IT TAKES A STATE
West Virginia’s Experience in Research and Development
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- Infrastructure Investment
- Research Growth
- Innovation
- Business Development
- Economic Growth
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• Commitment of Leadership
• Commitment of Community
• Strategic Planning
• Follow through-
  - Resources
  - Accountability
  - Perseverance
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Federally Financed
Expenditures
at Universities and Colleges

West Virginia Higher Education POLICY COMMISSION
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Total Expenditures at Universities and Colleges
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VISION 2015
THE WEST VIRGINIA SCIENCE AND TECHNOLOGY STRATEGIC PLAN
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VISION 2015

Ohio
$1.13B

Pennsylvania
$630M

Kentucky
$350M

Virginia
$328M

Maryland
$60.1M
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VISION 2015

- A joint collaboration: Between WVU, MU, PUI’s, HEPC, E&A, WVDOC, EPSCoR and business

- A plan to:
  - Build Infrastructure
  - Recruit Creative Researchers
  - Train a Skilled Workforce
  - Stimulate Innovation and Job Creation
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VISION 2015

• Plan Components:
  – 16 Action Goals
• Human and Physical Infrastructure
• Education & Outreach
• Policy
• Research and Innovation
• Economic Development
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VISION 2015

What are the major actions?

• Invest $250M
• Recruit 89 new scientists and engineers
• Construct 2 state-of-the-art R&D facilities
• Increase the production of STEM degrees
• Target WV academic strengths
• Develop new tech-based businesses
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• 2004 Research Challenge Fund
• $4M annually from lottery
• Now in 5th year
  • Cost Share to EPSCoR
  • Challenge Grants to Faculty
  • PUI Instrumentation
  • SURE, Graduate Fellowships
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- 2005 Strategic Plan
  - Academia
  - Industry
  - Agency Heads
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• 2006 NSF EPSCoR
  – $9M
  – Targeted investment in Biometrics and ID Technologies
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• 2007 Eminent Scholars Recruitment and Enhancement (ESRE)

• $10M to research universities
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- 2008 Research Trust Fund
- $50M for matched endowments
- ($100M)
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• 2009 NSF awards for infrastructure
  – $4.4M mostly cyber
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• 2010 budget plans
  – SBIR Match
  – MRI-WV
  – Commercialization Facilities
• Events are structured results!
• Many people working together
  – Faculty, Presidents, Chancellor, Governor, Legislators, Agency Heads, Industry Leaders, etc.
  – Planning, communications, outreach, vision, accountability, leadership, commitment

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Strategies that work well for S&T plans?

- Joint vision; specific R&D targets; current strengths; long term commitment; highest levels; beyond programs
Roles of State Committees?

- Planning; diversity; representation; focus; contacts
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• Effective support for small tech business?

• Tech Transfer; SBIR; agency collaboration (HE & DOC); cyber; incubator facilities
Effective business outreach and support?

- Economic Office services; internships; ‘blue collar” computing; CTC flexibility
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- Effective leadership strategies?
  - System-wide approach; mutual benefits; shared vision; top down-bottom up; carpe diem
Common barriers to innovation?

- Academic tradition; regional culture; public education; cyber and other tools