Innovation for Economic Growth

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I am focused on harnessing the power and potential of technology and innovation to execute on the President’s vision for a 21st Century economy – one where jobs are more plentiful, American firms more competitive, communications more affordable, broadband more abundant, families more connected, and Americans more safe and secure.
Early Evidence of a Technology Recovery
National Priorities – Health IT, Clean Energy – Among Growth Areas

Business Investment in Tech Sector

Tech Economy Indicators

- Business investment in tech up 5.8% at an annual rate in the 2nd and 3rd quarters of 2009, following a 16.3% decline the previous three quarters

- Investment in computers surged 82.8% at an annual rate in the 4th quarter of 2009

- Venture capital investments in health IT rose 37% across 2009, though overall VC investments declined 31%

President’s Strategy for American Innovation
Innovation for Sustainable Growth and Quality Jobs

Invest in the Building Blocks of American Innovation

- Restore American leadership in fundamental research
- Educate the next generation with 21st century knowledge and skills while creating a world-class workforce
- Build a leading physical infrastructure
- Develop an advanced information technology ecosystem

Catalyze Breakthroughs for National Priorities

- Unleash a clean energy revolution
- Support advanced vehicle technology
- Drive breakthroughs in health IT
- Address the “grand challenges” of the 21st century

Spur Productive Entrepreneurship and Promote Efficiency

- Promote American exports
- Support open capital markets that allocate resources to the most promising ideas
- Encourage high-growth and innovation-based entrepreneurship
- Improve public sector innovation and support community innovation

Source: www.whitehouse.gov
Technology Highlights in FY 2011 Budget
Harnessing Technology and Innovation to Transform the Economy

**R&D Investment**
- Permanent extension of the research and experimentation tax credit
- Invest in American leadership in fundamental research

**R&D Commercialization**
- $12 million for NSF to promote a new innovation ecosystem for commercialization
- Develop R&D investment dashboard

**Technology Infrastructure**
- $418 million for USDA loans and grants to address rural broadband coverage
- Directs NTIA and FCC to collaborate in a plan to make spectrum available
“Science is more essential for our prosperity, our security, our health, our environment, and our quality of life than it has ever been before.”

President Obama, National Academy of Sciences, April 9th, 2009
President’s Plan for Science and Innovation, FY 2006-2017
(budget authority in billions of current dollars)

2006-2010 figures are enacted budget authority; 2012-2017 figures are projections in the 2011 budget.
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STEM Education by Agency: 2011 Budget

Budget Authority in Millions of dollars

- STEM Education = $3.7 billion
- NSF, $1,177
- DOE, $113
- DOT, $198
- HHS, $864
- NASA, $146
- Education, $833
- All Other, $161
- DOD, $110

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| Small Business Initiative                         | • Extends by one year the 50% deduction for qualifying investments  
• Extends by one year the $250,000 write-off for qualified investments                                                                                                                                             |
| Regional Innovation Clusters                      | • $75 million available for EDA to issue competitive grants for regions to better integrate innovation assets to promote high growth jobs                                                                 |
| Open Government                                    | • $35 million to GSA for an electronic government fund to support interagency efforts with emphasis on the Open Government Initiative                                                                           |
| Invest in the Building Blocks of American Innovation |                                                                                                                                                                                                             |
| Spur Productive Entrepreneurship and Promote Efficiency |                                                                                                                                                                                                             |
| Catalyze Breakthroughs for National Priorities     |                                                                                                                                                                                                             |
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Spur Productive Entrepreneurship and Promote Efficiency

Standards & Architecture
• $70 million for NIST to support standards and measurements for health IT, smart grid, green manufacturing and other emerging US industries

Clean Energy Research
• $300 million for the Advanced Research Projects Agency – Energy within Dept of Energy to support transformational discoveries
• $170 million for the USDA to support competitive bioenergy research

Catalyze Breakthroughs for National Priorities
ASEE / NSF Corporate Research Postdoctoral Fellowship for Engineers

- 1 year research in corporate setting
- 40 fellows
- Shared stipend support
- Corporate mentor
- Entrepreneurship training

Source: aseensfip.asee.org
University of Utah
Technology Commercialization

• Univ. of Utah #2 in Startups in 2007 and 2008
• 35 College of Engineering Startups in 3 years

Source: Richard Brown, Dean of Engineering, University of Utah
Accelerate commercialization
Identify technologies that meet needs
Establish local companies and ensure their success

Source: www.cmu.edu/qolt/QoLTFoundry
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