Guidance for Preparing Annual Agency Technology Transfer Reports Under the Technology Transfer Commercialization Act

Prepared by
The Technology Partnerships Office
National Institute of Standards and Technology
U.S. Department of Commerce

in conjunction with

The Interagency Working Group on Technology Transfer

May 2013

Introduction

Under the Technology Transfer Commercialization Act of 2000 (P.L. 106-404), each Federal agency must submit to the Office of Management and Budget, as part of its annual budget submission, an annual performance report addressing the technology transfer activities of its Federal laboratories (15 U.S.C. Sec. 3710 (f)(1)).

This report is to be provided by January 31 to the agency's OMB program examiner and a copy submitted to the National Institute of Standards and Technology (NIST). These agency reports will in addition provide the data for the Secretary of Commerce's Annual Summary Report to the President, the Congress, and U.S. Trade Representative on the status of Federal laboratory technology transfer (15 U.S.C. Sec. 3710 (g)(2)).

In general, each Federal agency that operates or directs one or more Federal laboratories or that conducts activities under sections 207 and 209 of title 35, United States Code, shall report annually to the Office of Management and Budget, as part of the agency's annual budget submission, on the activities performed by that agency and its Federal laboratories under the provisions of this section and of sections 207 and 209 of title 35, United States Code.

The two main categories of information that are requested include 1) a description of the current technology transfer programs and plans of the agency's Federal laboratories, and 2) statistics and other relevant data that describe the Federal laboratories' activities and achievements in technology transfer over the most recently closed fiscal year and the 4 years prior.

> Annual reports should also include the current status of, and any progress on, the agency's plan for enhancing its technology transfer activities prepared in response to the Presidential Memorandum -- *Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Businesses*[1] (PM) issued on October 28, 2011. Reports should also include selected abstracts of economic impact studies that have been completed during the fiscal year (if any).

The following tables have been designed to facilitate the reporting of the requested statistics. Agencies may transfer copies of these tables to a text file for use in preparing their annual report. Expansions or format modifications of the tables may be done to meet an agency's specific needs. Agencies may exclude any table or metric if the corresponding mechanism(s) are not used by the agency over the time periods covered.

Invention Disclosure and Patenting

The number of invention disclosures, patent applications filed and patents received are the most often cited metrics of active management of intellectual assets and technical know-how.

[1] http://www.whitehouse.gov/the-press-office/2011/10/28/presidential-memorandum-accelerating-technology-transfer-and-commerciali/

Line 1: Enter the number of inventions that were disclosed during the fiscal year.

Line 2: Enter the number patent applications filed during the fiscal year. This includes non-provisional U.S. and foreign applications in which the agency has a patent ownership position. This does not include provisional and continuation applications or duplicative foreign and Patent Cooperation Treaty applications.

Line 3: Enter the total number of patents received during the fiscal year for laboratory inventions.

Table 1: Invention Disclosures and Patents

		FY-4	FY-3	FY-2	FY-1	FY
	Invention Disclosures					
1	Number of new inventions disclosed					
	Patents					
2	Number of patent applications filed					
3	Number of patents received					

Enter "0" to report that the agency did not use this mechanism in the reported year. Enter "N/A" to report that data is not available at time of report. Add rows and interpretive notes as needed.

Income Bearing Licenses

Successful development and commercialization of agency technologies benefit the nation's economy by contributing to competitiveness and economic growth. Without the ability to grant licenses to develop and commercialize government-owned technologies and inventions, many innovations would languish within laboratories and would not be further developed into products or services. Licensing is the primary mechanism used to transfer research and or commercialization rights of patented technologies.

Under 15 USC 3710(f)(2)(B)(iii) agencies should report the number of active licenses that produce income for the agency and separate these licenses according to type, i.e. Exclusive, partially exclusive, or nonexclusive. Agencies should revise the table as necessary to provide a comprehensive report of their individual licensing activities.

In addition, 15 USC 3710(f)(2)(B)(iii) also requires agencies to report the average, minimum, and maximum amount of time that elapsed from the date on which each license was requested by the licensee in writing to the date on which each license was executed.

Line 4: Enter the number of income bearing licenses.
Line 5: Enter the number of exclusive income bearing licenses.
Line 6: Enter the number of partially exclusive income bearing licenses.
Line 7: Enter the number of non-exclusive income bearing licenses.

Line 8: Enter the average number of months taken to grant licenses.
Line 9: Enter the minimum number of months taken to grant a license.
Line 10: Enter the maximum number of months taken to grant a license.

The Presidential Memorandum of October 28, 2011, requires agencies to streamline review procedures and practices with the goal of reducing the time required for licenses, patents, Cooperative Research and Development Agreements (CRADAs), Small Business Innovative Research (SBIR) grants, etc. Agencies may consider reporting streamlining metrics related to licensing in this section. For example, a new streamlining metric might be added to include the percent change in the average number of months taken to grant a license relative to the prior fiscal year.

Table 2: Income Bearing Licenses

		FY-4	FY-3	FY-2	FY-1	FY
	Income Bearing Licenses					
4	Number of income bearing licenses					
5	Exclusive licenses					
6	Partially exclusive licenses					
7	Non-exclusive licenses					
	Elapsed Amount Time to Grant Licenses					
8	Average (months)					
9	Minimum (months)					
10	Maximum (months)					

Enter “0” to report that the agency did not use this mechanism in the reported year. Enter "N/A" to report that data is not available at time of report. Add rows and interpretive notes as needed.

Disposition of Licensing Income

In general, licensing income includes income received for earned royalties from partners, license issue fees, minimum annual royalties, paid-up license fees, and reimbursement for full-cost recovery of goods and services provided by the lab to the licensee including patent costs. For this report, all license income from a license will be considered “earned royalty income” as it is “earned” by the agency (rather than breaking out the earned royalties from each partner).

Under 15 USC 3710(f)(2)(B)(iv), agencies must report the disposition of total earned royalty income including the breakdown of total earned royalty income for the top 1 percent, 5 percent, and 20 percent of the licenses, and the range of royalty income. However, the statute is clear that these distributional statistics may be suspended if such information would inappropriately reveal

the amount of income associated with an individual license or licensee. In this case include the table below and enter "N/R" in the appropriate cells.

Reporting requirements under 15 USC 3710(f)(2)(B)(v) include the disposition of the income in clause (iv). Reporting requirements under 15 USC 3710(f)(2)(B)(vi) include the number of licenses terminated for cause.

Instructions for the fiscal year reported:

Line 11: Enter the amount of earned royalty income received from the top 1% of licenses.
Line 12: Enter the amount of earned royalty income received from the top 5% of licenses.
Line 13: Enter the amount of earned royalty income received from the top 20% of licenses.

Line 14: Enter the minimum value of earned royalty income received per license.
Line 15: Enter the maximum value of earned royalty income received per license.
Line 16: Enter the median value of earned royalty income received per license.

Line 17: Enter the total amount of earned royalty income received.
Line 18: Enter the percent of earned royalty income distributed to inventors. To calculate the percentage divide the total amount of licensing income distributed to inventors by the total amount of licensing income received and then multiply the results by 100.
Line 19: Enter the percent of earned royalty income distributed to the agency. To calculate the percentage divide the total amount of licensing income distributed to the agency or laboratory by the total amount of income received and then multiply the results by 100.

Line 20: Enter the number of licenses that were terminated for cause during the fiscal year.

Table 3: Licensing Income

		FY-4	FY-3	FY-2	FY-1	FY
	Earned Royalty Income					
11	Earned Royalty Income from top 1% of licenses					
12	Earned Royalty Income from top 5% of licenses					
13	Earned Royalty Income from top 20% of licenses					
14	Minimum Earned Royalty Income					
15	Maximum Earned Royalty Income					
16	Median Earned Royalty Income					
	Disposition of Earned Royalty Income					
17	Total amount of Earned Royalty Income received					
18	Percent of Earned Royalty Income distributed to inventors					
19	Percent of Earned Royalty Income distributed to the agency or laboratory					
20	Licenses terminated for cause					

Enter “0” to report that the agency did not use this mechanism in the reported year. Enter "N/A" to report that data is not available at time of report. Enter "N/R" to report that data is not reported due to its proprietary nature. Add rows and interpretive notes as needed.

Collaborative Relationships for Research and Development

Of the many different mechanisms used to facilitate collaborative R&D activities between a Federal agency and other non-Federal entities, the Cooperative Research and Development Agreement (CRADA) is the most common. In general, a traditional or formal CRADA is an agreement executed under authority of 15 USC 3710a. Specifically, this includes agreements between one or more Federal laboratories and one or more non-Federal parties under which the Government, through its laboratories, provides personnel, services, facilities, equipment, intellectual property, or other resources with or without reimbursement (but not funds to non-Federal parties) and the non-Federal parties provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified research or development efforts which are consistent with the missions of the laboratory; except that such term does not include a procurement contract or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of title 31.

In general, non-traditional or informal CRADAs are agreements that are also executed under the authority of 15 USC 3710a but are used for special purposes such as a material transfer or technical assistance that may result in protected information. Each agency that reports non-

traditional CRADAs should provide a brief description of the purposes for CRADAs included in this category in a footnote to Table 4.

Agencies may have other authorities under which they are involved in collaborative research and development activities for the purpose of technology transfer. When applicable, agencies should provide a citation for the authority and alter the table below in order to provide metrics for these agreements in a manner that parallels the metrics provided for CRADAs.

Instructions for the fiscal year reported:

- Line 21: Enter the number of CRADAs that were legally in force at any point during the fiscal year.
- Line 22: Enter the total number of newly executed CRADAs.
- Line 23: Enter the total number of CRADAs under the SBIR and STTR programs legally in force at any point during the fiscal year. For a definition of small business see section 2 of Public law 85-536 (15 USC 632) and implementing regulations of the Administrator of the Small Business Administration.[2]
- Line 24: Enter the total number of small businesses that were involved in CRADAs under the SBIR and STTR programs that were legally in force at any point during the fiscal year.
- Line 25: Enter the total number of traditional CRADAs that were active during the fiscal year.
- Line 26: Enter the number of traditional CRADAs that were newly executed during the fiscal year.
- Line 27: Enter the total number of non-traditional CRADAs that were active during the fiscal year.
- Line 28: Enter the number of non-traditional CRADAs that were newly executed during the fiscal year.

With regard to the Presidential Memorandum, agencies may consider reporting streamlining metrics related to CRADAs in this section. For example, a new streamlining metric might include the percent change in the average number of months taken to establish a CRADA relative to the prior fiscal year.

[2] http://www.gpo.gov/fdsys/pkg/USCODE-2011-title15/pdf/USCODE-2011-title15-chap14A-sec632.pdf

Table 4: CRADAs

		FY-4	FY-3	FY-2	FY-1	FY
	CRADAs					
21	Number of active CRADAs					
22	Number of newly executed CRADAs					
23	Active CRADAs with small businesses involvement					
24	Number of small businesses involved in active CRADAs					
	Traditional CRADAs					
25	Active traditional CRADAs					
26	Newly executed traditional CRADAs					
	Non-traditional CRADAs					
27	Active non-traditional CRADAs					
28	Newly executed non-traditional CRADAs					

Enter “0” to report that the agency did not use this mechanism in the reported year... Enter "N/A" to report that data is not available at time of report. Add rows and interpretive notes as needed.

Other Performance Measures Deemed Important by the Agency

Metrics reported under this heading will depend on what other measures agencies elect to provide. Agencies may consider presenting this information in a separate table (as shown below) or add this information at appropriate points in one or more of the tables presented above.

Table 5: Other Performance Measures Deemed Important by the Agency

		FY-4	FY-3	FY-2	FY-1	FY
	(Add agency specific metrics)					

Downstream Outcomes from Technology Transfer Activities

In this section each agency is asked to provide anecdotal evidence in the form of success stories that demonstrate the broad range of positive impacts and downstream outcomes achieved by their technology transfer activities. This should include three to five stories (approximately one page each) on different technology transfer developments that have taken place during the fiscal year and that have notable impacts, for example life-saving treatments, increased security or awareness about dangers and hazards, new business start-ups, products, etc. Supporting pictures are encouraged provided they include citations for their legal use.

Appendix

Statistics and other relevant data from each agency's technology transfer report will be consolidated and summarized in the Secretary of Commerce's Annual Summary Report to the President, the Congress, and U.S. Trade Representative on the status of Federal laboratory technology transfer (15 U.S.C. Sec. 3710 (g)(2)). Pursuant to the October 21, 2011 Presidential Memorandum (PM) – *Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Businesses,* this status report will also include metrics that NIST in consultation with other agencies, including the National Center for Science and Engineering Statistics, will develop and gather to expand and improve existing measures of technology transfer activities.

Examples of additional metrics that NIST will gather and report include:

- The number of invention disclosures by selected technology area
- The number of patents issued by selected technology area
- The number of licenses by selected technology area
- U.S. Scientific and Engineering (S&E) Articles by Selected Technology Areas and Agencies
- Citation of U.S. articles in U.S. Patents, by Selected S&E Field and Article