Re-imaging the National Labs for the 21st Century Innovation Economy

Bay Area Science and Innovation Consortium

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...is a Washington, D.C.-based think tank at the cutting edge of designing innovation policies and exploring how innovation will create new opportunities to boost economic growth and improve quality of life. ITIF focuses on:

- **Innovation “verticals”:** energy, life sciences, telecom, manufacturing, and Internet and IT transformation

- **Innovation “horizontals”:** trade, tax, talent, and tech policy

- “Innovation economics” as an alternative to mainstream economics
Turning the Page Report Framework

- Non-partisan report authored by ITIF, Heritage, and CAP

- Scope: Potential reforms to lab management and operation to spur more innovation from publically-funded research

- No consensus: Funding levels, priorities, or the specific role of government in innovation
A 15 Month Process

- Project started with a roundtable on technology transfer
- Due diligence: Toured Labs; meetings with DOE, Lab management/researchers, industry, and academia
- Months of good old-fashioned debate within the scope of the project
High-Level Areas of Agreement

- Federally-funded research:
  - Can play a positive role in U.S. economic future
  - Should not replace or crowd-out private sector or university research
  - Should be driven by science and national needs

- Washington should oversee the Labs, not micromanage

- Minimize barriers to moving research to market

- Taxpayer resources should be used efficiently

- Market forces can help bring efficiency to Lab system

- The current system needs substantial reform
Areas of Agreement on National Labs

- **Hubs of mission-driven research**
  - Addresses unique national imperatives in public and gov interest
  - Captures positive externalities from innovation
  - Conducts scientific research with long time horizons

- **Centers of multidisciplinary research**
  - 13 of 17 Labs are multi-purpose, conduct interconnected research

- **GOCO management model best of both worlds**
  - Provides opportunity for flexible management
  - While conducting high-risk research

- **Potential bridge to market place**
Three Broad Issues in Need of Reform

- Troubled relationship between DOE and the Labs
- Research stovepiping and strategy
- Weak link between the Labs and market

Report Goal:

- To instill a more flexible management system that not only unravels these issues, but changes DOE/Lab culture
- Don’t want to tinker around the edges
Micromanaging Lab Governance

- **Issue:** Duplicative layers of DOE bureaucratic rules and regulations

- **Reform:** OSTP-led taskforce to recommend elimination of DOE regulations
  - Accelerate and strengthen transition to a contractor accountability model
  - Expanded PEMP process
  - Secretary must respond to task force
  - Administration-led pilot program?
Stovepiped Research Funding

- **Issue:** Long-standing stovepipe issue – 51 distinct appropriations, 111 separate line items, regulated through specific report language

- **Reform:** Combine Under Secretary’s of Science and Energy into a US for S+T
  - Moves 13 Labs under one stewarding leader
  - Implement cohesive strategic planning
  - Moniz announced intent to do this
    - Congress could solidify Moniz action
- **Stovepiped Research Funding**

- **Issue:** Perpetuation of basic vs. applied research

- **Reform:** Create innovation programs under new US of S+T that bridge basic and applied
  - Fund research outcomes, not outputs
  - No agreement on what these programs would look like
  - Larger stakeholder discussion needed
Weak Links between Labs and Market

Issue: Weak incentives for Labs to work with industry

Reform: Allow Labs to charge flexible pricing for industry use of Lab talent and infrastructure
  - Nonproprietary research remains the same
  - Allows Labs to charge more for high-demand capabilities and vice versa
  - “Profit” to be reinvested back into Labs
Weak Links between Labs and Market

Issue: Inconsistent Lab-Industry agreements

Reform: Strengthen ACT agreements to allow for collaboration with those that receive federal funding
  - Gets Labs part of way towards full flexibility
  - Ultimately, goal is for Lab agreements to be allowed without DOE pre-approval
    - Start with pilot process
Weak Links between Labs and Market

Issue: Lab evaluation metrics don’t strongly encourage technology transfer

Reform: Add a “Technology Impact” category to expanded PEMP process
  - Weight of new category negotiated on Lab by Lab basis
  - Make category important to Lab contractor re-compete/renewals
Response to Report

- Secretary Moniz open to reform
  - Key is to make sure it sticks
- Congress very open to reforms that doesn’t have $$ attached to them
  - Active bipartisan discussion in both H and S
- Beware of growing movement to reduce federal research enterprise
  - Budget cuts, IG report, NDAA task force
Thank you!

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