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FOLLOW-UP TO DECISIONS AND RESOLUTIONS ADOPTED BY THE EXECUTIVE BOARD AND THE GENERAL CONFERENCE AT THEIR PREVIOUS SESSIONS

PART IV: MANAGEMENT ISSUES

KNOWLEDGE MANAGEMENT AND INFORMATION TECHNOLOGIES FOR ENHANCED PROGRAMME DELIVERY

SUMMARY

This information document contains the text of the *Knowledge Management and ICT Strategy*, as background information for the report by the Director-General on the implementation thereof (document 196 EX/5, Part IV (D)).



Original: English

KM & ICT Strategy

UNESCO's Strategy on Knowledge Management
and Information & Communication Technology

2012-2017

Version 2.0 – December 2013

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Annex: UN ICT Strategic Framework

GLOSSARY

Bureau of Knowledge and Information Systems Management (BKI): an organizational unit of UNESCO's Secretariat responsible for developing and implementing a comprehensive Organization-wide knowledge and information systems management strategy. It also ensures a supportive ICT environment, both in terms of policy and infrastructure, responsive to the needs of the Organization. It is headed by the Chief Information Officer (CIO).

Business continuity is the activity performed by an organization to ensure that critical business functions are available to customers, suppliers and other entities. These activities include many daily tasks such as project management, system backups, change control, and help desk. Business continuity is not something implemented at the time of a disaster. Business Continuity refers to those activities performed daily to maintain service consistency and recoverability.

Business intelligence (BI) is the ability for an organization to take all its capabilities and convert them into knowledge. BI **technologies** provide historical, current and predictive views of business operations. Common functions of business intelligence technologies include reporting, analytics, business performance management, and benchmarking.

Cloud (or Cloud Computing) is the delivery of computing, storage capacity or applications as a service to a community of end-recipients. The name comes from the use of a cloud-shaped symbol as an abstraction for the complex infrastructure it contains in system diagrams. Cloud computing entrusts services with a user's data, software and computation over a network.

Community of Practice (CoP) is a group of people who share a craft and/or a profession. The group can evolve naturally because of the members' common interest in a particular domain or area, or it can be created specifically with the goal of gaining knowledge related to their field. It is through the process of sharing information and experiences with the group that the members learn from each other. CoPs can exist online, such as within discussion boards and newsgroups, or in real life.

Corporate taxonomy is the hierarchical classification of entities of interest to an organization, used to classify documents, digital assets and other information. Corporate taxonomies are increasingly used in information systems (particularly content management and knowledge management systems), as a way to allow instant access to the right information within exponentially growing volumes of data.

Digital library (repository) is a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The digital content may be stored locally, or accessed remotely via computer networks. A digital library is a type of information retrieval system.

Disaster recovery is the process, policies and procedures related to preparing for recovery or continuation of technology infrastructure critical to an organization after a natural or human-induced disaster. Disaster recovery is a subset of business continuity.

End-user of a computer system or software is someone who uses it.

Finance and Budget System (FABS) is UNESCO's SAP-based information system used for purchasing and contracting, travel management, budget consumption monitoring, payments, account keeping and reporting.

Information and Communication Technology (ICT) is a term that stresses the integration of telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to create, access, store, transmit, and manipulate information.

Key-user is a person who uses an IT system or tool on a regular basis and combines the functional knowledge of the tool with a good understanding of the business processes supported by it. Key-users are involved in the design, testing and improvement of IT tools and provide guidance to other users.

Knowledge Management (KM) is a set of principles, policies and practices through which an organization consciously and comprehensively gathers, organizes, shares, and analyses its knowledge - in terms of insights, experiences and skills - perceived as a strategic resource. It covers both explicit (externalized, documented) knowledge and tacit knowledge (such as skills and best practices). Knowledge Management is inseparable from Knowledge Sharing (KS).

Knowledge Sharing (KS) is a key concept and component of Knowledge Management. It refers to any activity aimed at exchanging knowledge within a community or organization. Knowledge sharing activities are generally supported by KM systems and tools. However, technology constitutes only one of the many factors that affect the sharing of knowledge in organizations, such as organizational culture, trust, and incentives.

Learning organization is an organization that facilitates the learning of its members and continuously transforms itself, in order to: maintain levels of innovation and remain competitive, to respond to external pressures, have the knowledge to better link resources to customer needs, improving quality of outputs at all levels, improving corporate image by becoming more people oriented, and increasing the pace of change within the organization.

Open-source software (OSS) is computer software that is available in source code form: the source code and certain other rights normally reserved for copyright holders are provided under an open-source license that permits users to study, change, improve and at times also to distribute the software.

Process Owner is the person or unit responsible to design the processes necessary to achieve the objectives of the business plans. The process owner is responsible for the creation, update and approval of documents (procedures, work instructions/protocols) to support the process. This person/unit is the contact for all information related to the process.

SAP (Systems, Applications, and Products for data processing) is a standard software system in which the various functions of a company (accountancy, finances, production, provisioning, marketing, human resources, quality, maintenance, etc.) are connected between them by the use of a common, centralized information system. At UNESCO, SAP is used for financial and human resource management (FABS and STEPS).

Service-Level Agreement (SLA) is a part of a service contract where the level of service (quantity and/or quality) is formally defined.

SISTER (System of Information on Strategies, Tasks and the Evaluation of Results) is UNESCO's web-based information system used for programming, budgeting, monitoring and reporting, interfaced with the finance system (FABS).

STEPS (System To Enhance Personnel Services) is UNESCO's SAP-based information system used for managing human resources, communicating with the finance system (FABS).

UN ICT Network is a coordination mechanism set up by the UN High-Level Committee on Management. It brings together the heads of ICT services from across the United Nations system. More specialized coordination groups include the SAP Special Interest Group (SAP-SIG), the Information Security Special Interest Group (InfoSec-SIG), the UN Inter-Agency Telecommunications Advisory Group (ITAG), the UN ICT Reference Group and the International Council on Archives' Section of International Organizations (ICA/SIO).

Unified communications (UC) is the integration of real-time communication services such as instant messaging (chat), presence information, telephony (including IP telephony), video conferencing, data sharing, call control and speech recognition with non-real-time communication services such as unified messaging (integrated voicemail, e-mail, SMS and fax). UC is a set of products that provides a consistent unified user interface and user experience across multiple devices and media types.

Wide Area Network (WAN) is a telecommunication network that covers a broad area (i.e., any network that links across metropolitan, regional, or national boundaries). Business and government entities utilize WANs to relay data among employees, clients, buyers, and suppliers from various geographical locations. In essence, this mode of telecommunication allows a business to effectively carry out its daily function regardless of location.

EXECUTIVE SUMMARY

Introduction

The present Strategy sets out key medium-term directions and aims to ensure that these are aligned with the Organization's overall strategic objectives and priorities, as well as with common UN approaches to Knowledge Management and ICTs. It serves as a point of reference for progress monitoring with regard to relevant decisions and developments. The document covers the period from 2012 to 2017. Originally drafted in 2012, it was reviewed and updated at the end of 2013.

With the world moving towards information- and knowledge-based societies, Knowledge Management and ICTs are universally recognized as key to any organization, private or public. This is particularly true for UNESCO, given its mandate in such knowledge-rich domains as education, sciences, culture and communication, and its key function as a clearinghouse. A comprehensive and forward-looking KM and ICT strategy is therefore a major contribution to ensuring the Organization's relevance, competitiveness and impact, based on a modern KM and ICT function.

KM and ICT Vision

UNESCO's KM and ICT vision is to enable programme planning, delivery and evaluation in the most efficient and effective way, through the full and innovative use of information and communication technologies and the implementation of Knowledge Management based on a knowledge-sharing culture. This will allow UNESCO to be a modern and *learning organization*, capable of adapting to the changing world and playing fully its role within the United Nations system. This vision has been translated into strategic directions and ultimately in an implementation roadmap based on business requirements.



UNESCO's Requirements

UNESCO needs to increase the impact and visibility of its programmes, while improving operational efficiency and maximizing cost savings. This implies a radical change in business processes and supporting applications, which, in its turn, requires a strong involvement and leadership on the part of the KM and ICT function.

In order to maintain and enhance their relevance in an ever more complex world, UNESCO's programmes have to be increasingly transversal, inter-sectorial and multidisciplinary. They must be supported by adequate collaboration and knowledge-sharing tools and processes. There is also a strong need to harmonize the ways in which documents, including multimedia, are stored across the Organization, to facilitate their search and reuse. Knowledge Management should be extended in appropriate ways to the entire UNESCO community, and not only within the Secretariat.

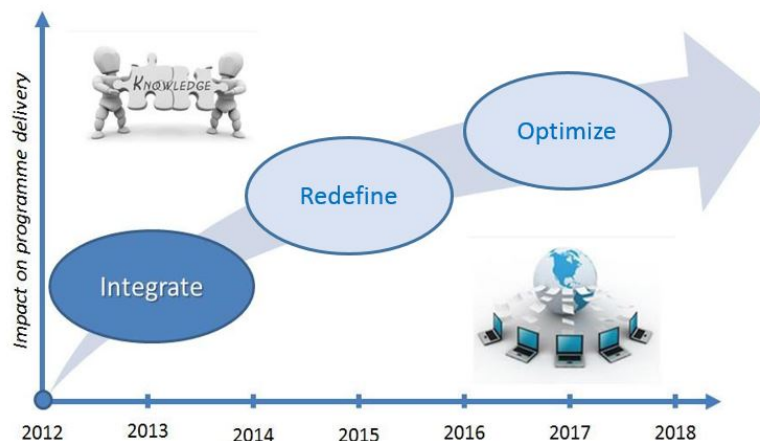
To enable a successful decentralization to the field and building up the recent progress, the ICT support and connectivity with the field units (FU) need to be further improved, as well as UNESCO's capacity to support UN post- conflict and post-disaster (PCPD) operations. In addition, the dependency on the KM and ICT environment increases the requirements for the smooth operation of the infrastructure and the need for an agreed Business Continuity Plan including a disaster recovery solution.

Strategic Directions

1. *Enable UNESCO programme delivery: through integrating the different programme support applications and data structures, and thus significantly improving the consistency of the programme lifecycle management, and the subsequent effectiveness and visibility of programme implementation. Particular attention will be paid to KM and ICT support for enhanced programme coordination with the UN system.*
2. *Ensure reliable and efficient ICT infrastructure and services: by putting in place and optimizing appropriate architecture and standards, covering the entire ICT environment end-to-end and including all aspects, such as business processes, access, applications, data, integration, infrastructure, security and operations.*
3. *Improve the integration of field units: by providing a single seamless information infrastructure linking Headquarters and field units, improving access to all information resources, tools and services throughout the Organization through networking and knowledge sharing, and ensuring greater visibility, reduced costs and increased availability and efficiency.*
4. *Rationalize working processes and tools: by optimizing the integration of core corporate systems, complementing them with a comprehensive workflow layer and offering to users a single point of entry, based on individual functional roles.*
5. *Embed Knowledge Management in programme execution: by creating an enabling environment, with a variety of collaborative tools and techniques, facilitating sharing of available knowledge and expertise, based inter alia on the preservation and reuse of UNESCO's institutional memory.*
6. *Modernize the KM and ICT function: through an invigorated BKI and a coordinated house-wide network of KM and ICT practitioners, at and away from Headquarters, increased involvement of the user community, project portfolio management and business process improvement.*

Implementation Roadmap

The Strategic Directions covering the period 2012–2017 are translated into an Implementation Roadmap, to be managed within the new KM and ICT governance framework, comprising the KM and ICT Advisory Board and the associated Working Group. The projects that will be part of this Roadmap will be implemented in three phases, focusing on *integration*, *redefinition* and *optimization* of the KM & ICT systems and services. They will constitute the KM and ICT project portfolio to be reviewed by the KM and ICT Advisory for prioritization and their implementation will be detailed in the annual KM and ICT action plans. By the end of 2013, the first phase has been largely completed and the second one – initiated.



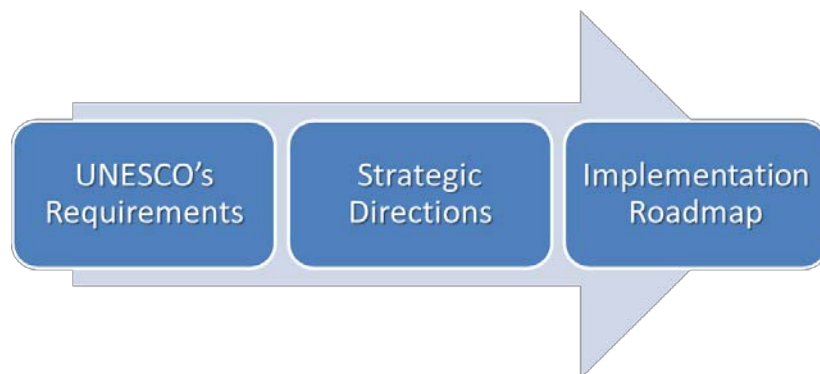
1. INTRODUCTION

1. The present Strategy sets out key medium-term directions, aligned with the Organization's overall strategic objectives, as well as with common UN approaches to Knowledge Management and ICTs. It serves as a point of reference for monitoring progress with regard to relevant decisions and developments, and provides a framework for the annual KM and ICT plans. It is a living document, currently covering the period from 2012 to 2017. It was last reviewed and updated at the end of 2013.
2. Knowledge Management and ICTs are universally recognized as key to any organization, private or public. This is particularly true for UNESCO, given its mandate in such knowledge- rich domains as education, sciences or culture, and its function as a clearinghouse. ICTs already constitute the backbone of the Organization's programme delivery, with over 5,000 IT network users, spread across more than 60 locations worldwide. A wealth of explicit (documents) and tacit (ideas and practices) knowledge is generated daily throughout the Organization but may not be used yet to its full potential. A strong KM and ICT service is, therefore, critical to the attainment of UNESCO's goals and objectives, while ensuring the Organization's relevance, competitiveness and impact. It should be based on a modern KM and ICT function with efficient use of resources and optimized information flows, tools and practices.
3. In October 2011, the Director-General created a Bureau of Knowledge and Information Systems Management (BKI), headed by the Chief Information Officer (CIO), who is part of the Senior Management Team (SMT) and acts as the principal advisor to the Director-General in this domain. BKI has been working in collaboration with all sectors and services and has initiated the creation of a KM and ICT Working Group and a KM and ICT Advisory Board, both part of a new governance framework, to enable proper planning and oversight of KM and ICT programmes, budgets and decisions, which should be aligned with the KM and ICT Strategy.
4. While BKI has a clear operational function of its own, it also coordinates a much larger network of KM and ICT specialists across the Organization, including specialized staff in sectors and services at Headquarters, field offices and category 1 institutes. It is this larger KM and ICT Team that will be involved in most of the tasks under the present Strategy.
5. In an effort to make sure that the proposed KM and ICT strategy is as comprehensive as possible and addresses user needs and expectations, a broad consultation and continuous stock-taking process has been put in place, starting from October 2011 and including:
 - a) BKI retreat with a broad representation of all UNESCO sectors and services;
 - b) Discussions on user needs and strategic directions in the KM and ICT Working Group and Advisory Board;
 - c) Informal discussions with various UNESCO stakeholders, vendors and other UN agencies and international organizations on topics such as connectivity, UN cooperation in the area of ICT and Wide Area Networks, knowledge management practices and use of tools and harmonization of processes and the use of SAP;
 - d) Assessment of ongoing ICT projects and incorporation of lessons learned during their implementation;
 - e) Relevant internal/external audit and evaluation reports, including the Independent External Evaluation (IEE), and reports by the UN Joint Inspection Unit (JIU) and the Internal Oversight Service (IOS);

- f) Surveys on field connectivity, knowledge management, user satisfaction with UNESCO's core systems, communities of practice and others targeting a broad group of users.
6. While UNESCO has a distinct mandate as a specialized agency of the United Nations, it is of utmost importance that it coordinates its action with the rest of the UN system, building synergies for a maximized impact on the world's peace and development, and profiting from common resources and best practices. In the KM and ICT domain, this coordination is ensured, in particular, through the UN ICT Network established under the High-Level Committee on Management (HLCM) in bringing together heads of IT/Chief Information Officers from across the UN system.
7. In August 2013, the UN ICT Network adopted a [UN ICT Strategic Framework “for more harmonized, efficient, green & economical ICTs”](#) (included in Annex). Most of the principles set out in the Strategic Framework are already fully embraced by UNESCO and are being translated in its KM and ICT initiatives and projects. The present revised version of UNESCO's KM & ICT Strategy makes sure that all agreed common approaches are taken into account.
8. Furthermore, the Strategy was reviewed from the standpoint of UNESCO's new programme planning documents – the *Medium-Term Strategy for 2014-2021 (37 C/4)* and the *Programme and Budget for 2014-2017 (37 C/5)*, adopted by UNESCO's General Conference in November 2013, to make sure that it is fully aligned with the objectives and priorities set out in those documents. More specifically, building on the reform-related projects and activities of 2011-20012, the focus needs to shift now to UNESCO's core business – programme delivery in all its fields of competence.

2. KM AND ICT VISION AND OBJECTIVES

9. UNESCO's KM and ICT vision is to enable programme planning, delivery and evaluation in the most efficient and effective way, through the full use of information and communication technologies and the implementation of Knowledge Management based on a knowledge-sharing culture. This will allow UNESCO to be a modern and *learning organization*, capable of adapting to the changing world and playing fully its role within the United Nations system. This vision is further translated in the following KM & ICT *objectives*:
- a) Optimize ICT systems, networks and tools across the Organization based on latest technologies and best practices;
 - b) Enhance organizational learning, evidence-based decision making and performance through knowledge management and knowledge sharing supported by efficient and effective KM & ICT tools;
 - c) Contribute to innovation and change through the KM- and ICT-based optimization of business processes.
10. Furthermore, UNESCO fully endorses and embraces the common UN ICT *principles* as set out in the [UN ICT Strategic Framework](#) (included in annex), namely:
- 1) Achieve continued innovation, building on industry best practices, standards and available information ecosystems ;
 - 2) Enhance integration/interoperability, efficiency, and productivity;
 - 3) Advocate openness and transparency;
 - 4) Practice lean ICT through best practices;
 - 5) Contribute to sustainable development and climate neutrality (Green ICT);
 - 6) Enhance collaboration and knowledge sharing;
 - 7) Build confidence and security in the use of ICT;
 - 8) Provide leadership in ICT – UN coordination;
 - 9) ICT Initiatives driven by benefits to the organization.
11. The implementation of the above vision, objectives, and principles is based on a three-step process, which comprises:
- a) identifying and constantly monitoring UNESCO's requirements,
 - b) setting and periodically reviewing strategic directions, and
 - c) delivering programmes and projects in accordance with an implementation roadmap.



3. UNESCO'S REQUIREMENTS

12. UNESCO needs to increase the impact and visibility of its programmes, while significantly reducing administrative costs. This includes the optimization of the its operations and implies a radical change in business processes and supporting applications, which, in its turn, requires a strong involvement and leadership on the part of the KM and ICT function.
13. In order to maintain and enhance their relevance in an ever more complex world, UNESCO's programmes have to be increasingly transversal, inter-sectorial and multidisciplinary. This requires adequate collaboration and knowledge-sharing tools and processes. It is critical to facilitate information flows based on a culture of knowledge sharing and the right mix of innovative and traditional techniques, such as brainstorming, project implementation reviews and lessons learned, peer reviews and mentoring, best practices and knowledge fairs.
14. There is also a strong need to harmonize the ways in which documents, including multimedia, are stored across the Organization, so as to facilitate their search and reuse. UNESCO must harness the entire range of modern online tools and techniques including social media, informal networks and communities of practices.
15. Such collaboration and knowledge sharing needs to be extended to the entire UNESCO community, including the Governing Bodies, Member States and their National Commissions, NGOs, civil society partners and donors. Special attention is paid to cooperation with other UN agencies, in particular within the framework of the One UN initiative at the country level.
16. As detailed in recent surveys, audits and evaluations, many UNESCO business processes remain cumbersome and inconsistent across Headquarters, field offices and institutes, with complex paper-based approval chains, redundant controls and limited delegation of responsibilities. Furthermore, the different information systems have been implemented without necessarily simplifying business processes and providing for adequate management reporting. Therefore, significant process re-engineering efforts are required, which must go hand in hand with the enhancement and further integration of core information systems, minimizing manual processing and stand-alone applications, eliminating double data-entry and ensuring data consistency. There is also a strong need for improved reporting from a single and reliable source of data, both for the management and the Member States.
17. To enable a successful decentralization to the field, the ICT support and connectivity with the field units need to be further improved. Although considerable progress has been achieved since 2012, some field units continue to experience long response times and unstable connectivity, which makes it difficult to work with the corporate applications and to collaborate with HQ or with one another. There is a strong need for a 24/7 support of the ICT landscape, given the different time zones in which UNESCO employees work. Field units should also profit from better knowledge

sharing across the house.

18. As there is an increasing dependency on the KM and ICT environment, the requirements for the smooth operation of the infrastructure and applications are also increasing. Specifically, email, web, and the core business applications (SAP) are considered business critical and adequate measures should be in place to ensure availability, security and support. Given this increased dependency, the Business Continuity Plan, including a disaster recovery solution, recently put in place needs to be complemented by business continuity management.
19. The KM and ICT function is expected to be service-oriented and more proactive to enable an optimal use of the available KM and ICT equipment and applications with a view to enhancing programme delivery and maximizing impact. This includes training of staff in the use of KM and ICT tools, through innovative training methods (e-learning, YouTube videos, etc.). An improved KM and ICT management will allow for a more strategic use of KM & ICT, as well as better results and predictability of KM and ICT projects. This requires streamlined KM and ICT governance, budgetary framework, policies and standards,
20. Furthermore, as part of the UN system, UNESCO must contribute to the ICT coordination and harmonization efforts, so as to profit from common resources and best practices, and to be able to provide adequate ICT support for joint initiatives, such as “One UN” or post-conflict and post-disaster (PCPD) operations.
21. All UN agencies are currently exploring innovative ways of providing ICT services, such as Cloud computing, open data and open access, XML-authoring and e-publishing, system-wide long-term-agreements (LTAs) and global service centres, with a view to increasing efficiency, improving transparency and reducing costs, as demanded by Member States. They also confronted with new global challenges such as cyber security. UNESCO stands to profit from collaboration in all these domains, when defining and implement a KM and ICT model that supports its own mission in the most efficient and effective way.

4. STRATEGIC DIRECTIONS

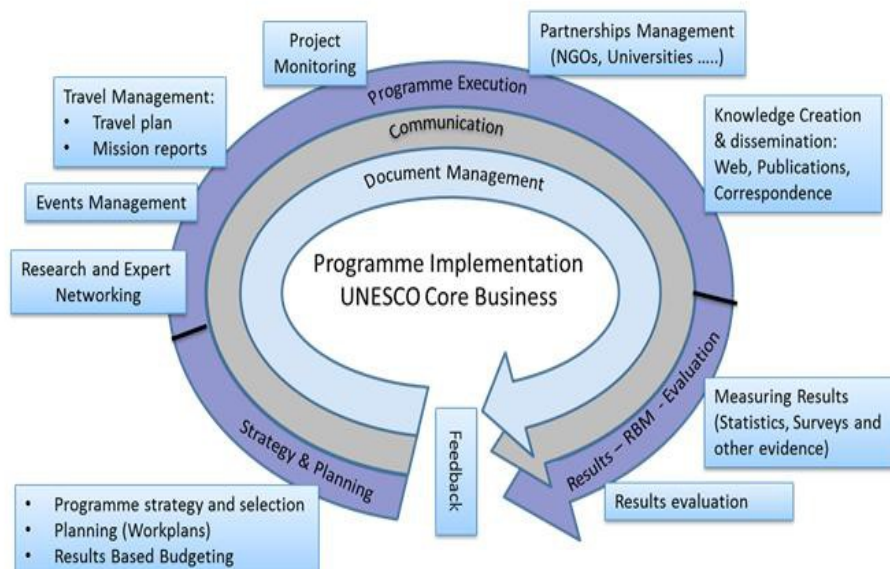
22. The following strategic directions have been identified for the 2012-2017 period. They address the requirements described earlier and provide a framework for the implementation roadmap presented further in the text to be detailed in the Project Portfolio and annual KM & ICT plans. The Knowledge and Information Technology Management Advisory Board, along with the CIO, will monitor activities in these priority areas to facilitate the implementation of the Strategy.

Key objectives:

1. *Integrate key programme delivery tools and data structures to improve consistency and efficiency of the programme lifecycle management*
2. *Provide KM/ICT support for programme coordination with the UN system (One UN)*
3. *Ensure greater programme transparency and visibility for Member States and partners*
4. *Implement an Integrated Web Platform, interlinked public information, with internal communication, corporate applications and collaborative tools*

Strategic Direction 1: Enable UNESCO programme delivery

23. The current multitude of systems that support programme planning, execution and evaluation (see diagram below for UNESCO core business processes) needs to be further tackled through integrating applications and data structures. This will significantly improve consistency and efficiency of the programme lifecycle management, and the subsequent effectiveness of the programme implementation, resulting in an increased relevance of the Organization for its Member States.
24. In order to fully support programme delivery coordination with the UN system, UNESCO will continue to participate in KM and ICT harmonization initiatives across the UN system, supporting in particular the “One UN” efforts at the country level.



25. Demonstrating results and providing information to external stakeholders is a core function as it determines how UNESCO is perceived. Greater transparency and visibility can lead to new partnerships, increased grass-root support in Member States as well as in civil society. In addition to integrating systems, there is therefore a need to rationalize the provision of information, to satisfy the requirements of the Member States, partners and donors. Information will be structured around themes, programmes or countries. Results and resource information will be further supported by documents and multimedia elements, thus improving the visibility of UNESCO’s programmes.
26. More specifically, UNESCO will be closely associated with the International Aid Transparency Initiative (IATI) aiming to comply with the IATI standards and other open data standards where

applicable. It will also tackle such topical issues as open data and open access, XML-authoring and e-publishing.

27. Efforts will also focus on the further development and consolidation of the new Integrated Web Platform. The new Web will be capable of serving the general public (Internet), UNESCO's partner community (Extranet) and the Organization's own sectors, services and individual staff (Intranet), based on user roles and profiles. It will be complemented by adequate content management and collaborative tools, and rely on integrated digital repositories. Solutions based on open source software (OSS) will be implemented whenever appropriate.

Key objectives:

1. *Maintain an efficient, secure, reliable and cost-effective ICT environment*
2. *Optimize ICT infrastructure based on agreed architecture and standards*
3. *Implement an optimal sourcing strategy making use as appropriate of cloud computing*
4. *Prepare and implement a business continuity and disaster recovery plan (BCDRP)*
5. *Establish and ensure ICT service quality levels*

Strategic Direction 2: Ensure reliable and efficient ICT infrastructure and services

28. A robust and secure ICT infrastructure is a prerequisite for the continued availability of ICT systems and services and the backbone for the enhanced programme delivery supported by integrated ICT tools. Investment in modern ICTs allows UNESCO to support its daily work effectively and to be responsive to changing business needs. As the Organization is increasingly dependent on ICTs, the requirements for infrastructure and services change. Systems are expected to be available 24/7 and accessible from anywhere in the world. The reliability of core services such as email and business critical core applications needs to be guaranteed with service level agreements and disaster recovery services. In addition, users want to take advantage of technology enhancements such as mobile technologies and convergence of data, voice and multimedia services.
29. In order to address the changing user requirements and expectations, significant investment in infrastructure and internal resources is required, e. g. Wi-Fi networks, mobile devices, voice over IP (including replacement of obsolete telephone system), conferencing facilities. In some areas, it can be more attractive to cooperate with external partners. The key obstacle in meeting the use requirements is the lack of funding required for both in-house investments and contracts with partners. The ICT costing study conducted with the UN community concluded that in some areas UNESCO is significantly underfunded most notably in the areas of infrastructure (data center) operations and development capability.
30. As a starting point for the sourcing strategy, domains specific to UNESCO and requiring deep knowledge and understanding of the business environment will be supported in-house. These domains include KM and ICT strategy development, project (portfolio) management, vendor management, and functional application support, with business analysis and requirements definition. On the other hand, application development, disaster recovery, email and collaboration services, service desk, SAP technical operations and infrastructure services, and Web infrastructure will be considered for outsourcing. Although, so far, the associated costs have been the main obstacle here, the situation may evolve and should be closely monitored.
31. Special attention will be paid to innovative and alternative ways of providing ICT services with a

view to improving efficiency and reducing costs. UNESCO will collaborate closely with other UN agencies in exploring Cloud computing solutions, sharing of resources and networks, etc.

32. Based on the first version the business continuity and disaster recovery plan (BCDRP) already in place, corresponding standards and supporting policies, guidelines and procedures are being progressively defined. As a next step, this plan now needs to be translated into appropriate organizational arrangements and management practices.

Key objectives:

1. *Enable UNESCO's field reform through improved ICT capacity in the field*
2. *Harmonize the ICT infrastructure across the Organization and optimize the Wide Area Network (WAN)*
3. *Improve support services through a 3-tiered model (local-regional-central)*
4. *Provide integrated ICT tools aiming for the Unified Communications infrastructure and making use of cloud computing as appropriate*

Strategic Direction 3: Improve the integration of field units

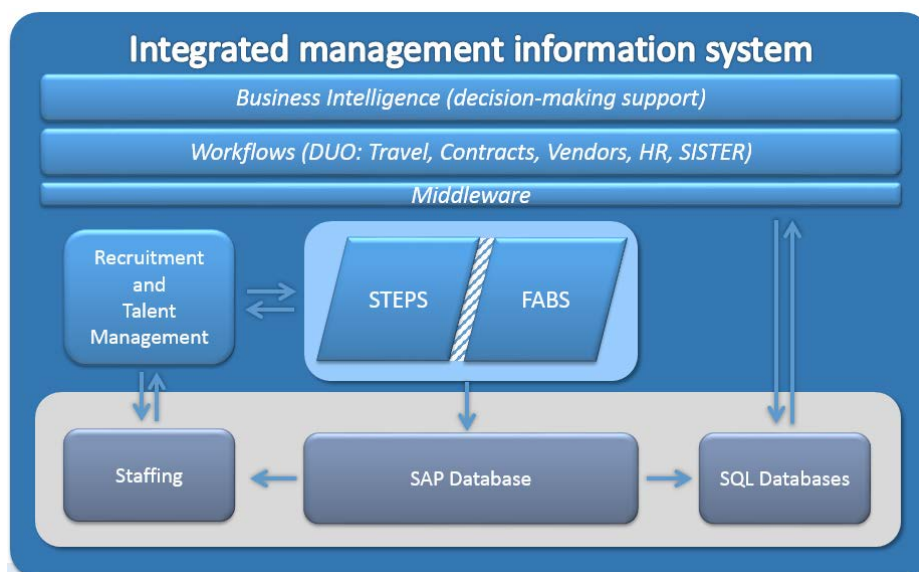
33. Decentralization of programme activities is a major element of UNESCO's reforms. It requires a higher level of integration of field units in the global communication and information flow. Through an enhanced communication infrastructure, field units will have better delivery mechanisms and improved performance tuned to country needs and priorities.
34. The target is to provide a single seamless information infrastructure linking Headquarters and field units, improving access to all information resources and tools throughout the Organization, as well as to technical support. To achieve it, UNESCO will need to:
 - a) Review and redefine the entire communication chain between HQ and FU: Harmonize and standardize local FU ICT infrastructure, and optimize the Wide Area Network (WAN), thus decreasing the need for expensive additional bandwidth investments; use external managed services in order to increase service availability; continue participating in the common UN country-level and global ICT initiatives, including PCPD operations.
 - b) Improve support services: In order to optimize limited human resources, implement a 3-tiered support model - HQ, regional and local support - ensuring support over wide geographical areas and multiple time zones. Establishing functional reporting lines for regional ICT resources will help harmonize ICT policies and procedures. Improving local IT skills through (remote) training and knowledge sharing on technology improvements, while mitigating the impact of the field IT staff turnover, will further enhance FU user support.
 - c) Provide new or improved integrated communication technologies, coupled with conferencing and online collaboration tools: The long-term objective is to build a Unified Communications infrastructure. However, under the present financial constraints, simpler means of communication have been identified, making use, in particular, of available Cloud-based services.
35. On the basis of improved infrastructure and connectivity, the field units will be able to fully play their role not only as key actors in programme delivery but also as centres of excellence in terms of projects implementation experience and best practices, which should be extensively shared among themselves and with Headquarters, as well as with other partners. They will be key players in the implementation of the Knowledge Management programme.

Strategic Direction 4: Rationalize working processes and tools

Key objectives:

1. *Support the rationalization of working processes through standardized ICT tools*
2. *Reduce duplication of efforts and costs through the Application Portfolio Management*
3. *Optimize integration of core SAP and non-SAP systems*
4. *Improve data consistency and comparability across systems in support of evidence-based decision making*

36. Working processes are currently being improved, streamlined and integrated, with a view to reducing administrative costs and increasing efficiency. Focus will be put on a holistic approach to processes in all UNESCO entities by using standardized KM and ICT tools. Harmonization, transparency and modernization will be ensured by implementing digital workflows. The emphasis for the workflow strategy is on the ease of use, transparency and increased control.
37. Efforts will continue to further integrate UNESCO's SAP-based systems for accounting, finance, budget implementation, travel, procurement and human resources with the non-SAP systems, such as the programming and budgeting application (SISTER), performance appraisal, succession planning and recruitment. Additional automatic workflows will be put in place in order to streamline processes, improve user-friendliness and incorporate automated controls. Ideally, there should be a single point of entry to UNESCO's tools and applications, based on individual functional roles.
38. Regular exchange of knowledge and experience with regard to SAP will continue with other UN agencies working toward the harmonization of business practices associated with the use of SAP and ensuring a coordinated position in dealing with the supplier. UNESCO will also continue to cooperate actively with other UN agencies in the fields of archives, records management, libraries and document management, with a view to standardize and facilitate preservation, appraisal and access to information across the UN system.
39. There is a strong need to improve data consistency and comparability, which are key to reporting and monitoring, as well as to making well-informed and actionable business decisions. Integration of systems and processes will require a redefinition of core reporting objects, master data and processes for more comprehensive and more flexible reporting (Business Intelligence), with special attention to including the field.



Strategic Direction 5: Embed Knowledge Management in programme execution

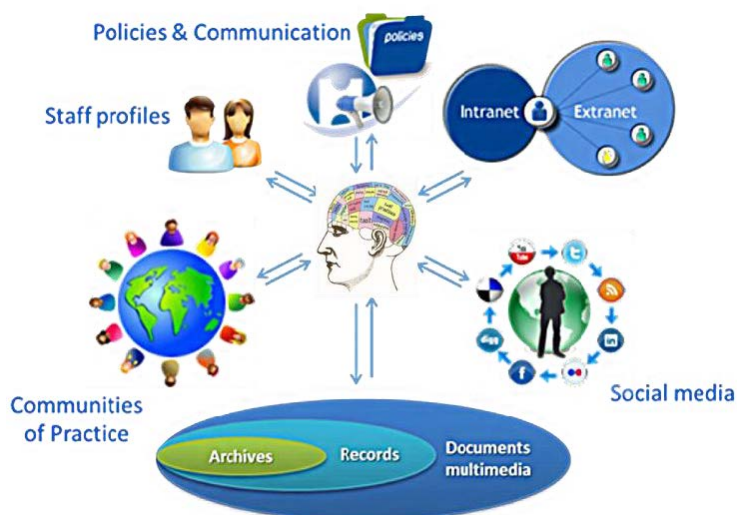
Key objectives:

1. *Create an enabling environment for knowledge sharing*
2. *Broaden knowledge acquisition through increased access of staff to external resources*
3. *Provide better support for knowledge creation through improved document management and access to documentary heritage*
4. *Facilitate knowledge dissemination by replicating good practices in social and KM networking and enhanced KM coordination*
5. *Mainstream knowledge sharing in projects and promote sharing of lessons learned*
6. *Institutionalize knowledge sharing by including it in job descriptions, performance objectives*

40. The ultimate goal of KM implementation must be its full integration in core programme and programme support processes, when Knowledge Management is not “owned” by any particular unit but is naturally happening throughout the Organization. This implies a profound cultural change, whereby Knowledge Sharing (KS) is enabled by management and practiced by all staff, as the basis for organizational learning. Among the top enabling factors is the change of the Organization’s climate based on some key managerial principles, such as encouraging free flow of ideas, favouring dynamism and fun over boring routines, building trust and accepting failures as important learning components, promoting openness, and ensuring due reward and recognition.
41. Such an enabling environment will be complemented by a variety of collaborative tools and techniques, facilitating sharing of available knowledge and expertise (Intranet, Extranet, social media, shared workspaces, conferencing and best practices). In this context, possibilities offered by open-source software will be actively explored. Based on the results of recent surveys and pilot projects and profiting from the experience of other UN agencies, UNESCO will put in place a KM toolkit, accompanied by user guidelines. Special attention will be paid to the introduction of people-centered techniques and processes, so as to promote and facilitate learning from experience. In this context, advisory services and implementation support will be offered to programme sectors, corporate services, and field units.
42. Particular attention will be paid to Knowledge Management coordination, the KM concept and practice being relatively new in the Organization. The different KM roles will be defined including knowledge generators (potentially all staff), and specifically content editors, knowledge facilitators

(responsible for structured knowledge sharing around a theme), KM coordinators (responsible for knowledge sharing within a unit) and knowledge professionals (responsible for the knowledge base, including records, archives, documents and publications). Care will be taken of the quality control aspect of Knowledge Management, identifying and promoting best practices in terms content authoring. KM coordination will include a central function in BKI, KM coordinators in sectors or Bureaux at Headquarters, and KM focal points in all UNESCO offices and institutes, in the field. Furthermore, regional KM coordination functions will be established or strengthened in Dakar, Bangkok and Santiago.

43. Effective Knowledge Management relies also on appropriate information capture, storage and access, within a content management system. Such a system requires not only a solid and flexible technical platform, but first and foremost, the implementation of modern information management principles. In this context, special attention will be paid to developing corporate taxonomy, based on the UNESCO Thesaurus and adapted to practical needs with regard to information retrieval and reuse. This work will be complemented by integrating document and multimedia repositories. As a result, universal access to UNESCO documents and publications, both internally and externally, will be significantly simplified.
44. An important resource for Knowledge Management is the Organization's institutional memory preserved through its archiving and records management systems, which also ensure the Organization's accountability for its decisions, activities and results. UNESCO's documentary heritage also constitutes a wealth of knowledge on international intellectual cooperation for the Member States, academic and research institutions, and the general public. Efforts will be made to modernize the related systems and services, so that they can better support UNESCO's move from a culture of control to a culture of accountability, while effectively contributing to organizational learning and worldwide knowledge sharing.



Strategic Direction 6: Modernize the KM and ICT function

Key objectives:

1. *Build a house-wide network of KM and ICT specialists – the larger KM/ICT team*
2. *Increase collaboration and partnership with the user community*
3. *Improve KM and ICT skills throughout the Organization*
4. *Professionalize project management, introduce Project Portfolio Management*
5. *Rationalize ICT staff management and development*

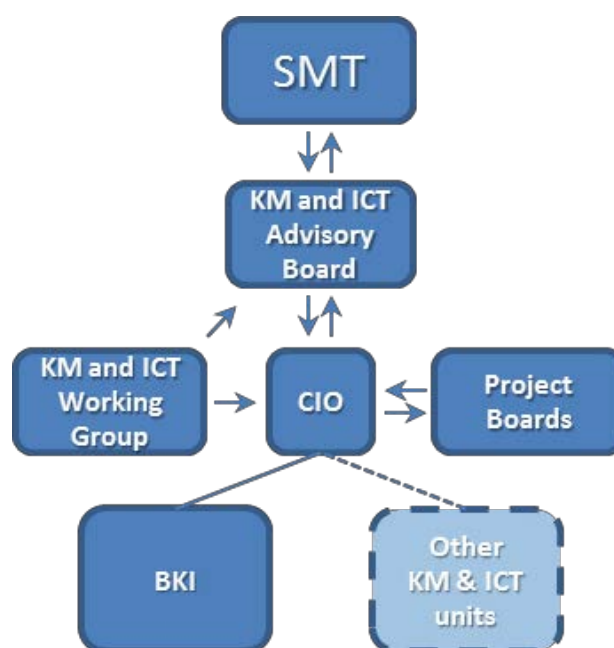
45. As mentioned earlier, the KM and ICT function in UNESCO is not limited to BKI. The relevant resources are spread across the Organization, including KM and ICT specialists in sectors and services, field offices and Category 1 institutes. It is essential to coordinate this larger KM and ICT Team through a common vision and agreed norms and practices, while allowing sufficient flexibility to accommodate specific business needs that may legitimately exist, for example, in decentralized units such as UNESCO institutes.
46. UNESCO's KM and ICT Team will strive to go beyond its traditional role of infrastructure and service provider to become a fully-fledged implementation partner for sectors, field offices and institutes. In particular, it will work closely with all sectors and services in order to accompany them in the programme delivery, from design and planning to implementation and reporting.
47. Innovation using KM and ICT tools and techniques is key to a learning organization. New opportunities need to be explored to help the Organization better deliver on its mandate. This means changing the way of working, trying out new ideas and learning from successes and failures. New ideas from the user community will be solicited and supported with infrastructure or other resources required whenever feasible. In order to enhance this partnership, BKI will provide KM and ICT support for analyzing and reengineering business processes, which should be a prerequisite for the implementation of any technical solutions and applications.
48. The introduction of a revised user support model aims to improve user support, prioritization of requests and management of resources, covering the needs of end users, key users and process owners. This includes:
 - a) Introduction of key user structures to improve support of end users. Key users have a formal role to play in the improvement of systems and their usage and will receive additional training.
 - b) Introduction of account managers within BKI to improve the understanding of business requirements and communication with process owners, allowing for better planning and prioritization of projects.
 - c) Professionalization of the Service Desk through the introduction of appropriate tools (such as the System for Technical Assistance Requests and Ticketing - START) used across the Organization and formalization of procedures.
49. The general level of KM and ICT skills within the Organization remains uneven, which sometimes causes underutilization of systems, inconsistency of data or misuse of available tools and resources. Efforts will be continued to further simplify KM and ICT tools and make them more user-friendly, to involve users in their design and testing, and to make necessary adjustments based on user feedback, while improving user training and support. In their turn, all users will be encouraged to improve their own ICT and KM skills, so as to utilize the available tools in the optimal way. A minimum level of IT skills must be a standard requirement for all UNESCO staff.
50. UNESCO is currently implementing Prince2 project management standards for all its IT projects. Prince2 was selected as the UN standard for IT project management, and BKI staff have been trained and certified. Project Portfolio Management, put in place in 2012, will be further reinforced to ensure the overall coherence of KM and ICT projects. Further efforts will be made to spread the project management methodology and best practices throughout the Organization and provide appropriate assistance to process owners.
51. While the challenges faced by the KM & ICT function require new skills and competencies, such as architects, process reengineering and knowledge management specialists, for the time being and due to the prevailing budgetary constraints, focus should be put on using the available resources with organizational adjustments and training, in order to build a more flexible and responsive KM and ICT team throughout the Organization.
52. Currently, KM and ICT specialists are based in different locations, with different reporting lines, tasks, infrastructure and projects. They must be coordinated within a coherent network to allow

for sharing of information, policies and standards, and take full advantage of the knowledge and experience available in-house.

5. IMPLEMENTATION ROADMAP¹

KM and ICT governance framework

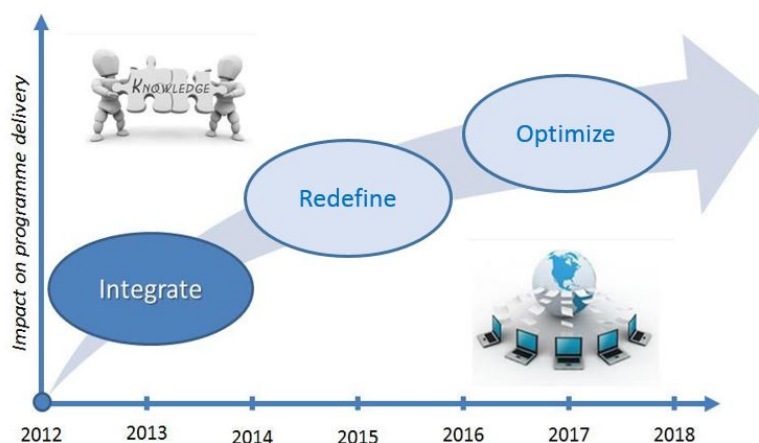
53. In order to oversee the implementation of the present Strategy and ensure the overall coherence of the KM and ICT projects and their better alignment with the Organization's strategic objectives, a KM and ICT governance framework has been put in place, as in the chart below, including two main components: a KM and ICT Advisory Board and a KM and ICT Working Group.



- The ***KM and ICT Advisory Board*** advises on prioritization of projects and investments, sponsors the development of a strategic vision for knowledge and information management and advises the SMT on strategic decisions. The ***KM and ICT Working Group*** is a consultative group that facilitates harmonization of processes and IT solutions across the Organization and ensures effective requirements gathering and implementation of solutions.
54. Projects play a significant role in the definition and implementation of process and systems improvements. The decision making for projects or programmes (group of projects) is the responsibility of the Programme or Project Board and Project Manager as defined per project in the Project Initiation Document (PID). The CIO or representative is part of all Project Boards that involve KM and ICT projects.
55. BKI provides corporate KM and ICT services and has a coordination role for all KM and ICT initiatives throughout the Organization. This coordination role is defined through various policies and standards endorsed by KM and ICT Working Group and Board. These policies, including defined standards, will allow for gradual harmonization of KM and ICT applications and infrastructure.
56. To further integrate the KM and ICT activities in the sectors with those of BKI, functional reporting lines from ICT staff in the sectors to the CIO have been put in place. In connection with the decentralization strategy, it is envisaged that Regional ICT functions will be created to manage and coordinate the ICT support within a region. After further consultations, functional reporting lines between the CIO and regional and national ICT support functions will be implemented.

Priorities and phasing

57. In order to realize the improvements described in the KM and ICT strategy, three phases have been identified in the roadmap, so as to take into account the Organization's priorities.



Phase 1: INTEGRATE	Main achievements
<p>Carry out urgent improvements, integrating systems, data and people.</p> <p>The main objectives are:</p> <ul style="list-style-type: none"> • Reduce administrative burden • Improve KM and ICT usage at HQ and Field by addressing urgent needs • Define and implement basic structures, policies and standards, improve KM and ICT knowledge and gain experience with change management. 	<ul style="list-style-type: none"> • Implementation of the UNESCO application portal: DUO (Daily UNESCO Operations) including new, user-friendly applications e.g. Contract Mgt, Travel Planning, HRM workflows and tools, Overtime, etc. • Alignment of SISTER and FABS; further integration of FABS and STEPS for staff cost management; expanding use of SAP through FABS rollouts and expanding functionality in STEPS • New network design that offers more bandwidth at lower cost; implementation of conferencing tools • Implementation of integrated web platform including UNESCOMMUNITY, DUO and UNESTEAMS • Enhanced management reporting • Implementation of KM & ICT governance and key policies.
Phase 2: REDEFINE	Main initiatives
<p>Redesigning the way we work, based on new requirements.</p> <p>The main objectives are:</p> <ul style="list-style-type: none"> • Addressing the C4 requirements in terms of e.g. structural changes, introduction of results based budgeting (RBB), streamlining of RP and XB project planning and monitoring; • Significantly improving management reporting and decision making; • Full support of programme delivery with transaction, decision support and knowledge management applications • Full implementation of regional support structures. 	<ul style="list-style-type: none"> • Rethink the application architecture based on the decisions made with regard to structure and programme. • Redesign of FABS (and STEPS) setup to align with management reporting and decision-making requirements. This includes General Ledger, cost centres, categories of expenditure, and master data. • Rethink integration of FABS and SISTER based on new requirements with regard to alignment of RP and XB projects, RBB and others to allow for improved support for programme planning and monitoring. • Achieve significant change towards a knowledge-sharing culture. • Rethink support to the Field using unified communications and mobile technologies.
Phase 3: OPTIMIZE	Main initiatives
<p>Optimize KM and ICT practices, tools and data across the Organization.</p>	<ul style="list-style-type: none"> • Optimize usage of KM and ICT technology. • Optimize KM and ICT environment to support ongoing

	<p>change.</p> <ul style="list-style-type: none"> • Optimize alignment with UN at an operational level.
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Resources

58. It should be noted that the proposed Strategy requires adequate investments in terms of funds and human resources, which currently are not secured. The ICT budget of UNESCO has been decreasing, despite the growth in the volume and complexity of ICT services required by the Organization. In the current biennium, it has been further cut to a bare minimum required for maintenance and support.
59. Recently, UNESCO participated in the CEB Common Costing & Benchmarking project. This has allowed to analyze the 2010 ICT costs and to compare them with UN standards. It has been evidenced that:
- UNESCO's ICT expenditure is below the average of the UN agencies;
 - Its ICT expenditure and staff are more dispersed than in any other UN agencies;
 - UNESCO has the lowest software development capability;
 - It also has the lowest cost/investment per mailbox.
60. Among the critical areas requiring investment are: the replacement of obsolete equipment (telephone and conferencing), an integrated solution for document and multimedia repositories, and the reinforcement of internal human resources for IT development, which are key to completing the workflows layer of UNESCO's business applications and responding to new requirements. At the same time, in view of the current budgetary constraints and diminishing resources, careful examination and prioritization of the KM and ICT project portfolio will need to be ensured.
61. In the same context, efforts will be made to improve financial management for KM and ICT within UNESCO, through:
- a) Continued participation in the UN Common Costing & Benchmarking Project, allowing an extensive analysis of cost each year/biennium.
 - b) Cost reduction, through harmonization of practices, strict ICT procurement policies and expanding the use of Long Term Agreements (LTAs).
 - c) Service sourcing as appropriate, to increase cost transparency.
 - d) Implementation of a transparent chargeback scheme.

ⁱ *In order to keep the KM and ICT Strategy as focused and concise as possible, the present document provides only a high-level overview of the Implementation Roadmap, which will be further detailed in the annual KM and ICT plans, based on the house-wide project portfolio to be approved and monitored by the KM and ICT Advisory Board.*

ANNEX

Information and Communication Technologies in the UN System

A UN system strategic framework for more harmonized, efficient, green & economical ICTs
August 2013

Executive Summary

United Nations organizations need to change a culture that is no longer financially viable by using information technology judiciously as a smart aid to become more flexible, responsive, collaborative and inclusive when responding to the needs of all stakeholders. Executive heads are encouraged to embrace ICT as an investment in new working methods, leading to improved productivity as well as creating a more effective instrument for Member States, which can be funded by reducing the overall burden put on Member States for participating in the work of the UN.

ICT functions as the primary vehicle for the agencies of the UN system to deliver on its mandates, including development, health, education, empowerment for women, food supply, human rights, economic growth, and national capacity development. ICT cuts across all aspects of our daily work, from administration to programme delivery, driving efficiencies and fostering global outreach.

To more effectively deliver on its mandates, agencies must adopt a new working model that fosters openness, agility, continuous improvement, rationalization and consolidation of ICT services, while containing costs and driving productivity.

The ICT Network agrees to move towards this new model by adopting the following principles:

UN ICT PRINCIPLES

- 1. Achieve continued innovation, building on industry best practices, standards and available information ecosystems**
- 2. Enhance integration/interoperability, efficiency, and productivity**
- 3. Advocate openness and transparency**
- 4. Practice lean ICT through best practices**
- 5. Contribute to sustainable development and climate neutrality (Green ICT)**
- 6. Enhance collaboration and knowledge sharing**
- 7. Build confidence and security in the use of ICT**
- 8. Provide leadership in ICT – UN coordination**
- 9. ICT Initiatives driven by benefits to the organization**

By integrating these principles into their ICT strategic planning, agencies of the UN system shift their ICT models from simply operating ICT infrastructure to providing strategic leadership to business for leveraging ICT capabilities that drive innovation and efficiency. Practical steps include a commitment, within the next five years, to increase support to development activities, and build a

responsive ICT Network to support an enhanced, holistic, rationalized, and efficient delivery of ICT systems and services.

I Introduction

In 2004, the UN system presented its first system-wide Information and Communications Technology (ICT) strategic framework in response to General Assembly Resolution (A/RES/57/295) on ICT for Development. Since then, dramatic advances in the global ICT landscape allow Agencies to better deliver on their mandates, and satisfy the provisions of the resolution more effectively and efficiently than before. This framework articulates a unified vision of how organizations of the UN system, both individually and “as one”, can leverage the opportunities afforded by the crosscutting and enabling capacity of technology to deliver on their mandates. The High-Level Committee on Management reaffirmed the role of technology within its 2013 strategic plan, endorsed at its 25th session, by noting, within its sections on “Re-designing and innovating the UN business models: right-sourcing, common services, and new technologies” and “Strengthening the risk management and oversight architecture” the following:

18. New technologies open entirely new horizons to re-shape the operational models of UN organizations: cloud computing; meeting and conference services; compilation and availability of system-wide data and information, etc. HLCM is embracing the use of ICT as an agent of change, improved knowledge management and increased collaboration within the system and with other partners. The technology agenda will be driven by underlying objectives and in the context of proven business cases.

29. UN system organizations recognize the critical role of ICT as the backbone of the operational system. Despite some organization-specific requirements, they recognize considerable common ground with respect to how to best protect themselves from business disruptions and security threats; and how to do so while, at the same time, providing increasingly open and user-friendly ICT and web-enabled services and communications.

This framework therefore defines a new focus for ICT for delivering more efficient, secure and reliable services to all stakeholders. It operates against a backdrop of a commitment by Agencies of the United Nations system to become climate-neutral, to recognize and adopt rapid ICT market and technology changes, and adapt to new financial realities, including pressure from Member States to rationalize their investments and harmonize their initiatives as much as possible. ICT leaders in UN organizations agree to apply the guidelines outlined in this framework as they prepare their ICT strategic plans.

II UN ICT Principles & Directions

At the heart of the framework sits a set of ICT principles that drive operational efficiency as well as increased engagement for development activities and guidance that Agencies provide to Member States and their populations. UN Agencies already address many of these principles individually, just as they currently provide administrative-based ICT services (e-mail, ERP systems, voice, video, and data communications networks) in ways that satisfy their individual operational requirements. However, in order to fully adopt the principles outlined below, ICT leaders agree that initiatives in these areas require a more coherent operating model which can be achieved through harmonization of ICT strategic plans.

Furthermore, the principles described below are predicated on three simple, but fundamental, concepts. First, knowledge, expertise and information originating from within or outside the UN System is organized and shared, for capacity building, partnering and advocacy, in a manner that it

can reach maximum positive impact for Member States. Second, the UN System-wide workforce has reached a stage of comfort with the latest technology and tools and is equipped for utilizing these in innovative ways for optimum fulfilment of organizational mandates. Finally, The UN System will apply sustainable management best practices, accompanying processes and systems that guarantee value-for- money, combined with transparency for Member States and the specific stakeholders.

1. Achieve Continued Innovation: Emerging technologies and services have had, and will continue to have, a dramatic impact on how United Nations agencies use ICTs to deliver services and conduct operations. Current examples include cloud computing, communications and collaboration, data, including analytics and geo-mapping, application development, infrastructure, telecommunications and mobility. Implementing a “UN System ICT Service Model” shifts the priorities for ICT functions from “operating” ICT services to “providing” ICT services. In this environment, ICT focuses on delivering business value, rather than performing operational activities, which can be

largely (although not entirely) provided by appropriate vendors, notably the UN System’s International Computer Centre (UNICC).

2. Enhance integration and interoperability, driving efficiency and effectiveness. UN agencies should embrace the potentials inherent in cloud and mobility solutions that will drive efficiency and effectiveness and simplify user experience through enhanced integration and interoperable services, despite investments in systems that are fragmented and disconnected both within a given Agency and across the UN ICT landscape. The new economies of scale and accelerated technological advancements provide an attractive solution both from a tangible investment perspective and most certainly from a user benefit and UN-wide coordination point of view. The UN system will move from operating individual services to interconnecting and sharing common ICT services. An approach suggested through the Data Communications study establishes a virtual network operator through a single or dual service provider managed by a single UN entity, such as the ICC or another UN entity.

3. Advocate openness and transparency: Access to open data and transparency serve as the foundation for almost every advance in economic and social development and provide Agencies with a means to interact with stakeholders. The UN system should actively support such initiatives, including driving local ICT development activities that will encourage the free flow of information and support for human rights. Over time this may result in more sustainable and reliable Member States as well as private sector offerings. Besides working together to achieve economies of scale, agencies agree to support local ICT development activities which, over time, would result in more sustainable and reliable private-sector offerings in these locations.

4. Practice Lean IT through best practices: Member States have called for Agencies to become more efficient by avoiding duplication and leveraging the collective power of the UN system, as well as simplifying business processes to achieve productivity gains, especially as Agency ICT environments shift from operating services to delivering solutions. This includes elements such as “cloud” services (in all its forms – infrastructure, platforms, and productivity tools) well as applications development, support, and training, etc. Furthermore, Agencies will continue to standardize on a smaller number of different platforms and services, in order to achieve efficiencies, both for procurement as well as in support costs.

5. Contribute to Sustainable Development and climate neutrality: The UN Secretary- General has called on all UN Agencies, funds and programmes to become climate neutral. ICT activities have a significant impact not only on greenhouse gas emissions, but are also a means to mitigate climate-altering effects, allowing Agencies and all stakeholders to achieve greening goals. Agencies

agree to integrate climate neutral solutions into their strategic plans, both for internal operations as well as guidance to stakeholders and become leaders in creating climate-neutral ICT operations.

6. Enhance collaboration and knowledge sharing: Member States have consistently called for the effective sharing of knowledge and information by harmonizing their existing knowledge-sharing activities, not only across the UN system but, more critically, with a wide range of stakeholders. Agencies agree on mechanisms to improve the effectiveness of knowledge-sharing activities, including enhancing interoperability between existing initiatives and information repositories.

7. Build confidence and security in the use of ICT: UN organizations have become not only targets for physical but also “cyber” threats. The security of information assets and information systems has become a high priority with information assurance – confidence in the security, integrity and availability of information systems – essential to achieving ICT goals. Agencies commit to enhancing existing cyber-security initiatives, both for protecting Agency information assets as well as supporting global information security. Optimal thresholds for risk have to be managed in each organization’s business model.

8. Provide leadership in ICT – UN coordination: UN ICT executives must take the lead to advocate for strategic ICT engagement in the business, where current models are no longer financially viable. ICT executives must demonstrate and put in place bold, transformative action plans for inter-Agency coordination and harmonization, addressing technological advancements (full, interoperable digitization of the business) that can redefine working models for Delivering as One communications, collaboration, advocacy, knowledge networking and business process management for maximum results on the ground for all stakeholders and reduced burden for Member States in participating in the work of the UN. UN ICT executives must strive to rationalize new advancements in technology to overcome the traditional pitfalls in UN coordination (such as distinct, dis-connected email systems, communications tools, ERPs, authentication mechanisms, and data marts), where simplified, interoperable communications, collaboration, data, business intelligence, telecommunications and mobility developments can make the difference to delivery on UN mandates. This is particularly true in the area of private and public cloud Software-as-a-Service, Infrastructure-as-a-Service, and Platform-as-a-Service offerings can provide immediate benefits to harmonization as well as cost containment.

9. ICT initiatives driven by the benefits they bring to the organization. To ensure that the benefits are realized, all ICT initiatives require a robust business case including a cost benefit analysis. Throughout the lifecycle of the initiative (which can be longer than the implementation project) progress towards delivering the defined benefits is actively monitored against plan, risks and issues are managed, and the delivered benefits quantified and reported.

III Challenges:

Funding structures: Any framework involving multiple entities must consider the governance structure of the UN System. While the Secretary General of the United Nations chairs the CEB, many United Nations Agencies operate independently and report to different legislative bodies, which in turn establish and approve their programmes of work and allocate their funding. Furthermore, varying programme objectives and mandates as well as an uneven level of financial resources earmarked for ICTs in each UN system entity often limits the capability of the UN system to undertake system-wide initiatives collectively. Each organization must therefore adapt its ICT strategy, and possibly its business operations, to achieve these guiding principles.

Legacy environments: Agencies have already invested heavily in existing technology environments, and it may be difficult to develop a clear and compelling business case for alignment on the strength of cost efficiencies alone.

IV Moving Forward:

Information and Communications technology has led to the creation of new business models inconceivable two decades ago. Recent developments such as cloud computing and the proliferation of mobile devices will continue to disrupt and reshape (and potentially simplify) the ICT footprint for every global user and business, including UN Agencies, which may need to rethink their business models.

Our collective responsibility for the UN system is to achieve harmonization and use our resources efficiently, with innovation, creativity, and agility. The ICT community is committed to standardizing the disparate ICT systems currently in use as much as possible as well as to supporting harmonization efforts.

The ICT community therefore requires commitments from senior executives to endorse a vision of a coherent approach to ICTs, even if it requires reconsidering, over time, existing investments. This vision goes beyond administrative support to leveraging ICT capabilities to meet institutional mandates to deliver services to Member States and their communities.

While the ICT strategic plans of Agencies will continue to address specific business requirements, agencies adopting this strategic framework agree to align it with their strategic ICT plans.