

Compete.

New Challenges. New Opportunities.

21st Century Economic Development



In partnership with the Tennessee Department of Economic & Community Development



Question:

What drives economic growth in the 21st century?

Answer:

Innovation drives economic growth in the 21st century. And the building blocks for innovation are knowledge capital, leadership capital, and financial capital.

So...

If innovation is the focus, then new development strategies are required to stimulate and support economic growth in the knowledge economy of the 21st century that create jobs and wealth in Tennessee.

A Competitiveness Agenda for Tennessee – Positioning Statements



...is the state's lead entity for technology-based economic development policies and programs.

...serves the state through a partnership with the Tennessee Department of Economic & Community Development to offer a balanced and comprehensive approach to statewide economic development.

...was officially established by the Tennessee State Legislature in 1998 to support economic development efforts in Tennessee with specific responsibilities for innovation-based development strategies.

...is organized as a public-private partnership consisting of industry, government and academic leaders and governed by a twenty-two member board of directors representing all regions of Tennessee.

TTDC Exists to Expand the State's Economy

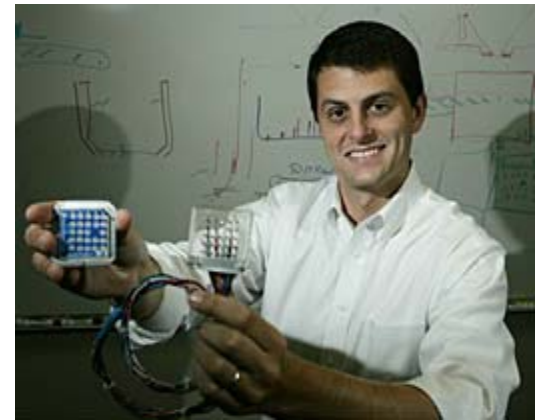
For Tennessee to thrive in the 21st century, the state must improve competitiveness in three areas:



Research & Development



Venture Capital



Entrepreneurship

New “infrastructure” and support systems are needed when innovation is the driver of economic growth.

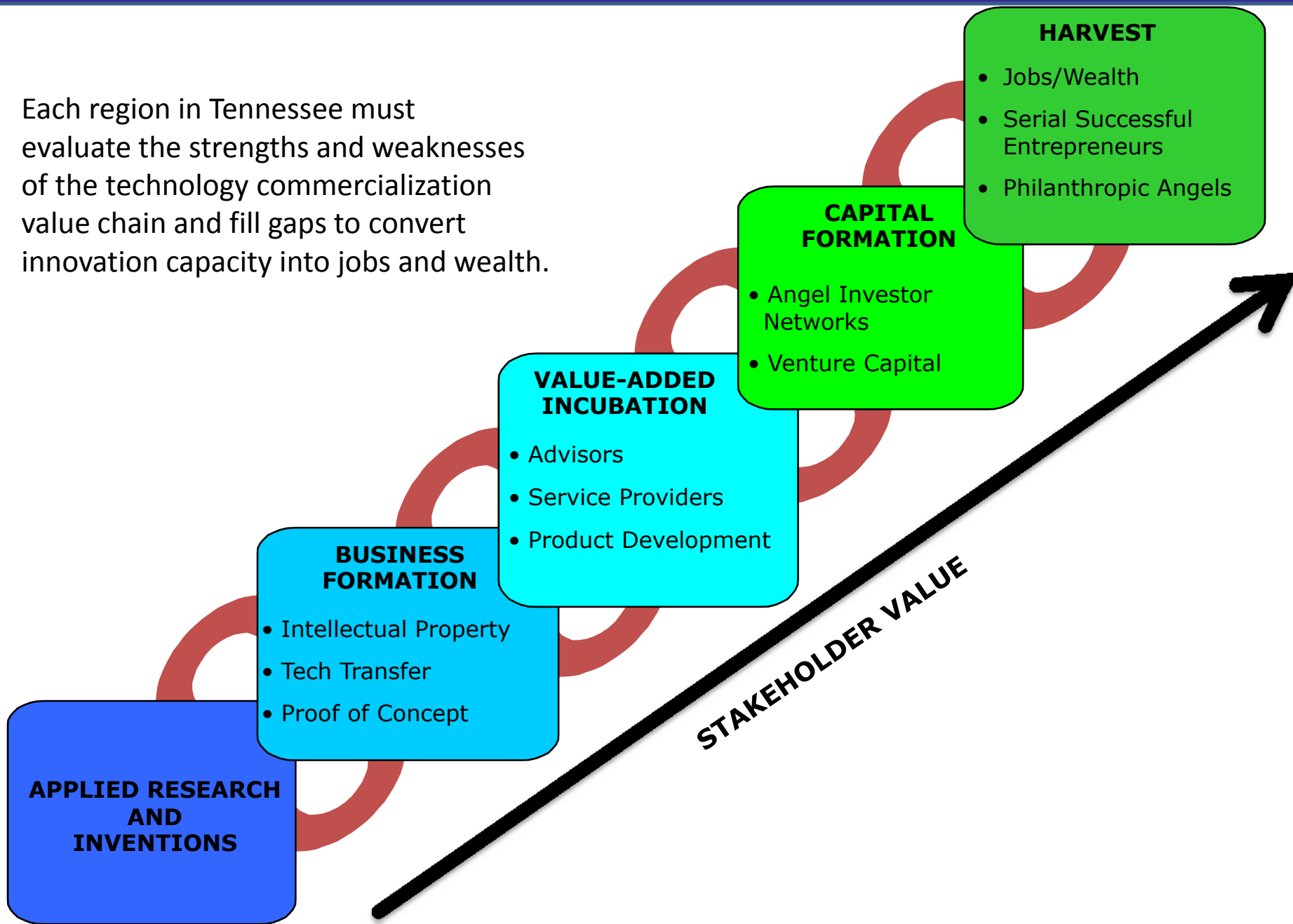
Top 10 Site Selection Ranking (Business Climate)			Top 10 Innovation Index Ranking 2008 (New Economy)		
Business Climate Ranking		Top 25 New Economy Ranking	New Economy Ranking		Top 25 Business Climate Ranking
1	North Carolina	√	1	Massachusetts	√
2	Tennessee	NO (38)	2	Washington	√
T3	Alabama	NO (47)	3	Maryland	√
T3	Texas	√	4	Delaware	√
5	Indiana	NO (36)	5	New Jersey	√
6	Florida	√	6	Connecticut	√
7	Ohio	NO (30)	7	Virginia	√
8	Virginia	√	8	California	√
9	Illinois	√	9	New York	√
10	Georgia	√	10	Colorado	√

Comparison of Academic R&D to Venture Capital Investment

State	University R&D per capita*	% of U.S. average	Venture Capital per capita	% of U.S. average
Alabama	130.06	82.10%	10.11	10.00%
Florida	83.70	52.90%	32.00	31.60%
Georgia	136.47	86.20%	49.07	48.50%
Kentucky	113.00	71.40%	32.39	32.00%
Mississippi	126.47	79.90%	3.43	3.40%
North Carolina	188.77	119.20%	65.80	65.10%
South Carolina	118.89	75.10%	19.31	19.10%
Tennessee	120.67	76.20%	20.47	20.20%
Total Southeast	\$122.58	77.40%	\$34.39	34.00%
California	177.64	112.20%	399.14	394.60%
Massachusetts	334.70	211.40%	560.02	553.70%
Total U.S.	\$158.35	100.00%	\$101.15	100.00%

Technology Commercialization Value Chain

Each region in Tennessee must evaluate the strengths and weaknesses of the technology commercialization value chain and fill gaps to convert innovation capacity into jobs and wealth.





Deepen Scientific Research Base

Tennessee Strategic Research Board

- R&D2020: Coordinated Federal Funding Strategy
- SBIR/STTR Grants
- Proof of Concept/Tech Transfer Fund
- Research Super Stars

Support Entrepreneurship

Tennessee Entrepreneurship Network

- Entrepreneurship education and outreach
- Business leaders and mentors network
- Statewide business plan competition
- Innovation Grants

Increase Access to Venture Capital

TN Capital Formation Board

- VC2020: Capital supply and accessibility study
- Innovation and capital formation conference
- Network of technology business acceleration services

3 Focused Initiatives for 3 Critical Needs

Strategic Partnerships for Program Implementation

<u>Partner Organization</u>	<u>Project</u>	<u>Primary Purpose</u>
Technology 2020/CEG	TEN Curriculum	Training and education for statewide support network
UT Research Foundation	R&D 2020	Strategic research planning and alignment of strengths
Memphis Bioworks Foundation	TECworks	Model for regional support of high-growth entrepreneurship and tech commercialization
Nashville Capital Network	Angel Capital best practices	Establish best practices for regional leadership
Kathryn Collins & Co.	BIO 2009	Improve Tennessee's presence at BIO – Atlanta
UT Space Institute	EPSCoR management	Increase competitiveness for federal research awards
Mercury Technology Labs	Entrepreneurship social networks	Replicable best practice for connecting via social platforms
UT Institute for Public Service	SBIR Phase 0 program	Create support network for SBIR/STTR applicants

Keys to success:

1. Establish and sustain credibility – “do good work”
2. Measure results and manage expectations
3. Educate and communicate effectively
4. Work with people who are appropriately motivated, capable and connected
5. Capture the imagination of powerful leadership

Every partner relationship must contribute to these success factors for Tennessee to align behind a competitiveness agenda and support game-changing state policy.

Business, Government, and Academic Leaders Working Together

- **Thomas Ballard***
Director,
Partnerships Directorate
Oak Ridge National Laboratory
- **Bruce Doeg***
Managing Shareholder,
Baker Donelson - Nashville
- **William Evans^, Pharm.D.**
Director and CEO
St. Jude Children's Research
Hospital
- **Craig Fitzhugh**
Representative
Tennessee State Legislature
- **James Frierson**
Executive Director
Advanced Transportation
Technology Institute
- **Bill Haslam**
Mayor
City of Knoxville
- **Kenneth Holroyd, M.D., M.B.A.**
Assistant Vice Chancellor,
Research
Vanderbilt University Medical
Center
- **Kevin Humphries**
Sr. Vice President, Technology
FedEx
- **Matthew Kisber**
Commissioner,
Tennessee Department of
Economic & Community
Development
- **Mark Maddox**
Representative
Tennessee State Legislature
- **Dan Marcum***
Managing Partner
Marcum Capital
- **Randy McNally**
Senator
Tennessee State Legislature
- **Ted Nelson***
Chairman
Mill Masters, Inc.
- **Mike Niederhauser**
Owner
MN Rental
- **James Phillips***
Managing Partner
Pinnacle Investments
- **Andrew Seamons**
Managing Partner
Pittco Capital Partners
- **Paula Short, Ph.D.**
Vice Chancellor, Academic Affairs
Tennessee Board of Regents
- **J. Daniel Stewart, Ph.D.**
Associate Vice President,
Research
The University of Tennessee
- **Ron Washington**
Councilmember
Murfreesboro City Council
- **Leslie A. Wisner-Lynch, D.D.S., D.M.Sc.**
Director of Applied Research
BioMimetic Therapeutics, Inc.
- **J. Stewart Witzeman, Ph.D.**
Director, Research Division
Eastman Chemical Company

^ Board Chairman

*Executive Committee Member

The Tennessee Strategic Research Board, Tennessee Capital Formation Board and Tennessee Entrepreneurship Network have been chartered with recognized experts from across the state appointed to lead strategic initiatives.

The Landscape: Action Is Required

- State governments have a lead role in innovation-based economic development policies and programs.
- Over the last 20 years, states have been making strategic investments to build innovation capacity.
- Tennessee has not invested at scale to build capacity, align strengths, and leverage resources statewide.
- Marginal investments can improve competitiveness.
- The time to act is now to create sustainable jobs and wealth in all regional economies of Tennessee.

Compete.

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