The Joint Select Committee on Research, Economic Development and the Innovation Economy
September 14, 2006 Meeting

MEETING SUMMARY

Members in attendance: Sen. Lynn Bromley (co-chair), Rep. Emily Cain (co-chair), Sen. Dana Dow, Sen. Dennis Damon, Rep. Chris Rector, Rep. Nancy E. Smith, Rep. Jeremy Fischer, Rep. Judd Thompson, Rep. Kimberly Rosen, Rep. Patrick Flood, Rep. Thomas R. Watson, Rep. Walter E. Ash. Jr., Rep. William P. Browne
Members absent: none

1. **Welcome and Introductions**

   - Co-chairs Senator Lynn Bromley and Representative Emily Cain welcomed Committee members and interested parties
   - Committee members introduced themselves and invited members of the audience to introduce themselves

2. **Review of Joint Study Order S.P. 847, Duties of the Committee**

   - Staff presented an overview of the Joint Study Order establishing the Committee and the duties and reporting requirements of the Committee (see handout)

3. **Panel discussion on the history of Maine's R&D efforts followed by question and answer period with panelists. Panelists included: former Senate President Mark Lawrence, Former State Planner Evan Richert, Senator Scott Cowger, and Dr. George L. Jacobson Jr. (No Handouts)**
   - **Important Points Made by Presenters**
     - The important efforts of the "faculty 5" – 5 University of Maine professors who initiated a public discourse throughout the state on the critical role that long-term investment in R&D can play in stimulating Maine's economic growth and improving Maine's economic future.
     - The legislative initiative *Jumpstart 2000* focused on strategic investment in R&D at the university level in five targeted areas of investment (aquaculture/marine sciences, biotechnology, composite materials engineering, environmental technology and information technology), with the goal of building bipartisan support to progressively increase the general fund appropriation for R&D over a long period of time to spur economic growth in Maine.
     - The 118th Legislature created the Joint Select Committee on Research and Development in 1997 to develop a plan for the support of applied R&D in these 5 targeted areas.

- The National Institute of Health has $50 billion a year to fund research institutions at universities on a competitive grant basis and historically, Maine had not discussed how to receive these funds.
- To reach the level of the lowered tiered states, we needed $20 million per year of investment in the Maine Economic Improvement Fund (MEIF), which is the most important source of funding for the University- funding is now at $12 million. Maine missed the opportunity to get $20 million into the fund, which would have returned $100 million in competitive federal research grants. $20 million is now too low a figure; we now need $60 million per year, which is a modest figure compared to other states.
- There is a high correlation between income and education level. The discovery and application of new knowledge, not merely the transfer of knowledge, drives the modern economy. At the core of this is the research university, teaching hospitals, the R&D division of industry and private research labs.
- We need persistent, long-term investment in R&D.
- The State Planning Office (SPO) produced in 2001 the *30 and 1000 Report: How to Build a Knowledge-Based Economy in Maine and Raise Incomes to the National Average by 2010*. The SPO's linear regression model determined that 30% of Maine's adults would need at least a 4 year degree and the state would need to invest $1,000 in R&D per employed worker to raise the per capita income to the national average or above. This would equal 2 ½ percent of the gross state product (or $700 million/year- not present day figures).
- Out of the *30 and 1000 Report*, an informed group came together to create a strategy to retain and attract workers through grants and aid, to make a tier 1 research university and leverage industrial R&D. We are now at 1% of the GSP, which is 40% of where we need to be.
- 2/3 of R&D needs to come from industry reinvesting, 1/3 needs to come from universities investing in R&D. The state role is small, but it provides a catalyst to make the whole system work- and provides leverage for federal money. 7% of the total ($50 million) should be coming from state money that is targeted at private sectors and universities.
- The role of state government is to help foster the synergy for all of these separate parts: Linking institutions, transportation infrastructure, affordable housing, and high speed internet/ web communications are all necessary.
- It is critical to avoid balkanization of R&D efforts and the focus on individual districts. R&D is spread throughout the state of Maine. Don't reinvent the wheel- just give it momentum.
- Distribution of benefits and magnets: we only need a few, large magnets to sustain growth, not 100 small ones. Caution against diluting the big magnets.
- Bonds should not be relied upon as they can only go toward capital investments. MEIF gives more flexibility to invest in the most competitive funding mechanisms- matching grants for large scale research in the 7 targeted areas. Marine and the Biomed sector rely on bond proceeds, which are helpful but do not allow for much flexibility. They need operating fund equipment and bonds.

- Maine's infrastructure needs to be upgraded to facilitate economic growth; the transportation of ideas/data/ research on top of physical transportation needs also must be addressed.

4. **Panel discussion on the current R&D and innovation efforts. Panelists included: Peggy Schaffer of DECD and Betsy Biemann of MTI**
   - ❖ **Important Points Made by Presenters (see handouts: Office of Innovation Science & Technology Action Plan 2005; MTI packet)**
     - In order to achieve the goal set by the *30 and 1000 Report*: 34% of Maine adults need a 4 year degree or greater and $1357 would need to be invested in R&D per employed worker to raise the per capita income to the national average or above; this would equal 3% of the GSP (the national average) and around $1 billion in R&D activity in the economy.
     - Fund the best technology, regardless of the sector, that has the most promise.
     - Many of these businesses are at the convergence of the sectors, where there is cluster and synergy. Clusters share workforces, suppliers and synergy happens naturally.
     - Maine is one of the few states that uses evaluation data and puts it in the national context.
     - Private sector contributions need to grow. Currently funded at 1/3 of the vision of the *30 and 1000 Report* (we should be at $15 million).
5. **Discussion of the UNC Report assessing Maine's R&D efforts with panelists Peggy Schaffer and Jim Damicis (PolicyOne Research). See handouts (Evaluation of Maine's Investments in R&D 05-06 Highlights; and Comments for First Meeting of the JSC on R&D and Innovation Economy by Jim Damicis)**
   - ❖ **Important Points Made by Presenters**
     - Presentation of the highlights of the UNC fifth annual assessment of Maine's investments in R&D for 05-06.
     - The area of biggest concern is industrial R&D (currently 61% industry). Companies are going to need growth capital that we don't have. Aggressive outreach is needed for the 20-30 employee companies.
     - Small Enterprise Growth Fund (SEGF) is a revolving fund that plays a lead role in small venture funds. There is a gap between MTI awards and SEGF funding where companies are having trouble getting funding.
     - Tax policy: Maine Seed Capital Tax Credit program (FAME)- 40% and 60% tax credit for eligible Maine businesses; FAME VREP Program –incentives for investors.
     - CEI- federal venture.
     - This year Maine received the Workforce Innovation Regional Economic Development (WIRED) grant for $15 million from the U.S. Dept. of Labor to grow composites and marine-related industries.
     - Incubators allow small technology companies to share services and get help and networking services to grow their small businesses.

6. **Panel discussion with R&D-related businesses. Panelists included Chris Frank of Intelligent Spatial Technologies, William Harris of MariCal; Peter Cowan of SeaBait, LLC.**
    - ❖ **Important Points Made by Presenters:**
        - Think globally: Maine is competing with other countries that are trying to do just what Maine is doing.
        - Keep the Maine Capital Seed Tax Credit Program going
        - Work on how we can expand investment and encourage private sector investment in biotechnology- other countries have incentives available.
        - Foster entrepreneurship in Maine for K-12 and college students and increase the interface between students and businesses. Recognize that intellectual capital is just as important as other capital and foster the education process.
        - Recruit intelligent entrepreneurs to Maine.
        - Improve Maine's infrastructure: airports are very important in facilitating economic growth.
        - Work on attracting a younger demographic to Maine.
7. **Planning for Next Meeting**
    - Contact the UNC team to determine if they will be able to present at the next meeting their latest findings.
    - Questions/Requests for information from the Committee:
        - ❖ Provide an update on the legislation enacted last session that focused on creating an entrepreneurial curriculum in schools; how does FAME/SEGF contribute to the capitalization aspect of R&D; provide an explanation of how all of the R&D organizations interact and are funded; look into how Maine Development Foundation can get involved in this process; provide a copy to members of the article in ME Policy Review by Mark Lawrence on R&D; request the Office of Innovation to provide present day figures from the *30 and 1000 Report*; get an MTI map for members; provide a description of the WIRED grant; look into getting a presentation of current transportation of data, beyond broadband; review if there is an overlap between the *Science and Technology Action Plan*, the *30 and 1000 Report* and the *118th report* and any recommendations that have not happened and that have not been funded; research if there are areas in statute that are no longer relevant/ not being used.

Future Meeting Dates

The Committee will hold its second meeting on October 5th. The third meeting date has not yet been determined.