# Lab to Market

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FY2014 Quarter 2

# Overview

## Goal Statement

- Increase the economic impact of Federally-funded research and development by accelerating and improving the transfer of new technologies from the laboratory to the commercial marketplace.

## Urgency

- There is significant potential to increase the return on public investment through innovation, job creation, societal impact, competitiveness, and economic prosperity

## Vision

- To significantly accelerate and improve technology transfer by streamlining administrative processes, facilitating partnerships with industry, evaluating impact, and opening Federal R&D assets as a platform for innovation and economic growth

# Progress Update

## Context

- The Federal Government spends more than $130 billion on research and development (R&D) each year, conducted primarily at universities and Federal laboratories. This investment supports fundamental research that expands the frontiers of human knowledge, and yields extraordinary *long-term* economic impact through the creation of new knowledge and ultimately new industries – often in unexpected ways.
- The Federal R&D enterprise must continue to support fundamental research that is motivated primarily by our interest in expanding the frontiers of human knowledge, and diffusing this knowledge through open data and publications.
- At the same time, some research discoveries show near-term potential for commercial products and services, and the purpose of this CAP Goal is to accelerate these promising technologies from the laboratory to the marketplace.

## Implementation framework

- This action plan is a flexible framework, calling on agencies to tailor and prioritize Lab-to-Market activities specific to their missions, capabilities, and authorities. Agencies are likely to have different levels of participation in the elements of this action plan, and may also identify other initiatives that are agency-specific.
- Implementation must be informed by engagement with relevant stakeholders, including small businesses, large companies, technology investors, state economic development organizations, universities, researchers, and Federal laboratory contractors.

## *Milestones met in Q1 and Q2 of FY2014:*

- Identification of target Lab-to-Market objectives and agency leaders for each
- Establishment of cross-agency working groups and a monthly progress meeting for each objective
- Determination of correct file formats and taxonomy for initial open data on Federally-owned available technologies and user facilities

# Action Plan Summary

| Sub-goal | Major Actions to Achieve Impact | Key Indicators |
|---|---|---|
| (1) Developing Human Capital | • Expand the number of individuals with private-sector experience serving in limited-term **technology transfer fellowships** within research agencies<br>• Establish clear ethical and policy guidelines that enable and encourage Federal researchers to work outside government for limited periods on **industrial/entrepreneurial detail**, as appropriate<br>• Provide widespread opportunities for **experiential entrepreneurship education** among both students and investigators who work on Federally funded R&D projects | • Number of researcher teams successfully completing a rigorous entrepreneurship education curriculum (e.g. NSF I-Corps) |
| (2) Empowering Effective Collaborations | • Increase the **priority level of R&D commercialization** activities and outcomes at Federal laboratories, consistent with agency mission and commercialization strategy<br>• Optimize **technology transfer authorities** and best practices across Federal laboratories to remove barriers to collaboration with external entities, as appropriate<br>• Fully utilize existing authority for research agencies to **co-fund projects** between agencies and leverage charitable gifts to advance R&D commercialization. | • *Under development* |
| (3) Opening R&D Assets | • Make all **relevant data** about both (a) Federally funded IP and (b) Federal R&D facilities open and machine-readable<br>• Reduce the time, cost, and complexity of **executing IP licenses**<br>• Increase the **utilization of core facilities**, user facilities, and excess/surplus R&D equipment by external innovators and entrepreneurs, where appropriate and consistent with agency mission | • Number of comprehensive IP and R&D facility data sets available in open and machine-readable format on Data.gov |
| (4) Fueling Small Business Innovation | • Make data on all open SBIR/STTR **solicitations** available to third parties in real time<br>• Streamline the SBIR/STTR **application process**<br>• Reduce **undue burdens** on small businesses during the award performance period, wherever appropriate<br>• Publish and share **best practices for Phase III commercialization** from all agencies on a regular basis<br>• Align SBIR/STTR solicitation topics with **multi-agency science and technology priorities** | • Launch of at least one unified and comprehensive Federal search tool across all open solicitations |
| (5) Evaluating Impact | • Report on metrics that capture R&D commercialization inputs and outputs<br>• Develop outcome metrics that capture longer-term economic impact , in collaboration with the research community | • *Under development* |

# Work plan

| Milestone Summary | | | | |
|---|---|---|---|---|
| **Key Milestones** | **Milestone Due Date** | **Milestone status** | **Last quarter** | **Owner** |
| *Developing human capital.* Collect best practices on entrepreneurial exchange, detail, and training programs; identify relevant new programs to pilot or adopt at member Agencies. | 4 Qtr 2014 | On track | N/A | Human Capital Team |
| *Empowering effective collaborations.* Collect best practices on partnership models in tech transfer; identify relevant new programs to pilot or adopt at member Agencies. | 4 Qtr 2014 | On track | N/A | Collaborations Team |
| *Opening R&D assets.* Each agency will make comprehensive IP and R&D user facility data sets available in open and machine-readable format on data.gov. | 4 Qtr 2014 | On track | N/A | Assets Team |
| *Opening R&D assets.* Collect best practices on IP licensing programs and R&D facility and equipment use policies; each agency will identify relevant new programs to pilot or adopt. | 4 Qtr 2014 | On track | N/A | Assets Team |
| *Fueling small business innovation.* Launch one or more unified and comprehensive Federal search tools across all open SBIR/STTR solicitations. | 4 Qtr 2014 | On track | N/A | SBIR Program Managers |
| *Fueling small business innovation.* Determine status quo of time and process from application to award, including accounting and reporting requirements. | 4 Qtr 2014 | On track | N/A | SBIR Program Managers |
| *Evaluating impact.* Begin reporting with metrics developed in FY12Q4. | 3 Qtr 2014 | On track | N/A | IAWGTT |
| *Evaluating impact.* Develop framework for economic impact analysis in collaboration with the research community. | 2 Qtr 2015 | On track | N/A | IAWGTT |

# Key indicators

| Key Implementation Data | | | | | | |
|---|---|---|---|---|---|---|
| **Indicator** | **Source** | **Baseline** | **Target** | **Frequency** | **Latest data** | **Trend** |
| *Human Capital:* Number of researcher teams successfully completing a rigorous entrepreneurship education curriculum (e.g. NSF I-Corps) | NSF and other agencies | TBD | TBD | Rolling | NSF | Growing |
| *Opening R&D Assets:* Number of comprehensive IP and R&D facility data sets available in open and machine-readable format on Data.gov | Agencies | TBD | TBD | Rolling | Data.gov | Increasing |
| *Small Business:* Launch of at least one unified and comprehensive Federal search tool across all open solicitations | SBIR PM workgroup | 0 | 1 or more | Rolling | SBA | On track |

| Indicators in development: Economic Impact | |
|---|---|
| **High Level Indicator** | **Potential Target Areas** |
| Measures of economic impact | • Published literature on technology transfer economics<br>• Comparisons with university efforts<br>• Cross collaboration with other goal efforts |