



*U.S. DEPARTMENT OF COMMERCE  
Office of Inspector General*

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*United States  
Patent and Trademark Office*

*Status of USPTO Initiatives to Improve  
Patent Timeliness and Quality*

*Final Report No. OIG-11-032-I  
September 29, 2011*

**FOR PUBLIC RELEASE**

*Office of Audit and Evaluation*





September 29, 2011

**MEMORANDUM FOR:** David Kappos  
Under Secretary of Commerce for Intellectual Property  
and Director of the U.S. Patent and Trademark Office

**FROM:** Ron Prevost   
Assistant Inspector General for Economic  
and Statistical Program Assessment

**SUBJECT:** *Status of USPTO Initiatives to Improve Timeliness  
and Quality*  
Final Report Number OIG-11-032-I

We have attached our final report related to our review of USPTO's strategic patent initiatives. This review, part of the Office of Inspector General's Fiscal Year 2011 audit plan, assessed the implementation status and evaluation plans of 25 initiatives listed under Strategic Goal 1, Optimize Patent Quality and Timeliness, in the *2010–2015 Strategic Plan*. Our report presents the findings and recommendations of this review, conducted under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated August 31, 2006.

We found that USPTO has implemented 15 initiatives and partially implemented the other 10 initiatives we reviewed. However, while USPTO has made progress in implementing the initiatives, it lacks evaluation plans to assess the effect of these efforts on the overall strategic goals of improving patent quality and timeliness. Finally, two areas of operation—patent appeals and preliminary reviews of international applications—warrant further agency attention as it directs its resources and prioritizes activities. Our report includes three recommendations: (1) revise the agency's strategic plan to ensure the most critical efforts that support attaining the strategic patent goals remain in operation, (2) direct relevant operating units to prepare plans and conduct evaluations of their respective patent initiatives, and (3) examine anew the BPAI process and the quality and measures of the PCT contracting work.

Your September 21, 2011, response concurs with our draft report's recommendations and outlines steps USPTO is taking to address these issues. We also received your technical comments and made changes as appropriate. In accordance with Department Administrative Order 213-5, within 60 days of the date of this memorandum, please provide us with an action plan that responds to all of the report recommendations.

We thank USPTO personnel for the assistance and courtesies extended to my staff during the review. If you have any further questions or comments about the report, please feel free to contact me at (202) 482-3052 or Jill Schamberger, Project Manager, at (571) 272-5561.

Attachment

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# Report In Brief

U.S. Department of Commerce Office of Inspector General

September 29, 2011



## Why We Did This Review

Over the past decade the United States Patent and Trademark Office (USPTO) has faced growing patent pendency rates and increasing backlogs of patent applications awaiting review. In responding to these challenges, USPTO issued its *2010–2015 Strategic Plan* in September 2010.

The plan's first goal is to "Optimize Patent Quality and Timeliness"—by reducing (1) overall patent pendency times to 10 months for a first office action and 20 months total patent pendency (by 2014 and 2015 respectively) and (2) the number of patent applications awaiting examiner action by almost 50 percent.

The objectives of our review were to assess the implementation status of the initiatives under Strategic Goal 1, Optimize Patent Quality and Timeliness, and to assess USPTO's plans to evaluate each of these initiatives.

## Background

USPTO's mission is to foster innovation, competitiveness, and economic growth, domestically and abroad—by delivering high quality and timely examination of patent and trademark applications, guiding domestic and international intellectual property policy, and delivering intellectual property information and education worldwide—with a highly skilled, diverse workforce.

Patent operations, which account for the vast majority of USPTO's staffing and monetary resources, determine whether inventions claimed in patent applications are new, useful, and non-obvious. The timely granting of quality patents provides inventors with exclusive rights to their discoveries and contributes to the strength and vitality of the U.S. economy.

## Status of USPTO Initiatives to Improve Patent Timeliness and Quality (OIG-11-032-I)

### What We Found

This report evaluates the first 5 strategic patent objectives, encompassing 25 initiatives specifically related to critical activities within the patent process. We found that, of these 25 initiatives, USPTO has fully implemented 15 and partially implemented the other 10 initiatives. However, while the agency has made progress in implementing the initiatives, it lacks evaluation plans to assess the effect of these efforts on the overall strategic goals of improving patent quality and timeliness.

- *USPTO Has Taken Steps to Implement Its Strategic Patent Initiatives; However, Timelines to Achieve Strategic Goals Have Required Extensions.* The agency has assigned high-level managers to lead individual initiatives, all of which have an action plan toward implementation. However, the agency has implemented its strategic plan in a fiscal environment different from its original budget requests. USPTO has now placed on hold or scaled back some of the 25 initiatives—and stated it will not meet its pendency and backlog goals. In the process, it has changed the date to reduce first action pendency to 10 months from 2014 to 2015 and moved the date to reduce final pendency to 20 months from 2015 to 2016.
- *USPTO Lacks Plans to Evaluate Initiatives and Their Effects on Patent Quality and Timeliness.* The lack of a formal evaluation process makes it difficult for USPTO to determine whether to attribute outcomes to specific initiatives—or why goals are, or are not, being met. Such information is vital for deciding whether to adopt operational changes to improve the effectiveness of a specific activity and whether or not that activity should receive priority in a constrained budget. Instead, the agency risks attributing goal achievement to the wrong initiatives and subsequently misguiding resources toward less-than-optimal activities. Further, by focusing just on performance measures, it risks deeming each initiative successful—but still not reducing patent pendency and the backlog of patent applications.

Finally, two areas of operation—Board of Patent Appeals and Interferences (BPAI) patent appeals and the method USPTO uses to measure the quality of USPTO contractors' work for reviews completed under the Patent Cooperation Treaty (PCT)—warrant further agency attention as it directs its resources and prioritizes activities.

### What We Recommended

We recommend that the Under Secretary of Commerce for Intellectual Property and Director of USPTO:

- *Revise the agency's strategic plan to ensure the most critical efforts that support attaining the strategic patent goals remain in operation.* Management must make both short- and long-term decisions to prioritize which of the initiatives are critical to USPTO achieving its strategic goals.
- *Direct the relevant operating units to prepare plans for, and conduct, evaluations of the patent initiatives to assess the effectiveness of the initiative and to guide any decisions related to the continuation, expansion, or ending of the individual initiatives.* Evaluation efforts (e.g., measurable objectives, critical success measures linked directly to goals, baseline data, and conditions for full implementation) will assist USPTO in assessing the effects of its patent and other initiatives in achieving its organizational goals.
- *Examine anew the BPAI process (and the rate at which it reverses decisions) as well as the quality of work completed under the PCT contract and the method employed to calculate acceptance measures.* These two areas warrant USPTO's further attention, as they highlight issues with patent examination quality and efficiency.

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## **Introduction**

The United States Patent and Trademark Office (USPTO), a part of the Department of Commerce, fosters innovation, competitiveness, and economic growth through the quality and timely examinations of patent and trademark applications. Patent operations, which account for the vast majority of USPTO's staffing and monetary resources, determine whether inventions claimed in patent applications are new, useful, and non-obvious. The timely granting of quality patents provides inventors with exclusive rights to their discoveries and contributes to the strength and vitality of the U.S. economy.

Over the past decade USPTO has faced growing patent pendency rates and increasing backlogs of patent applications awaiting review. In responding to these challenges, USPTO issued its *2010–2015 Strategic Plan* in September 2010.

According to the agency, this plan will strengthen its capacity, improve the quality of patents and trademarks issued, and shorten the time it takes for a decision on a patent application. The first goal in this blueprint is to optimize patent quality and timeliness.<sup>1</sup> The plan specifically notes that USPTO will accomplish this goal when, among other things, the agency reduces (1) overall patent pendency times to 10 months for a first office action and 20 months total patent pendency (by 2014 and 2015 respectively) and (2) the number of patent applications awaiting examiner action by almost 50 percent.

USPTO's mission is to foster innovation, competitiveness and economic growth, domestically and abroad, by delivering high quality and timely examination of patent and trademark applications, guiding domestic and international intellectual property policy, and delivering intellectual property information and education worldwide, with a highly skilled, diverse workforce.

In order to reach its goal to optimize patent quality and timeliness, USPTO developed 6 objectives containing a total of 28 initiatives, ranging from reengineering the patent examiner production system to using a hiring model that focuses on experienced intellectual property professionals. USPTO notes that the plan's success will depend on its ability to manage its initiatives while adapting to its challenges, including rapid advances in technology; a changing volume of applications; funding authority to support the agency's performance; and hiring, retaining, and training examiners.

The objectives of this review were to assess the implementation status of the initiatives under Strategic Goal 1, Optimize Patent Quality and Timeliness, and to assess USPTO's plans to evaluate each of these initiatives. We focused on the first 5 strategic patent objectives that encompass 25 initiatives; the sixth strategic patent objective addressing information technology efforts related to Patent End-to-End efforts is the subject of another OIG review. We obtained and reviewed relevant agency documents regarding the planned and completed actions to

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<sup>1</sup> The other mission-focused goals in the strategic plan are to optimize trademark quality and timeliness, and to provide domestic and global leadership to improve intellectual property policy, protection, and enforcement worldwide. In addition, there is a management-focused strategic goal to achieve organizational excellence.

implement as well as evaluate each initiative. Additionally, we interviewed appropriate USPTO officials about its implementation and evaluation efforts. We further assessed the implementation status and evaluation plans as of March 31, 2011, and received updates on the status in June 2011. We found that, of the 25 initiatives specifically related to critical activities within the patent process, USPTO has fully implemented 15 and partially implemented the other 10 initiatives. However, while USPTO has made progress in implementing the initiatives, it lacks evaluation plans to assess the effect of these efforts on the overall strategic goals of improving patent quality and timeliness. Finally, two areas of operation—patent appeals and preliminary reviews of international applications—warrant further agency attention as it directs its resources and prioritizes activities.

Appendix A outlines in further detail the scope and methodology we followed for this review. Appendix B contains brief descriptions of each of the strategic patent initiatives we reviewed, as well as the implementation status and information related to evaluations.

## Findings and Recommendations

### **I. USPTO Has Taken Steps to Implement Its Strategic Patent Initiatives; However, Timelines to Achieve Strategic Goals Have Required Extensions**

To meet its strategic goal to optimize patent quality and timeliness, USPTO developed 6 strategic objectives comprised of 28 separate initiatives aimed at achieving their respective objectives. These initiatives all relate to critical activities within the patent process—from the review of applications to the appeals process to the information technology infrastructure supporting the work of patent examiners—and span three organizational units within USPTO: Office of the Commissioner for Patents, the Board of Patent Appeals and Interferences (BPAI), and the Office of the Chief Information Officer. We reviewed 5 of the strategic objectives and found that USPTO has implemented 15 of the 25 initiatives that comprise these 5 objectives. USPTO has partially implemented the remaining 10 initiatives (see table 1).<sup>2</sup> The tables in appendix B provide brief descriptions, as well as the implementation status, of each of the 25 initiatives.

**Table 1. Strategic Objectives and Implementation Status of Related Initiatives (as of March 31, 2011) for USPTO Strategic Goal 1: Optimize Patent Quality and Timeliness**

Strategic Objective (Number of Initiatives for Given Objective)	Status of Initiatives	
	Implemented	Partially Implemented
Objective 1: Reengineer patent process to increase efficiencies and strengthen effectiveness	2	4
Objective 2: Increase patent application examination capacity	4	2
Objective 3: Improve patent pendency and quality by increasing international cooperation and work sharing	2	2
Objective 4: Measure and improve patent quality	4	0
Objective 5: Improve appeal and postgrant processes	3	2
<b>Total Initiatives for 5 Strategic Objectives</b>	<b>15</b>	<b>10</b>

Sources: USPTO 2010-2015 Strategic Plan, September 2010; DOC OIG analysis of USPTO information

These initiatives cover a wide variety of activities related to USPTO’s operations. For example, the strategic objective to increase patent application examination capacity includes efforts to hire approximately 1,000 additional patent examiners and develop a nationwide workforce. The strategic objective to increase international cooperation and work sharing includes making more effective use of work completed under the Patent Cooperation Treaty (PCT). Under the PCT, USPTO receives international applications, each of which requires the preparation of an international search report and a written opinion on the novelty and industrial applicability of the application.<sup>3</sup> For greater efficiency, USPTO seeks to maximize examiner reuse of these PCT

<sup>2</sup>“Implemented” indicates that the program is operational; “Partially Implemented” indicates that plans are in place but not all segments of the initiative are operational.

<sup>3</sup> See Patent Cooperation Treaty, art. 15-18, June 19, 1970 *as amended*; Regulations under the Patent Cooperation Treaty Rule 43bis.1(a)(i) (2011) (requiring a written opinion on the novelty and industrial applicability of the application).

work products in related U.S. applications. Improvements to the appeal and postgrant process include initiatives to implement process efficiencies and increasing review capacity through the hiring of judges and patent attorneys, as well as making changes to the organizational structure of the BPAI.

In moving forward with these 25 initiatives, USPTO has assigned high-level managers to lead the individual initiatives, and all initiatives have some form of an action plan that maps out the steps necessary to achieve implementation. For the 10 initiatives that are partially implemented, the initial timeframes for implementation ranged from fiscal year (FY) 2011 to FY 2014.

USPTO developed its strategic plan for these initiatives based on assumptions it made in its budget requests. The assumptions derive from a complex relationship among the number of patent applications filed, the size of the application backlog, the number of patents issued, and the fees collected in connection with the patent process today that pay for patent applications filed and examined in prior years. These assumptions included increases in appropriations levels over time and the enactment of a 15 percent surcharge on certain fees. However, the agency is implementing its strategic plan in a fiscal environment that differs from what it originally assumed. USPTO has now placed on hold or scaled back some of the 25 initiatives.<sup>4</sup> In making these decisions, USPTO stated it will not meet its pendency and backlog goals. In the process, USPTO has changed the date to reduce first action pendency to 10 months from 2014 to 2015 and moved the date to reduce final pendency to 20 months from 2015 to 2016.

## **II. USPTO Lacks Plans to Evaluate Initiatives and Their Effects on Patent Quality and Timeliness**

USPTO's efforts to implement and monitor the 25 strategic patent initiatives we reviewed do not include plans to evaluate the effectiveness and ultimate success of these initiatives. The U.S. Government Accountability Office (GAO) and other organizations recommend preparing evaluation plans that provide a comprehensive approach to mapping out the criteria, data, and analysis necessary to assess performance and inform relevant stakeholders.<sup>5</sup> Evaluations go beyond simply collecting and reporting on performance measures, as they also take into consideration whether the outcomes resulting from an initiative or program are more efficient or effective compared with other alternatives available. USPTO's lack of formal evaluation process makes it difficult to determine whether to attribute outcomes to specific initiatives or why goals are or are not being met. Such information is vital for making informed decisions as to whether USPTO must adopt operational changes to improve the effectiveness of a specific activity and whether or not that activity should receive priority in a constrained budget.

While USPTO has undertaken efforts to plan for and implement the operational aspects of its strategic patent initiatives, it has not established a systemic foundation to plan for or require

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<sup>4</sup> Affected initiatives include the hiring of patent examiners; outsourcing PCT work; developing a nationwide workforce; using targeted overtime; implementing multitrack examination processes; and implementing recommendations on BPAI efficiencies.

<sup>5</sup> Relevant publications include "Designing Evaluations," U.S. General Accounting Office, GAO/PEMD-10.1.4, March 1991 (Washington, DC); and "An Evaluation Roadmap for a More Effective Government," American Evaluation Association, September 2010. See Appendix A for more information.

evaluations for each initiative. USPTO established objectives and performance measures for each of its initiatives and created oversight teams to monitor the progress of their respective initiatives. However, agency officials stated that USPTO has not developed a separate evaluation plan for each initiative.<sup>6</sup> Establishing objectives and performance measures alone, however, does not provide USPTO with the information necessary to make informed programmatic decisions. Performance measures focus solely on outcomes and do not provide insights as to why an initiative has accomplished or not accomplished its goals. An effective evaluation process results in informed decisions, based on clear options, and identified strengths and weaknesses.

USPTO officials noted that the agency cannot measure the impact of each individual initiative on the overall strategic goals to reduce patent pendency or the backlog of patent applications. While it is often difficult to isolate individual impacts when conducting evaluations, USPTO should undertake such efforts. Without knowing what impact a specific initiative has on the agency's strategic goals, or a clear understanding of how multiple initiatives affect an outcome, USPTO risks attributing goal achievement to the wrong initiatives and subsequently misguiding resources toward less-than-optimal activities. Further, by focusing on performance measures alone, USPTO risks deeming all initiatives successful as defined by the measures—but still not achieving the outcome of reducing patent pendency and the backlog of patent applications. As a result, agency management cannot make informed decisions with regard to how USPTO should direct resources, nor can the agency assure that it directs those resources to the initiatives and programs that have the greatest impact on achieving USPTO strategic goals.

### **III. Activities Related to Certain Initiatives Warrant Further Management Attention**

In the course of conducting this review of USPTO's strategic patent initiatives, we identified two areas of concern. The first relates to the growing backlog and pendency for appeals filed with the Board of Patent Appeals and Interferences (BPAI); the second regards the methods USPTO uses to measure the quality of USPTO contractors' work for reviews completed under the Patent Cooperation Treaty (PCT).

#### *BPAI*

USPTO's BPAI is an administrative law body with the authority to decide on patentability issues. BPAI will review, upon an applicant's written appeal, adverse decisions of examiners upon applications for patents and will determine priority and patentability of invention in interferences. Between FYs 2005 and 2010, the number of appeals submitted annually to BPAI more than quadrupled, from approximately 2,800 to 12,600 appeals. During that same time, the number of pending *ex parte*<sup>7</sup> appeals awaiting review increased almost 20 times, from about 900 to almost 18,000 pending cases. In the process, the time from when an applicant files an appeal until BPAI renders a decision increased to almost 2.5 years by the end of FY 2010.

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<sup>6</sup> Appendix B provides a brief description of each of the patent strategic initiatives, its implementation status, and information related to evaluation activities.

<sup>7</sup> On or from one party only, usually without notice to or argument from the adverse party—the judge conducted the hearing *ex parte*. See Black's Law Dictionary (9th ed., 2009).

In addition to the growing backlog and pendency rates, the rate at which BPAI reverses decisions calls into question the quality of the initial patent examination. Over the last 10 years, BPAI has consistently reversed 25–40 percent of patent examiner decisions brought before it, not including instances when BPAI has affirmed some parts of the initial decision. The increasing backlog and pendency faced by BPAI, and its rate of reversing decisions on rejected patent applications, can lead to delays in the granting of patents. This failure to recognize innovation by denying a patent application can, in turn, stifle much-needed economic development and job growth.

*PCT Contracting*

Under the PCT, USPTO receives international applications and must prepare reports regarding the prior art discovered as well as on the novelty and industrial applicability of the claimed invention. These reports communicate valuable information to national patent offices such as USPTO—and could make the application review process more efficient. USPTO, which currently outsources this activity, has noted potential efficiency gains in having its own patent examiners reuse the work completed by the contractor. USPTO reviews the contractor’s work to ensure quality and classifies contractor errors into three levels. Level one and level two errors occur when USPTO concludes that the contractor improperly determined the novelty, the inventive step, and/or the industrial applicability of the application. Level three errors arise when USPTO deems the contractor’s work to be incomplete or inaccurate. The contract states that acceptable error rates for levels one and two are 5.49 percent or less; no rate is given for level three errors.

During the course of our review we noted that USPTO’s contractually specified method of calculating error rates does not comply with standard statistical practices. According to contract terms, USPTO calculates error rates by dividing the number of errors chargeable to the contractor (determined from a sample) by the total number of applications completed by the contractor and received by USPTO. However, standard statistical practices dictate that an error rate would derive from dividing the number of errors charged to the contractor by the number of cases in the random sample. As a result, USPTO significantly overstates the quality of the contractor’s work. In FY 2010, USPTO randomly sampled 300 of the 15,500 PCT applications for its review—identifying 34 level one and 76 level two errors. As shown in table 2, USPTO did not receive the level of quality it required but, due to contract specifications, deemed the results acceptable.

**Table 2. FY2010 PCT Contractor Quality Calculations**

Error Type	Acceptable Error Rate per Contract	FY 2010 Error Rate Calculated Using Contract Terms	FY 2010 Error Rate as Measured by the Sample <sup>a</sup>
Level one	≤ 5.49 %	0.22%	11.33% (+/- 3.6%)
Level two	≤ 5.49 %	0.49%	25.33% (+/- 4.9%)

Source: OIG analysis of USPTO data

<sup>a</sup>Error rate calculated at 95% confidence level.

If USPTO hopes to realize efficiencies by having its own patent examiners rely on this work, the agency must consider how it can better measure, and increase, the quality of the contracting efforts.

These two areas are integral to USPTO fulfilling its mission. To help direct its resources and prioritize activities, they warrant further attention from USPTO.

#### **IV. Recommendations**

USPTO has shown its commitment to planning and implementing its strategic patent initiatives. Once USPTO implements these initiatives, however, it must know whether or not, and *why*, it meets its goals. A deliberately planned out evaluation process is critical to demonstrating the effectiveness of a given initiative. While it may not always be possible to isolate the individual impacts of an initiative or program on a strategic goal, the evaluation process provides a means to acknowledge other factors which may have contributed to the change and provides stakeholders with more comprehensive information about the initiatives and their outcomes. Therefore, we recommend that the Under Secretary of Commerce for Intellectual Property and Director of USPTO:

1. *Revise the agency's strategic plan to ensure the most critical efforts that support attaining the strategic patent goals remain in operation.* If the resources originally planned for the operations are no longer available, management must make both short- and long-term decisions to prioritize which of the initiatives are critical to USPTO achieving its strategic goals.
2. *Direct the relevant operating units to prepare plans for, and conduct, evaluations of the patent initiatives to assess the effectiveness of the initiative and to guide any decisions related to the continuation, expansion, or ending of the individual initiatives.* Such evaluations should include measurable objectives and critical measures of success, link measures directly to goals, contain baseline data, and articulate conditions for full implementation. A corporate culture that expects and supports evaluation efforts will assist USPTO in assessing the effects of its patent and other initiatives in achieving its organizational goals.
3. *Examine anew the BPAI process (and the rate at which it reverses decisions) as well as the quality of work completed under the PCT contract and the method employed to calculate acceptance measures.* These two areas warrant USPTO's further attention, as they highlight issues with patent examination quality and efficiency.

## V. Summary of Agency Comments and OIG Response

We received and reviewed USPTO's response to our draft report. In its official response, USPTO responded to our recommendations as follows:

**Recommendation 1:** USPTO provided background information on its strategic plan and process and communicated that it will include a revised strategic plan in its FY 2013 budget submission to OMB. Furthermore, USPTO provides a full discussion regarding its limited ability to meet strategic plan objectives and schedules due to FY 2011 enacted funding lower than the President's budget submission. This response does not fully address our recommendation which requires that, regardless of budgetary conditions, USPTO management needs to prioritize resource expenditures on activities which generate the greatest return on investment and meet the program objectives—the reduction of patent backlog and pendency. We restate our recommendation that USPTO engage in meaningful activities to prioritize its strategic plan.

**Recommendation 2:** USPTO communicated that they generally agreed with our recommendation. In its response, the agency agreed to develop and implement evaluation plans of the patent initiatives to include measurable objectives and critical measures of success, baseline data, direct linkage of measures to strategic goals, and conditions for full implementation. USPTO confirmed that it lacked a formal evaluation process and committed to improved process formalization through its documentation.

**Recommendation 3:** USPTO agreed to examine the BPAI process and the quality of PCT contracting work.

We have modified this final report to address USPTO's comments and have included the formal response as appendix C. Separately, the agency provided technical comments, which we have addressed in the report where appropriate.

## **Appendix A: Objectives, Scope, and Methodology**

The objectives of this review were to assess (1) the implementation status of each patent quality and timeliness initiative, including the extent of the implementation and timeframes for completion, and (2) USPTO's plans to evaluate each initiative, including whether accurate and reliable data will be available to determine the impact of the initiatives on pendency, application backlogs, and quality. We focused our work on the 25 individual initiatives outlined under Goal 1, Optimize Patent Quality and Timeliness, of USPTO's *2010–2015 Strategic Plan*.

To determine the implementation status for each of the initiatives under Goal 1, we obtained and reviewed relevant agency documents, including project descriptions, action plans, and union agreements and interviewed appropriate USPTO officials. Further, we developed three categories to describe the implementation status of each initiative: "Implemented" indicates that all aspects of the initiative are operational; "Partially Implemented" indicates that plans are in place but not all segments of the initiative are operational; and "Not Implemented" indicates that USPTO lacks final plans for the initiative and nothing is operational.

To determine whether USPTO had adequate evaluation plans for each of the initiatives under Goal 1, we first reviewed relevant evaluation literature and publications from sources including GAO, the American Evaluation Association, the National Performance Review, the Kellogg Foundation,<sup>8</sup> and USPTO's *2010–2015 Strategic Plan*. Based upon these reviews, we identified six key elements for a successful evaluation plan: (1) the purpose and objective of the evaluation and the questions to answer the objective; (2) well-defined criteria for determining initiative performance; (3) clearly articulated methodology including sound sampling methods, determination of appropriate sample size evaluation, and design strategy for comparing pilot results with other efforts; (4) a plan for obtaining data including type of data, methods of data collection, and frequency of data collection; (5) a plan for analyzing data and results of the initiative; and (6) initiative oversight through communication, collaboration, and stakeholder participation.

We completed an initial assessment of the implementation status and evaluation plans for each initiative as of March 31, 2011. To ensure we report the implementation status based on the timeliest information (for the 10 initiatives that were partially implemented), we obtained updated information from USPTO in June 2011 and updated any information as necessary.

The review was conducted under the authority of the Inspector General Act of 1978, as amended and Department Organization Order 10-13, dated August 31, 2006. We conducted the evaluation in accordance with *Quality Standards for Inspection and Evaluation*, January 2011, issued by the Council of the Inspectors General on Integrity and Efficiency.

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<sup>8</sup> Relevant publications include "Designing Evaluations," U.S. General Accounting Office, GAO/PEMD-10.1.4, March 1991 (Washington, DC); "W.K. Kellogg Foundation Evaluation Handbook," W.K. Kellogg Foundation, January 2004 (Battle Creek, MI); and "An Evaluation Roadmap for a More Effective Government," American Evaluation Association, September 2010.

## Appendix B: Patent Quality and Timeliness Objectives and Initiatives

Our review focused on the 25 patent strategic initiatives, divided among 5 objectives, intended to aid USPTO in achieving its patent strategic Goal 1 (“Optimize Patent Quality and Timeliness”). This table provides a brief description of each initiative for the objectives of Goal 1 and its implementation status. In addition, because USPTO had no formal evaluation plans for each initiative, we provide information on current activities related to each initiative that can inform the evaluation process.

Objective	Initiative	Description	Implementation Status	Evaluation Related Activities <sup>a</sup>
<b>1. Reengineer Patent Process to Increase Efficiencies and Strengthen Effectiveness</b>	Reengineer the patent examiner production (count) system	Revise how patent examiners obtain credit for the work they complete (count system)	FULL	1
	Prioritize work: green technology acceleration, project exchange, multitrack customized examination	Implement multitrack process that enables applicants to prioritize their applications, with the possibility of reducing pendency and/or reducing workload	PARTIAL	1
	Institutionalize compact prosecution initiatives	Allow interview between applicant and patent examiner to advance prosecution of the application and facilitate possible early allowance	FULL	1
	Reengineer the patent classification system	Help ensure that patent applications are initially classified properly so they are assigned to the correct art unit; changes to the classification system will also align with the European Patent Office	PARTIAL	3
	Reengineer the Manual of Patent Examining Procedure (MPEP)	Expedite updates and enable practitioners and examiners to find information quickly and get accurate and complete guidance	PARTIAL	3
	Reengineer the patent examination process	Companion work to upgrading and redesigning the IT infrastructure, allowing the redesign of the examination process supported by automated work flow capabilities	PARTIAL	3
<b>2. Increase Patent Application Examination Capacity</b>	Hire approximately 1,000 examiners in both FY 2011 and FY 2012	Recruit candidates from traditional applicant pools (recent graduates from science and engineering colleges) and new, such as those with prior professional intellectual property experience	PARTIAL	1
	Use a hiring model that focuses on experienced intellectual property (IP) professionals	Encourage individuals with prior IP experience (e.g., patent attorneys/agents and skilled technologists) to apply for positions as patent examiners	FULL	1
	Target overtime to high backlog technology areas	Prioritize use of overtime by targeting technology areas with highest backlogs first, while permitting other examiners to work overtime in the targeted areas, and to work overtime in other areas as resources permit	FULL	2
	Develop and implement a nationwide workforce	Expand pool of patent examiner candidates	PARTIAL	3
	Reduce attrition by developing mentoring, best practices, and retention strategies	Retain examiner workforce through active front-line management, mentoring, detail appointments, and other proactive management efforts	FULL	1
	Contract for Patent Cooperation Treaty (PCT) searching	Outsource examination of patent applications submitted to USPTO under the PCT	FULL	2

Objective	Initiative	Description	Implementation Status	Evaluation Related Activities <sup>a</sup>
<b>3. Improve Patent Pendency and Quality by Increasing International Cooperation and Work Sharing</b>	Make more effective use of the PCT	Maximize reuse potential of PCT work products by improving their quality and timeliness.	PARTIAL	2
	Increase use of the patent prosecution highway (PPH)	Promote work sharing among international patent offices while also allowing applicants to obtain patentability determinations faster in multiple jurisdictions	FULL	1
	Explore Strategic Handling of Applications for Rapid Examination (SHARE)	Give precedence to the applications filed with USPTO as the Office of First Filing	FULL	2
	Work with Trilateral Offices and IP5 to create new efficiencies	Explore options for enhancing work sharing between offices and to identify policy and information technology solutions that would facilitate work sharing	PARTIAL	3
<b>4. Measure and Improve Patent Quality</b>	Initiate 21st century analysis, measurement and tracking of patent quality	Identify quality measurements at each major step in the review of patent applications	FULL	1
	Improve and provide more effective training	Provide technology center personnel, including new examiners and supervisory patent examiners, with specific training to improve the processing of patent applications, manage multiple employees	FULL	2
	Reformulate performance appraisal plans (PAPs)	Reformulate PAPs to align with organizational goals and strategic plan at all levels	FULL	1
	Implement and monitor revisions to patent examiner production (count) system	Implement and monitor revisions made to count system (under objective 1, first initiative)	FULL	1
<b>5. Improve Appeal and Postgrant Processes</b>	Develop and implement process efficiency recommendations	Identify where the appeal and interference processes can become more efficient and effective to reduce the time associated with each process	PARTIAL	1
	Streamline appeal process and reduce appeal pendency	Determine where the review of appeal briefs by Board of Patent Appeals and Interferences (BPAI) judges can be more efficient and effective; post information on the USPTO web site to assist applicants	FULL	1
	Review BPAI rules to amend, simplify and optimize process	Simplify and streamline regulations governing the appeals process to provide BPAI with adequate information while not unduly burdening appellants or examiners	FULL	2
	Increase BPAI capacity through additional hires and new chambers organization	Hire additional administrative patent judges (APJs) and patent attorneys (PAs) with the goal of having each APJ supported by a PA in a chamber-type organizational structure	PARTIAL	2
	Maintain high quality BPAI decisions	Ensure through hiring criteria and performance appraisal plans that BPAI decisions are technically and legally correct; and provide training to new hires including APJs and their patent attorneys	FULL	2

Sources: USPTO 2010–2015 Strategic Plan, September 2010; DOC OIG analysis of USPTO information.

<sup>a</sup> 1—Data collection, reporting on a regular basis; 2—Data collection, reporting on an ad hoc basis; 3—Initial stages of implementation, data collection and reporting not yet applicable.

## **Appendix C: Response to OIG Draft Report**



### **UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

September 21, 2011

MEMORANDUM FOR Ron Prevost  
Assistant Inspector General for Economic  
and Statistical Program Assessment

FROM: Anthony Scardino   
Chief Financial Officer

SUBJECT: Response to Draft Report: "Status of USPTO Initiatives to Improve  
Patent Timeliness and Quality (August 2011)"

#### **Executive Summary**

Thank you for your review of the strategic initiatives identified in the *USPTO 2010-2015 Strategic Plan* to improve the quality and timeliness of patent applications. We appreciate the effort you and your staff have made in assessing the status of the 25 strategic initiatives developed to achieve Goal 1, "Optimize Patent and Quality Timeliness". We have carefully considered the three recommendations made in the subject draft report.

#### **Background**

The USPTO is proud of the accomplishments and progress it has made with its strategic initiatives in reducing patent pendency and the patent backlog. The *USPTO 2010-2015 Strategic Plan* documents the steps necessary to make the USPTO more efficient in reducing the unacceptably long pendency periods that patent applicants face. The USPTO is committed to achieving its goal of improving patent quality and providing optimal timing for obtaining a patent and is confident that it will succeed in meeting its goal.

Our response to each recommendation is discussed in detail below. We have also provided detailed technical comments on a separate page.

#### **Response to Recommendations**

***IG Recommendation that the Under Secretary of Commerce of Intellectual Property and Director of USPTO (1):*** Revise the agency's strategic plan to ensure the most critical efforts that support attaining the strategic patent goals remain in operation.

***USPTO Response:***

The USPTO has published a five-year strategic plan to achieve the Agency's goal for patent initiatives and Agency-wide operations. The *USPTO 2010-2015 Strategic Plan* outlines how we plan to optimize patent quality and timeliness initiatives. In addition to the patent strategic initiatives, the Agency has another priority to implement a sustainable funding model. This funding model will allow the USPTO to manage fluctuations in filings and revenues while sustaining operations on a multi-year basis. The model takes into consideration full access to fee collections, authority to adjust our fee structure, and establish an operating reserve to manage operations to implement the strategic plan.

In the 2011 President's Budget submission, our funding requirement was \$2.331 billion and 10,098 full-time equivalent (FTE) employees to continue implementing the *USPTO 2010-2015 Strategic Plan*. The *USPTO 2010-2015 Strategic Plan* was predicated on enactment of the FY 2011 President's Budget, which included a proposed 15 percent interim increase to patent fees. The Agency's final FY 2011 appropriation did not include this increase. As a result, the USPTO has been operating at a level that is about 10 percent below its FY 2011 requirements.

The executive councils within the USPTO, which include the Deputies Committee, Management Council and Executive Committee, considered a number of options to reduce spending throughout the agency to accommodate a lower level of budgetary resources than were originally planned in the FY 2011 budget for implementing the *USPTO 2010-2015 Strategic Plan*. Based on discussions and recommendations made by these councils, the USPTO Under Secretary and Director made the final decisions on these priorities. This has resulted in the need to postpone the implementation of many Strategic Plan initiatives.

The most notable impact on the *USPTO 2010-2015 Strategic Plan* is that the USPTO has not been adequately funded to reduce patent pendency to 10 months for first office actions and 20 months total pendency by 2014 and 2015. Based on the FY 2013 Budget, these targets will now be met in 2015 and 2016, respectively. Ultimately, a number of agency-wide requirements to include training and IT improvements were scaled back as a result. In addition, a number of new initiatives that were originally proposed in the *USPTO 2010-2015 Strategic Plan* cannot proceed, including a sizeable increase to the number of patent examiners. For example, if adequate resources are not provided to address the backlog of patent applications this will increase pendency times in the outyears for the Agency.

The USPTO plans to take the following action as a result of reduced 2011 appropriations funding and to address this recommendation: The USPTO will include an appendix in the FY 2013 OMB Submission and President's Budget making interim adjustments to the *USPTO 2010-2015 Strategic Plan*. In these interim adjustments, we plan to update priority goal targets and revise initiatives impacted by reduced budgetary resources.

***IG Recommendation that the Under Secretary of Commerce of Intellectual Property and Director of USPTO (2):*** Direct the relevant operating units to prepare plans for, and conduct, evaluations of the patent initiatives to assess the effectiveness of the initiative and to guide any decisions related to the continuation, expansion, or ending of the individual initiatives.

**USPTO Response:**

While we generally concur with the recommendations as stated in the Agency comments to this draft report, we would, however, like to highlight in particular that the *USPTO 2010-2015 Strategic Plan* does in fact provide a mechanism for future evaluations of its initiatives. “To ensure that the USPTO successfully implements changes...initiatives documented in this plan may be...subjected to evaluation. Evaluation plans will incorporate, where appropriate, measurable objectives, critical measures of success, baseline data, and conditions for full implementation.” (*USPTO 2010-2015 Strategic Plan* at page 45). The USPTO has given thoughtful consideration to the performance measures and as you have noted, has already put into place many of the components for successful implementation of these initiatives.

The Agency agrees to develop and implement evaluation plans of the patent initiatives to include: measurable objectives and critical measures of success, baseline data, a direct linkage of measures to strategic goals and conditions for full implementation. While the USPTO may lack a formal final evaluation process, it does already have in place certain elements or components that comprise an effective evaluation plan. The *USPTO 2010-2015 Strategic Plan* includes a Balanced Scorecard which identifies performance measures which link to work plans that have been and will continue to be monitored internally as a management tool for tracking progress in meeting each element of the plan. (See *USPTO 2010-2015 Strategic Plan* at pages 46-48). However, the establishment of a formal evaluation process will not only provide for continuity of operations, but more importantly, it will provide a more comprehensive approach in assessing performance; determining whether or not the results from a particular initiative have been accomplished; and what impact a specific initiative has on the Agency’s overall strategic goals. Furthermore, these plans will help Agency management in making informed decisions on how to direct resources to those initiatives having the greatest impact on achieving the Agency’s strategic goals. The USPTO is committed to improving its documentation effort and will begin to establish a formal evaluation plan of the patent initiatives in order to assess the effectiveness of each initiative.

**IG Recommendation that the Under Secretary of Commerce of Intellectual Property and Director of USPTO (3):** Examine anew the BPAI process (and the rate at which it reverses decisions) as well as the quality of PCT contracting work.

**USPTO Response:**

The Agency agrees to examine anew the Board of Patent Appeals and Interferences (BPAI) process. The Agency recently hired a new BPAI Chief Judge from the private sector, and he is studying all of the Board’s processes, its structure, and its operations in an effort to reduce pendency and increase quality. The Agency notes that the reversal rate is a function of a myriad of factors: the evidence and facts of any individual case, the application of appropriate law to those facts by the examiners and the appellants, and the soundness of conclusions made, and the effectiveness of advocacy by those appearing before the Board.

The Agency further agrees to examine the quality of PCT contracting work with a goal of maximizing reuse of this work in the examination of our national applications. Since letting the contract in 2007, the USPTO has continued its efforts to improve the quality of the resulting product provided by the contractors. During the past year, steps have been taken to enhance the existing PCT contract deliverables, emphasizing the importance of citing the best prior art and providing training and continuous feedback to achieve such improvement. As a result, the

USPTO has been better positioned to move forward with a new contract where the quality of the resulting product provided by the contractors will be evaluated based on quality metrics applied to our USPTO products. Ultimately, the USPTO is committed to continuously improving upon its efforts and further assessing how it can increase the quality of the PCT contracting work to maximize its reuse potential.

**Conclusion**

In closing, we thank the Assistant Inspector General for Economic and Statistical Program Assessment for providing us with this report. We are confident in our abilities to meet the recommendations in a timely manner as we move forward in achieving our strategic goal of improving patent quality and timeliness. We look forward to working with your office in the future to help the USPTO address the challenges it faces in achieving its patent strategic goals.

Attachment