



## SECOND ITEM ON THE AGENDA

**Integrated Resource Information System (IRIS)**

1. At the 297th Session (November 2006) of the Governing Body, the Information and Communications Technology Subcommittee (ICTS) of the Programme, Financial and Administrative Committee (PFA), reviewed a paper on the lessons learned from the implementation of the ILO Integrated Resource Information System (IRIS) at headquarters.<sup>1</sup> This paper includes an overview of benefits realized from the implementation of IRIS, an update on the increased use of IRIS in the field, and details on the 2006–07 budget for ongoing operations, development and support activities.

**Benefits from the implementation of IRIS**

2. This section of the paper assesses performance of IRIS against expected benefits identified before development started and reported to the Governing Body at its 277th Session (March 2000).<sup>2</sup> These are benefits that were not present in ILO legacy applications prior to IRIS.

**Improved information quality and availability**

3. IRIS has streamlined and integrated financial, human resource and technical cooperation administrative processes and rules along with coding structures and data previously maintained in 42 disparate legacy applications into a single, shared repository of information. The streamlining of these processes, in conjunction with this consolidation of data, provides more accurate information to management, staff and constituents. The fact that everyone is using the same system has brought about increased levels of visibility, transparency, security and reliability. It has reduced the time required to analyse, consolidate and decipher redundant or inconsistent information from multiple data sources. As the application is progressively extended to the field, these benefits will be more

<sup>1</sup> GB.297/PFA/ICTS/2.

<sup>2</sup> GB.277/PFA/2/2.

complete and more widely available. External offices already have viewer access to much relevant data.

4. Information in IRIS is accessible in “real time”. At headquarters, users have the capability to monitor financial and administrative transactions on a daily basis facilitating proactive mitigation of issues. This has made it possible to significantly reduce processing times for annual and biennium closings, reconcile accounts more effectively, and meet increasing donor and auditor demands more promptly.
5. The implementation of IRIS remote connectivity grants authorized users “24 hour” access to IRIS using a secure PC or laptop from anywhere in the world where an Internet connection is available. The ability to access IRIS over the Worldwide Web improves the overall service availability of critical ILO applications.
6. The establishment of a mirrored IRIS environment at a second physical location makes it possible to maintain business continuity with negligible loss of service in the event of a catastrophic incident or emergency at headquarters or in the field.

### **Provide clear methodologies and tools for financial control**

7. Automated routing of transactions for approval based on authorization limits, routing hierarchies and rules which underpin financial policies has facilitated decentralization of financial duties throughout the Office.
8. IRIS has improved automated funds control through funds checking and funds reservation which takes into account current allocations, pending commitments and expenditures. These financial controls ensure adequate funds are available prior to processing financial transactions in IRIS.
9. The underlying Oracle software can be configured to meet International Public Sector Accounting Standards (IPSAS) as adopted by the Governing Body at its 297th Session.
10. To monitor compliance with financial regulations, IRIS has been configured with a number of system-generated alerts that notify the departments of Financial Services, Human Resources and Information Technology and Communication of contract terminations, delegation of approval authority, transfers between business units and changes in staff positions. These alerts automatically update access and approval rights in IRIS to prevent unauthorized users from accessing sensitive data and processing transactions that would otherwise be restricted.
11. Eleven distinct approval hierarchies have been configured in IRIS to ensure that financial and administrative transactions prepared and processed in IRIS are approved by staff with explicit authorization as defined by the ILO Financial Rules and Regulations. Where applicable, electronic approvals have eliminated significant routing of paper-based forms with physical signatures.
12. Every transaction processed in IRIS includes information about who created, modified, approved or cancelled the transaction. Additional audit functionality has been enabled to capture before and after snapshots of changes to sensitive data such as staff compensation and supplier banking details. These tools assist internal and external auditors when evaluating the adequacy of security and administrative controls.

## **Establish value added processes**

13. The implementation of functionality in IRIS to support planning, budgeting, monitoring and reporting of financial and human resources aligned with the ILO results-based framework has brought more clarity, focus and synergy. Headquarters and external office staff are able to work collaboratively in defining a strategic framework down to detailed operational outcomes. Resources are now linked to outcomes and can be measured and evaluated more effectively. The ability to link budgets from all sources of funds to Decent Work Country Programmes and global outputs helps management to plan and implement the substantive work of the Office within a results-based approach.
14. The implementation of an employee-driven, self-service electronic travel request and claim process at headquarters has improved the quality of travel-related information throughout the Office. Along with electronic generation and notification of the travel request and travel claim, financial controls are enforced through online validation of accounts, automatic funds checking and reservation, calculation of daily subsistence allowances, escalation of approvals based on authorization limits, and full integration with procurement and accounts payable when applying travel advances and payments. Automated interfaces which send electronic purchase orders to travel agencies managing the ticketing process expedite issue of tickets. In return, the travel agency is able to send electronic invoices for payment eliminating manual entry of these invoices by Office staff. In addition, the paper-based travel request and claim used prior to IRIS required additional resources to key data into an electronic medium before any reporting or meaningful analysis could take place. Although the automated travel module has produced measurable benefits, additional work is ongoing to simplify the current user interface.
15. The implementation of functionality for technical cooperation projects provides additional flexibility in monitoring activities and costs within the ILO's results-based framework and improves overall donor reporting capabilities.

## **Enable rapid data capture, validation and information dissemination**

16. The accessibility of accurate information has improved financial controls and facilitated management decision-making. Users are able to define, format and run their own reports against "real-time" data on demand and view these online. This has eliminated a significant number of paper-based reports which were scheduled and processed on the legacy mainframe and distributed throughout the Organization on a regular basis.
17. To facilitate ease of data entry, easy-to-use tools have been implemented which provide authorized users with the capability of entering fully validated and secure transactions in familiar desktop software such as Microsoft Excel and then upload these transactions directly into IRIS.
18. IRIS "front office" self-service applications such as travel, personnel actions and strategic management provide Web-based interfaces to facilitate ease of user data entry. Future IRIS "back office" applications will be upgraded to this same simplified self-service interface in the near future.

## **Reduce data replication and data entry**

19. Many ILO legacy applications were developed independently and required nightly batch interfaces to synchronize and populate data shared across applications. In some instances,

proprietary software and restrictive technology meant data from one application had to be entered manually in another application. Redundant entry of data was time consuming, costly and susceptible to errors.

20. As a single, integrated and “real-time” data platform at headquarters, IRIS applications enforce validation and integrity rules during data entry to aid the user in entering data correctly the first time. Data is entered only once and is instantly available across all applications thus increasing efficiency in resource utilization, reducing overall costs and minimizing the impact of data quality issues on downstream processes. This benefit has been realized at headquarters but will only be fully realized once existing field systems have been replaced by IRIS.

### **Provide for the future growth of the Organization**

21. IRIS provides a backbone to further extend and integrate additional functionality. This has already been done in the case of education grant requests and claims, performance appraisal notifications and other HR processes. Full integration with the Electronic Document Management System (EDMS) is currently under analysis. Other functionalities available in the standard suite of Oracle applications under review for implementation in a future release of IRIS includes: iLearning, iRecruitment, competency management, leave management and assets management.
22. The real power and value of IRIS lies in its ability to take high volumes of transactional data and share it with the entire Organization. As the Office continues to evolve, IRIS will provide additional tools to help staff manage and analyse information improving productivity, and ultimately assisting management in making timely and informed decisions.

### **Maximize system lifetimes and reduce support risks**

23. The primary driver for implementing IRIS was the need to replace older legacy systems which were written in obsolete programming languages, hard to decipher, difficult to support, and risky to modify in order to meet the changing needs of the Office.
24. The underlying application modules of IRIS are developed and maintained by a dedicated software vendor who guarantees lifetime support for all licensed IRIS modules. As the software continues to evolve and incorporate additional functionality, leading-edge technology, and accepted best practices and standards, the ILO is able to take advantage of these improvements. However, there is a cost element to periodically upgrading the underlying software every three to five years, which will be duly discussed and reflected in the programme and budget.

### **Conclusion**

25. Although much work remains to fully realize the benefits of IRIS, the majority of expected IRIS benefits as identified in the initial March 2000 document have been achieved as well as other additional benefits not explicitly identified at that time. Although intangible, perhaps the most important benefit of IRIS has been the change that is occurring in ILO staff, technology and processes. With an increasing management focus on organizational change, standardizing around best business practices, improving administrative processes, enhancing staff skills and competencies, and closely aligning IT initiatives with business

strategies, IRIS is facilitating a move to improve existing work organization, functions and capacities.

## Access to IRIS for external offices

26. This section of the paper provides a status report on the approach, activities and risks related to providing additional IRIS functionality to external offices.

## Background

27. The Strategic Management Module (SMM) of IRIS was deployed to all external offices in 2005. This included the programme and budget module to support the preparation, review and approval of the 2006–07 budget. The implementation planning module was subsequently deployed in 2006. This allows the field to define outcomes for Decent Work Country Programmes and enables headquarters technical sectors to link staff and non-staff resources to these outcomes.
28. A plan to provide further IRIS functionality in external offices began in June 2006 and is being implemented within allocated budget resources. The goal is to continue deploying key IRIS functions to external offices and to replace the existing legacy FISEXT system. The underlying approach takes into account the experience of implementing IRIS at headquarters and the related lessons learned.

## Governance and methodology

29. The plan to increase the use of IRIS in ILO external offices is overseen by the field roll-out task team (FROTT) which comprises senior managers from the main business departments at headquarters and internal audit. The team meets regularly to assess progress, manage risk and ensure that key decisions are made in consultation with representatives from the regions.
30. Activities are being managed according to the Oracle Application Implementation Method (AIM); the use of this standard, tried and tested methodology promotes effective stewardship, management, and monitoring of progress and tasks.

## Change management

31. The ongoing involvement of the regions is critical to the success of this phase of the overall IRIS implementation. This requires ongoing communication, buy-in and commitment from staff in the regions, and involvement in key activities. These activities include the determination of future administrative procedures under IRIS, and the formulation and implementation of training and support strategies.
32. To address these needs, a change management strategy is being devised and implemented. The strategy includes the creation of a network of change agents in the regions that will participate in driving the change management effort locally. The change agents will be the local focal points for change and will be responsible for communications, and collecting and consolidating input on IRIS activities. Training will be provided to staff undertaking this role.

33. Initial change management tasks are already in progress. Consultation is taking place with Europe, Asia, Africa and the Americas. Visits to the regions provide the opportunity for direct communication with a wide range of representatives from offices within each region, mobilize support, identify change agents, and provide direct input to working proposals on future administrative procedures and strategies for training and support.

## Risk management

34. Increasing the use of IRIS in external offices involves a number of significant risks. These include possible lack of management involvement or support, insufficient capacity at headquarters and in the regions, inadequate network connectivity, conflicting work priorities, insufficient training and support to operations, significant changes to scope and resistance to change. It is essential that these risks are managed effectively.
35. The FROTT manages risk on an ongoing basis. The key components of risk management include identifying risks, determining the approach for managing risks, and monitoring their potential impact and ongoing status.
36. The Office of Internal Audit and Oversight, through its representative on the FROTT, provides input to this risk management strategy.

## Administrative operations in external offices

37. Increasing the use of IRIS in external offices provides an important opportunity for the Office to rethink how operations are performed in the regions and between the regions and headquarters. This includes the possibility of consolidating administrative procedures performed in all offices to one or more locations or decentralizing administrative procedures that are currently consolidated. Key administrative procedures are being reviewed and proposals on how each will function in the field under IRIS are being developed. The regions are involved in this process through ongoing consultation and communication.
38. A clear set of criteria is being established, in consultation with the regions, to evaluate the future proposal for each key administrative procedure. The criteria will include such elements as local decision-making, effectiveness, efficiencies and savings, timeliness, consistency, staffing, capacity to deliver, segregation of duties, compliance with financial rules, accountability, auditability, capacity to train and support, and continuity measures in case of system downtime.

## Timeline and pilots

39. In addition to the SMM of IRIS that has already been deployed, “read-only” SMM and Oracle Grants Accounting functionality is being implemented to provide information to assist in the management of budgets, and RBTC and TC projects. The roll-out of personnel action functionality is also anticipated as a pilot for the Bangkok Regional Office in early 2007.
40. The first comprehensive implementation of IRIS in an external office will be to support a large technical cooperation project in Indonesia.<sup>3</sup> IRIS is being implemented for this

<sup>3</sup> INS/0615/NET – *Education and skills training for youth employment in Indonesia*.

project to pilot the use of results-based management for technical cooperation. The implementation is scheduled for March 2007. On-site training is being provided by a dedicated team of trainers from headquarters. Training is to be followed by a three- to six-month period of dedicated on-site support. A local support coordinator is being trained during this time to take responsibility for local support after the period of direct support has concluded.

## Other initiatives

41. As key IRIS functions are progressively extended to external offices, other initiatives that potentially impact the work of ILO external offices are also beginning, in particular the ILO field structure review and United Nations reform. Close collaboration and coordination are required going forward to ensure coherence and to avoid duplication of effort.

## Conclusions

42. Extending key IRIS functions to external offices is a critical element of the overall vision of the Office. IRIS is a complex system that has begun to yield tangible benefits and these benefits can be significantly enhanced through further extending IRIS functionality to ILO external offices. Increasing IRIS functionality in external offices requires substantial effort and is subject to risk. The ILO field structure review and United Nations reform initiatives can also have significant impact on this effort.
43. It is essential that IRIS functionality is provided to external offices without reducing the ability of the Office to deliver on its mandate. The approach being taken is cautious, with a strong emphasis on the use of pilots to validate administrative procedures, functionality, training, support and staffing capacities. This allows adequate time to address risks, and to validate and refine the methodology and approach to ensure efficiency and effectiveness of delivery. This approach further provides the necessary flexibility to adapt to potential changes to the operating environment that can result from the ILO field structure review and United Nations reform.

## Budget

44. IRIS as a project came to a close at the end of 2005. The IRIS application, its functionalities, and its budget have been fully integrated into three programmes of the Office: the Information Technology and Communications Bureau (ITCOM) for technical support, the Bureau of Programming and Management (PROGRAM) for functional support, and Human Resources Development (HRD) for training. Other business units such as FINANCE and PROCUREMENT have absorbed significant amounts of work related to IRIS support, development, testing and training. The 2006–07 budget for IRIS technical and functional support is summarized in the table below; resources for IRIS training are funded through the Office-wide staff development resources.

## IRIS budget 2006–07

<b>Budget for IRIS support</b>	<b>US\$</b>
Professional staff costs	7 014 803
General Service staff costs	354 838
<b>Subtotal Professional + General Service staff</b>	<b>7 369 641</b>
Other staff costs	116 218
<b>Total staff costs</b>	<b>7 485 859</b>
Total non-staff	7 558 620
<b>Total available budget</b>	<b>15 044 479</b>
Staff development	64 945
<b>Total budget</b>	<b>15 109 424</b>
<b>Non-staff</b>	
Travel	100 000
Consulting	800 000
Maintenance and licences	1 266 000
Telecommunications	100 000
Equipment and supplies	120 000
Service contract: Infrastructure	2 360 000
Service contract: Application development	2 582 742
Miscellaneous/contingency	229 878
<b>Total non-staff</b>	<b>7 558 620</b>

Geneva, 2 February 2007.

*Submitted for information.*