

Emerging Technology Fund (ETF)

What is the ETF?

At the request of Governor Perry, the 79th (2005) Texas Legislature approved House Bill 1765, establishing the Texas Emerging Technology Fund – \$200 million in grants designed to assist the development and commercialization of technologies important to the future of Texas.

The legislation states the ETF's purpose as:

The fund is established ... to develop and diversify the economy of this state by:

- (1) expediting innovation and commercialization of research;*
- (2) attracting, creating, or expanding private sector entities that will promote a substantial increase in high-quality jobs; and*
- (3) increasing higher education applied technology research capabilities.*

The legislation defines emerging technologies as:

- (1) semiconductors;*
- (2) information;*
- (3) computer and software technology;*
- (4) energy;*
- (5) manufactured energy systems;*
- (6) micro-electromechanical systems;*
- (7) nanotechnology;*
- (8) biotechnology;*
- (9) medicine;*
- (10) life sciences;*
- (11) petroleum refining and chemical processes;*
- (12) aerospace;*
- (13) defense; and*
- (14) other pursuits, as determined by the governor in consultation with the lieutenant governor and the speaker of the house of representatives.*

The ETF is administered by the Governor's Office, the Workforce Commission (TWC), the Education Agency (TEA) and the Higher Education Coordinating Board.

The ETF is managed by a 17-member Committee which will make recommendations to the Governor, Lieutenant Governor and Speaker of the House, through peer review and evaluation processes established by the committee, for the award of money from the ETF. The committee may establish advisory panels of knowledgeable individuals from industry, state government, or academic occupations to assist in peer review activities under this chapter.

ETF Eligibility

Emerging Technology activity is eligible for funding if the activity will result in creation of high quality new jobs, immediately or over a longer period, in the state if tied to emerging technology; or the activity has the potential to result in a medical or scientific breakthrough.

According to the Austin Chamber of Commerce, as of September 13th, the newly-designated CenTex Regional Center of Innovation and Commercialization (CT-RCIC) was accepting ETF funding applications for the 15-county Cen-Tex region. On a quarterly basis, technology companies and research entities within the Central Texas region may submit applications requesting grants from the fund. The CT-RCIC will primarily serve and will act as the operational platform for the submittal and management of commercialization project applications. Applications were due by Tuesday, September 20.

Contact your local Chamber for information on your area: <http://www.lone-star.net/mall/main-areas/chamber/chambers.htm>

PLEASE NOTE: Mark Ellison, the Governor's staffer who works as the director of the Emerging Technology Program, will be briefing the members of the Texas Congressional delegation in Washington on October 31st. Be sure to also use your elected representatives as a resource. Call their offices in the districts or in DC if you have questions about the fund.

ETF Components

The ETF has 3 components as mandated in HB 1765:

(1) Subchapter D - Regional Centers of Innovation and Commercialization (RCIC) project grants (<http://www.governor.state.tx.us/divisions/ecodev/etf/rcic>)

"Amounts allocated from the fund for use as provided by this subchapter shall be reserved for incentives for private or nonprofit entities to collaborate with public or private institutions of higher education in this state on emerging technology projects with a demonstrable economic benefit to this state."

The legislation favored certain parts of Texas.

"Subject to the availability of suitable partners and resources, the committee shall propose and initiate the establishment of a regional center of innovation and commercialization in:

- (1) Harris County;*
- (2) Lubbock County;*
- (3) Bexar County;*
- (4) the Dallas-Fort Worth Metroplex;*
- (5) El Paso County;*
- (6) the Middle and Lower Rio Grande Valley; and*
- (7) other suitable locations as determined by the governor in consultation with the lieutenant governor and the speaker of the house of representatives."*

RCIC shall provide:

- Applied Research and Development activities
- Commercialization of the applied R&D
- Incubators for new business and expansion of existing business resulting from applied R&D
- Workforce Training for business resulting from the applied R&D

RCIC "project" activity:

- Will be collaborative
- Will have a defined project scope
- Will have a defined commercialization path
- Will have a complete business plan
- Uses other available matching funds from the collaborating project partners
- Will have a demonstrable economic impact to this state

(2) Subchapter E - Matching emerging technology research grants

<http://www.governor.state.tx.us/divisions/ecodev/etf/rmg>

"Amounts allocated from the fund for use as provided by this subchapter shall be reserved to match funding from research sponsors other than this state, including federal research sponsors."

Priority shall be given to proposals that accelerate commercialization into production by targeting programs that:

- Address federal or other major research sponsors priorities in emerging scientific or technology fields
- Are interdisciplinary
- Are collaborative
- Are likely to result in a medical or scientific breakthrough
- Have a demonstrable economic development benefit to the state

(3) Subchapter F - Acquisition of research superiority grants

<http://www.governor.state.tx.us/divisions/ecodev/etf/rsatg>

Research Superiority Acquisition of Talent Grants shall be used to acquire new or enhanced existing research superiority (talent) at public institutions of higher education *in this state*.

"RESEARCH SUPERIORITY. For purposes of this subchapter, the employment by an institution of higher education of one or more world-class or nationally recognized researchers and associated assistants in an industry eligible to receive funding under Section 490.003 (the section that defines emergent technologies) is considered "research superiority."

The ETF committee shall solicit and identify proposals by public institutions of higher education for:

- Creating new research superiority
- Attracting existing research superiority from institutions not located in this state
- Enhancing existing research superiority by attracting from outside this state additional researchers and resources

Priority shall be given to Research Superiority Acquisition of Talent proposals that:

- Involve scientific or technical fields that have a reasonable probability of enhancing this state's national and global economic competitiveness
- May result in a medical or scientific breakthrough
- Are interdisciplinary
- Have attracted or may attract federal and other funding for research superiority
- Are likely to create a nationally or internationally recognized locus of research superiority.

ETF Appropriations for FY 2006-2007

The ETF fund became effective on September 1, 2005.

- \$100 million from General Revenue - available September 1, 2005
- \$100 million from Rainy Day Fund** surplus - estimated to be available September 1, 2006

**The 70th Texas Legislature (1987) created the Texas Rainy Day – or more officially, the Economic Stabilization Fund – as a savings account to help offset fiscal instability in cases of a downturn in the economy or to pay for emergencies. Examples include, clean up and reconstruction of buildings at the University of Houston damaged by Hurricane Alice, budgetary shortfalls in state Medicaid and the Children's Health Insurance Program (CHIP).

Dollars are transferred into the fund in two ways--either by appropriations from the Legislature, which has never occurred, or when oil and gas severance taxes are above a benchmark year of 1987, 75 percent of those dollars trigger into the Rainy Day Fund. It takes either a two-thirds vote of the Legislature to make withdrawals from the Rainy Day Fund, or a three-fifths vote if the Comptroller's forecasts reduced revenue before a session or if a deficit hits after a budget is approved

The ETF shall be allocated as follows:

In Fiscal Year 2006 starting September 1, 2005:

- \$50 million is reserved to Regional Centers of Innovation and Commercialization project activity
- \$25 million is reserved for emerging technology research matching grant activity
- \$25 million is reserved for acquisition of research superiority grant activity

In Fiscal Year 2007 starting September 1, 2006 (dependent on available rainy day funds):

- \$50 million is reserved to Regional Centers of Innovation and Commercialization project activity
- \$25 million is reserved for emerging technology research matching grant activity
- \$25 million is reserved for acquisition of research superiority grant activity

The Governor may reallocate money from one component of the fund to another component subject to the prior approval of the Lt. Governor and Speaker of the House.

ETF, Not to Be Confused With the Texas Enterprise Fund

During the 78th legislative session (2003) Governor Perry called for the creation of a Texas Enterprise Fund to help bring business into Texas. The initiative was financed by a one-time appropriation of \$295 million from the Rainy Day Fund. According to the Governor's website, this investment in job growth helped protect the state from future economic downturns.

The Texas Enterprise Fund includes:

- **Deal Closing Fund – (\$200 million)** Provides the governor with the ability to respond quickly and aggressively to opportunities to bring companies and jobs to Texas. The Governor states that TX's efforts to attract a Toyota plant in the early 2000s, a project expected to add \$2.4 billion to the Texas economy over the next decade, should serve as a model for future projects.
- **Technology and Biotechnology – (\$55 million)** These funds would be used to attract technology and biotechnology businesses and support university research. This component would include establishment of a Nobel Laureate Center, endowed chairs and participation in other projects such as technology parks.
- **Sematech – (\$40 million)** This money helped Texas to compete to retain Sematech, which was being lured by New York. In March 2004, State officials and Sematech announced plans to launch a \$200 million semiconductor research center in Austin aimed at generating more than 4,000 new high-tech jobs over the next 10 years. The Advanced Materials Research Center (AMRC) is headed by the UTexas System and other TX universities. (<http://www.amrctx.org/about.htm>)

The ETF Committee:

Mark Ellison, Director of the Emerging Technology Program

The Governor appointed the 17 member of the ETF committee in late summer. Members serve 2 year terms at the pleasure of the Governor.

Members are:

David Nance – Austin, president & CEO of Introgen Therapeutics, serving as a member of Introgen's board of directors since its inception in June 1993. From 1992 to 1996, Nance served as managing partner of Texas Biomedical Development Partners, an Austin investment group.

Pike Powers – Austin, partner with Fulbright & Jaworski, L.L.P. He has more than 25 years of experience in bringing economic development and investment to the state of Texas. A graduate of Lamar University, he received a law degree from the University of Texas School of Law. Powers has provided leadership strategies in recruiting and retaining several major business to Austin including; Applied Materials, 3M, MCC and Sematech.

Alan Abbott – El Paso, certified public accountant and board chairman of Sunland Optical Company, Inc. Abbott brings 30 years of entrepreneur start-up, commercial lending and investing experience to the committee. He currently serves as president of Lynwood Garden Investments, is board chairman of the Paso Del North Group and trustee for the Camino Real Angel Network in El Paso. A graduate of Stanford University, Abbott received a master's degree in business from the University of Texas at El Paso. He also is an American Board Certified Optician.

Dr. C. Thomas Caskey – Houston, president and CEO of Cogene Biotech Ventures. He also serves as president of the Academy of Medicine, Engineering and Science of Texas. Caskey has served as senior vice president of Human Genetics and Vaccines Discovery at Merck Research Laboratories, and president of Merck Genome Research Institute. Caskey serves as an adjunct professor in the department of molecular and human genetics at Baylor College of Medicine and is a distinguished professor at the Institute of Molecular Medicine at University of Texas Medical Center in Houston.

Walter Ulrich – Pearland, president and CEO of Mincron, Inc. Ulrich has a bachelor's degree in computer science and a master's degree in management science from Stevens Institute of Technology in Hoboken, N.J.

Phillip Drayer – Dallas, president and CEO of Kalydus Asset Advisors. Drayer began his career at Teledyne Systems in Los Angeles, C.A., working with helicopter avionics systems. He then worked at Texas Instruments as a design engineer and has managed microprocessor and manufacturing divisions at Mostek Corporation. Drayer is the former founder, president and CEO of EPI Technology and Telecom Semiconductor. He received a bachelor's degree in electric engineering from Lamar University and a law degree from South East Texas College of Law. Drayer is a member of the State Bar of Texas.

Clyde Higgs – Ft. Worth, president of Tech Fort Worth, a business and technology incubator. Prior to that, Higgs was the director for the Office of Technology Transfer and

Commercialization at North Carolina A&T State University. He also was the North Carolina co-principal investigator for the affiliates program of the NASA Southeastern Regional Technology Transfer Center. Higgs received a bachelor's degree from the University of South Alabama and a master's degree from East Carolina University.

Dr. Johannes "Hans" Stork – Dallas, senior vice president and CTO of Texas Instruments, Inc. Prior to joining Texas Instruments, he was director of the internet systems and storage lab at Hewlett-Packard in California. Stork also worked at IBM T.J Watson Research Center, researching advanced bipolar technology and circuits. He is a board member of International Sematech and the Semiconductor Research Corporation. Stork received a degree in electrical engineering from Delft University of Technology in The Netherlands and received a doctoral degree from Stanford University.

Bernard "Bernie" Paulson – Corpus Christi, chairman of Corpus Christi Bancshares. In 1981 he served as president of Koch Refining and became chairman and CEO of the Inspection Group, Inc. Paulson also served as chairman of the Automation Group, Inc., in Houston and president and CEO of Hitox Corporation of America. He has served as board president of the Trade Port of Corpus Christi, director of the Bay Area EDC, chairman of the Engineering Technology Task Force at Texas A&M-Corpus Christi, vice president and director of the Coastal Bend Bays Foundation and chairman of the KEDT TV. He is former director of the Del Mar College Foundation and the Driscoll Children's Hospital Rehabilitation Foundation. Paulson received a bachelor's degree in chemical engineering from Michigan State University.

Bill Sproull – Richardson, president of Richardson Chamber of Commerce and the Metroplex Technology Business Council. He also serves as legislative committee chair for the Texas Economic Development Council.

David Spenser – San Antonio, president of OnBoard Software, Inc. Spenser is a founding board member of the San Antonio Technology Accelerator Initiative and has served the Center for Infrastructure Assurance and Security at the University of Texas at San Antonio (UTSA). He received a bachelor's degree in electrical engineering from the University of Texas. Spenser has been designated chair of the committee.

Cesar Maldonado – Harlingen, president and founder of MBM Engineering Group, LLC. Prior to forming MGM, he served as president of two operating units for Assa Abloy Door Group, a multi-national manufacturer of door and lock systems and later was named vice president and CTO for the company's North American Division. Maldonado served as president of Tex-Steel Corporation and process engineer for Celanese Chemical Corporation. He has served as director and chair of the National Association of Architectural Metal Manufacturers, Tech Committee Chair and director of the Texas Business and Education Coalition. Maldonado holds a bachelor's degree and master's degree in chemical engineering from Texas A&M University.

Dr. Pamela Eibeck – Lubbock, dean of engineering at Texas Tech University. She previously served as chair of mechanical engineering and vice-provost for undergraduate studies at Northern Arizona University (NAU). Prior to her appointment at NAU, Eibeck was a tenured faculty member in mechanical engineering at the University of California at Berkeley. She received bachelor's, master's and doctoral degrees from Stanford University.

Grant Billingsley – Midland, manager of public affairs for Wagner & Brown, Ltd. Prior to joining Wagner and Brown, he was executive director of the Midland Chamber of Commerce. Billingsley is a certified industrial and economic developer and has served as president of the Texas

Economic Development Council. He is past chairman and president of the Texas Lyceum Association and past chairman of the Permian Basin Area Foundation. Currently, Billingsley serves as vice chairman of the University of Texas of the Permian Basin Development Board and on executive committees of the Texas Civil Justice League and the Texas Oil and Gas Association. He is a graduate of the University of Oklahoma.

Bill Morrow – San Marcos, founder and has served as CEO of Grande. Prior to his experience with Grande, Morrow was co-founder and director of ClearSource Communications and CEO of Knology Communications. He serves as board director for the University of Texas Natural Sciences, vice-chair for the Greater Austin Chamber of Commerce and board director for the UTSA business development and the College of Business. Morrow received a bachelor in marketing from UTSA.

Dr. Lynda De la Vina – San Antonio, dean of the UTSA College of Business. She previously served as associate dean of the Graduate Division of Business and Management, and chair of the Department of Finance and International Business at Johns Hopkins University. In 1998, she was a presidential appointee to the U.S. Department of Treasury and served as Deputy Assistant Secretary for Economic Policy until 2001. De la Viña co-founded Nightwave Records and Operational Technologies Corporation, where she continues to serve on the board. De la Viña received a bachelor's degree from the University of Texas-Pan American and a master's degree and doctoral degree in economics from Rice University.

Sada Cumber – Austin, chairman and CEO of SozoTek, Inc. Prior to founding SozoTek, Cumber served as chairman and CEO of Psionic Technologies, Inc., an internet security software company acquired by Cisco Systems. In 1995, he founded Applied Science Fiction, a company specialized in digital dry film processing and digital photo enhancement whose technology was recently acquired by Kodak. Cumber previously owned Triumph Flexo Industries, acquired by American Greetings. He received a bachelor's degree and master's degree from the University of Karachi in Pakistan.

Also of Possible Interest - The Texas Industry Cluster Initiative

2003 – the Legislature passed Senate Bill 275 to promote job creation and economic development by calling for the development of strategies to strengthen the competitiveness of key industry clusters. The state is required to identify these industry clusters, including a number of specified industries, and develop strategies to address economic growth and quality of life issues. The 6 industries named as Texas' Target Industry Clusters are:

- 1) Advanced Technologies and Manufacturing - Advanced manufacturing, including the automotive sector, requires higher skills, resulting in higher wages and investment in the state.
- 2) Aerospace and Defense - With the large group of companies in Texas already doing business in this sector, along with recent federal funding and current trends indicating future investment, this cluster is an obvious target for accelerated economic development. Firms within this cluster are technology and skill intensive, resulting in higher wage jobs.
- 3) Biotechnology and Life Sciences - Current and future trends indicate that this cluster is growing rapidly as a result of the large number of biotechnology organizations already in Texas. This technology-intensive cluster requires highly skilled workers.
- 4) Information Technology (IT) and Computer Technology - Although the IT industry has experienced some realignment over the past several years, it remains an important part of the Texas economy. Existing collaboration between this cluster and biotechnology allow for changes in the employment mix as new technologies are applied within the cluster.
- 5) Energy - Texas boasts a well-established energy sector and existing infrastructure. Progress in this industry will include new technologies for oil and gas exploration and new energy sources.
- 6) Petroleum Refining and Chemical Products - Texas is a world leader in this industry with its strong infrastructure, technology and employment base and the countless synergies to be created between this industry and the energy cluster.

2004 – Governor Perry announced his vision of building the future economy of state of Texas by focusing on building a competitive advantage through 6 target industry clusters. “Job creation, one of Governor Perry’s top priorities, is the only sure path to future prosperity”

According to state websites, the initiative, "will focus on developing six industry clusters that will be critical to our future prosperity, the landing of research dollars and the creation of innovations and jobs to Texas. For the first time in the history of this state, we will be able to develop a coordinated, market-driven economic development plan for the state of Texas."

January 2005 – The Texas Workforce Commission (TWC) joined the Governor's Office in launching the Target Industry Cluster Initiative. TWC and the Governor's Office will create a

forum in which industry leaders can attract new companies to Texas and create jobs.

Cluster teams conducted comprehensive competitive assessments of their industry and made recommendations toward the allocation of state resources. TWC facilitated the formation of cluster teams and will continue to play a significant role in organizing training efforts directed toward the needs of industry clusters.

Summer 2005 – The assessment phase of the initiative is completed summer. Over 700 stakeholders throughout the state were actively engaged. Collectively, the findings and recommendations call for strategies to develop a skilled workforce, a competitive education system, and an effective commercialization process for products and technology supported by a highly efficient supply chain. Copies of the reports are available at <http://www.twc.state.tx.us/news/ticluster.html>.

A PowerPoint presentation on the initiative is available at <http://texasedc.org/energyreport/EnergySubTeamReport.ppt.htm>