HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 131 CS Centers of Excellence
SPONSOR(S): Mealor
TIED BILLS: None **IDEN./SIM. BILLS:** SB 1444

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR
1) Spaceport & Technology Committee	6 Y, 0 N	Cheek	Saliba
2) Colleges & Universities Committee	9 Y, 0 N, w/CS	Hatfield	Tilton
3) Fiscal Council			
4) State Infrastructure Council			
5)			

SUMMARY ANALYSIS

Section 1004.225, F.S., the Florida Technology Development Act (Act), was enacted during the 2002 Legislative Session and expired on July 1, 2004. The Act provided a mechanism to foster technology transfer by creating centers of excellence for which the 2002 Legislature appropriated $30 million.

HB 131 CS re-creates portions of the Act by creating a new section of law, s. 1004.226, F.S., to provide for the establishment of additional centers of excellence or the expansion of current centers subject to appropriation by the legislature. The bill also re-creates the Emerging Technology Commission (commission) within the Executive Office of the Governor to guide the establishment of the centers of excellence.

The bill requires the commission to develop, in consultation with the Florida Research Consortium, Inc. (consortium), and approve criteria for evaluating proposals for establishing or expanding a center. The commission must also provide a list of the approved criteria to each university in the state. The bill does not prevent a university that is currently the site of a center from submitting a proposal to establish or expand a center. A proposal from a university must be submitted to the commission by November 1, 2005.

The bill requires the commission, by January 1, 2006, to submit to the State Board of Education (SBE) a plan recommending the establishment or expansion of one or more centers. The SBE must then develop and approve a final plan that allocates at least $10 million to each center established or expanded under the plan. The commission must report semi-annually, in writing, to the SBE on the progress in implementing the final plan approved and the success of each center that received funding under that plan.

The bill appropriates $50 million from the General Revenue Fund to the Department of Education for fiscal year 2005-2006 for the purpose of establishing or expanding one or more centers of excellence The bill also appropriates $50,000 from the General Revenue Fund to the Executive Office of the Governor for fiscal year 2005-2006 for the purpose of providing staff and administrative support to the commission and provides for per diem and travel expenses for commission members.

The bill provides a July 1, 2005 effective date.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. HOUSE PRINCIPLES ANALYSIS:

Provide limited government—The bill provides for the establishment of additional centers of excellence or the expansion of current centers subject to appropriation by the legislature. The bill creates the Emerging Technology Commission (commission) within the Executive Office of the Governor to guide the establishment of the centers of excellence.

The bill requires the commission to: develop, in consultation with the Florida Research Consortium, Inc. (consortium), and approve criteria for evaluating proposals for establishing or expanding a center; provide a list of the approved criteria to each university in the state; submit to the State Board of Education (SBE) a plan recommending the establishment or expansion of one or more centers; and report semi-annually, in writing, to the SBE on the progress in implementing the final plan and the success of each center that received funding under that plan.

B. EFFECT OF PROPOSED CHANGES:

Background

"Technology Transfer" Defined and Described

"Technology transfer" is commonly used to refer to a complex commercialization process through which an entity that develops a new technology, but does not have the wherewithal or desire to bring it to market, transfers that raw technology to another entity that does. Many different types of donor-recipient pairings can engage in technology transfer, including university-to-business, business-to-business, and federal government-to-business.

Technology transfer between a university and a business can occur in many different ways. The Council on Governmental Relations describes six major models of technology transfer:

- Sponsored Research: Typically, a corporation provides funding for a specified statement of work for a limited period of time.
- Collaborative Research: Collaborative research, especially when partially funded by government, enables participants to leverage limited resources in the achievement of mutually beneficial research objectives.
- Consortia: In a university-based research consortium, participating companies join forces and contribute resources, often in the form of an annual fee, to support research in a technical area of common interest.
- Technology Licensing: Consideration for a university license agreement is offered by a licensee to obtain commercialization rights in intellectual property owned by a university.
- Start-up Companies: New companies are established to commercialize a university technology, rights to which are obtained through a license agreement.
- Exchange of Research Materials: Material transfer agreements generally stipulate that the materials are provided for research purposes only and not for commercialization.[1]

[1] Council on Governmental Relations, *A Review of University Industry Research Relationships*, at http://www.cogr.edu/univ.htm, 1996.

A business' use of university faculty as consultants or its hiring of university students could also be considered forms of technology transfer.[2]

Benefits of Technology Transfer

According to the Industrial Research Institute, technology transfer provides many benefits to both businesses and universities.[3] Corporate benefits include accessing expertise not available in corporate laboratories, assisting in the renewal and expansion of a company's technological inventory, gaining access to students as potential employees, using the university as a means of facilitating the expansion of external contacts for the industrial laboratory, expanding pre-competitive research with universities and with other companies, and leveraging internal research capabilities. Technology-transfer benefits to universities include obtaining financial support for a university's educational and research missions; broadening the experience of students and faculty; identifying significant, interesting, and relevant problems; enhancing regional economic development; and increasing employment opportunities for students.

However, while technology licensed to either in-state or out-of-state businesses is valuable, it does not result in many of the aforementioned benefits that stem from close university-industry collaboration or from the spin-off of local, university-generated start-up companies. Many state governments recognize that it is through these mechanisms, as well as through the related attraction of research and development-oriented firms from other states, that "university-industry collaborations can play a central role in economic development efforts."[4]

Florida Research Consortium, Inc.

The Florida Research Consortium, Inc. (consortium) is a strategic partnership between Florida's universities and the business community focused on enhancing progressive research programs at Florida's public and private universities and adding to the diversity and strength of Florida's technology economy through the commercialization of research. The consortium's program of work focuses on three primary goals: enhancing the quantity and quality of Florida's university research; increasing the commercialization of Florida's university research; and ensuring that Florida's university research is recognized as a significant strategic asset for the state.

The Florida Technology Development Act

Section 1004.225, F.S., the Florida Technology Development Act (Act), was created by the 2002 Legislature and expired July 1, 2004. The Act provided a mechanism to foster technology transfer, a complex commercialization process through which an entity that develops a new technology, but does not have the means or desire to bring it to market, transfers the new technology to another entity that does have the means. The Act began the technology transfer process by creating centers of excellence for which the 2002 Legislature appropriated $30 million. A center of excellence is an organization of personnel, facilities, and equipment established at or in collaboration with one or more universities in Florida that:

- Facilitates the identification of collaborative research opportunities between universities and businesses;
- Facilitates the acquisition of public and private funding for collaborative research opportunities and maximizes the leveraging of such funds;

[2] Business-Higher Education Forum, *Working Together, Creating Knowledge: The University-Industry Research Collaboration Initiative*, 2001, at 21.
[3] Industrial Research Institute, *A Report on Enhancing Industry-University Cooperative Research Agreements* (Washington, D.C., 1995), at 1, as cited by the Business-Higher Education Forum, *supra* note 2, at 22.
[4] Business-Higher Education Forum, *supra* note 2, at 22-23.

- Creates partnerships between industrial and governmental entities to advance knowledge and research and to move technologies from academic laboratories and research centers to commercial sectors;
- Stimulates and supports new venture creation through partnerships with venture capital firms and other business, governmental, and educational entities;
- Assists in the enhancement of advanced academic curricula through improved communication between academia and businesses;
- Increases the number of graduates and faculty researchers in advanced technology programs while ensuring that a larger percentage of such graduates pursue careers in Florida industries;
- Recruits and retains eminent scholars in advanced technology disciplines; and
- Provides capital facilities necessary to support research and development.

The Act also created the Emerging Technology Commission (commission) within the Executive Office of the Governor. Commission members served without compensation but were entitled to receive certain per diem and travel expenses while performing their duties. The Governor's Office provided staff support for the commission and pier diem and travel expenses for commission members.

The commission held three meetings to receive public comment on the recommended criteria for selecting a center of excellence. During these meetings the consortium debated the merits and value of the recommended criteria. Based upon these meetings, the commission developed criteria for evaluating university-submitted proposals for creating centers of excellence. The adopted criteria used to evaluate proposals were:

- Vision for technology transfer
- Research Focus
- Economic Impact Potential
- Economic Climate Issues
- Regional economic structure and climate
- Leadership and Management
- Leveraging Resources
- Center Collaboration with Other Entities
- Workforce Development

Based upon the final report of the commission, 16 proposals for creating centers of excellence were received. The proposals were as follows:

- Florida Atlantic University's Proposal for a Center for Intermodal Transportation, Safety and Security.
- Florida Gulf Coast University's Proposal for a Florida Gulf Coast University Triad.
- Florida International University's Proposal for a Florida Information Security Center.
- The University of Central Florida's Proposal for a Modeling and Simulation Center of Excellence.
- The University of North Florida's Proposal for a Center for Innovation in Information Technology.
- Florida Agricultural and Mechanical University's Proposal for a Center of Excellence for Atomic, Molecular, and Plasma Physics.
- The Florida Space Research Institute's Proposal for a Center for Spaceport Technology, Biotechnology, Remote Sensing, and Telecommunications.
- The Florida Solar Energy Center's Proposal for a Center of Excellence for Hydrogen Research.
- Florida State University's Proposal for Securing Florida and the Nation's Electrical Energy Systems.
- The University of Central Florida's Proposal for a Florida Photonics Center of Excellence.
- Florida Atlantic University's Proposal for a Center for Biomedical and Marine Biotechnology.
- Florida State University's Proposal for the Bio-Nanotechnology Nexus.

- The University of Florida's Proposal for a Center of Excellence in Regenerative Health and Biotechnology.
- The University of Florida's Proposal for a NanoBio Science and Engineering Center of Excellence.
- The University of Miami's Proposal for a Center for Biotechnology Development in Cellular Therapies, Tissue Engineering, and Reparative Medicine.
- The University of South Florida's Proposal for a Center of Excellence in Bioengineering and Life Science.

Following three public hearings with access to public policy and technology experts, the commission recommended three centers of excellence to the SBE. The three, with the rationale for their selection, were:

- Florida Atlantic University's Proposal for a Center of Excellence for Biomedical and Marine Biotechnology at $10 million. This center would focus on the discovery and development of compounds and medicines capable of treating various diseases including cancer, cardiovascular disease, and arthritis. Collaborative efforts with industry and other universities would be used in a long-term commercialization strategy, and the center would house faculty capable of attracting research funds at levels necessary for continued research.

- The University of Central Florida's Proposal for a Photonics Center of Excellence at $10 million. This center would build upon efforts already underway at the university to make Florida the world leader in optics, lasers, and photonics research and education. The center would also expand its research into the areas of nanophotonics and biophotonics. The center would work closely with existing industry, the High Tech Corridor Council, and the University of Central Florida Technology Incubator to commercialize new applications.

- The University of Florida's Proposal for a Center of Excellence for Regenerative Health Biotechnology at $10 million. The center would house two facilities for microbial fermentation and vector production. Both facilities would be used for developing probiotics and gene therapies for treating cancer and genetic diseases. It would also provide technological advances in gene therapy and adult stem cell transplantation. The very nature of the research and production being performed at the center would have immediate and long-term economic impact and would serve as a magnet for future state and federal funds.

The commission was directed to report quarterly to the Commissioner of Education on the progress of the implementation of the final plan and the success of the centers of excellence established under that plan.

Effect of Proposed Changes

HB 131 CS re-creates portions of the 2002 Florida Technology Development Act (Act) that expired on July 1, 2004, by creating s. 1004.226, F.S., to provide for the establishment of additional centers of excellence or the expansion of current centers subject to appropriation by the legislature.

The bill re-defines the term "center of excellence" and the purpose and objectives of a center of excellence consistent with the Act. The bill also re-creates the Emerging Technology Commission (commission) within the Executive Office of the Governor to guide the establishment of the centers of excellence. The commission must consist of:

- Nine regular members who are recognized business leaders, industrial researchers, academic researchers, scientists, or engineers. The regular members include four members and the chair

appointed by the Governor; two members appointed by the President of the Senate, and two members appointed by the Speaker of the House of Representatives;
- The Commissioner of Education, or the Commissioner's designee, as an ex officio nonvoting member; and
- The state senator and state representative who serve as members of the consortium, as ex officio nonvoting members.

Members of the commission must serve without compensation but are entitled to receive per diem and travel expenses while in performance of their duties, pursuant to s. 112.061. The Executive Office of the Governor must provide staff support for the activities of the commission and per diem and travel expenses for commission members.

The bill requires the commission to develop, in consultation with the Florida Research Consortium, and approve criteria for evaluating proposals for establishing or expanding one or more centers by September 1, 2005.

The bill also requires the commission, by September 15, 2005, to provide a list of the approved criteria to each university in the state and to the State Technology Office for publishing on the Internet. The commission must notify the president of each university in the state, in writing, of the opportunity to submit to the commission a written proposal for establishing or expanding a center. The bill does not prevent a university that is currently the site of a center from submitting a proposal to establish a new center or to expand the existing center.

The bill requires a university to submit a proposal to the commission by November 1, 2005.

By January 1, 2006, the commission must submit to the State Board of Education (SBE) a plan recommending the establishment or expansion of one or more centers. The recommended plan must address the evaluation criteria developed by the commission and specify how funding would be used to establish or expand each center.

The bill requires the SBE, by February 15, 2006, to develop and approve a final plan for establishing or expanding one or more centers and authorize expenditures for implementing the plan. The final plan approved by the SBE must allocate at least $10 million to each center established or expanded under the plan and must include performance and accountability measures that can be used to assess the progress of plan implementation and the success of each center that receives funding under the final plan.

The final plan may provide for:

- Designating one or more center, in addition to any previously designated centers;
- Expanding one or more of the previously designated centers; or
- Designating one or more new center and expanding one or more of the previously designated centers.

By March 1, 2006, the SBE must provide a copy of the final plan to the Governor, the President of the Senate, and the Speaker of the House of Representatives.

The bill requires the commission, beginning July 1, 2006, to report semi-annually, in writing, to the SBE on the progress in implementing the final plan approved and the success of each center that received funding under that plan.

The bill appropriates $50 million from the General Revenue Fund to the Department of Education for fiscal year 2005-2006 for the purpose of establishing or expanding one or more additional centers of excellence pursuant to s. 1004.226, F.S.

The bill appropriates $50,000 from the General Revenue Fund to the Executive Office of the Governor for fiscal year 2005-2006 for the purpose of providing staff and administrative support to the commission created under s. 1004.226, F.S., and provides for per diem and travel expensed for commission members.

The bill provides a July 1, 2005 effective date.

C. SECTION DIRECTORY:

Section 1: Creates s. 1004.226, F.S., relating to centers of excellence; defining the term "center of excellence"; providing purposes and objectives of centers of excellence; creating the Emerging Technology Commission in the Executive Office of the Governor and providing for membership; requiring the commission to develop and approve criteria for evaluating proposals for establishing or expanding centers of excellence; providing requirements for such proposals; requiring submission of a plan recommending the establishment or expansion of centers of excellence and approval of a final plan; and requiring semiannual reporting.

Section 2: Provides for a $50,000 appropriation to the Executive Office of the Governor.

Section 3: Provides for a $50 million appropriation to the Department of Education.

Section 4: Provides an effective date of July 1, 2005.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

   Technology transfer could be a source of revenues for universities. Thus, the extent of technology transfer occurring at centers of excellence could benefit universities.

2. Expenditures:

   The bill provides for two separate appropriations.

   First, the bill appropriates $50,000 from the General Revenue Fund to the Executive Office of the Governor for fiscal year 2005-2006 for the purpose of providing staff and administrative support to the Emerging Technology Commission created under s. 1004.226, F.S., and provides for per diem and travel expenses for commission members.

   Second, the bill appropriates $50 million from the General Revenue Fund to the Department of Education for fiscal year 2005-2006 for the purpose of establishing or expanding one or more additional centers of excellence pursuant to s. 1004.226, F.S.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

   None.

2. Expenditures:

   None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

Not only do university-industry partnerships increase the speed and frequency with which new discoveries move from the laboratory to the market, but university-technology transfer may be a stimulant, precursor, or complement to building a high-skill, high-wage state economy. Thus, the bill may increase the amount of technology transfer occurring in the state whereby businesses and individuals could benefit.

Furthermore, according to the Florida Space Research Institute, Florida-based university and industry involvement in strategic areas of research can attract significant federal investments in that research. For example, Florida leadership in the development of certain space exploration technologies can position the state to capture a greater federally sponsored role in new and diverse areas of space research and enterprise.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

None

2. Other:

None

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

Note that the language in current law relating to the Florida Technology Development Act (s. 1004.225, F.S.) is to be repealed in the 2005 reviser bill.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE & COMBINED BILL CHANGES

On March 22, 2005, the Colleges & Universities Committee adopted an amendment to HB 131. The bill was reported favorable with a Committee Substitute (CS).

The CS does the following:

- Clarifies that the provisions of the bill apply to public and private universities in Florida.
- Streamlines the process for the establishment and expansion of centers by removing statutory requirement that:
    - the Florida Research Consortium, Inc. review and revise the report they submitted to the Emerging Technology Commission under former s. 1004.225, F.S.; and
    - the Commission hold public hearings when revising criteria for evaluating proposals and for determining a recommended final plan.
- Adds the requirement that the Commission work in consultation with the Consortium in developing criteria for evaluating proposals.
- Replaces references to the Board of Governors with the State Board of Education because the amendment expands program to include more than just state universities.

It is important to note that the consortium and the commission may still choose to revise criteria and hold public hearings. It is not clear why statutory requirements regarding issues of this nature would be necessary.