



FIRST ITEM ON THE AGENDA

Information Technology Strategy

1. The executive summary of the Information Technology Strategy for 2007–09 (IT Strategy) was presented to the Subcommittee at its November 2006 session.¹ This paper provides the core elements of the Strategy in greater detail.

Linkages

2. The Strategy is a continuation of previous exercises undertaken by the Office. Although the 2007–09 Strategy essentially covers the same IT elements as its predecessors, it is no longer a stand-alone document setting out the technological road map of the Office. It is aligned with other related strategic processes, to adhere to the framework of results-based management (RBM).
3. This Strategy incorporates some basic elements of RBM; however, more work is needed to fully apply RBM concepts and ensure that the IT Strategy is an integral and coherent element of the overall results-based framework. As presented in the RBM road map,² the first step is for this Strategy to be approved, with the aim of presenting a revised strategy in 2009 which is fully RBM-compliant and is explicitly linked with other Office strategies.
4. A Human Resources Strategy 2006–09 (HR Strategy) is already in place.³ While it does not contain explicit linkages to the IT Strategy, there are implicit connections between the two, particularly in the areas of staff skills, competencies, recruitment and learning. The executive summary of the IT Strategy has already flagged the need for a more robust approach to recruiting as one approach to correct the prominent gender imbalance of IT professionals.
5. A knowledge-sharing strategy is under development. Since IT tools provide much of the foundation for sharing knowledge, the IT Strategy already contains explicit references and linkages to knowledge sharing.

¹ GB.297/PFA/ICTS/1.

² GB.297/PFA/1/1.

³ GB.297/PFA/16.

6. IT provides the infrastructure which enables all departments at headquarters and in the field to implement the strategic objectives of the Office. There is therefore an implicit and pervasive linkage between the IT Strategy and the ILO strategic objectives; for example, the first step in defining the Strategy was consultation with all sectors to understand their requirements.

Strategic context

Driving forces

7. The main elements driving and guiding the IT Strategy are:
 - the Director-General’s definition of the ILO as a “knowledge, service and advocacy organization”;
 - sector and regional requirements identified through continuous consultation at headquarters and in the field;
 - compliance with the overall framework of RBM;
 - alignment with other strategies, such as the HR Strategy and knowledge-sharing strategy;
 - alignment with the substantive work of the Office, supporting achievement of targets through effective delivery of IT infrastructure, technology and services.

Status of technology

8. All staff have personal computers with standard desktop tools and access to email, Internet and the Intranet. IT infrastructure is incrementally upgraded as resources and budgets permit. Systems and networks at headquarters and in the field are for the most part standardized and centrally managed.
9. A centralized team, complemented by decentralized staff resources, provides IT assistance to staff and a wide range of IT training. Judging from the type and number of calls placed to the HelpDesk, overall computer literacy improved noticeably during the previous strategy period (2001–06).
10. An enterprise resource planning (ERP) system (IRIS) is in use at headquarters and a progressive extension to external offices has started.
11. For information and knowledge management, the Stellent Content/Document Management System has been purchased and implementation projects have started.

Objectives

12. Use IT to enable the Organization to meet its strategic objectives and better serve its constituents.
13. Within the above overall context, deliver the following IT-related outcomes over the period 2007–09:

Programme execution

- All staff kept aware of available IT tools, technology and services
- All staff able to access essential services and perform work outside the Office
- Essential services required for business continuity available in the event of a disaster
- Performance improved for critical transaction-based systems
- Core business applications enhanced to improve efficiency
- Manual processes and procedures minimized through automation

Communication

- All staff can access email and communicate, around the clock, across the globe
- Email is free of spam, within the limits of existing technology and fully secure
- Connectivity for all external offices to the Internet continually monitored to ensure timely delivery of services and business functions

Knowledge management and sharing

- All circulars and other internal documents available and fully searchable electronically
- Collaboration throughout the Office improved through new technologies
- Key information available to staff, Governing Body members, and constituents via the Web

Cost containment

- Interdepartmental project coordination improved
- The need for customized software development reduced
- Process for IT funding and budgeting improved
- Process for hardware and software purchasing improved

ICT governance

14. The following diagram describes the various elements involved in the governance of information and communications technology (ICT) at the ILO:

Information and communications technology governance

Governing Body/PFA/ICT Subcommittee

- Assist the PFA in the governance of the ICT policies of the Office
- Review and debate substantive ICT issues which have a direct impact on the budget and make recommendations for consideration by the PFA

ILO policy

Information Technology Advisory Committee (ITAC)

- Internal Office body
- Advise on the strategic direction of IT
- Review implementation of major IT investments
- Establish IT standards
- Monitor compliance with standards

ILO operational

Information Technology and Communications Bureau (ITCOM)

- User support services
- Operations and technical services
- Applications technical support

UN system

- **ICT network** of IT managers coordinates activities and makes recommendations to the High-Level Committee on Management (HLCM)
- **HLCM** provides guidance to the ICT network and refers its recommendations, as appropriate, to the Chief Executives Board (CEB)
- **CEB** decides on IT matters which apply to the whole UN system

Implementation road map

15. Twelve implementation initiatives have been defined:

Programme execution services	Infrastructure	Governance, support and training
1. Collaborative working	4. Technology watch	10. Governance
2. EDMS	5. Infrastructure	11. Support
3. IRIS	6. Connectivity	12. Training
	7. Remote/mobile	
	8. Security	
	9. Staffing	

Summary and time line of outputs

	2007	2008	2009
1. Collaborative working	Web-based forums Communities of practice	Online meetings Internet-based products	EDMS integration
2. EDMS	Infrastructure Standards and policies Directives (circulars) IRIS integration GroupWise email integration Registry ITCOM pilot Training	Records management GB documents General documents Registry Archives scanning Training	Archives scanning General documents Training
3. IRIS	Oracle upgrade EDMS integration Initial extension to field Policies updated	Continue extension to field Additional functionality	Continue extension to field Additional functionality
4. Technology watch	Requirements mechanism Monitor and research Test as needed	Ongoing	Ongoing
5. Infrastructure	Upgrade HQ network WiFi in conference areas UN Extranet for field Locked-down desktop option	Network drive archiving Upgrade HQ network Upgrade HQ cabling	Upgrade HQ cabling
6. Connectivity	Improve field connectivity for IRIS extension Upgrade field firewalls	Improve field connectivity	Improve field connectivity
7. Remote/mobile	PDA policy Laptop policy	Access security Mobile equipment security	
8. Security	Security officer appointed Start security policy update Basic disaster recovery	Complete security policy Enhance disaster recovery	Enhance disaster recovery
9. Staffing	Improved process	Ongoing	Ongoing
10. Governance	Control objectives for information and related technology (COBIT) + Information Technology Infrastructure Library (ITIL) stage 1 completed	Begin COBIT+ ITIL stage 2	Stage 2 completed
11. Support	Enhance support structure Introduce service level agreements (SLAs)	Client satisfaction survey Enhance support structure Expand use of SLAs	Enhance support structure
12. Training	IRIS HQ ongoing Start IRIS in field EDMS	IRIS in field EDMS	IRIS in field EDMS

Implementation details

Programme execution services

Initiative 1: Collaborative working

Main activities	Main outputs
<p>Identify and evaluate technology for collaborative working, such as:</p> <ul style="list-style-type: none"> - web-based forums; - Wikis; - tools for communities of practice; - online meetings; - Internet-based communications. <p>Select tools and define standards and policies.</p>	<p>Use new technologies to improve collaboration</p> <p>Use tools such as forums to share knowledge.</p> <p>Use Internet telephony to reduce costs and facilitate communication.</p> <p>Use traditional or desktop-to-desktop videoconferencing as an alternative to travel.</p>

Initiative 2: EDMS

Main activities	Main outputs
<p>Deploy the EDMS globally.</p> <p>Implementation by subprojects, each managed by a lead department, overall governance provided through Steering Committee of major stakeholders.</p> <p>Lessons learned from the IRIS project incorporated into planning and execution.</p> <p>Activities include:</p> <ul style="list-style-type: none"> - putting in place adequate resources to carry out projects and provide ongoing support; - strengthening the HQ-based infrastructure to ensure successful deployment and long term use of the systems; - defining global standards; - defining confidentiality, legal and security policies; - rolling out systems in a controlled fashion, through business subprojects; - defining and implementing an archiving strategy; - standardizing web content; - managing change and providing training; - introducing the necessary support structure. 	<p>All circulars and other internal documents, available and fully searchable electronically.</p> <p>Key information available to staff and constituents via the web.</p> <p>Web is the major means of dissemination of ILO knowledge and products.</p> <p>ILO web site has a consistent look and feel, is user-friendly, intuitively navigable and coherent.</p> <p>Manual processes and procedures minimized through automation.</p> <p>Integrated, systematic management of knowledge and ILO products.</p>

Initiative 3: IRIS

Main activities	Main outputs
<p>Continuing improvement and enhancement. Key components deployed to field offices.</p> <p>Activities include:</p> <ul style="list-style-type: none"> - upgrading to Oracle 11.5.10; - enhancing IRIS at headquarters; - Improving processes; - updating policies; - implementing progressively in the field; - integrating with the EDMS; - investigating effective monitoring control; - undertaking a business process review. 	<p>Core business applications enhanced to improve efficiency.</p> <p>Performance improved for all critical transaction-based systems.</p> <p>Manual processes and procedures minimized through automation.</p> <p>Improving governance, communication and decision making</p>

Infrastructure

Initiative 4: Technology watch

Main activities

Ongoing monitoring and evaluation of information technology to identify new trends and tools which facilitate the work.

Activities include:

- identifying requirements;
- identifying and testing tools, technologies and services to enhance performance, functionality and reliability;
- introducing a mechanism for gathering requirements and technology suggestions from staff;
- continuing to participate actively in the UN ICT network;
- updating standards and policies;
- monitoring and testing open source software alternatives for standard tools;
- communicating new standards to staff.

Main outputs

All staff kept aware of available IT tools, technology and services.

Continue to assess options to ensure a secure, manageable and scalable environment for existing and new applications.

Maintain an appropriate, cost-efficient technological infrastructure, taking account of all IT and information management requirements.

Maintain or increase availability of centrally maintained IT systems.

Greater efficiencies through shared development and collaboration throughout the UN system.

Initiative 5: Infrastructure

Main activities

Continually monitor, develop and improve the IT infrastructure.

Activities include:

- upgrading network at headquarters and in the field;
- replacing servers and desktops regularly;
- deploying WiFi in conference areas;
- ongoing update of the ITCOM Intranet;
- providing access to IRIS and the EDMS in field offices;
- providing access to the UN Extranet for field offices;
- offering standard locked-down desktop machine option;
- implementing an archiving strategy for network files.

Main outputs

All staff can access email and communicate, around the clock, across the globe.

Maintain or increase availability of centrally maintained IT systems.

The ILO's global telecommunications infrastructure incrementally upgraded to ensure ICT delivers existing services and new applications that the Office increasingly depends on to serve its constituents and improve administrative efficiency.

Support improved access to and sharing of knowledge, modernization of work practices and improved service delivery.

Initiative 6: Connectivity

Main activities

Connectivity requirements between headquarters and the regions will be reviewed and potential solutions evaluated.

Activities include:

- review connectivity in ILO offices;
- monitoring regional and local telecommunications and connectivity improvements;
- upgrade connectivity on a case-by-case basis;
- working with the internal telecom unit to actively investigate and research VoIP solutions.

Main outputs

All staff can access email and communicate, around the clock, across the globe.

All staff can access vital applications and services, around the clock, across the globe.

Fewer telephone calls and faxes lead to substantial savings, especially for communications to and from the field.

Initiative 7: Remote/mobile

Main activities

Demand for remote access to the ILO computer systems is growing as technologies improve. Equipment and policies upgraded to support this need.

Activities include:

- evaluating technology choices;
- defining a policy for PDA-based solutions;
- implementing appropriate security for remote/mobile access to ILO systems and mobile equipment;
- defining standards and policies for new technologies.

Main outputs

Complete, secure access to the ILO systems is available from remote locations:

- all staff can access email and communicate, around the clock, across the globe, and can access essential services and perform work outside the Office;
- authorized staff can access IRIS from home or when on mission.

Initiative 8: Security

Main activities

Ensure that the Office has a sound, viable, and updated security policy, applied consistently throughout the Office and across all systems.

Activities include:

- appointing an IT security officer;
- establishing, promoting and enforcing a comprehensive IT security policy and business continuity/disaster recovery plan;
- ongoing security monitoring, threat containment and email security;
- ensuring secure access for IRIS and files in field offices.

Main outputs

All essential services required for business continuity available in the event of a disaster.

Email is free of unwanted spam, within the limits of existing filtering technology, and is fully secure.

Security mechanisms continually monitored, reviewed, and strengthened to guard against attacks and risks originating from the Internet.

Complete, secure access to the ILO systems from remote locations.

Initiative 9: Staffing

Main activities

The staffing of IT posts remains a challenge.

Activities include:

- improving and streamlining the recruitment process;
- continuing to evaluate and compare outsourcing and partnering options;
- maintaining contacts with other international organizations, exploring bilateral secondment arrangements.

Main outputs

A more efficient recruitment process.

An improved gender balance.

Meet cost efficiency and effectiveness targets.

Governance, support and training

Initiative 10: Governance

Main activities

Continue organizational-wide governance through the PFA/ICTS and ITAC. Implement auditable technical IT governance (ITG) based on COBIT and ITIL standards.

Activities include:

- managing secretariat for PFA/ICTS and ITAC meetings;
- developing and implementing good practice methodology for software development and control;
- implementing processes for project coordination and governance.

Main outputs

IT is aligned with business objectives and strategies.

IT adopts a culture of business service orientation.

Costs are contained.

Effective governance for all major projects with provision for independent assessment.

IT projects reviewed and monitored against clear plans, budgets and milestones.

IT knowledge and experiences captured and documented.

Initiative 11: Support

Main activities	Main outputs
<p>Continue to enhance support, which improved significantly during the previous strategy period (2001–06).</p> <p>Activities include:</p> <ul style="list-style-type: none"> – support to users at headquarters and in the field; – remedial and preventative maintenance and monitoring; – reviewing the current decentralized support model; – introduce SLAs; – improving information dissemination; – conducting a client satisfaction survey. 	<p>Standard levels of IT support throughout the organization.</p> <p>A more consistent, responsive, efficient and cost-effective support structure.</p> <p>Adequate system support and knowledge transfer mechanisms.</p>

Initiative 12: Training

Main activities	Main outputs
<p>IT has become an essential tool of the workplace. ITCOM and the Department of Human Resources work together to develop appropriate IT learning programmes.</p> <p>Training requirements include:</p> <ul style="list-style-type: none"> – IRIS at headquarters and in the field; – knowledge management; – EDMS and change management; – new technologies, services, and applications; – Web development; – IT components of management development; – alternative methods of information dissemination and delivery of training will be evaluated and introduced. 	<p>Staff learning and development is one of the main components of the Human Resources Strategy (2006–09). Improved information dissemination and knowledge transfer.</p> <p>Easier access to training modules and material.</p>

Alignment**Alignment of the IT Strategy with the Strategic Policy Framework (2006–09) ⁴**

SPF item/issue	Initiative
<p>Videoconferencing more widely used in 2006–09 (...), expanded services such as telephone communications via the Internet and desktop-to-desktop videoconferencing.</p>	<p>Collaborative working, infrastructure</p>
<p>A communication strategy (...), using the Internet as the major means of dissemination of ILO knowledge and products.</p>	<p>EDMS</p>
<p>During the 2006–09 period the Office should address the following goals:</p> <ul style="list-style-type: none"> – enlarging and organizing systematically our knowledge on the world of work (...); – making available (...) the extensive and practical knowledge of ILO constituents themselves (...); – facilitating access to comparative databases on decent work indicators and policies (...); – elaborating new knowledge-sharing systems and tools, including communities of practice. 	<p>EDMS, collaborative working</p>

⁴ GB.291/PFA/9.

SPF item/issue	Initiative
An integrated, systematic approach to managing (...) knowledge collected by the ILO and (...) ILO products, would strengthen the ILO's capacity by improving the quality and operational relevance of ILO services, avoiding duplication of effort, speeding up its processes and facilitating knowledge dissemination.	EDMS, training
A continuing process of general upgrading of ICT at headquarters and in field offices.	Governance, infrastructure
The ILO's global telecommunications infrastructure (...) incrementally upgraded to ensure that information technologies can deliver the existing services and new applications that the Office increasingly depends on (...).	Infrastructure, connectivity
ICT plays a pivotal role in enabling the ILO to meet its strategic objectives and better serve its constituents. The combination of computing and telecommunications technologies support improved access to and sharing of knowledge, modernization of work practices and improved service delivery.	IRIS, EDMS, infrastructure, collaborative working
An appropriate (...) infrastructure, which takes due account of all (...) information technology and information management requirements (...). (...) continue to assess options to ensure a secure, manageable and scalable environment for existing and new applications. (...) compatible with the UN system-wide comprehensive strategy on ICT.	Infrastructure, technology watch, governance

Alignment of the IT Strategy with the Programme and Budget proposals (2008–09)⁵

Indicator/strategy	Initiative
An EDMS will be put in place to increase the quality and accessibility of ILO official correspondence, reports, documents and archives.	EDMS
Access to IRIS functionalities in the field.	IRIS
An internal user and client satisfaction survey will be conducted in 2008 to assist in improving the ILO's service orientation.	Support
Decrease the time required to complete internal IT HelpDesk requests.	Support
Availability levels of centrally provided IT systems will be maintained or increased.	Technology watch, infrastructure

Budgeting for IT

- 16.** The 2006–07 budget of ITCOM, the central IT support unit in Geneva, is detailed in the table below. There is a significant decentralization of IT resources throughout the ILO. IT budgeting through IRIS is more structured than it was with the legacy systems of the past. After IRIS is extended to external offices, timely and accurate reporting of total IT expenditures will become routine. Overall, it has been estimated that the total expenditures for IT at the ILO were 6 per cent of the total expenditure of the Office, in line with the 7–9 per cent benchmark in the government sector.

⁵ GB.298/PFA/13.

ITCOM resources 2006–07

Regular budget

P staff costs	US\$9 250 004
GS staff costs	US\$3 524 020
Total P + G staff costs	US\$12 774 024
Other staff costs	US\$101 322
Total staff costs	US\$12 875 346

Non-staff

Travel	US\$97 895
Service contracts	US\$5 492 742
Rental and maintenance	US\$1 797 472
Communications	US\$433 278
Equipment	US\$241 192
Training	US\$116 944
Miscellaneous/contingency	US\$523 766
Total non-staff costs	US\$8 703 289
Total	US\$21 578 636

ICT investments – Regular budget

EDMS deployment	US\$500 000
Server replacements	US\$170 000
Total	US\$670 000

IT Systems Fund (surplus)

EDMS	US\$227 317
WAN	US\$272 194

17. *The Subcommittee may wish to recommend to the Programme, Financial and Administrative Committee that it approve this strategy document and support the Office as it implements the elements contained therein.*

Geneva, 2 February 2007.

Point for decision: Paragraph 17.