



FEDERAL LABORATORY CONSORTIUM
FLC
FOR TECHNOLOGY TRANSFER

*The Only Government-wide
Forum for Technology
Transfer*

The ORTA's Role in Identifying and Reporting Outcome- Focused Metrics

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GIB MARGUTH

- Director - Office of Technology Transfer, National Renewable Energy Laboratory
- Member, FLC Education and Training (E&T) Committee and FLC National Advisory Council
- Served as federal technology transfer specialist in the U.S. Commerce Department's Office of Technology Policy
- Nearly 20 years direct ORTA leadership positions at DOE laboratories (NREL, Sandia and LLNL), DOC, and DOE contractors
- Frequent developer/presenter of training modules, for the FLC E&T Committee and the NTTC, to industry and federal laboratory technology transfer professionals
- Past President, Association of Federal Technology Transfer Excellence (AFTTE)
- Over 25 years as engineer, entrepreneur, and CTO/CEO for aerospace, computer and telecommunications companies
- Served in elected or appointed positions at every level of government in the state of California
- BSEE, BS Mathematics – Oregon State University and graduate course work at the University of California in Mathematics and Computer Sciences



OBJECTIVES

To gain knowledge about:

- Why Congress gave federal labs “technology transfer” authority under the Bayh-Dole and Stevenson-Wydler Acts
- What we might learn from our university colleagues and the Agriculture and NIH labs
- What Congress meant by the words “technology transfer”
- How we might define a new “value proposition” and develop ways to measure and report what we value



THE BAYH-DOLE ACT AND THE FEDERAL LABS

- Government policies “allowing” recipients of federal R&D funds to seek to have title waived to them didn't work
- Title to inventions made with federal dollars now vests with the inventing party subject to certain reserved government rights
- Income from licensing inventions now benefits the federal lab where the invention arose
- The Bayh-Dole incentives have stimulated domestic commercialization of federally funded inventions
- For the federal labs, Bayh-Dole provides important guidance and authority to protect and license inventions
- Bayh-Dole is all about managing inventions and licensing them in ways to enhance U.S. technological and economic competitiveness—That's why it was enacted



THE STEVENSON-WYDLER ACT IS DIFFERENT – IT SEEKS TO STIMULATE THE COMMERCIAL APPLICATION OF LAB INNOVATIONS

- Many federal agencies' labs have been applying their technology innovations for the benefit of the nation and mankind since their founding days
- The USDA and HHS are examples of agencies whose university relationships, public service missions, and proactive management of innovations is widely practiced
- A goal of Congress was to access the top-secret labs of the DOD, the DOE, and the high-tech NASA labs
- Industry knew of their unique competencies and capabilities, but they could not access them for commercial applications



WHY THE TECHNOLOGY INNOVATION ACT ?

- Space and defense technologies were recognized as world-class. The scientists and engineers had to innovate to stay ahead of the “competition”
- Meanwhile, industrial and technological innovation (was) lagging when compared to historical patterns and other industrial nations
- A “purpose” was to provide access to the “closed” labs and their generally unavailable people and facilities



WHAT IS TECHNOLOGY TRANSFER?

- In some Technology Transfer Offices, it is the negotiating, execution, and docketing of agreements, and the collection of numerical information relating to “technology transfer” activities
- In the RD&D facilities at a lab it often consists of the bi-directional transfer of knowledge, innovations, and technologies between peers in industry and at universities and federal labs
... and the facts about important outcomes of the latter may not find their way into an “activities” report



WHAT ARE THE FUNCTIONS OF AN ORTA?

- To prepare and submit annually, to the lab's agency, an explanation of the lab's technology transfer program for the preceding year and its plan for conducting its technology transfer function for the upcoming year, including plans for securing intellectual property rights in laboratory innovations with commercial promise and plans for managing such innovations so as to benefit the competitiveness of United States industry



WHAT ARE THE FUNCTIONS OF AN ORTA? (Cont.)

- To prepare application assessments for selected research and development projects in which that laboratory is engaged and which, in the opinion of the laboratory, may have potential commercial applications
- To provide and disseminate information on federally owned or originated products, processes, and services having potential application to state and local governments and to private industry
- To provide technical assistance to state and local government officials, and
- To participate, where feasible, in regional, state, and local programs designed to facilitate or stimulate the transfer of technology for the benefit of the region, state, or local jurisdiction in which the federal laboratory is located

... etc.



LOOKING FOR TECHNOLOGY TRANSFER "OUTCOMES"

... or identifying qualitative metrics to report in our annual plan for managing innovation.

- If we know how many new or existing licenses and CRADAs we have, we can report:
 - How many were with small businesses?
 - How many licenses and/or background IP are linked to CRADAs?
 - How many CRADAs resulted in the generation of subject inventions or protected, commercially valuable information?
 - How many terminated CRADAs resulted in licenses and/or commercial application by the partner?



MORE QUALITATIVE OUTCOMES TO IDENTIFY

- How many CRADAs/licenses are with startups?
- How many former CRADA partners are using technologies they gained under a CRADA?
- How many CRADAs advanced the program mission of the lab?
- If we have earned royalties from licensees, can we translate those earnings into “new products introduced, increases in jobs, or other facts like those reported by AUTM”?

... the goal should be to not merely report quantities of activities, but rather what resulted from a lab's and industry's work under the authority of the Bayh-Dole and Stevenson-Wydler Acts?



CONCLUDING COMMENTS

- Get better connected with your technical staff – they do the technology transfer; we do the deals
- Get better connected with the lab’s licensees and partners – only they can help us measure what we should value
- Figure out what it means to “manage innovation as intellectual property”
- ... and, by the way, work with the FLC to deliver training modules to lab technologists and local businesses—your agency dollars are paying dues to make that happen.

... Congress and the taxpayers need to know what their investments are yielding. 1500 CRADAs and 1500 patents don't tell us if anything of value has resulted