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SUBJECT: IT Roadmap Update and Plans

SUBMITTED BY: President of the European Patent Office

ADDRESSEES:
1. Administrative Council (for decision)
2. Budget and Finance Committee (for information)
3. Technical and Operational Support Committee (for information))

SUMMARY

This document has been prepared as an update to CA/46/11 which set out the plans and direction for IT at the EPO following the Financial and IT Studies in 2010. This strategic direction was unanimously approved in the June 2011 Council.

The plans and deliveries of the IT Roadmap remain based on implementing improvements in the Office's operations in the scope of the "Efficiency Scenario" by investing in projects with internal and external benefits in two areas: the Patent Grant Process and Search Tools.

This document provides an update of those plans, showing what has already been delivered and how the benefits and costs are on track, including the planning for 2014 – 2017.

Following the TOSC, some details explained in the meeting as well as further information about the overall costs have been added to the document.

This document replaces CA/46/14 dated [17.04.2014]. The amendments are indicated by grey hatching.

TABLE OF CONTENTS

I. STRATEGIC/OPERATIONAL

1. Strategic

II. RECOMMENDATION

2. The Administrative Council is requested to approve the update to the IT Roadmap and its further continuation as set out in this document.

III. MAJORITY NEEDED

3. Simple

IV. SUMMARY

4. This document has been prepared as an update to CA/46/11 which set out the plans and direction for IT at the EPO following the Financial and IT Studies in 2010. This strategic direction was unanimously approved in the June 2011 Council.

5. The plans and deliveries of the IT Roadmap remain based on implementing improvements in the Office's operations in the scope of the "Efficiency Scenario" by investing in projects with internal and external benefits in two areas: the Patent Grant Process and Search Tools.

V. CONTEXT

6. At the June 2011 Administrative Council meeting, the Office presented CA/46/11 setting out the strategic directions for IT at the EPO.

7. In CA/46/11, the Office set out the arguments for the proposed investments in IT and the associated business transformation so as to avoid the risk of falling behind with its IT systems and in order to implement the results of the Financial Study where the efficiency scenario is chosen as the option for the future. The Office proposed to invest in real improvements to reassert its position in a changing and increasingly competitive world.

8. To achieve this, the IT Roadmap builds on a radical business process reengineering effort to identify how the work of the Office could be made more efficient, and to subsequently use investments in IT to:

   - Target projects in the patent grant and search processes that support the "Efficiency Case" identified in the financial study to improve the performance

of examiners and formalities officers and ensure that these developments also offer real efficiency gains for applicants in doing business with the EPO;

- Modernise the IT environment to ensure that, in the longer term, the Office is fit for the future and adaptable to any changes that might occur; and

- Ensure that these internal developments are designed to be interoperable and can, in future, be put at the disposal of the member states.

9. Since its inception, the IT Roadmap has made a steady stream of deliveries to examiners, formalities officers and to external users.

10. For examiners, the EPOQUE search engine has been improved with features that allow examiners to search more prior art faster in three languages. The IT Roadmap has also delivered a Figure and Non-Boolean Search tool, allowing examiners to carry out concept searches, and to match a reference in a figure with the corresponding text. Additionally, a new Chemical Annotator tool has been made available, allowing the translation and display of chemical names in patent documents as graphical structures.

11. Examiners also now have the capability to see all the changes between various versions of the claims and description submitted by applicants, as well as a system to visualize and compare different versions of sequence listings that have been filed in Biotechnology patent applications.

12. Using Google machine translation, examiners can now translate documents in up to 33 languages, giving them increased access to prior art published in non-official languages (such as Chinese). Via the Dossier Inspection tool (DI+), examiners can now easily access formatted file wrapper information in English about patent applications being processed at the EPO, JPO, KIPO, SIPO and at the USPTO. The DI+ tool can also easily access a Translation-on-the-Fly service in order to easily translate text that is not in English, French, or German that relates to the grant procedure.

13. Furthermore, a system for semi-automatic pre-drafting of communications has now been put in place, allowing per technical field, to pre- configure the relevant objections and automatically relate them to the search results found the examiner. This then provides a starting point for the examiner in drafting the final written opinion, thereby improving efficiency.

14. The Enhanced Worldwide Search project has delivered a number of improvements to Espacenet, enhancing its search and display functions. For instance, Espacenet now offers public access to the CPC and the Common Citation Document, and links to national patent registers.

15. Other examples of IT Roadmap deliveries include the automation of the manual sending of 300 000 forms and of the dispatch of many examiner communications for both EP and PCT applications, which has the workload of Patent Administration. Additionally, the IT Roadmap has enabled the elimination of most formalities checks for A-publications through automation, the automated dispatch of EP and PCT search reports directly from examiners to applicants, and also the automated handling of incoming PCT applications entering into the Regional Phase.

16. As far as the Case Management System (CMS) is concerned, in 2012, the Office rolled out its first CMS-based offering, the PCT-Receiving Office, which allowed applicants to electronically file PCT applications. In July 2013, the new Case Management System for electronic filing of PCT applications was extended to also support filing of both EP applications, as well as applications for PCT Entry into the Regional Phase. Pilot users of the CMS can now use the system for Filing applications under the EP, PCT, and Euro-PCT procedures. Further enhancements to the Office's CMS-based Filing offerings are underway, such as support for subsequently filed documents, and other enhanced functionality for applicants.

17. During the two and a half years since the beginning of the IT Roadmap, the original context in which it was formulated has evolved to include aspects that were not contained in its original mandate in June 2011. In that time, the Administrative Council authorised the inclusion of the Security Roadmap implementation in the IT Roadmap. In addition, in line with the principles set out in CA/46/11, other activities such as the Stream 3 IM Transformation, Ergonomics support, Change Management as well as further Benefits improvement Transformation projects have also been implemented under the IT Roadmap umbrella.

18. It is now foreseen that the Roadmap shall be completed in 2017, due to a number of factors:

- The main contractor of the Consortium that provided the Case Management System was taken over by another company, causing some delays;

- In order to mitigate the consequences of these delays and to optimize the implementation of the Roadmap, priorities were adjusted in order to be on track for the benefits realization.

19. A detailed plan of the business and technical implementation of the re-engineered patent grant process under a Case Management System is currently being produced, and shall be available in mid-2014.

20. To be able to effectively manage this transition for the whole process and to already deliver initial efficiency and applicant interaction benefits, the IT Roadmap is implementing the complete transformation through a limited sequence of specific projects having clear content, objectives and benefits with well-defined milestones, budgets and responsibilities. Many of these projects are now complete; however the key implementation of the Case Management System is now underway following completion of the detailed design work in the first half of 2014.

21. This document shows how the plans described in CA/46/11 have been implemented and documents the benefits already achieved as well as the further steps.

VI. FOCUS INVESTMENT IN TWO AREAS

22. Concentrating on efficiency gains and quality improvements, the Office proposed to invest in the two key areas identified by the IT study and to address the main IT issues it raised.

23. These two key areas are the Patent Grant Process and Search Tools and Information Management.

- The Patent Grant Process: The overall objective here is to implement a streamlined re-engineered process by deleting/automating some tasks, and recruiting additional examiners by redeployment of support staff posts. This will allow the Office to increase production capacity, while at the same time keeping the overall staff complement constant.

- Search Tools and Information Management: Investments here are designed to improve the efficiency of examiners when searching while maintaining or improving the quality. The main internal benefit is in the form of increased

output of examiners whilst enabling them to cope with the increasing global documentation, especially documentation from the Asia area.

24. Taken together, the implementation of the IT Roadmap projects is bringing efficiency increases that will help the Office to accommodate the expected growth in workload while maintaining the overall number of 7 075 posts in the existing Table of Posts.

A. RE-ENGINEERED PATENT GRANT PROCESS

25. The first focus area in the IT Roadmap is the re-engineering, streamlining and further automating of the patent grant process. The purpose of this stream of projects is not only to sustain the Office's position as a world leader in the quality, speed and efficiency in granting patents, but to also provide a modern working environment that is fit for the future and adaptable to changes. This is being achieved by implementing a fully re-engineered patent granting process and is already bringing benefits.

26. The re-engineering of the patent grant process involves an Improvement track and a Transformation track:

27. The Improvement track has delivered a number of early, tangible benefits in the existing, legacy environment by eliminating redundant tasks through simplification and/or automation including the necessary support for staff in preparing for the changes. These projects were primarily focussed on delivering benefits in terms of staff savings for Patent Administration, although they included two projects specifically targeted at improving efficiency for examiners.

28. The Transformation track aims to transform the efficiency and effectiveness of the Patent Grant Process, and by so doing, to enhance and change external and internal user's interactions by re-designing and streamlining the operating processes.

29. The up-front re-engineering and re-design of the processes, on which the transformation projects rely, was completed by the end of 2011. During 2012 and 2013, this was further refined including the establishment of Business Processing maps for the As-Is and To-Be situation from Level 3 (describing the main blocks of activities performed be examiners, support staff, applicants, system) to Level 5 (describing at a task-by- task level what is done by whom).

30. All business process re-engineering and project activities are taking place in line ISO9001 principles and in accordance with the Office's Quality objectives as set out in the Quality Roadmap.

a) THE PROJECTS

31. The timeline for the projects is shown in Annex 1.

32. Although many projects have already been delivered, overall, this stream of projects will require the first half of 2017 before all the planned changes have been delivered and rolled out to users.

33. ***PCT Receiving Office***: This transformation project was used as the test bed for the tender process to procure the Case Management System and addresses the 20 000 PCT applications filed at the EPO each year. This project is a first step towards a new, modern way of working for applicants and formalities officers.

34. The project has delivered:

- The ability for applicants to see the confidential information about the content and status of their portfolio of PCT.
- Support for filing EP and Euro-PCT files as well as subsequently filed documents
- Online exchange with WIPO of the electronic Search and Record Copies.

35. Although initially deployed for 100 pilot users, it has since been made generally available to all online filing applicants (Done: Project CMS Filing).

36. The Office has made the commitment to its users that the existing online filing system will be maintained and supported for two years after the deployment of the new CMS based system. With the deliveries now planned for replacement of the applicants' portfolio view and mailbox in the first half of2015 (Projects: New MyFiles & Mailbox), this new CMS system will actually offer more functionality than the legacy system and this two-year transition period for applicants will start.

37. **eDossier**: The eDossier project will deliver a single, ergonomic environment for examiners, formalities officers and applicants that provides a paperless workflow for the patent grant process and allows effective on–screen working, without the need for systematically printed and maintained paper files.

38. The eDossier will therefore provide an easy to use and up-to-date online access to any patent file at the EPO with the associated fully electronic workflow. It will be the central hub for all day-to-day work of examiners, formalities officers and the other actors in the patent grant process. As it will provide a unified GUI framework adapted to each user's specific needs both during the transition and in the final 100% electronic, end-to-end re-engineered patent grant process, the eDossier therefore provides the GUI where all future search and examination functionality will be integrated.

39. The eDossier provides two main components:

- "Work Manager" providing a task list showing grouping of items in the form of a portfolio/in-box together with a preview of the dossiers in each group. This means that the eDossier Work Manager is the place where users have a complete overview of their work and can start the appropriate software to complete each task for each dossier.

- "Dossier Workspace" providing a document viewer, key data and support for analysis of documents, concept and passage annotations as well as guided communication drafting. This means that the Dossier Workspace is the new software, embedded in eDossier, which allows users to work without a paper file. It provides the place for analysing the application, and launching the search or drafting communications.

40. This approach will also allow the delivery of changes to users and new functionality while separating this from the back-end changes for the rest of the implementation.

41. ***Filing and Search***: This project covers the re-engineered process from filing to search including written opinion and A-publication. In addition, it has delivered an improved process for the creation of the publication ready specification (A-publication Abstract and B-publication Druckexemplar). As a result, the following is being delivered:

- A modernised means of electronically filing all types of applications at the EPO replacing the existing systems and allowing the information to be reused for other procedures in the regional phase such as for IP5 offices (Done: Project CMS Filing)

- A replacement for examiners of the paper search file with an annotatable electronic dossier which acts as the basis for feeding semi-automatic search (On-going: Project eDossier)

- A mechanism to support the automated drafting of the Search Report and Written Opinion using results coming back from the new Search Tools (On-going: Project eDossier) as well as preparing the A-publication (Done: Project OFCPP)

- A replacement for the manual collation and paper checking of the print-ready B-publication in the event of a grant (Druckexemplar) with a process based on track-changes that, at all times, maintains for the examiners and applicants the latest, complete publication ready text (Done: Project eDREX).

42. ***Substantive Examination***: This project will build on the work done for the filing and search processes and extends it to seamlessly cover a re-engineered substantive examination process, bringing with it changes for applicants, examiners and formalities officers in their way of working, including:

- A replacement for the current mixture of paper and electronic tools with a process built around 100% electronic interaction for all applicant submissions and requests during the examination phase (On-going: Projects eDossier & Examiner/Applicant Collaboration)

- Instead of a process defined by the sequential sending of communications and the submission of amendments, a mechanism that in many cases can eliminate intermediate steps by providing for direct collaboration between the examiner, formalities officers and the applicant and so supporting more rapid decision making (On-going: Project Examiner/Applicant Collaboration)

43. ***Opposition***: This project again builds on the work already done and extends it to seamlessly cover the re-engineered opposition process including filing oppositions as well as support for inter-parte proceedings.

44. ***Appeal***: The best way to implement the re-engineered appeals process is still under consideration, and is scheduled for implementation after the delivery of the re-engineered processes for Search, Examination and Opposition.

45. ***Improvement Projects***: In addition, a number of efficiency improvement projects using the existing legacy systems have also been completed. These projects have been specifically targeted at achieving staff savings in the short-term in Patent Administration to avoid the need for recruitment to replace retiring staff, as well as to support the transfer of these empty posts for recruitment of additional examiners.

46. These projects have delivered:

- Elimination of unnecessary manual formalities checks before sending forms to applicants and automatic sending of examiner communications;

- Implementation of an outsourced support for the Receiving Office at the EPO to convert all incoming paper, fax and online filings into a single standard, electronic workflow; and

- Implementation of a number of short-term improvements in the existing Filing to A-publication process to eliminate unnecessary paper handling and data entry steps including electronic dispatch of EPO Search Reports and Cited Document to applicants

- Allow access for the first time by authorised applicants and representatives to their un-published dossiers held at the EPO, to allow checking of exactly what was filed and the current status.

B. IMPROVED SEARCH TOOLS AND INFORMATION MANAGEMENT

47. In line with its strategic direction, the Office has been pursuing incremental improvements of its search services and has adopted a common approach to developments for EPO Examiners and also for its high quality patent information services aimed at IP professionals and the general public.

48. The delivery of the new EPOQUE Internal search engine in the first half of 2013 has resulted in a mature and robust Boolean search engine specially designed for patent prior art searching. Rollout of this new version of EPOQUE to both EPO Examiners and Member States was completed in the second half of 2013. Finalisation of the EPOQUE search engine rebuild project shall take place before the end of 2014.

49. The Office's search services will continue to rely on the quality and the extension of its prior art collection. This data collection represents one of the most valuable assets of the Organisation. It is therefore an objective to enrich the prior art with additional searchable metadata, while at the same time fully profiting from its extensive, on-going machine translation programme.

50. The investments in this area will therefore allow the Office to maintain its leadership in providing high quality prior art searches, while at the same time contributing to the efficiency gains necessary to cope with the growth of the Office's workload and also with the exponentially-growing body of prior art. This is being achieved by implementing a series of well-defined projects, each with clearly defined objectives and budgets, organised as detailed in the following sections.

a) THE PROJECTS

51. Since the start of the IT Roadmap, several tools, services and data-related delivered have been rolled out to users. Examples include:

- An auto-completion function for navigating through classification information has been provided that suggests classification titles and codes based on a few characters or words typed in by examiners (Done: Project ClassTool)

- Delivery of an "on-the-fly" machine translation service that allows examiners to read documents that are not written in either English, French of German (Done: Project Translation-on-the-Fly)

- Examiners can now easily access formatted file wrapper information in English about patent applications being processed at the EPO, JPO, KIPO, SIPO and at the USPTO. Access to the "on the fly" machine translation service mentioned above is also facilitated, in order to easily translate foreign file wrapper text related to the grant procedure that is not in English, French, or German (Done: Project DI+).

52. ***Semi-Automatic Search:*** The purpose of this series of projects is to automate as far as possible the search process and eliminate all non-value added steps for examiners at the beginning of the search workflow. The goal is to deliver highly relevant prior art documents before the examiner starts working on a patent application.

53. Building on the current EPOQUE search engine and on new state-of-the-art search technologies during the years 2011 to 2013, the following projects have been delivered:

- Semi-Automatic Search I: Automatic execution of existing preparations (i.e. complex search macros) and their full integration in the examiners' working environment (Done: Project Semi-Automatic Search 1), as well as a new tri-lingual full-text search module (X-Full).

- Semi-Automatic Search II: Development and delivery of a first generation of new search tools:

    1. A new patent search service (Done: Project ANSERA) that enables the following types of searches:

        - Figure searches using reference sign relative positions in a drawing,

        - searches using concepts, where results are ranked according to the number of common concepts (or features) as well as according to their occurrences in the full text; and

        - "find similar" searches, based on a selected text of a patent application. It further allows result filtering, e.g. by limiting on classes.

    2. A new non-patent literature search service (Done: Project SearchNPL), based on a commercial offering, that allows searching a large externally hosted NPL collection. The search results are ranked, and the transfer of documents for citation has been made easy via integration with the CiteNPL functionality.

54. Both services use the latest state-of-the-art search technology and data management, thereby keeping the EPO as one of the leading offices in search technology.

55. During 2014–2017, further enhancements to assist semi-automatic searching of prior art will be implemented.

    - Pertinent information shall be automatically extracted from the patent application and shall be used to start the search process without any user intervention. This shall be done using a document annotation and enrichment service that is currently being developed, in order to enrich the Office's prior art collection. With the annotation service, valuable search information in terms of concept to search, synonyms, and specific search terms such as parameters and chemical formulas will become available for use in semi-automated searches. Furthermore, the enriched prior art data collection will allow both improved ranking of search results as well as improved data presentation to the user (On-going: Projects Era, APL & DSL).

- Support for the automated document reclassification and pre-classification of incoming patent applications is also being implemented (On-going: Project Auto Re/Pre Classification).

56. All new search-related services will be progressively made available to the users via an integrated user interface that supports full electronic document annotation. In addition, users will be in the position to select, edit, save, share, and further maintain search concepts either defined by themselves or by their colleagues (Project: Single GUI).

57. In parallel, the search and information management infrastructure is being improved to meet the requirements of the new search engines and the new data management system.

58. ***Field specific support***: A number of new services have been created to provide examiners easier access and better readability of data in specific contexts:

- In field of chemistry, a tool has been developed that presents chemical names in patent document as graphical structures and allow easy navigation through the full text of the patent document (Done: Project ChemAnnotator).

- In the field of Biotechnology, a system to visualize and compare different versions of sequence listings that have been filed in Biotechnology patent applications has been rolled out to examiners. Any differences between two versions of electronic sequences are automatically detected and presented to the user (Done: Project SLiCE).

59. ***Search Services for the Public***: Investments are being carried out in two major areas:

- Espacenet: Espacenet is the Office's worldwide patent search service for the general public. Various enhancements to the Espacenet search service have already taken place under the IT Roadmap, such as the CPC classification browser and search, integration of common citation document information, linking to national registers, enhanced query management, and enhanced data export functionality (Done: Project Enhanced World-wide Search)

Espacenet will be further enhanced by:

- Loading high quality native language full text patent data obtained via the Cooperation Roadmap from each member state into the Office's Espacenet Level 2 servers. The EPO's Espacenet Level 2 system will make the complete collection of native language full text data from National Offices accessible to examiners and the public via full text searches carried out in English, French and German.

- Offering each Member State an Espacenet Level 1 interface hosted at the EPO with access to their own native language patent data. Once this is in place, the Office will discontinue support for any standalone national Espacenet level 1 solution outside of this new framework.

- Expanding search capabilities of the EPO's Espacenet Level 2 server beyond Boolean search, on the basis of the experience acquired from internally deployed search services, enabling i.a. figure, concept, and semantic searches.

- Federated European Register Service: this project reduces the uncertainty about the legal status of an EP patent by allowing the public to formulate legal status inquiries simultaneously across the European Patent Register as well as national patent registers of EPC member states. The project foresees two steps:

  - direct access to several national patent registers by forwarding the search input thereto and displaying the results ("deep linking");

  - providing a fully integrated parallel search in selected national patent registers with the automatic merging of results for presentation to the user (National Offices need to develop corresponding Web Services before this functionality can be rolled out to the public.

- Global Dossier: In this project, access to the public part of IP5 File Wrappers will be enabled for patent information users from a central access point within the EPO's patent information environment. Development is planned in two stages – a limited initial version as a proof of concept (June 2014) and subsequently, a more comprehensive version.

60. ***Improved Data Resources***: A number of enhancements to the data collection of the Office have been implemented, including:

- The storage of additional types of prior art, like YouTube video is now possible and the internet citations which are stored in colour PDF (Done)

- The OCRing of the BNS data collection, to offer a better full text searching capabilities both to internal and external users (the first half of 2014).

VII. OVERALL COSTS AND BENEFITS

61. This section presents the overall costs and benefits associated with the IT Roadmap described above.

62. In CA/46/11 an estimated Automation budget of approximately EUR65m in Chapter 32 and 42 was made for the of the IT Roadmap, for the period of 2011-2015. In addition, it was foreseen that a core team of 60 - 70 internal staff would be working on the projects. The originally foreseen scope of the IT Roadmap, at the time it was initiated in 2011, was that it would cover the development costs of the Re-engineered Patent Grant Process (Stream I) and Search Tools and Information Management (Stream II) only.

63. During the two and a half years since the beginning of the IT Roadmap, the original context in which it was formulated has evolved to include aspects that were not contained in its original mandate in June 2011. In that time, the Administrative Council authorised the inclusion of the Security Roadmap implementation in the IT Roadmap. In addition, in line with the principles set out in CA/46/11, other activities have also been implemented under the IT Roadmap umbrella. These additional items include:

- The Security Roadmap

- Additional Improvement projects

- All activities relating to Stream III (IM Transformation)

- Ergonomics support

- Change management and the ITR Support Office

- Managed Service costs for the Case Management System

A. COSTS

64. **Expenditure during 2011 – 2013**:

Despite the implementation of a wider scope of projects that was originally planned, the IT Roadmap is proceeding within the agreed budget. Over the period 2011-2013, total Automation expenditure on the original scope as described in CA46/11 amounted to EUR 33,8m, with a core team of about 66 internal staff working on the projects.

During the same period, IT Roadmap expenditure on the items that were not originally described in CA/46/11 (as described in Section 48) amounted to an additional EUR 12m.

65. **Today's Best Forecast of overall Expenditure required during 2014 – 2017:**

At this time of writing, the detailed planning and cost estimates for implementing the re-engineered patent grant process on the Case Management System are still being formulated.

Based on information available today, the estimated cost of implementing the IT Roadmap original scope during the period 2014–2017 would be of the order of about EUR 70m.

The estimated cost for the additional activities being carried out under the IT Roadmap umbrella (Security Roadmap, Stream III, Ergonomics, CMS Managed Service, etc.) during 2014–2017 would be of the order of about EUR 24m.

66. In order to mitigate risks and to guarantee business continuity, the Office has decided to adopt a progressive step-by-step approach when deploying the re-engineered patent grant process running on the Case Management System. As a result, the decommissioning of the legacy systems shall be completed sometime after the IT Roadmap ends in 2017, and there shall be a period during which both the new Case Management System and the legacy systems are run in parallel. These activities will be carried out as "business as usual" under the Automation Budget. Therefore the estimated IT Roadmap cost figures given in the previous Section above do not include:

- The cost of running the legacy systems and the new Case Management system in parallel during the transition period;
- The cost of decommissioning the current legacy systems.

B. BENEFITS

67. Since its inception, the IT Roadmap has continued to deliver a steady pace of benefits, enabling significant improvements for the benefit of examiners, formalities officers, other support staff, and external users.

68. Business process re-engineering and automation, led by the IT Roadmap, has delivered benefits beyond expectations in the Patent Administration area. At its peak in May 2009, the activities covered today by Patent Administration accounted for 1,070 staff (permanent, euro-contacts and temporary staff). Without the changes, led by the IT Roadmap, that figure would have grown to some 1,180 staff by 2014. Instead, it is currently about 815, a de facto saving of 365 staff and a net saving of 255.

69. Out of these savings, 120 have already been converted to DG1 examiner posts, and a further 18 are pending such a conversion. It is expected that by the end of 2015, a further 50-70 freed posts could be converted to examination work, in line with the originally foreseen 205 posts in CA/46/11.

70. In addition to the conversion of freed posts to examiner posts, it should be further pointed out that, among the 815 staff active in Patent Administration in 2014, the equivalent of 40 posts are performing new, value-added activities that did not exist in 2009 such as paralegal and para-technical tasks.

71. Overall, IT Roadmap-related investments in both Search Tools and the re-engineered Patent Grant Process are on track to bring, as predicted in CA/46/11, a total increase in examiner production of 30,000 products from 2015 onwards, representing a 10% increase when compared to the 2011 production figures.

VIII. OTHER CONSEQUENCES

A. COOPERATION

72. The strategic consequences of the implementation of the IT Roadmap described above have formed a key part of the discussions with Member States In particular:

73. Based on the progress made in implementing online filing using the Case Management System, the EPO is now planning by the second half of 2016 to develop a generic version of online filing for EP, PCT and National Filings for use by National Offices. This system, with a limited set of configurable options~~, that is~~, will be based on the requirements of the Patent Law Treaty (PLT), together with a super-set of the special functionality currently available in National Office versions of the legacy online filing. For the EP and PCT procedures, it will re-use the existing EPO CMS developments to allow EP and PCT filings via the National Office.

74. Each member state would then configure this plug-in by uploading the National Office logo and adding a translation into the local languages of the texts in the user interface. At the same time, the member state would turn on or off any of the "special" functionality offered such as getting a national filing number or determining the legal date.

75. This PLT-based plug-in would be hosted by the EPO alongside the EP and PCT plug-ins and made available to the member states customers.

76. By being based on the EPO's CMS system, it would also be able to reuse the applicant's EP client information for all national and PCT applications. This would ensure that applicants can still interact with their complete portfolio of national, EP and PCT applications in one place.

77. All data in the hosted solution would be encrypted and the only people able to view the information in the system would be the applicant and the registered National Office users. Only when the data is approved by the National Office employees would it either be downloaded for use in the National Office or, where appropriate, submitted to the EPO for search and examination.~~Only when the data is approved and submitted by the National Office employees would it become visible to the EPO.~~

78. Where a member state is not able to use this PLT-based hosted solution, and plans to build its own stand-alone service, it is proposed to nonetheless offer applicants the possibility to start drafting the bibliographic data for their application, including reusing their EP address information, using the EPO’s CMS system before switching over to the national filing solution to attach the documents and submit the local filing. To do this, the member state would need to implement a standard web service that would be used by the CMS to pass control and any data to the stand-alone system. As part of documenting this API, the EPO will implement it as a maintenance patch on the existing legacy online filing system.

79. When the applicant then returns to the EPO for the PCT or EP phases of the application, this re-use of standardise account information will ensure that applicants can still interact with their complete portfolio of EP and PCT applications in one place and, via the Global Dossier, with the complete family of applications around the world.

80. During 2015, the EPO will discuss with interested member states the details of this implementation, agree the standards and share the technical documentation.

B. IT

81. In parallel with the above, the Office has improved the way IT is delivered to its business units by ensuring that the Automation Budget includes the necessary investments to:

- Ensure that the delivery of solutions is reliable and rapid
- Provide an improved IT Infrastructure that delivers better performance and service delivery at reduced running costs
- Introduce a new Managed Service provided by CGI, based on a standard commercial Case Management System product, in order to provide a solid, reliable and flexible platform to support the patent grant process in the longer term.
- Ensure that the future electronic workplace complies with the Office's ergonomic standards, and is well designed and optimised from the outset around the needs of the users.

82. In this context, the Office recruited a Chief Information Officer (CIO) in November 2011 to transform and lead IM. Following the Support Services Study completed in early 2012, the Chief Information Officer implemented a number of reforms in the IM area organised around a number of key themes.

83. First the management and governance of IT-related business projects was strengthened. Secondly the IM organisation was bolstered in order to provide better support for the delivery of its capabilities. This involved establishing a clear distinction between build and run activities, reinforcing enterprise architecture, introducing workforce and resource management, solidifying financial and budget management within IM, and also improving service management.

84. IM also took steps to align its practices and procedures with industry best practice. Trends show a move away from the in-house building, running, maintenance, and further development of solutions, which can thus become increasingly complex, towards the supply of services, using and integrating technology services from internal and external suppliers.

85. As a result, IT sourcing strategies are now structured around the procurement of services; IM will favour the use of commercial off-the-shelf (COTS) products over custom-built applications, as long as doing so meets the Office's needs; and IM is focusing on creating a set of enterprise-wide infrastructure services.

C. UNITARY PATENT

86. Since CA/46/11 was published, the role of the Office under the new unitary patent scheme has become clear and preparations to support the new steps in the patent grant process have been made with the aim to make them available, using the Case Management System, in the second half of 2015 (Project: UNIP).

87. These include providing the IT systems related to:

- providing unitary effect to the European patent on the basis of a request of the patent holder
- the management of the envisaged translation cost compensation scheme
- the keeping of the Register of European patents with unitary effect,
- the periodic publication of the European Patent Bulletin including details of European Patents with unitary effect, and
- the post-grant collection of renewal fees from proprietors of unitary patents.

D. CHANGE MANAGEMENT

88. To support the transformations associated with the IT Roadmap, the Office recognises the paramount importance of investing in the training of its staff so as to ensure that the social aspects are taken into account when preparing and implementing changes in their working practices.

89. This includes investments in terms of re-training and support for staff and applicants as well as preserving staff expertise and supporting the cultural changes associated with the new ways of working for examiners, formalities officers and IT staff.

90. Particular attention is being given to ensuring the readiness and understanding of staff for change. This focuses on providing expertise to support interventions with senior management, line management and staff in accompanying them through the transformation ahead.

IX. LEGAL BASIS

91. Article 10(2) EPC

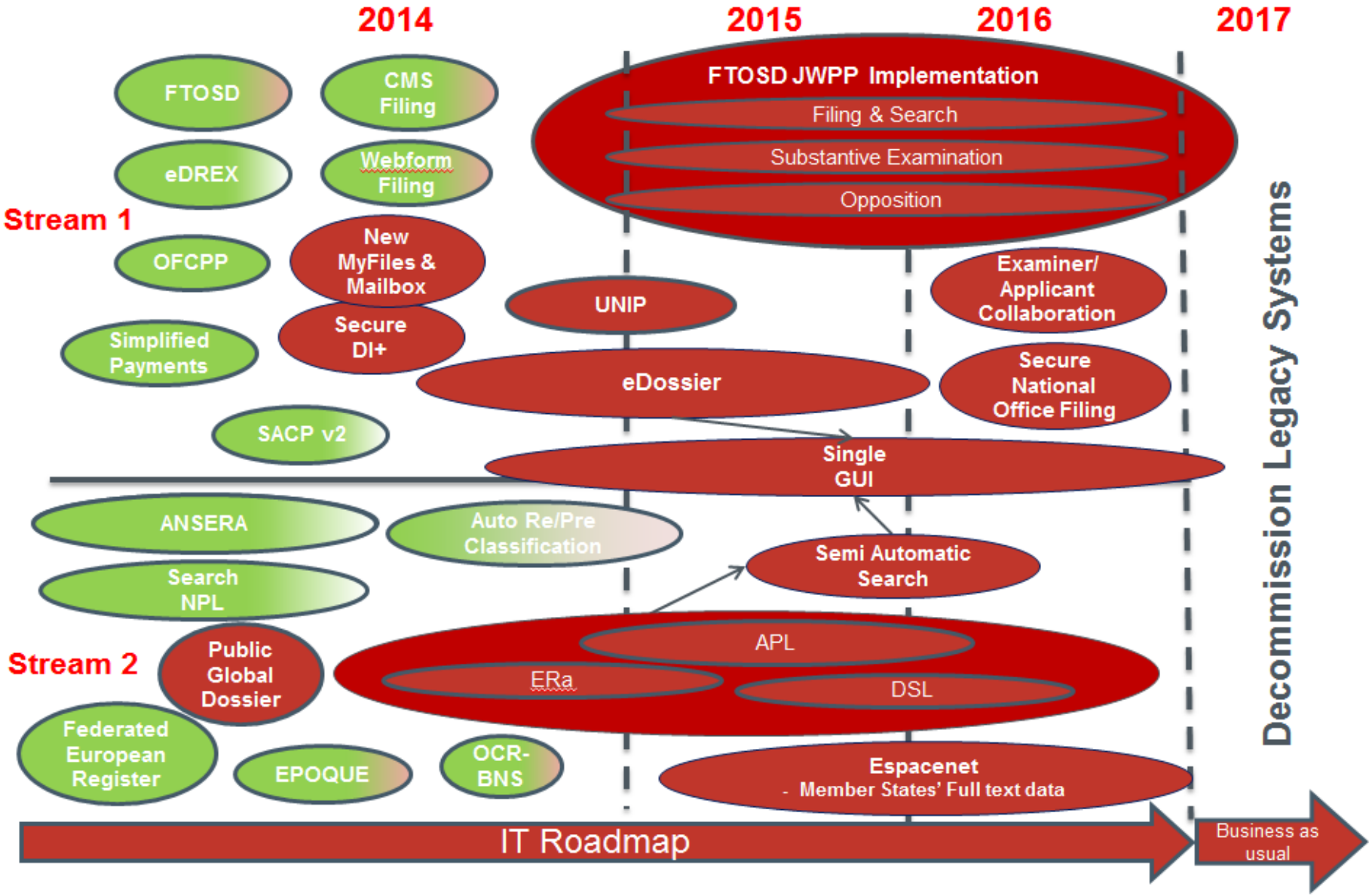
X. DOCUMENTS CITED

92. CA/46/11

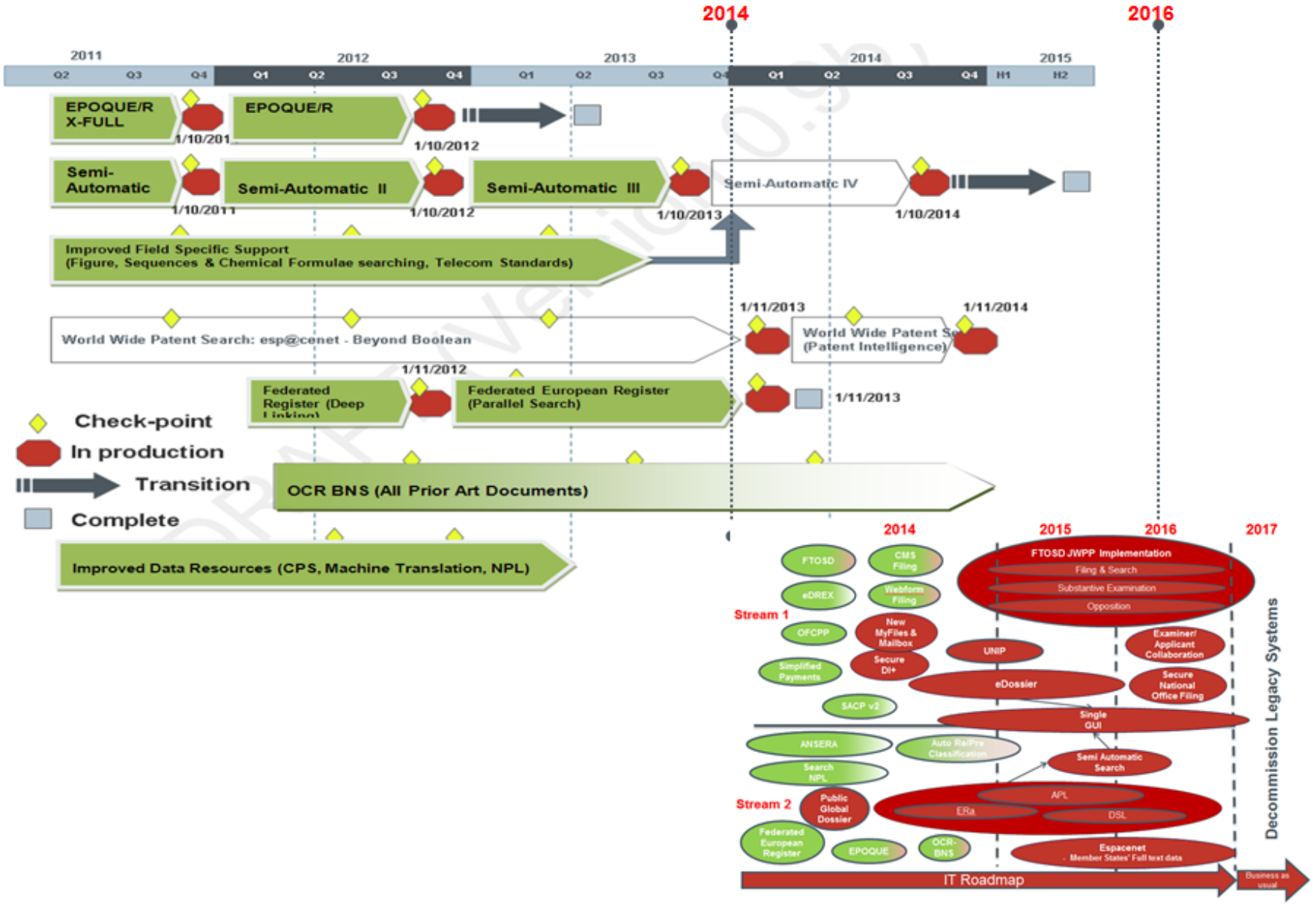
XI. RECOMMENDATION FOR PUBLICATION

93. Yes

ANNEX 1 2014–2017 IMPLEMENTATION PLAN



ANNEX 2 IMPROVED SEARCH TOOLS AND INFORMATION MANAGEMENT IMPLEMENTATION PLAN



ANNEX 3 RE-ENGINEERED PATENT GRANT PROCESS IMPLEMENTATION PLAN