome



[1] http://www.ilo.org/public/english/support/itcom/.

Figure 2. 2016–17 IT Strategy – Projects by category



2. The 2016–17 biennium was a period of significant change for IT evolution at the ILO. In particular, the ILO BPR had a major impact on the work of INFOTEC. A significant number of internal IT processes, policies and practices underwent modification as a result of the BPR, requiring a readjustment of priorities set at the beginning of the biennium.

3. The following is a brief summary of progress made against each strategy outcome at the close of the biennium.

Progress against strategy outcomes

Outcome 1

4. Outcome 1 focused 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.

Key outputs

5. The following are key outputs delivered under Outcome 1:

- Implementation of Skype for Business Office-wide to support videoconferencing to the desktop.
- Hosting of ILO email and Skype for Business at UNICC to facilitate 24/7 support.
- Upgrade of the ILO's internal network and installation of Wi-Fi in the south side of the ILO headquarters building in conjunction with the building renovation project schedule.
- Consolidation and standardization of all ILO database application software underpinning key ILO systems.

- Implementation of single sign-on functionality for ILO email, ILO People and access to ILO shared network drives.
- Management of the ILO's firewalls with a third-party provider.
- Implementing software to eliminate the storing of duplicate files on the ILO's storage area network.

Outcome 2

6. Outcome 2 set out to institutionalize, streamline and automate business processes, with the goal of reducing administrative costs and facilitating consistent working methods across the Office.

Key outputs

7. The following are key outputs delivered under Outcome 2:
   - Completion of IRIS rollout to 24 locations including:
     - a new ILO Regional Office for Africa in Abidjan;
     - eight offices in the European region;
     - seven external and four project offices in Latin America and the Caribbean region;
     - one project office in the Arab States region;
     - ILO-Tokyo, ILO-Washington and ILO-New York.
   - Completion of 74 BPR-related initiatives.
   - Delivery of major changes to benefit and entitlement calculations as mandated by the International Civil Service Commission and the UN General Assembly.
   - Development of new interfaces to the UN Joint Staff Pension Fund.
   - Implementation of optical character recognition software to automate and streamline the processing of ILO invoices Office-wide.
   - Major enhancements to the staff Health Insurance Information System (HIIS).
   - Automation of mobile phone inventory management and billing.
   - Automation of the Partnerships and Field Support (PARDEV) appraisal, agreement and reporting processes.

Outcome 3

8. Outcome 3 centered on the delivery of content management solutions in order to enhance teamwork and improve reporting of organizational performance.

Key outputs

9. The following are key outputs delivered under Outcome 3:
   - Data warehouses and dashboards for:
     - development cooperation projects;
     - internal PARDEV reporting;
     - HRD Governing Body reporting;
     - travel management;

  - leave management.
- Release of Phase III of the ILO Gateway, integrating additional country-specific content from NATLEX, IRIS, Labordoc and iTrack.

Outcome 4

10. Outcome 4 addressed key areas of information risk requiring mitigation in order to ensure that ILO information assets were safeguarded.
11. The following are key outputs delivered under Outcome 4.

Key outputs

- Replacement of key ILO applications nearing technological obsolescence including:
  - Library Management System (Voyager).
  - Joint Medical Services System (JMS).
  - Internal Governance Documents System (IGDS).
  - IRIS User Centre (IUC).
- Replacement of 12 ILO Intranet and collaboration sites with SharePoint.
- Revised security awareness training to include an Office-wide anti-phishing campaign.
- Implementation of infrastructure to support digital forensic analysis and reporting.
- Implementation of a real-time disaster recovery infrastructure for the most critical ILO systems at UNICC.

Outcome 5

12. Outcome 5 was used to group outputs associated with management and administration of IT including drafting of strategies, policies, procedures, standards and guidelines.

Key outputs

13. The following are key outputs delivered under Outcome 5:
    - Business case and total cost of ownership (TCO) model for ERMS and Intranet replacement.
    - Revised IT Governance Process and Templates.
    - Information Security Incident Reporting Policy.
    - External Office IT Guidelines.
    - Revised login and password standards for all ILO systems.
    - End-user computing device usage policy.
    - Reduction in likelihood of nine of 11 risks identified in the 2016–17 INFOTEC register [2] from the previous biennium.

[2] http://www.ilo.org/public/english/support/itcom/.