FROM CONCEPT TO JOB CREATION

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Transforming R&D Into Jobs

During past 15 years regional technology based economic planning has become more broadly used by communities.

- Evolving practice where a consortium of cities, counties, states, businesses, educators and community leaders rely upon technology driven economic planning and growth strategies for a region
- The regionally-led consortia conduct regional assessments of local industries and generate the “pull” for work force skills, advanced education and other assets to create high paying jobs.
- Businesses are attracted to a regional strategy
  - They no longer look at just local resources;
  - They look for regional resources that can support scale and growth.
  - They look for robust partnerships

Numerous Studies Support Critical Role of Innovation and Economic Development and U.S. Competitiveness

"The Competitiveness and Innovative Capacity of the United States" A Report by the National Innovation Advisory Board – Jan 2012

- Federal investments in research, education and infrastructure were critical building blocks for American economic competitiveness, business expansion and job creation in the last century.

The President's Jobs Council led by Jeff Immelt – Report December 2011

National Science Board – NSF Jan 2012

The United States lost 28 percent of its high-technology manufacturing jobs over the last decade,

- Shrinking lead in science and technology in the global marketplace was accompanied by a toll on U.S. high-tech jobs – almost 700,000 high tech manufacturing since 2000.
- U.S. multinational corporations also created research and development (R&D) jobs overseas at an unprecedented rate.
- China became the world leader in high-technology trade, and, for the first time, Asia matched the U.S. in R&D investments.

National Nanotechnology Initiative – Fourth Review by PCAST – OSTP Report – April 2012

- Stress on nanoelectronics; nanosolar; and nanomanufacturing

Obama Administration Recent Initiatives

15 Institutes for Manufacturing Innovation – DOD, DOE, DOC and NSF

- Commonwealth Center for Advanced Manufacturing (CCAM), which will open soon near Richmond, Virginia.
- Example of the kind of partnership that the National Network would create on a much larger scale.
- It involves big and small companies, leading universities, and Virginia's universities will perform research and development, train students and workers for advanced manufacturing careers, and deliver new "production-ready" solutions to existing factories.
- **RFI?**

BUILDING CLUSTERS/HUBS OF INNOVATION – SUCCESS STORY

Providence, RI,

- Chamber of Commerce, Brown University, Econ Development and community groups started Innovation District in 2007

- Developed a blueprint to foster “eds and meds” to build knowledge economy leveraging existing knowledge assets.

- Also wanted to revitalize abandoned urban acreage.

RESULTS

- Brown University relocated Medical School – bringing 400 students and 50 faculty
- Hasbro saw new talent coming to area and committed to create 300 new FT jobs
- Video game company agreed to relocate committing to 450 new jobs
- Job training and coordinated access with business community to nearby technical schools and curricula development
- Combination of regional innovation cluster, entrepreneurship and walkable urban living areas

It’s the Right Kind of Education

American Education and Professional Training Are Not Where We Need to Be

- 3.3 million job openings yet half of the employers say they have a hard time finding qualified workers.
- 30% of Americans do not graduate from high school. 60% Americans have a reading ability of 7th grade.
- 1.5% of 25-34 year olds in the workplace gained a higher education degree in science – U.S. in the bottom third of all OECD countries.

It’s the Right Kind of Education

Only 25% of America’s 52 million K-12 students are performing on par with the average student in Singapore, Hong Kong, Finland, Taiwan or South Korea.

A 2009 study by McKinsey Institute found that the cost of America’s K-12 achievement/education gap compared to the world’s top performing countries reach as high as $2.3 trillion in 2008 alone.

Yet states have laid off almost 300,000 teachers since recession – increase in ratio of students to teachers.

Fundamentally, our children need to be able to read, write, and do basic math.

They also need job skills – technical and basic computer skills.

JOBS COUNCIL RECOMMENDATIONS

Partnerships/Collaboration

- Form stronger partnerships between communities, businesses and educational institutions to work together to address workforce and economic development.

- Form partnerships between businesses and educational institutions to ensure that training for students and workers meet the demands of the labor markets

- To design and implement curricula and assessments that better prepare student for real world employment.

- Business associations should partner with post secondary institutions to development meaningful learning standards so that students earn credentials based on competence, not credit hours.

SECRET TO SUCCESS? COLLABORATION

- Key elements – engagement of business community economic development, educational institutions and trade groups

Missing Ingredient?

- Respected intermediary who can convene, cajole, push

Role of TBEDs

- How to deal with change
- How to deal with conflict
- How to reach our potential

Coming together is a beginning.

Keeping together is progress.

Working together is success.

Henry Ford