WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

Internal Oversight Division

Reference: IA 2019 - 02

Audit Report

Audit of the WIPO Enterprise Content Management (ECM) System Project

September 3, 2019

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LIST OF ACRONYMS

AIIM	The Association of Information and Image Management
CRA	Corporate Records and Archive
ECM	Enterprise Content Management
IIA	Institute of Internal Auditors
IOD	Internal Oversight Division
KMS	Knowledge Management Strategy
NMRC	New Mission Reports Capability
ODGIM	Office of Director General Incoming Mail
PCVM	Procurement Contract Vendor Management
PID	Project Initiation Document
SMT	Senior Management Team
TWMS	Translation Workflow Management System
UAT	User Acceptance Testing
WIPO	World Intellectual Property Organization

EXECUTIVE SUMMARY

1.   The World Intellectual Property Organization's (WIPO's) Enterprise Content Management (ECM) project is part of the Capital Master Plan, funded through the reserves and approved by the Assemblies of Member States[1]. Following a feasibility study conducted in 2014, the project was re-scoped and rescheduled with a view to further increasing the probability of successful delivery.

2.   Overall, the Internal Oversight Division (IOD) found that the ECM project has been effectively managed, and notes in particular that the project is being implemented using a more agile "bottom-up" approach, with successive steps and early wins, allowing a learning path, and facilitating both cultural change and technical migration of contents. Resources have been managed in an agile manner, with the use of an unassigned resource pool allowing for financial agility, and enabling the Project Board to effectively and timely manage unexpected events.

3.   The selected software, OpenText, can be considered appropriate to fulfil the needs of WIPO and is quoted by third party market analysts (e.g. Gartner) as one of the best-in-class, and the development approach based on configuration without customization ensures long-term sustainability, including possible migration to the existing cloud version.

4.   While acknowledging that the ECM project has introduced a structure and an appropriate tool to manage digital content that was previously mainly available in paper or in non-structured digital forms, WIPO could create more benefit by placing the ECM project in a broader context, and making sense of the investment in a vision of a digital transformation. In particular, WIPO would benefit from establishing a digital strategy, leveraging the outcomes of the ECM project.

5.   A digital strategy or plan is a vision and an implementation guideline on how digital capabilities can improve access to information and the creation of knowledge, support simplification and automation of processes, and increase the experience of users and stakeholders, while considering end-to-end views of processes and other WIPO initiatives, such as the planned Data Charter.

6.   IOD notes that establishing a content management tool also helps support the implementation of the Knowledge Management Strategy, and specifically addresses the case for "*coherent organization-wide tools and processes to facilitate content management, and the sharing of knowledge".* The maturity assessment of both the ECM and the Knowledge Management based on professional judgement[2] and on available information, shows that currently, the Content Management can be considered more mature than Knowledge Management at WIPO, when applying the same maturity criteria to both areas. In particular, quality, culture readiness, people and knowledge sources have potential for improvement with regards to Knowledge Management at WIPO.

7.   IOD also notes that the endorsement of the Knowledge Management Strategy has not yet been formalized by nominating a member of the Senior Management Team (SMT) as the owner of the strategy. The owner will among others, update the strategy, establish a framework to support, the knowledge management lifecycle, and the integration of the knowledge management principles defined in the strategy within WIPO business and operational plans, as well as overall business strategy.

8.   Finally, IOD encourages the ECM project team to expedite the already planned implementation of a communication plan, and a business-as-usual operating model, addressing among others: transition measures, roles and responsibilities, change management, training, maintenance and support of the ECM system.

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[1] Capital Master Plan as outlined in the 2013 Program and Budget Committee's 21st Session (WO/PBC/21/18), and recommended to the Assemblies of Member States at the Fifty-first series of meetings held between September 23rd and October 2nd, 2013.
[2] The Maturity Model developed by PwC contributed to this assessment

1.   BACKGROUND

9.   The Association of Information and Image Management (AIIM) defines ECM as strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. ECM covers the management of information within the entire scope of an enterprise whether that information is in the form of a paper document, an electronic file a database print stream or emails.

10.   WIPO proposed an ECM project for reserve funding in the Capital Master Plan as outlined in the Program and Budget Committee's 21st Session in 2013[3], and recommended to the Assemblies of Member States at the Fifty-first series of meetings held between September 23rd and October 2nd, 2013.

11.   The initial proposed approach was targeted to deploy an Oracle based system within a three-year timeframe. Based on a feasibility study in 2014, the project has been rescheduled and changes to the approach and scope were proposed whilst maintaining the original objectives. These changes to the approach and scope serve to further increase the probability of successful delivery of both the organizational changes and technical implementation elements of ECM.

12.   The revised approach was based upon a phased implementation with a number of 'early wins', where business benefits will be realized by specific business sectors, through the automation of a number of their document-centric processes, prior to the organization-wide deployment of ECM. The release of the ECM Project Initiation Document (PID) in January 2017 following the completion of the analyses phase marked the beginning of the implementation of the project.

13.   The first phase of the project is made up of a number of sub-projects, each delivering a set of business benefits to one or more business units. The sub-projects are as follows:

(a)   Design and implementation of the enhancement of Corporate Records and Archive capability (completed);

(b)   Design and implementation of Translation Workflow Management System (TWMS) (completed);

(c)   Design and implementation of Contract Management capability (completed);

(d)   Design and implementation of the New Mission Reports Capability (NMRC) (In progress);

(e)   Design and implementation of the Human Resource Management Department Staff eFile capability (User acceptance stage); and

(f)   Implementation of the organization-wide ECM capability required for the subsequent Phase Two roll-out to all WIPO units (In progress).

14.   The sub-projects of the first phase are to provide valuable experience to help ensure a smooth rollout of the ECM to the rest of the Organization under the second phase (currently scheduled to begin in 2020). The second phase will also include the design and implementation of a scanning and document workflow for incoming mail initially planned for the Office of the Director General, now extended to the whole Organization.

15.   The ECM project also helps address gaps identified in the WIPO Knowledge Management Strategy as follows: "There is an absence of coherent organization-wide tools and processes to facilitate content management, the sharing of knowledge and a lack of

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[3] WO/PBC/21/18; July 31, 2013

clarity in the roles and responsibilities associated with internal communication and records keeping in the Organization".

16.   The ECM project is managed under the Organization's tailored PRINCE2 project management principles and practices.

2.   AUDIT OBJECTIVES

17.   The objectives of this internal audit assignment are to:

(a)   Review the ECM project implementation to assess effective and efficient project governance and management of completed and ongoing sub-projects, including:

(i)   Assess whether the objectives set out in the project documents have been/are being achieved efficiently, including resources and time considerations;

(ii)   Verify compliance with Organization's tailored PRINCE2 project management principles and practices, as well as alignment with industry best practices; and

(iii)   Verify whether there are lessons learned from completed and rolled-out sub-projects that could benefit ongoing/pending sub-projects, as well as the second phase of the ECM project.

(b)   Assess how sub-projects that have been fully implemented are, delivering on expected benefits and user expectations, as well as supporting related objectives of the WIPO Knowledge Management Strategy (A/55/INF/5).

(c)   Assess whether the ECM System is designed to cater for the evolving needs of the Organization, such as the move to the Cloud.

18.   The audit also verified the existence of any methodology/framework in place to move the Organization towards a mature state of optimized use of the ECM system and continuous improvement.

19.   IOD contracted the services of PwC[4] Switzerland to support the engagement.

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[4] The support provided by the external consultants, PwC, did not constitute an audit, examination, or a review in accordance with generally accepted auditing or assurance standards. As a result, PwC does not provide an opinion or other form of assurance with respect to the support provided to IOD in the conduct of this internal audit assignment.

3.   AUDIT SCOPE AND METHODOLOGY

20.   The internal audit assignment covered the implementation of the project following the issuance of the PID finalized at the end of January 2017 until the status at June 2019. The scope included the sub-projects that make-up the ECM project, and addressed the following areas:

(a) Project Governance;

(b) Delivered Content and Expected Benefits;

(c) Technical Adequacy; and

(d) Lessons learned for the second phase: governance, processes and technology.

21.   The matrix below outlines the approach and methodology applied to each area and the objectives sought.

Figure A: Overview of the approach

| Project governance	Delivered Content /Expected benefits	Technical adequacy: *expert opinion whether ECM meets the current and future needs of WIPO*

- **Understand project governance**
  - interviews with Program Manager/ Oversight boards/ Subproject Owners
  - read project documentation
- **Understand if the project has been run appropriately including cost considerations**
  - analyze project documentation
  - interviews with Program manager/ Oversight boards/ Subproject Owners
• **Understand methodology or framework to use ECM appropriately, including continuous improvements**
  - interviews with Program manager/ Oversight boards/ Subproject Owners
	- **Understand the expected benefits:**
	  - interviews with Stakeholders / Subproject Owners
	- **Verify if these benefits have been delivered**
	  - documentation analysis
	  - interviews with Subproject Owners /Users champions
	- **Matching deliverables with the Knowledge Management Strategy**
	  - document analysis
	  - Interview with Program Manager and Stakeholders
		- **Understand technical implementation**
		  - documentation analysis
		  - interviews with implementation team
		- **Compare with best practice documents**
		- **Understand future needs**
		  - interview with Stakeholders
		  - analyze knowledge management strategy
		- **Evaluate technical solution against future needs**
		  - interviews with implementation team
		  - compare with industry information

Lessons learned for the second phase: governance, processes, and technology		

Source: PwC

22.   In more detail, the internal audit methodology included examining key documentation provided on the ECM project and sub-projects; holding several interviews with the project and sub-project owners, project managers and other relevant stakeholders including users; performing walkthroughs, selected tests, and benchmarking where applicable.

23.   The internal audit methodology applied the PwC standardized risk based approach based on a framework that outlines the "12 elements of project management excellence" as depicted below. Particularly, eight of out the 12 elements were applied during this engagement as highlighted in orange below. In addition, the engagement also applied the principles, themes and processes that form the foundation of the PRINCE2 project management method, tailored to WIPO needs.

Source: PwC
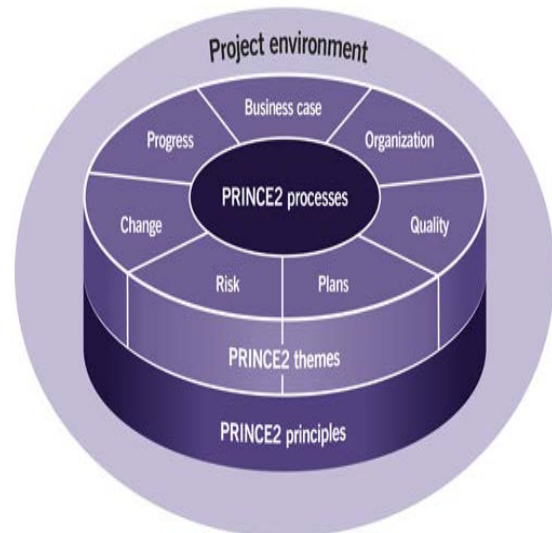
Source: AXELOS ™

24.   IOD followed the International Standards for the Professional Practice of Internal Auditing (the Standards) issued by the Institute of Internal Auditors (IIA).

4.   AUDIT RESULTS – POSITIVE DEVELOPMENTS

25.   Overall, IOD found that the ECM project has been effectively managed, and noted in particular, the following positive developments:

Area	Positive Development
Business Case	The expected results according to the definition in the Capital Master Plan project proposal in 2013 have been reformulated during the feasibility study. The adapted requirements are in line with the defined principles and have been communicated to the Member States in the successive reports.
Project Planning	The ECM project is being implemented using a more agile "bottom-up" approach, with successive steps and early wins projects, allowing a learning path, and facilitating cultural change, and technical migration of contents. This approach is found to be more appropriate.
Project Governance	The project governance followed the project management requirements set by WIPO and adapted from the PRINCE2, and can be considered appropriate to the project requirements. The Project and sub-projects had a fully functioning Board with the right composition to deliver on the Project. We note that the Board has effectively managed the learning curve, transferring lessons learned across the sub-projects and managing the budget in an agile manner. The management of the supplier resources has been effective and reactive in addressing any supplier related issues.
Budget Management	The use of an unassigned resource pool allowed for financial agility, and enabled the Board to effectively and timely manage unexpected events.

Technology Solution	The OpenText solution chosen after the feasibility study can be considered appropriate to fulfil the needs of WIPO and is quoted by third party market analysts (e.g. Gartner) as one of the best-in-class.
	The development approach based on configuration without customization and the currently known technical plans of the OpenText software development ensure long-term sustainability, including possible migration to the existing cloud version.
Security	The implementation of the ECM platform and the deployment of the completed sub-project is in line with the security requirements/policies, classification policies and lifecycle management policies of the WIPO.
Project Management	The project documents and definitions utilized in the context of this project is based on PRINCE2 methodologies that have been tailored for WIPO. PIDs and End of Stage Reports are established according to PRINCE 2. Documentation for completed projects are established in line with the WIPO tailored PRINCE 2 requirements.
	Sub-Projects are regularly reported in the ECM Project Board *circa* every two months. Meeting minutes have been produced for the ECM Project Board meetings.
Risk Management	A risk list has been maintained and risks are been reported as part of the regular highlight reports.
Expected Benefits	The sub-projects have been focused on delivering the described benefits. The effective delivery of benefits is measured at the end of the sub-project, as well are scheduled to be reassessed after six and 12 months.
	The deliverable and benefits described in the PID have been delivered by the three sub-projects already completed (Corporate Records and Archive (CRA), Translation Workflow Management System (TWMS), Procurement Contract Vendor Management (PCVM).

5.   OBSERVATIONS AND RECOMMENDATIONS

(A)   PROJECT GOVERNANCE AND MANAGEMENT

(i)   Project Status

26.   An overall PID was established in January 2017, which outlined eight so called "early win" sub-projects. Furthermore, a PID was established for each sub-project. The first sub-project on re-platforming and version upgrade of the existing Corporate Records and Archive capability was completed in the second quarter of 2018. The audit reviewed the seven remaining projects outlined in the table below.

TABLE A: Status of Sub-projects

	Sub-project	Project stage
SP1	Records & Archives Management System (CRA):	Completed (18.10.2018)
SP 2	Translation Workflow Management Systems (TWMS)	Completed (09.08.2018)
SP 3	Procurement Cases (PCVM)	Completed (26.06.2018)
SP 4	New Mission Reports Capability (NMRC)	Ongoing, PID being finalized
SP 5	Office of the Director General Incoming Mail (ODGIM)	Deferred to Phase 2 with scope augmented to the whole WIPO
SP 6	Human Resources eFile (HR eFile)	Ongoing, at User Acceptance Testing (UAT) stage
SP 7	WIPO-Wide ECM Capability (ECM WIPO Wide)	Ongoing, PID prepared

27.   **NMRC** – The New Mission Reports sub-project is at PID stage. The Mission documents subproject will use the ECM's search and case management capabilities for better management of /access to Mission documents

28.   **ODGIM** – The scope of the Incoming Mail sub-project has been extended to cover all incoming mails of WIPO and is scheduled for Phase 2 of the ECM Project.

29.   **HR eFile** – The HR filing sub-project is at UAT stage; we note that the digitalisation of old documents has been slowed down due to among others, resource bottlenecks, and outstanding clarifications of the legal status of the electronic version of old documents.

30.   **ECM WIPO Wide** – This sub-project identifies and prepares necessary conditions to enable an effective roll out of the ECM at organizational level, planned for second phase (2020-2021) and subsequent third phase (2022).

31.   The review of ECM Project Board meeting minutes indicate that the status of the various sub-projects are monitored and regularly discussed, and issues and resolutions are tracked.

(ii)   Project Timelines

32.   The original plan to deliver the ECM by the end of 2016 has been successively changed in several steps to deliver the first phase of the solution by end of 2019. The shift in project timelines is due to, among others, a feasibility study conducted in 2014 with the objective of better focusing and aligning the project to the Organizational needs; the adjustment from a "top-down" to "bottom-up" approach to enhance buy-in among others; and the assessment of ERP integration challenges. WIPO Member States have been regularly informed through reports on the status of the project.

33.   One of the most relevant aspects of the streamlined project approach was the adoption of a "bottom-up" approach, combined with an agile method characterized by successive steps and quick wins sub-projects, which charted a learning path with transferable lessons learned. With this approach, it was agreed that a second phase would entail rolling out the working solutions developed in the first phase to the whole Organization as needed.

34.   IOD notes that there were some delays in the implementation of the sub-projects, and the following main reasons were advanced for these delays:

    (a) The Records & Archives Management System sub-project was too optimistically planned, combined with limited skills and capacity to successfully and timely implement the project;

    (b) The delays in the Translation Workflow Management Systems sub-project was due to, among other: (i) a needed software upgrade; (ii) a larger than expected configuration effort and a workflow more complex than anticipated; and (iii) project personnel turnover;

    (c) The delay in the Procurement Cases sub-project was due to the introduction of a workflow, which was unforeseen in the initial scoping; and

    (d) The delay in the HR eFile sub-project is mainly due to rescheduling of another key project on time management with higher priority, requiring the same HR resources.

35.   Going forward, these occurrences have served as lessons that will be considered during the second phase of the ECM project.

(iii)   Budget Management

36.   The budget allocated for the ECM project has been 2'068'000 Swiss francs since its approval in 2013, and has been consistently managed by the Project Board. IOD notes that the approach adopted consists of not initially allocating a full budget to each sub-project, but rather using an "unallocated" budget position through which funds could be apportioned to the different sub-projects as required.

37.   The figure below depicts the apportioning and consumption of the budget from September 2013 to April 2019.

Figure B: Budget Consumption (in Swiss francs)
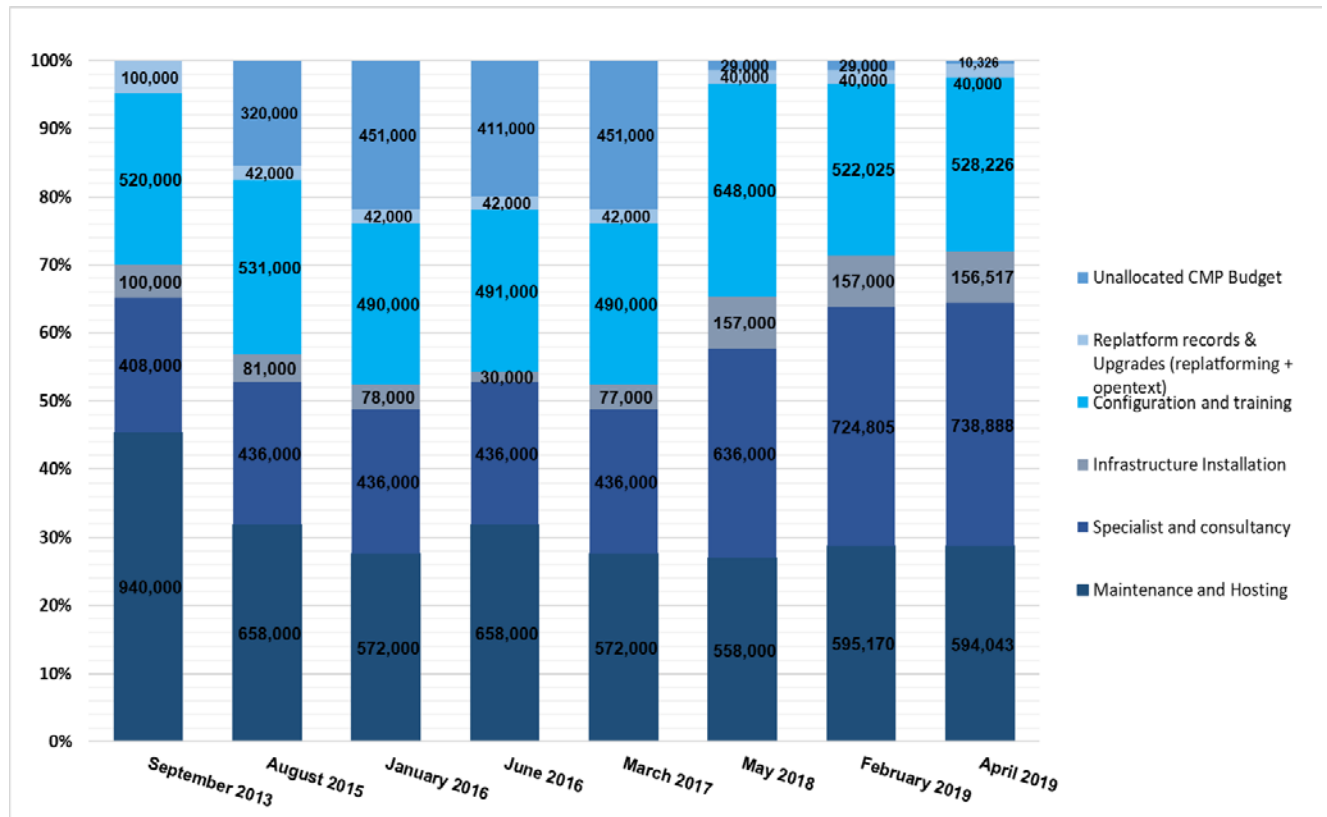
Source: ECM budget documents

38.   Some differences were found when comparing the project budget position and the positions used in reporting on the project, mainly due to differences in the way figures are presented, with no impact on the veracity of the information provided. Finally, an arithmetic error was found in the 2015 status report of the ECM project due to a budget position being duplicated. However the total was accurate and hence did not impact the validity of the total reported figures.

                        (iv)   ECM Project Technology

39.   The technological choice for the ECM tool has been performed together with the validation of the approach on the base of an external analysis undertaken by ASKARI, a specialized service provider, which conducted a study to identify the technology choice for implementing the ECM at WIPO in 2014[5].

40.   This study highlights the OpenText solution as the appropriate technology, as it offers most of what is required to the meet the early wins, and develop a common platform with advanced functionalities to support information and knowledge sharing. Furthermore, the records and archiving group have had prior exposure to the OpenText solution. In addition, two consulting firms, Forrester and Cutter, subsequently validated the study.

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[5] Report "the Enterprise Content Management (ECM) Implementation: Validation of Approach" issued on December 22, 2014

41.   Finally, a report published by Gartner on Content Services Platform on October 25, 2018, identifies the OpenText solutions as one of the leading solutions as depicted in the figure below.

Figure C: Magic Quadrant for Content Services Platforms by Gartner

CHALLENGERS	LEADERS
Oracle	IBM — Microsoft — OpenText — Hyland
Alfresco — Laserfiche	
Newgen — SER Group	
Micro Focus	Box
Fabasoft	M-Files — Nuxeo
GRM Information Management	
Everteam	
DocuWare	Objective
NICHE PLAYERS	VISIONARIES

ABILITY TO EXECUTE

COMPLETENESS OF VISION ——→   As of September 2018   © Gartner, Inc

Source: Gartner (October 2018)

42.   IOD notes that measures have been taken towards supporting the long-term sustainability by opting for a configuration of the solution as opposed to a customisation. Further, the solution supports the move to a Cloud environment as indicated in the release notes of the current version, and anticipated in the future version for which the notes have yet to be released. There are cloud service providers such as Swisscom, and more recently Amazon providing OpenText service from the cloud.

43.   IOD further notes that the Organization has been working with a Business Process Management tool called Metastorm from OpenText, which has been retired early 2019, and replaced by OpenText AppWorks Solution, considered by the analyst company, Forrester in a report of June 19, 2019 as one of the leading solutions for digital process automation.

44.   There is potential for additional value creation based on process management and content-centric automation software AppWorks of OpenText, for which WIPO has apparently some monetary advantage in terms of licence costs. In more detail, OpenText when billing WIPO for an eventual purchase of new OpenText AppWorks licences could take the value of WIPO Metastorm licences, valued at around 250 thousands Swiss francs, into consideration.

(v)   ECM Expected Outcomes and Benefits

45.   Respective PIDs of each sub-project outlines the desired outcomes and expected benefits. The implication of management and owners of the sub-projects helps ensure that these outcomes and subsequent benefits are aligned with what was initially set. In more detail, upon completion of a sub-project, a review of outcomes and benefits is conducted and reported in the end of stage reports.

46.   The key delivered outcomes are:

(a)   An ECM Platform has been configured and is running, with the possibility to collect metadata and perform searches;

(b)   Four Business areas have already transferred content into the ECM platform and are currently using the tool to help enhance efficiency, effectiveness and performance;

(c)   Workflows for the initial setup of contract cases, requesting translation services, and for managing the related documents involved have been introduced, serving to demonstrate the capabilities offered by the system. Further, processes have been setup to support the creation of new workflows; and

(d)   An automatic job to populate in ECM and keep actual metadata for Human Resources data has been implemented.

47.   Furthermore, benefits are also reassessed after six and 12 months following completion and go-live, since not all benefits are immediate. Outcomes and Benefits are monitored at both sub-project and project Board levels.

48.   Finally, the review acknowledges that a number of benefits have been realised, and there are no immediate indications that ongoing sub-projects would not deliver after going live.

(B)   DIGITAL AND KNOWLEDGE MANAGEMENT STRATEGIES

(i)   <u>WIPO Knowledge Management Strategy</u>

49.   WIPO established a Knowledge Management Strategy[6] (KMS) in 2015, with the objectives of:

(a)   developing a "knowledge management" culture;

(b)   implementing an Organization-wide set of knowledge management processes and tools;

(c)   identifying and publishing a "single source of truth" for knowledge and information assets; and

(d)   aligning and integrating the Strategy and the Organizational Resilience Strategy.

50.   IOD makes the following observations on the Knowledge management strategy.

51.   The endorsement of the KMS has not yet been formalized by nominating a representative of the SMT as an owner of the strategy, who will among others support the integration of the knowledge management principles defined in the KMS within WIPO business and operational plans, as well as overall business strategy.

52.   The creation of knowledge needs to be guided with commitment from the top, with processes of knowledge management, considering the inclusion of external sources of information, and supported by knowledge gathering tools.

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[6] "Knowledge Management is a discipline that promotes an integrated approach for the identification, capture, retrieval, distribution, sharing, use and reuse of WIPO's information and knowledge assets. Through this discipline, staff, processes and technologies will be aligned to drive the realizable value and benefits of these information and knowledge assets, and contribute to organizational effectiveness, efficiency and innovation."

53.   IOD notes that establishing a content management tool helps support the implementation of the KMS, and specifically addresses the case for "*coherent organization-wide tools and processes to facilitate content management, and the sharing of knowledge".* Going forward, a consistent framework of knowledge management processes to discover and detect, to create, share and reuse knowledge as defined by the KMS is still to be established.

54.   Furthermore, the ECM can be considered as an enabling tool to support the KMS by affecting the following related areas among others:

(a)   Supporting information ownership and accountability;

(b)   Promoting behavioural changes to enhance information sharing and knowledge management;

(c)   Supporting the use of best practices in information management, for instance in record management; and

(d)   Helping to improve access to information and organizational performance by improving information sharing and collaboration.

55.   IOD conducted a maturity assessment of both the ECM and the KMS based professional judgement[7] and on available information. It appears that currently, the Content Management can be considered more mature than Knowledge Management at WIPO, when applying the same maturity criteria to both areas. In particular, quality, culture readiness, people and knowledge sources have potential for improvement when it comes to the Knowledge Management at WIPO.

FIGURE D: ECM Maturity   **FIGURE E: Knowledge Management Maturity**
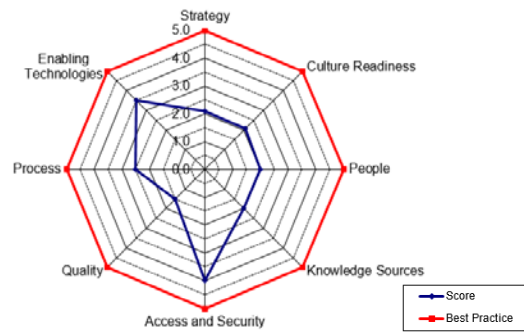
56.   Finally, IOD notes that the current KMS covers the period of 2015 to 2018. Consequently, a revision and update of the strategy is required for the next four years.

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[7] The Maturity Model developed by PwC contributed to this assessment

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Recommendation (s)

1. The WIPO ICT Board should endorse and operationalize the Knowledge Management Strategy, by assigning a Senior Management Team Executive to:

    (a) Revise and update the WIPO Knowledge Management Strategy; and

    (b) Develop a knowledge management framework, including leveraging on the ECM platform, to among others, define the knowledge management lifecycle at WIPO.

    (Priority: Medium)

Suggested activities – WIPO Knowledge Management Strategy

(a) Assign the responsibility for the implementation of the KMS to a member of the SMT;

(b) Work along use cases - continue to identify along performed and planned sub-projects, which part of the stored data/information would have a relevant knowledge based usage; and define a policy on how to get this knowledge made usable, as it is currently foreseen with the mission documentation sub-project. For instance, having access to information from previous missions, knowing which staff member or Programs have been, or planning to go, on mission to a specific country is a valuable information.

(c) Make the process in the identification of use cases more systematic, addressing the workflow/process implementation requests from business as well as knowledge sharing/creation use cases; asking questions such as: What is the valuable knowledge handled in this process? Who could take advantage in other business units from the information handled in the change request? and should other stakeholders be involved in the process definition?

(d) Identify and introduce searching tools that allow the identification of not only metadata but also reusable content;

(e) Improve culture readiness - identify knowledge management enabling processes and implement related trainings; and establish a Knowledge Management Framework covering processes, enabling technologies and staff work activities/job functions;

(f) Improve behaviour and attitude - establish a formal knowledge management focus group or steering committee; and define roles and responsibilities for knowledge management; for instance, designating a knowledge manager per business area. Consider eventual combination/aggregation with other roles as the business process owner.

(g) Improve Knowledge Sources - identify and index the organization's knowledge sources; and increase consolidation of knowledge and information sources.

(h) Improve Quality - identify where efforts to maintain information and knowledge currency are largely manual and investigate improvements; maintain information and knowledge currency (up-to-date) and relevant, by regularly assessing quality.

(ii)   <u>Digital Strategy/Plan</u>

57.   A digital strategy or plan is a vision and an implementation guideline on how digital capabilities can strengthen the efficiency of the organization, improve access to information and the creation of knowledge, support simplification and automation of processes, increase the experience of users and stakeholders and support transformation.

58.   IOD acknowledges that the ECM project has introduced a structure and an appropriate tool to manage digital content that was previously mainly available in paper or in non-structured digital forms. However, WIPO could create more benefit by placing the ECM project in a broader context and making sense of the investment in a vision of a digital transformation. In particular, WIPO would benefit from the introduction of a digital strategy, leveraging the outcomes of the ECM project.

59.   For instance, in the translation services and procurement sub-projects, these projects leveraged tool capabilities, introducing workflows that are connecting content and processes. Hence uncovering opportunities to reap more benefits from the tool. Further, the early users of the ECM have begun to identify possible improvements on existing processes or new valuable workflows that could be supported by the tool.

60.   The implementation of ECM provides an opportunity to introduce among others, a variety of digital technologies, sharing capabilities, improved workflows, and other process management and/or enabling tools that are outside the scope of the ECM project. Going forward, a digital strategy/plan would among others, provide a vision of the transformation, and help define an appropriate technology approach. It would allow identification of larger benefits at end-to-end level and reduce the total cost of ownership of processes and tools across the Organization. The value created by an ECM can be increased if future developments are integrated in a digital strategy/plan.

61.   Furthermore, the development of a digital strategy/plan would bring a holistic approach, which considers end-to-end views of processes and other WIPO initiatives, such as the planned Data Charter. The digital strategy/plan would combine with the current bottom up approach to process transformation by ensuring alignment of solutions, choices, objectives, and target operating and process models.

62.   A digital strategy/plan would include the following:

(a)   Develop a digital vision - the vision should be user centric and based on the purpose of the organization, not attempting to simple digitally transform the same manual processes;

(b)   Articulate cases for change - Leverage ECM insights obtained in the analysis phases, combine with other WIPO initiatives, and design a target operation model;

(c)   Define a technology approach to support the vision - ECM is only one of the technologies in place. Process documentation and automation tools, knowledge collection and management, analytics and usability platforms (mobile, online), co-creation and co-delivery instruments, would make up the technology landscape; and

(d)   Define a roadmap to implement the vision and support the transformation. The roadmap should take into account strategic, operational and technical considerations and dependencies.

Recommendation (s)

2. The WIPO ICT Board should define a digital strategy that underpins and guides among others, a structured creation and usage of the content managed by the ECM platform, across WIPO including:

   (a) Defining an operating model, leveraging on technology, and aligned with the vision, goals and strategy of WIPO; and

   (b) Developing a Roadmap to support implementation of the strategy, and to monitor the digital maturity of the Organization.

(Priority: Medium)

Suggested activities - Digital Strategy/plan

(a) Continue to collect needs and ideas from the business units during the analysis step of the ECM rollout. Understanding how data and content are collected and how they are used by whom is already an implicit part of the rollout analysis phase. Workshops are already part of the analysis approach and could be used to handle sessions where "what if" questions on processes may be discussed;

(b) Consolidate ideas with the business owners and with the data charter initiative;

(c) Develop a digital strategy by setting a target operating model covering user needs and key processes;

(d) Define a technology vision and approach which addresses the digital strategy/plan, and identify related needs and expectations (for example the use of tablets, digital signatures);

(e) Identify a technology target architecture aligned with the digital strategy/plan, leveraging on the ECM project and the future data charter; and

(f) Define a rollout plan, and identify the appropriate funding sources for both investments, maintenance, and improvements.

(C)   ROLLOUT AND TRANSITION TO BUSINESS-AS-USUAL

(i)   Rollout Plans and Communication for Phase Two

63.   The ECM project is based on a use case, bottom up, driven initiative where challenges have been identified, resolved, and lessons applied to the successive sub-projects that make up the portfolio.

64.   While lessons learned have been successfully applied in sub-projects, some key challenges to address a systematic WIPO-wide rollout of the solution have been identified by the project management, and a final sub-project has been initiated in the first phase, with the objective of taking a number of actions to support the rollout that will occur during the second phase.

65.   The rollout will cover the migration of the current unstructured data in the file system to the ECM platform. The deliverables expected by the final sub-project of the first phase include:

(a) Tools (e.g. for the creation of robust file structures), structures (e.g. overall information structures) and methodologies (e.g. the migration methodology). These deliverables will support effective and efficient rollout;

(b) Deployment, resource and communication plans; and

(c) A handover plan from the project structure to business-as-usual operation.

66.   Lessons learned have shown that deployment, resource and effective communication are critical for the rollout. The business units can easily underestimate the effort, misunderstand the potential provided by the ECM, or perceive this solution as an additional administrative burden. The effort to satisfy other business commitments could also strongly influence the rollout, though potential delays.

67.   Although the ECM project/business-as-usual organisation will be driving and supporting the business areas during the rollout phase, these areas are expected to perform an intensive preparation work (clean-up), while also implementing measures for an effective cultural change.

68.   It is therefore relevant that the communication plan foreseen in the ECM WIPO-Wide Capability Sub-project is not only prepared and deployed during second phase, but to already begin communicating at organization level well before phase two begins.

69.   Furthermore, the plan should include clearly defined roles and responsibilities, and provide a clear vision, and relevant information on the benefits and value of the ECM.

(ii)   Handover from Project to Business-as-Usual

70.   While the ECM organization is currently running as a project with proper governance in place, going forward, the ECM is expected to transition to a business-as-usual organization. This is a best practice that will support appropriate allocation of activities and budgeting (e.g. project costs, starting point of maintenance fees) among others.

71.   Four different types of activities will coexist during the second phase of the project:

(a) A rollout of basic ECM features for all WIPO users, including the development of Business File Plans for all Divisions to manage and share content; and the cleaning and migration of content into the File Plans;

(b) The development of two specific workflow features ("eCourier System[8]" and "electronic Memorandum") that will digitize two major paper-based processes used by all WIPO business areas;

(c) Developments and improvements for business areas already using the ECM; and

(d) Day to day usage of the ECM capabilities with normal maintenance activities.

72.   These activities will constitute an overlapping of project activities (rollout and development) with business-as-usual activities (day-to-day usage and management of change requirements). There will be some interdependencies between the different activities and a set of rules and processes needs to be in place in order to address these with the right priority and with the correct budget allocation.

73.   A business-as-usual operating model would among others, clarify roles and responsibilities and interactions among the four activities that would coexist during the

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[8] The "e-courier" initiative is defined in the Capital Master Plan document ([WO/PBC/30/11](), Annex 1 p 7) as "develop and implement an "electronic courier system" to digitize the current paper-based workflows for managing incoming official correspondence".

second phase. The plan for Sub-project 7 includes the definition of the post-project management and support structure.

Recommendation (s)

3. The Administration and Management Sector should expedite the already planned work with relevant stakeholders to:
    (a) Develop and begin implementing the communication plan for the future rollout of the ECM prior to the second Phase; and
    (b) Define a business-as-usual operating model, addressing among others: transition measures, roles and responsibilities, change management, training, maintenance and support.

(Priority: High)

Suggested activities - Rollout Plans and Communication for Phase Two

(a)   Include in the communication strategy and plan a clear overview of expected results, including expectations from the business units, and the expected resource projections.

(b)   Begin the communication campaign by end 2019 to get on boarding.

Suggested activities - Handover from Project to Business-as-Usual

(a)   Define a business-as-usual operating model, covering responsibilities and tasks including:

  (i)   Tasks - identification and prioritisation of changes, change management, risk management, performance management, and resource management; and
  (ii)   Roles and responsibilities - the management of the consistency of the solution, training, support for business analysis; management of the supplier maintenance support; responsibilities for content and information governance issues; responsibilities for business process improvements.

(b)   A transition guide should be in place, which outlines the handover of tasks and responsibilities.

  (iii)   <u>Matching User Acceptance Testing and User Requirements</u>

74.   Sub-project user requirements and UAT are created as part of the project activities. IOD notes that comparing UAT and user requirement documentation was not always clear. For instance, Requirements are listed in a requirement list, with progressive numbering (e.g. REQ-001), while UAT are listed in a Test Script list, a different indexation (e.g. UC001_1).

75.   The absence of a common reference, or a one to one correspondence between both the UAT and the user requirement lists, could lead to omitted functionalities, and/or incomplete UATs. Improving the matching process between the UAT and project/user requirement lists, by for instance, introducing a mapping or reference table, would help mitigate any risk of omission or incomplete UAT. The project management team is currently addressing this issue.

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Prepared by: Alain Garba, Head Internal Audit, and PwC, External Consultants

Reviewed and Approved by: Rajesh Singh, Director IOD

TABLE OF RECOMMENDATIONS

No	Recommendations	Priority	Person(s) Responsible	Other Stakeholder	Management Comments and Action Plan	Deadline
1.	The WIPO ICT Board should endorse and operationalize the knowledge management strategy, by assigning an SMT executive to: (a) Revise and update the WIPO Knowledge Management Strategy; and (b) Develop knowledge management framework, including leveraging on the ECM platform, to among others, define the knowledge management lifecycle at WIPO.	Medium	CIO – Secretary of the Board	SMT members	Place on agenda of a forthcoming ICT Board. Closure actions: Designation of an SMT executive. Updated knowledge management strategy and development of a knowledge management framework	December 31, 2020 December 31, 2020
2.	The WIPO ICT Board should define a digital strategy that underpins and guides among others, a structured creation and usage of the content managed by the ECM platform, across WIPO including: (a) Defining an operating model, leveraging on technology, and aligned with the vision, goals and strategy of WIPO; and (b) Developing a Roadmap to support implementation of the strategy, and to monitor the digital maturity of the Organization.	Medium	CIO – Secretary of the Board	ICT Board members; SMT members	Place on the agenda of a forthcoming ICT Board. Closure action: Development of a digital strategy and road map	September 30, 2020

No	Recommendations	Priority	Person(s) Responsible	Other Stakeholder	Management Comments and Action Plan	Deadline
3.	The Administration and Management Sector should expedite the already planned work with relevant stakeholders to: (a) Develop and begin implementing the communication plan for the future rollout of the ECM prior to the second Phase; and (b) Define a business-as-usual operating model, addressing among others: (transition measures, roles and responsibilities, change management, training, maintenance and support.	High	Sergio Balibrea, Chair, ECM Board	Project Executive (Sub-Project 7); and Members of the ECM Board	Implement sub-project 7 components on: communications and business-as-usual operating model.	December 31, 2020

ANNEX I: RISK RATING AND PRIORITY OF AUDIT RECOMMENDATIONS

The risk ratings in the tables below are driven by the combination of likelihood of occurrence of events and the financial impact or harm to the organization's reputation, which may result if the risks materialize. The ratings for audit recommendations are based on the control environment assessed during the audit.

Table II.1: Effectiveness of Risks/ Controls and Residual Risk Rating

		Compound Risk Rating (Likelihood x Impact)			
		Low	Medium	High	Very High
Control Effectiveness	Low	Low	Medium	High	Very High
	Medium	Low	Medium	High	High
	High	Low	Low	Medium	Medium

Table II.2: Priority of Audit Recommendations

Priority of Audit Recommendations	Residual Risk Rating
Requires Immediate Management Attention	Very High
Requires Urgent Management Attention	High
Requires Management Attention	Medium
Routine in Nature	Low

[End of Annex I and of Document]