



Annual Report to the Governor and General Assembly

November 1, 2009

Letter from the CEO

November 1, 2009

The Honorable Phil Bredesen, Governor and Members of the Tennessee General Assembly:

It is my privilege to send to you this annual report on the structure, operation and financial status of the Tennessee Technology Development Corporation (TTDC), a private, not-for-profit corporation created and empowered by the Legislature to foster innovation and 21st century job creation in Tennessee. This report is required by statute to be prepared and sent to you annually on November 1.

TTDC was established by an act of the Tennessee Legislature to provide new tools for statewide economic development. Following a period of operational dormancy, the organization was revitalized in September 2007 through a contract with the Department of Economic and Community Development. In accordance with the revised terms of the contract, the funds received by the organization must be expended by June 30, 2010. TTDC has embraced this opportunity to demonstrate the value proposition of state-sponsored, technology-based economic development (TBED) investments and, based on the results of our activities and accomplishments, make the case for continued state support.

As described in this report, TTDC has delivered substantial value to the state in a short period of time and with a modest commitment of public funds. In an era of tight budgets, tough fiscal choices and economic uncertainty, Tennessee needs TTDC to continue its work on improving the business climate for innovation and high-growth companies that are responsible for creating sustainable high-skill, high-wage jobs.

On behalf of the board of directors and management of TTDC, I thank you for the opportunity to serve Tennessee through this development-stage organization. We accept the challenge to earn the trust of our stakeholders – elected officials, partner organizations, scientists, technology entrepreneurs, risk capital investors and ultimately, every citizen in the state of Tennessee – such that TTDC is relied upon as a credible advisor and manager of state investments in innovation-based economic development activities.

Respectfully Yours,

Eric C. Cromwell
President & CEO

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Fiscal Year 2008-09 Highlights

In competing states and nations, technology-based economic development has become an accepted and essential component of a comprehensive economic development agenda. Policy-makers and practitioners alike have concluded that new, innovation-based strategies are needed to create high-skill, high-wage jobs in the global economy of the 21st century. As such, state governments have invested billions of dollars in programs designed to leverage universities and research organizations as economic drivers, support high-potential businesses, and increase the availability and accessibility of risk capital for innovation development. These new strategies are as equally relevant and important to state economic growth as the better known industry recruitment and business expansion incentive programs.

Two important questions for stakeholders to answer are: ***Does the state of Tennessee need an economic development program specifically focused on innovation and high-growth business opportunities in the 21st century? Does the state need TTDC?***

With Tennessee officials facing brutally tough budget decisions, is TTDC a *nice to have* organization or a *must have* organization to help address the state's economic challenges and support the state's future economic prosperity and creation of 21st century jobs? Following are brief summaries of three cases where TTDC served a critical role in support of state government's economic development mission:

1. Served as Tennessee's expert, trusted advisor for the TNInvestco Act

TTDC supported the state's potentially transformational \$84 million capital formation program by providing expert analysis and guidance to legislators, Bredezen Administration officials, applicants from the venture capital community, and professional services providers needed to facilitate transactions between program participants and insurance companies. In this role, TTDC fully demonstrated the value proposition of a state-supported non-profit organization providing independent, expert facilitation of policy and program development processes between government agencies and the venture capital community. In its role as the state's *trusted advisor*, TTDC

- Performed comprehensive due diligence on a proposed capital formation program, identified shortcomings and communicated alternatives to improve the legislation;
- Engaged the resident venture capital community in a constructive dialogue with the Governor's Administration to assist in the design of essential bill modifications;
- Countered unease in the venture capital community that the program would be undermined by political influence and thus not competitively evaluated;

Fiscal Year 2008-09 Highlights

- Advised government officials on the economic development value of emphasizing seed- and early-stage equity investments in potentially transformational businesses; and
- Assisted more than a dozen prospective applicants in understanding the legislation, performing due diligence on the unique program requirements, and developing investment strategies to deliver transformational economic development outcomes.

Without TTDC serving in its legislatively mandated role to assist the executive and legislative branches of state government, the process would not have produced the kind of state-sponsored capital formation program that will likely serve as a “best practice” model for other states to follow.

2. **Facilitated multi-university collaborative application for five-year, \$20 million research award from the National Science Foundation (NSF)**

In 2007, Tennessee was one of only two unsuccessful applicants for a \$15 million NSF-EPSCoR (Experimental Program to Stimulate Competitive Research) Research Infrastructure Improvement award (nine of 11 state applicants were successful). In 2009, TTDC actively engaged as a convening and aligning entity to improve the proposal development process in the following ways:

- Engaged the **Tennessee Strategic Research Board (TSRB)**, a TTDC operating committee, in a strategic oversight role to identify the scientific themes and demonstrate to the NSF that Tennessee was developing a statewide science and technology plan with the active engagement of the state’s R&D leadership;
- Identified ***alternative energy technologies*** as the central research theme after conducting multiple interviews with R&D leaders throughout the state;
- Developed and proposed an innovative ***diversity plan*** to foster participation from colleges and universities throughout Tennessee, regardless of their existing research infrastructure;
- Funded the proposal development project leader and contributed TTDC staff resources to the final proposal drafting and editing process; and
- Committed \$100,000 of TTDC funds toward the matching funds requirement of a successful application.

Fiscal Year 2008-09 Highlights

Tennessee needs an independent, statewide, value-adding entity to serve as the *credible broker* between regional universities that are at times more competitors than collaborators. With TTDC engaged in this role, the proposal development team is confident that the issues resulting in the 2007 failure have been addressed and that news of a successful outcome should be expected in March/April 2010.

3. Engaged technology transfer offices of the state's leading research institutions in pilot programs to develop and market potentially transformational innovations

Universities (Vanderbilt University, University of Tennessee System, Tennessee Board of Regents) and non-profit research institutions (Oak Ridge National Laboratory, St. Jude Children's Research Hospital) are incredible generators of innovation that could potentially spur economic growth; however Tennessee has historically underinvested in developing the business climate around these institutions as an economic development strategy. TTDC has developed two pilot programs to facilitate private-sector awareness of promising Tennessee innovations and to support small business creation from intellectual property licensed from Tennessee research institutions.

- TTDC held the first **Tennessee Innovation Conference** on November 20-21, 2008. The program featured educational sessions for entrepreneurs and researchers, networking for TTDC partners and stakeholders, and the featured Innovation Showcase, where more than 30 innovations from Tennessee research institutions were presented to panels of VCs, entrepreneurs and intellectual property experts to provide feedback on their commercialization strategies. A second event is being planned for May 2010.
- With a committee of program leaders from the technology transfer offices of the state's leading research institutions, TTDC developed the **TTDC Pilot Commercialization Grant Program** to provide "proof-of-concept" funding for high-potential innovations. Six grant awards, totaling just under \$500,000, will provide critical funding to help inventors test key assertions and help potential investors better understand the technical risks associated with these potentially transformational investment and economic development opportunities.

Without TTDC, prolific Tennessee-based scientists would have less access to timely, market-driven feedback from venture capital investors – critical input for identifying a viable path to commercialization for their potentially transformational inventions. While some research institutions do facilitate interactions between scientists and potential investors, a statewide liaison provides venture capitalists with a convenient gateway to Tennessee's \$2.5 billion R&D base – a critical value proposition when the goal is to stand out in "flyover country."

I. Report on TTDC's Organizational Structure

TTDC provides an essential service to state government – strategic planning and management of programs for business climate factors that support the creation of high-wage, high-skilled jobs, primarily through the wealth-creating pursuits of inventors, entrepreneurs, corporate innovators and venture capitalists.

Created by the Legislature in 1998, TTDC is similar in structure to many state-sponsored technology-based economic development (TBED) organizations in the U.S.:

- TTDC is a private, not-for-profit 501(c)(3) corporation created by the state but intentionally positioned outside state government.
- As a quasi-governmental, public/private partnership, TTDC can enter into certain transactions that a government agency cannot, such as financially supporting both private sector non-profit entities and for-profit businesses.
- The organization's governance systems (with 15 of its 22 board members appointed by government officials), and the organization's reliance on state funding for operations, provide an effective system of checks and balances to ensure accountability to state government for its operations.

The purpose and mission of TTDC is defined in statutes and cannot be changed without an act of the Legislature.

The purposes of the corporation are:

- a) To contribute to the strengthening of the economy of the state through the development of science and technology; and
- b) To promote the development of Tennessee businesses by supporting the transfer of science, technology, and quality improvement methods to private and public enterprises.

Duties of TTDC as provided in statutes:

1. Assist in evaluating statewide innovation capacity as measured by new technology business starts, research disclosure and patent generation, venture capital availability and investment, public and private research and development expenditures, and research commercialization efforts;
2. Assist in the development, attraction and retention of diverse high-skill and high-wage jobs in Tennessee and attract prominent leaders in industry, research and education to Tennessee, ensuring the talent exists within Tennessee to foster innovation;
3. Support and improve technology transfer and commercialization mechanisms from research organizations, universities and business;

I. Report on TTDC's Organizational Structure

4. Increase the availability of capital to perform applied research, develop technology and stimulate new technology business creation and growth in Tennessee;
5. Assist in the development of physical infrastructure required for a technology and innovation driven economy;
6. Stimulate entrepreneurship and create an entrepreneurial culture in Tennessee;
7. Assist in establishing cooperative and collaborative associations between universities, research organizations, and private enterprises in Tennessee for the purpose of coordinating research and development programs that will aid in the creation of new products, services and jobs in Tennessee; and
8. Provide financial assistance through contracts, grants and loans to programs of scientific and technological research and development.

In late 2007, TTDC was revitalized with a commitment for a \$5 million grant from the Department of Economic and Community Development. Although TTDC was created in 1998, the organization was operationally dormant from 2003-2007. At the time of the revitalization, for all intents and purposes, TTDC was a startup organization with a broad mission and a short timeframe to demonstrate the value of its existence to key partners and stakeholders in service to the state.



The above picture shows the primary assets of TTDC that were provided to the organization's newly appointed CEO in the fall of 2007... a 1999 Apple computer, and a checkbook to an account with \$416,000 of cash reserves. The organization had no additional staff, open positions on its board of directors and no existing programs or partnerships.

I. Report on TTDC's Organizational Structure

A. Contract with Department of Economic and Community Development

TTDC is intended to be a private-sector-led organization for innovation in economic development, but whose operations are dependent upon state funding – currently derived from a \$5 million endowment grant contract from the Tennessee Department of Economic and Community Development. The contract term commenced October 1, 2007, and, with a recently approved one-year extension, ends June 30, 2010. The contract scope of services matches the organization's mission as outlined in statutes.

B. Board of Directors

TTDC is governed by a 22-person board of directors. As of November 1, 2009, there were three vacancies and/or members serving with expired terms on the board.

By design and law, 14 of the board members are to be appointed from the private sector – three are appointed by the governor, two each by the speaker of the house and the speaker of the senate, and seven by the TTDC board. Seven board members are to be appointed from the public sector – three by the governor and two each by the speaker of the house and the speaker of the senate. Of these board members, one of the governor's appointees is to be selected from a slate of three candidates provided by the Tennessee Municipal League or the Tennessee County Services Association. Mayor Bill Haslam of Knoxville fills this seat on the board.

Dr. William Evans, CEO and Director of St. Jude Children's Research Hospital, was elected chair of the board by members present at the July 17, 2008 board meeting and was subsequently approved by unanimous consent by all active board members. Dan Marcum is immediate past-chair and remains a member of the board.

The board has an executive committee charged with administering the day-to-day operations of TTDC. Dr. Evans chairs this five-person committee. The board is in the process of nominating members to serve on two additional oversight committees – audit and compliance; and governance and organization.

The TTDC board has created four strategic operating committees that have certain characteristics of stand-alone boards. Two of these committees have been organized and have held meetings, and two will be organized during the current fiscal year. These committees are intended to provide thought leadership and strategic direction on complex issues affecting economic growth in the 21st century. The committees include TTDC directors, as well as individuals recognized throughout the state for their specific expertise. Through this organizational structure, TTDC maintains a relatively small staff while aspiring to retain highly competent professionals with the ability to interact with scientists, venture capitalists and technology entrepreneurs as respected peers.

I. Report on TTDC's Organizational Structure

TTDC Board of Directors, as of November 1, 2009:

Ex Officio

Matt Kisber
 Commissioner
 Tennessee Dept. of Economic and Community Development

Appointed by Governor, public sector

Bill Haslam Mayor City of Knoxville	Craig Fitzhugh Representative Tennessee General Assembly	Ron Washington Councilman Murfreesboro City Council
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Appointed by Governor, private sector

Kevin Humphries SVP, Technology Systems FedEx Services	Kenneth Holroyd, MD, MBA Asst. Vice Chancellor, Research Vanderbilt University	J. Stewart Witzeman, Ph.D. Director, Research Division Eastman Chemical Company
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Appointed by House Speaker, public sector

Mark Maddox Representative Tennessee General Assembly	Paula Short, Ph.D. Vice Chancellor, Academic Affairs Tennessee Board of Regents
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Appointed by House Speaker, private sector

William Evans, Pharm. D.*^ Director & CEO St. Jude Children's Research Hospital	Ted Nelson^ Chairman Mill Masters, Inc.
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Appointed by Senate Speaker, public sector

Randy McNally Senator Tennessee General Assembly	J. Daniel Stewart, Ph.D. Associate Vice President for Research The University of Tennessee, Knoxville
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Appointed by Senate Speaker, private sector

Dan Marcum Managing Partner Marcum Capital	Mike Neiderhauser Owner MN Rentals
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Appointed by TTDC Board of Directors

Thomas Ballard^ Director, Partnerships Directorate Oak Ridge National Laboratory	Bruce Doeg^ Chair, Business Dept. Baker Donelson	Jim Frierson Executive Director ATTI
James Phillips^ CEO Pinnacle Enterprises	Andrew Seamons Managing Partner Pittco Capital Partners	Leslie Wisner-Lynch, DDS, DMSc Executive Director BioTN Foundation

* TTDC Board Chairman

^ Executive Committee Member

I. Report on TTDC's Organizational Structure

C. Operating and Oversight Committees

1. The **TN Strategic Research Board (TSRB)** advises and directs TTDC investments that support and grow the technology research base in Tennessee; facilitates sponsored research between private sector companies and universities; and increases the flow of innovations from laboratories to the private sector.

Members of the Tennessee Strategic Research Board, as of November 1, 2009:

James Downing, MD Scientific Director St. Jude Children's Research Hospital	Dennis Hall, Ph.D Vice Provost of Research Dean of the Graduate School Vanderbilt University	James Townsel, Ph.D Interim VP of Research Meharry Medical College
David Millhorn, Ph.D Executive Vice President and Vice President of Research University of Tennessee System	James Roberto, Ph.D Director of Strategic Capabilities Oak Ridge National Laboratory	

Representing TTDC:

James Frierson, Advanced Transportation Technology Institute
 Kenneth Holroyd, MD, Vanderbilt University Medical Center
 Leslie Wisner-Lynch, DDS, DMsc, BioTN Foundation
 Dan Stewart, Ph.D., University of Tennessee System
 Stewart Witzeman, Ph.D, Eastman Chemical

2. The **TN Capital Formation Board (TCFB)** advises on state policies and investments that increase the supply and accessibility of risk capital investment for high-potential technology businesses.

Members of the Tennessee Capital Formation Board, as of November 1, 2009:

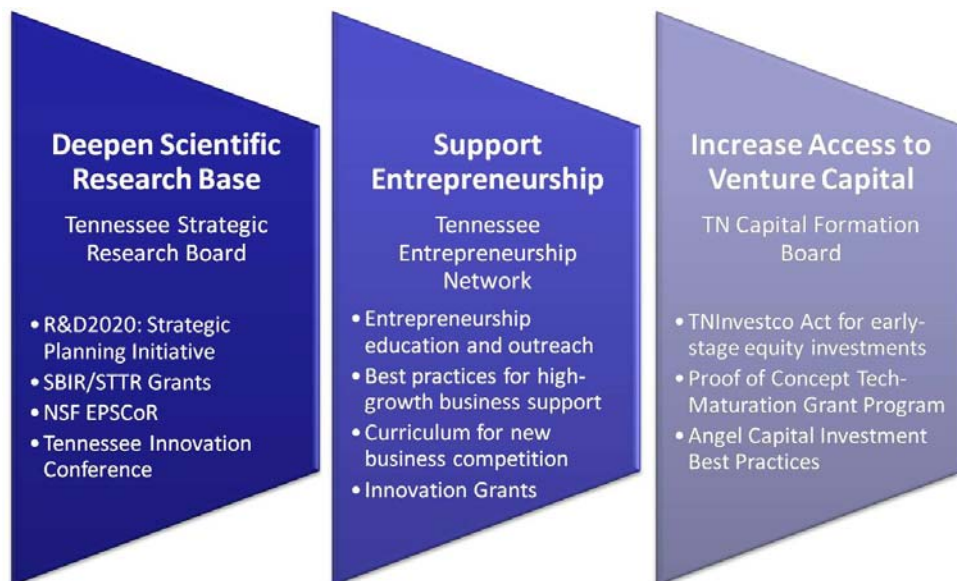
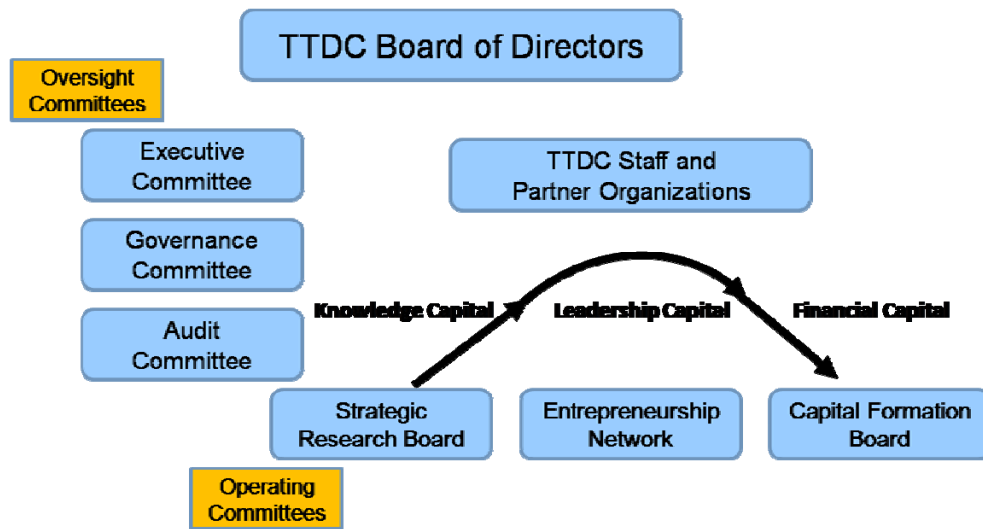
Michael Blackburn Managing Partner Petra Capital Partners	Michael Devlin Co-Founder, Managing Partner Pharos Capital Group	Townes Duncan President Solidus
Kathy Harris Partner Noro-Moseley	Chris Kyriopoulos Co-Founder & Principal Compound Funds	Gary Stevenson Managing Partner MB Venture Partners
Grady Vanderhoofven Fund Manager Meritus Ventures	Casey West General Partner SSM Partners	Tom Wylly Senior Partner Brentwood Capital

Representing TTDC:

Bruce Doeg, Baker Donelson
 Dan Marcum, Marcum Capital
 Jim Phillips, Pinnacle Enterprises
 Andrew Seamons, Pittco Capital Partners

I. Report on TTDC’s Organizational Structure

3. The **TN Entrepreneurship Network (TEN)** will create a statewide network of entrepreneurship support systems that serve a general public interest and identify high-potential technology entrepreneurs for customized support services.
4. The **TBED Partners & Stakeholders Board (TPSB)** will ensure that TTDC resource allocation decisions are fully informed by the leaders of established organizations in Tennessee that are engaged in technology-based economic development (TBED) activities.



I. Report on TTDC's Organizational Structure

D. Management Team

TTDC management intends to maintain a small organizational headcount while leveraging the operational capabilities of existing agencies providing technology-based economic development programs and services throughout Tennessee and supporting the development of new capabilities in underserved regions. With this leveraged operations plan, TTDC will rarely perform the services of the "customer facing organization." Instead, TTDC is positioned to manage strategic state investments in TBED programs and services operated by organizations that leverage federal funds or regional philanthropy and aspire to meet the highest operations and performance standards for peer organizations. As a statewide organization designed to convene, align and catalyze, TTDC can be an effective instrument to end local and regional fragmentation that limits results and endangers significance.

Eric Cromwell is President and CEO of TTDC. Previously, Eric served as the state's first Director of Technology Development within the Tennessee Department of Economic and Community Development. During his time in state government, Eric held leadership roles in a range of programs and projects as the Bredesen Administration began a comprehensive process to review new, technology-based development strategies targeted at fostering innovation. Eric began his career in technology-based economic development in Memphis as the founding director of EmergeMemphis, a technology business incubator, and later as the founding associate director of the FedEx Institute of Technology, a public-private initiative established to support advanced research and higher education.

Dan Schmisser is Vice President with responsibilities for TTDC's operations and strategy. Dan joined TTDC in June 2008 following a five-month consulting engagement during which he helped design TTDC's development-stage strategy. Previously, Dan had worked as vice president of strategy and policy with the Kansas Technology Enterprise Corporation, a public-private partnership that served as a model for the legislative creators of TTDC. Dan began his career as a CPA with Price Waterhouse in Cincinnati, launched an entrepreneurial venture in Austin in 2000 that he owned and operated for four years, and learned the fundamentals of technology-based economic development while working as a consultant on projects with the IC² Institute at the University of Texas at Austin.

Kristen Anderson, J.D., is Director of Policy & Compliance for TTDC with responsibilities for corporate governance systems, contractual and other legal arrangements and policy-level communications. Previously, Kristen was an associate attorney with Baker, Donelson, Bearman, Caldwell & Berkowitz, PC, in the firm's Nashville office and a member of the firm's State Public Policy practice group. Kristen is a graduate of the University of Tennessee, cum laude, and of the University of Tennessee College of Law, cum laude, where she served as Editor of Student Materials for the Tennessee Law Review and as a staff writer for the Tennessee Law Business Journal. While in law school, Kristen also served as research assistant to Professor Glenn Harlan Reynolds and was awarded the Charles Henderson Miller Award of Excellence in Civil Advocacy. She is trained as a Nashville Adult Literacy Council tutor

I. Report on TTDC's Organizational Structure

for GED-candidate students and is a member of the Board of Directors of Calvary Young Children's School.

James Stover, Ph.D., is Director of Capital Formation for TTDC and responsible for the TTDC Technology Maturation Fund Initiative and for developing programs and services overseen by the Tennessee Capital Formation Board. Prior to joining TTDC, James was a life science and technology analyst with Square 1 Bank in San Diego, CA, and a senior research fellow in medicinal chemistry at the Scripps Research Institute. He has consulted with a number of early-stage companies in the areas of capital formation and management recruitment. He is a member of the Southeast Venture Group and serves on a public policy committee for the National Association of Seed and Venture Funds. James holds a B.S. in Biochemistry from the University of Virginia and a Ph.D. in Chemistry from Vanderbilt University, where he was a National Institute of Health Grant recipient. As a member of the Vanderbilt football team, James was also a First-Team Academic selection in the Southeastern Conference.

Steve Wonsiewicz is Director of Finance & Reporting for TTDC and has nearly 20 years of experience working for financial services and B2B publishing companies in the U.S., Great Britain and the Netherlands. Prior to joining TTDC, Steve worked as a portfolio manager for an independent financial advisor and as a relationship manager in the commercial banking department for a national bank. Before that, he was co-founder of American Hometown Publishing, a community newspaper publisher based in Franklin, TN. Steve also is a member of the Board of Directors for Tennessee Voices for Children, a non-profit advocacy group involved with children's mental health issues. Steve holds a M.B.A. in Finance from the University of San Francisco and a B.S. in Communications from the University of Tennessee, Knoxville.

Julia Landrum is Administrative & Communications Coordinator for TTDC. She manages office and administrative processes and is responsible for strategic communications. Previously, Julia was as an account executive for Marke Communications, a communications firm in New York City specializing in direct marketing. She interned with global public relations firm Burson-Marsteller in the Washington, DC, office and in the sales and marketing department of wireless service provider Cellular South. She received her B.A. in Communication from Mississippi State University, where she graduated summa cum laude.

II. Report on TTDC's Operations

TTDC operations were revitalized with a \$5 million funding contract and an agreed upon goal by Governor Bredesen, Department of Economic and Community Development Commissioner Matt Kisber, and TTDC Directors: demonstrate the value proposition of state support for innovation-based economic development investments, with TTDC as the state's trusted advisor.

The TTDC management team refers to the ECD contract as a "Series A" investment, borrowing from venture capital parlance to describe a small, limited scope investment that *"is intended to capitalize a company for six months to two years as it develops its products, performs initial marketing and branding, hires its initial employees, and otherwise undertakes early stage business operations."*¹

Following a strategic planning process with directors, TTDC launched its development-stage-operations strategy one year ago. This strategy has three components: A) focus on core segments – strategic research, capital formation and high-growth entrepreneurship; B) partner with regional organizations whenever possible to leverage work and minimize duplication; and C) invest in a portfolio of projects.

A. Three Core Segments of Innovation-Based Economic Development

Innovation-based economic development is complex in part because it involves working at the intersections of very different industries with very different cultures and perspectives. The academic community is different from the venture capital community, and the entrepreneurial community can be described as aspiring to fit in with academics and venture capitalists, as well as corporate leaders, government leaders and civic leaders... and generally feeling misunderstood by all of the above.

Counter intuitively, TTDC has sought to simplify operations by adding a layer of complexity to its governance systems. TTDC has three operating committees that each focuses on one of the core segments:

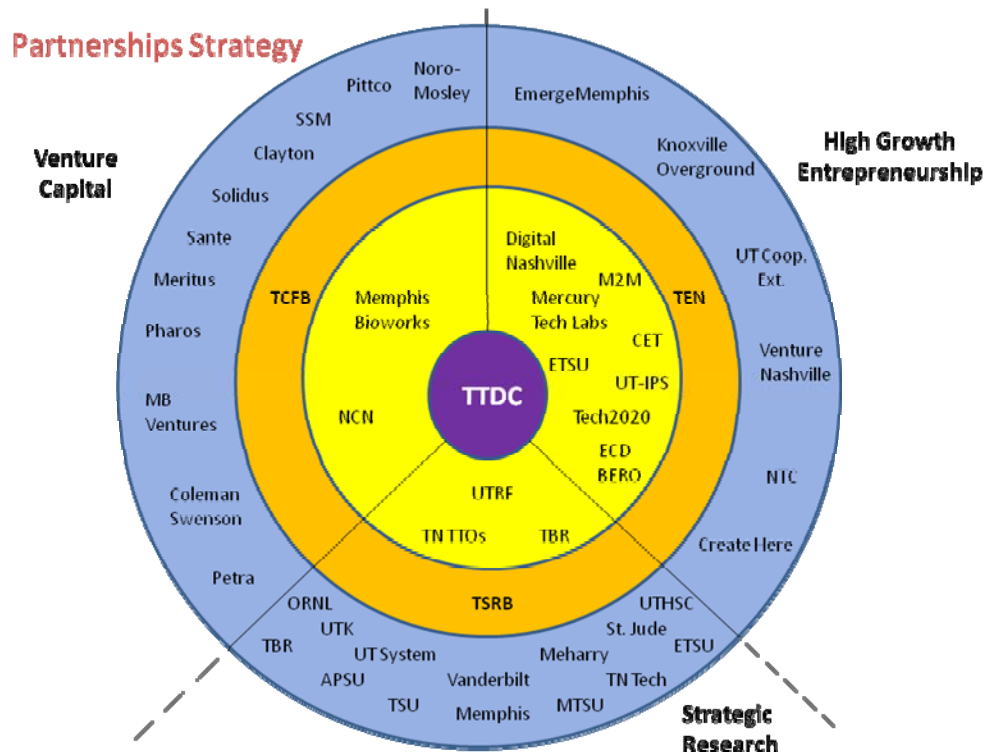
1. **Strategic Research** – The objective of the Tennessee Strategic Research Board operating committee is to deepen the R&D base statewide through the support of strategic initiatives that **leverage** existing research infrastructure and **align** key organizations on an economic development competitiveness agenda;
2. **Venture Capital Formation** – The Tennessee Capital Formation Board is focused on increasing the **supply** and **accessibility** of risk capital investment for high-growth Tennessee companies; and
3. **High-Potential Entrepreneurship** – The Tennessee Entrepreneurship Network, which will be organized by early 2010, will be tasked with supporting and developing the social and professional networks that **connect** high-potential entrepreneurs to the knowledge capital and **leadership capital** that significantly improves the expected success rates of high-growth entrepreneurial ventures.

¹ http://en.wikipedia.org/wiki/Series_A_round

II. Report on TTDC’s Operations

B. Partnerships with Established Regional Organizations

An organization with limited funds and a short timeframe to prove value must quickly build relationships and leverage existing capabilities and resources wherever possible. Fortunately, Tennessee has some highly capable organizations that, prior to TTDC’s revitalization, have served their regions effectively – and with very little state support.



The role many TTDC board members aspire for the organization to serve is as a convener for and a unifier of the many organizations in the public and private sectors that support innovation-based economic development. They believe that state government needs TTDC to effectively manage dozens of relationships across the state and in the three core segments. They point to complexity and fragmentation as the reasons why Tennessee has historically underinvested in innovation-based initiatives as a core economic development strategy.

TTDC has established or is in the process of establishing the following formal subcontractor relationships with several organizations across Tennessee:

- **Memphis Bioworks Foundation** – TTDC committed \$270,000 over 18 months to fund the development of **TECworks**, a subsidiary whose mission is to enable aspiring entrepreneurs and emerging companies in technology and biosciences by providing experience-based education and business services.

II. Report on TTDC's Operations

- **Technology 2020/CEG** – With TTDC funding, the Center for Entrepreneurial Growth at Tech 2020 developed an entrepreneurship curriculum for aspiring entrepreneurs to learn basic fundamentals of presenting a new venture to potential investors. This curriculum can be used in a workshop format in local and regional events participating in a statewide business plan competition.
- **University of Tennessee Research Foundation** – TTDC has contracted with UTRF for one of its employees, Dr. Stacey Patterson, to manage the development of a state science and technology strategic plan called *R&D 2020*. Dr. Patterson has also contributed to the management of the statewide collaboration to apply for a \$20 million NSF EPSCoR Research Infrastructure Improvements grant.
- **East Tennessee State University** – TTDC will enter into a contractual relationship with ETSU for an employee, Rayford Johnson of the Innovation Lab, to serve as interim director of the Tennessee Entrepreneurship Network.
- **Nashville Capital Network** – TTDC engaged NCN to provide expertise on a project to identify and communicate the best practices of “angel investors” – individuals who invest personal funds in seed or early stage high-growth businesses. An indirect outcome from this effort has been NCN’s development of the Tennessee Capital Network, a finalist for a TNInvestco Act allocation.
- **Mercury Technology Labs** – Recognizing that numerous organizations across Tennessee were developing entrepreneurship-support programs without the benefit of coordination or shared knowledge best practices, Mercury has been engaged to leverage its work to develop the *LaunchMemphis* program to share and learn from similar initiatives from organizations such as *CreateHere* in Chattanooga, *Knoxville Overground* and *Will This Float?* in Johnson City.
- **UT Space Institute** – Under a proposed subcontractor agreement, UTSI allowed for one of its employees, Dr. Greg Sedrick, to serve as project manager for the NSF EPSCoR grant proposal team.

C. Investment in a Portfolio of Innovation-Based Economic Development Projects

With the board’s encouragement, TTDC developed a portfolio of 12 programs that could be leveraged by future state investments to deliver economic development value to Tennessee. These potential programs were described in the organization’s 2008 Annual Report to the Governor and General Assembly.

One advantage of managing a small organization is the ability to nimbly refocus resources as needed. In response to the introduction of capital formation legislation by companies from outside Tennessee, TTDC shifted a substantial amount of its attention to working through the Tennessee Capital Formation Board to advise the Bredesen Administration and members of the General Assembly on the mechanics of

II. Report on TTDC's Operations

the originally proposed legislation, the results of other states that have experimented with similar programs, the core principles of effective state-sponsored capital formation programs, and specific methods for improving the introduced bill into an effective program for Tennessee.

The net result of TTDC's performance as the state's trusted advisor in the TNInvestco Act is legislation that could truly deliver transformational economic development outcomes for Tennessee.

- A minimum of \$84 million of capital will be managed by up to six venture capital funds specifically targeting seed- and early-stage investments in small businesses with the potential to achieve transformational outcomes through the creation of wealth and high-paying jobs.
- There were 25 TNInvestcos certified by the state (each submitting \$7,500 with the application) that submitted a request for at least one of six allocations of \$20 million of deferred insurance premium tax credits. The competitive process for which TTDC successfully advocated yielded creative proposals in which several applicants have pledged to make supplemental investments or contributions to support the development of entrepreneurship ecosystems in Tennessee.
- The originally proposed legislation would have resulted in a significant financial loss to the state, as participating investors would have retained 100% of the fund value after making the minimum number of required investments. Based on consultations with TTDC, the state's Commissioner of Revenue proposed bill modifications that allow the state to retain 50% of the fund values upon liquidation. Based on the Commissioner's projections, the net result was a bill that is expected to have a neutral fiscal impact to the state while delivering substantial value to the state's economy.

TTDC continues to invest in demonstration projects to support strategic research and high-growth entrepreneurship and will be reporting on the results of these projects during the 2010 Legislative Session. There continue to be many opportunities for the state to make strategic investments that support the business climate for home-grown, high-growth businesses that produce high-wage jobs.

Whether or not the state continues to support innovation-based economic development initiatives through TTDC, our board and management team believe that the state has received an exceptional return on its "Series A" investment in the revitalization of TTDC. In its work on the TNInvestco Act, TTDC effectively championed the best interests of the state, successfully advocated for the state to retain tens of millions of dollars of economic value that otherwise would have left the state, and successfully encouraged that the program be designed to target seed and early stage equity investments high-growth small businesses – a current gap in the continuum.

III. Report on TTDC's Financial Status

At the time of its revitalization, TTDC had \$416,000 of retained funds. The ECD endowment grant provided \$5 million of funds to invest in mission-related programs and operations during the contract term, which ends June 30, 2010. If TTDC is to continue operations beyond this date, the organization will need to have additional state funds appropriated during the 2010 Legislative Session.

As of September 30, 2009, TTDC has approximately \$3.2 million of cash on hand, of which approximately \$2.8 million is related to the current contract with ECD.

At the end of the contract term, the organization forecasts having used \$2.65 million of the ECD grant proceeds on direct program expenditures and \$2.35 million for general and administrative expenditures.

Sample of Recurring State Budget Appropriations for Technology-Based Economic Development Programs*

- **Arkansas** (population = 2.9 million)
 - Arkansas Science and Technology Authority = \$4.0 million
- **Georgia** (pop. = 9.7 million)
 - Georgia Research Alliance = \$26.2 million
 - Advanced Technology Development Center/Economic Development Institute = \$24.8 million
- **Kentucky** (pop. = 4.3 million)
 - Kentucky Dept of Commercialization and Innovation = \$8.5 million
- **Maryland** (pop. = 5.6 million)
 - Maryland Biotechnology Center = \$4.7 million
 - Maryland Technology Development Corporation = \$3.7 million
 - Maryland TEDCO stem cell research fund = \$15.4 million
- **Mississippi** (pop. = 2.9 million)
 - Mississippi Technology Alliance = \$0.75 million
- **North Carolina** (pop. = 9.2 million)
 - North Carolina Biotechnology Center = \$14.8 million
- **Kansas** (pop. = 2.8 million)
 - Kansas Technology Enterprise Corporation = \$7.0 million
 - Kansas Bioscience Authority = \$40.0 million
- **Ohio** (pop. = 11.5 million)
 - Third Frontier Fund = \$61.0 million
 - Thomas Edison Program = \$15.8 million
 - Biomedical Research and Technology Transfer Program = \$1.3 million
- **Pennsylvania** (pop. = 12.4 million)
 - Ben Franklin Technology Development Authority = \$20.0 million
 - Pennsylvania Life Sciences Greenhouses = \$3.0 million

*Does not include onetime funding appropriations for special initiatives