FC 100 Higher Education Committee

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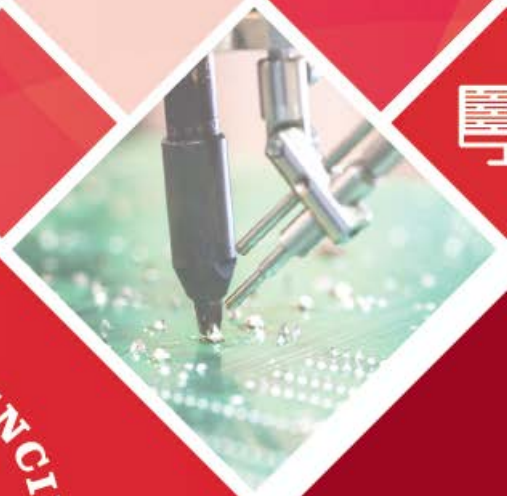
THE FLORIDA COUNCIL OF 100

BEST PRACTICES IN BUSINESS-ACADEMIC R&D COLLABORATION

Report No. 2018-01



THE FLORIDA COUNCIL OF 100

100 University Ideas

for Enhancing Business-University Collaboration in Florida

Report No. 2018-02

VISION

The Florida Council of 100 will benchmark existing and planned research in the State of Florida to include successes, failures, best practices, public and private partnerships, internal collaboration, and funding. The resulting data will be used to magnify successes and new programs in the system that result in increased successful research and development, technology transfer, commercialization, positive economic impact, and maximization of cross system collaboration.

Corporate and University R&D Benefits

Not only do university-industry partnerships increase the speed and frequency with which new discoveries move from the laboratory to the market, but as technology expert Dr. Louis G. Tornatsky noted as early as 2000, "University-industry technology transfer can be a stimulant, precursor, or complement to building a high-skills, high-wage state economy."

In fact, Florida academic R&D of $2.4 billion annually generates an estimated 55,000 jobs and $7.6 billion of economic activity, as well as countless billions of dollars of social benefits over time such as improved health of Floridians. Moreover, it is estimated that this university R&D leads to another $2.5 billion of follow-on private-sector R&D — three-quarters of the papers cited by U.S. industrial patents are from public science, and one-fifth of private-sector innovations are based, at least in part, on public sector research.

Such vital R&D interplay between universities and the business community can occur in many different ways (the **"5 C's"**). They include **codification** (e.g., publications, patents, prototypes); **contacts** (e.g., meetings and conferences, informal interaction, science parks, industrial liaison, offices, funded networks, customer links); **crew** (e.g., sponsored university posts, internships, part-time teaching, personnel exchanges); **contracts** (e.g., licenses, contract research, consulting, universities using private equipment, product testing, business support); and **cooperation** (e.g., spin-off firms, joint ventures).

And the benefits flow in both directions. For example:

Corporate Benefits

- 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
- Leveraging internal research capabilities

University Benefits

- Obtaining financial support for a university's educational and research missions
- Supporting basic and applied research
- Broadening the experience of students and faculty
- Identifying significant, interesting, and relevant problems
- Enhancing regional economic development
- Increasing employment opportunities for students

Summary of Recommendations

Our recommendations center on three connective themes: (1) the State University System (SUS) as a whole must continue to recruit and empower a successful research team, namely a world-class faculty and staff; (2) Florida must build a robust research & development (R&D) machine; and (3) Florida must enhance the commercialized mission of R&D. Core to these issues remains: how does Florida become number one in R&D by all measures in the world, and what must we do now to equip the system to compete globally? The challenge is to reinvent Florida's R&D model before it becomes obsolete either by being superseded or redundant.

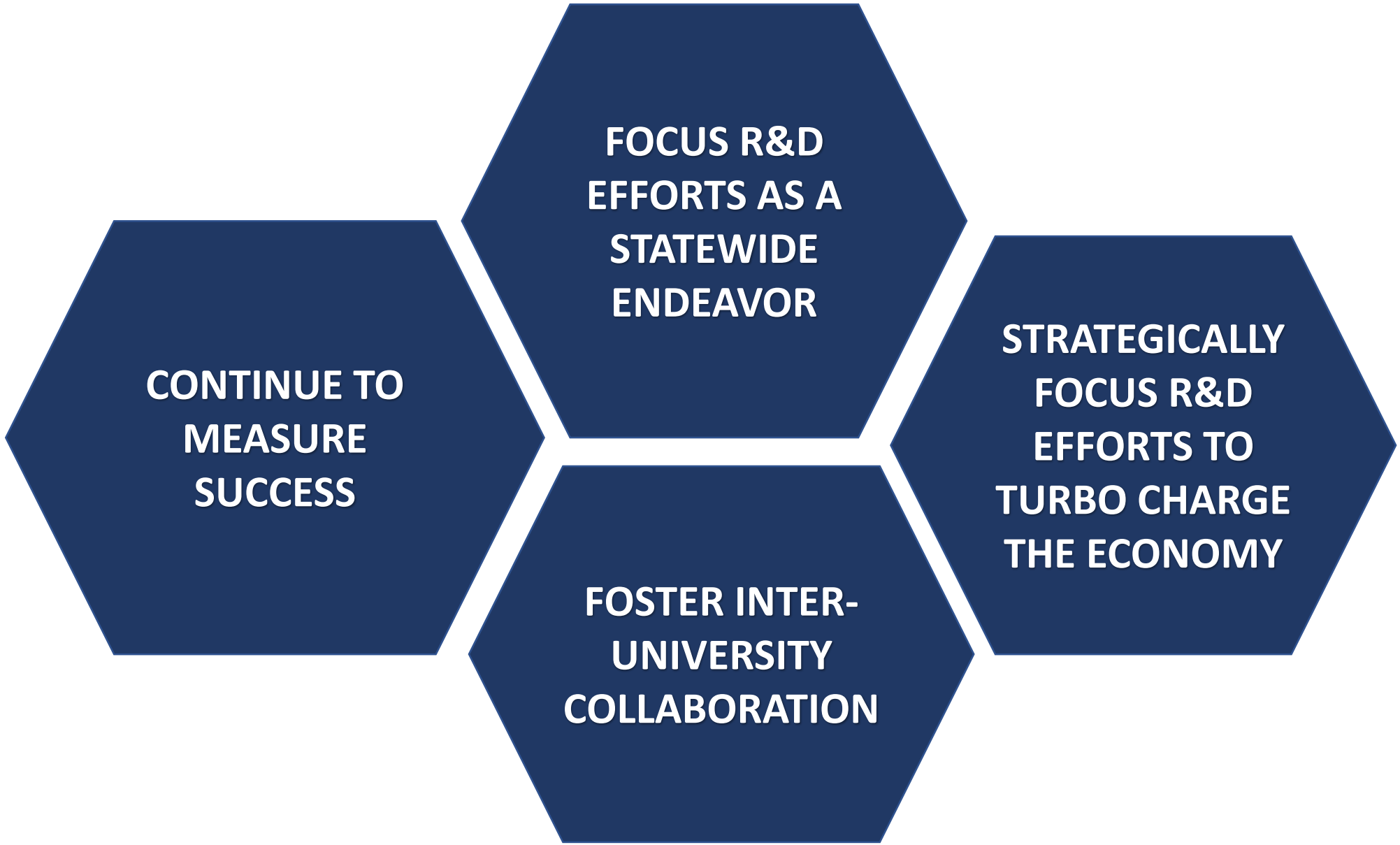
Important to advancing this mission, the SUS should:

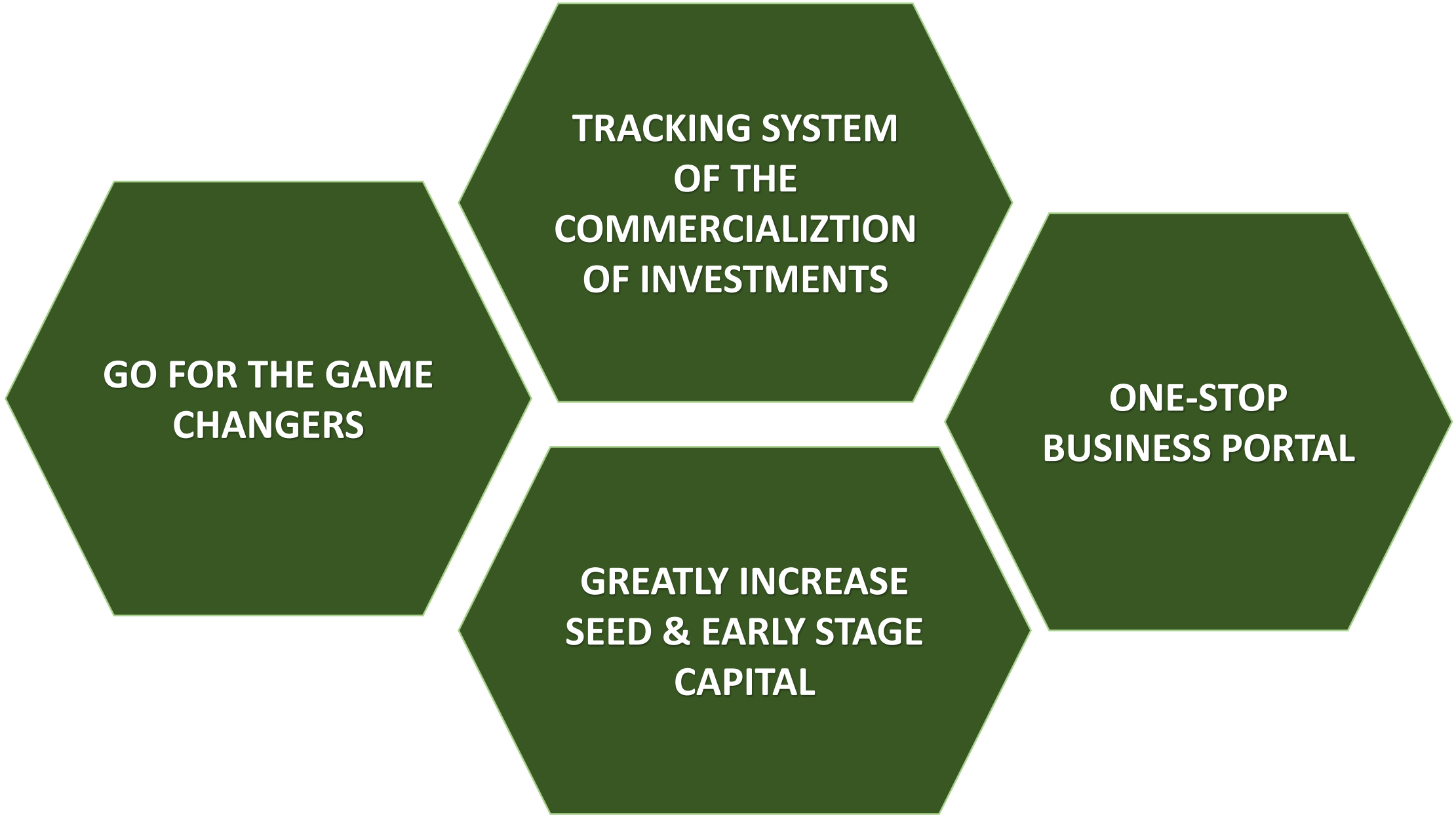
1. Continue to enhance the measurement of its successes and return on investment of all sources of funding using metrics that provide tangible, measurable applied results;
2. Continue to develop a better tracking system of the commercialization of our investments. Startups and public and private funding models that foster enterprise level results should be considered if they are determined to be profitable in advancing the overall mission, such as resulting in new economic engines;
3. Refocus to treat all R&D efforts as a statewide endeavor and not solely an individualized university mission. We need to better set unified expectations of the system as a whole;
4. Elevate cooperative collaborations as important measures of results; and
5. Recruit and empower a robust and successful team to perform quality research.

In short, we should always be asking the question, what is the massive transformative purpose of billions of dollars invested through the SUS R&D model?

Recent Ground-breaking SUS R&D Actions

- The Vice Presidents for Research identified the most important research areas for Florida: health, big data, advanced manufacturing, marine/coastal/estuary science, and cybersecurity.
- The SUS executed an "Institutional Review Board (IRB) Reciprocity Agreement and Memorandum of Understanding" among the 12 SUS institutions to permit the reciprocal use of IRB for research conducted by investigators at SUS institutions.
- As directed by the Board of Governors' Task Force on Research, the Vice Presidents for Research have developed a 17-metric dashboard to chart progress on SUS research.
- In order to help win grants, the SUS has held five annual two-day workshops in Washington, D.C., to meet with federal agency officials that fund research. Florida is the only state to hold such workshops.
- The Board of Governors added a new position, Director of Workforce Education and Economic Development, to ensure even better connections between business and industry and SUS R&D and high-demand programs.
- In an effort to put the SUS on the map as a national destination for research, the SUS worked to get Florida chosen as a "destination state" for two recent major national research conferences.
- The Board of Governors' focus on funding for research was rewarded with 2017 legislative approval to provide funding to support the hiring of star faculty.


FOCUS R&D EFFORTS AS A STATEWIDE ENDEAVOR
CONTINUE TO MEASURE SUCCESS
STRATEGICALLY FOCUS R&D EFFORTS TO TURBO CHARGE THE ECONOMY
FOSTER INTER-UNIVERSITY COLLABORATION


TRACKING SYSTEM OF THE COMMERCIALIZTION OF INVESTMENTS
GO FOR THE GAME CHANGERS
ONE-STOP BUSINESS PORTAL
GREATLY INCREASE SEED & EARLY STAGE CAPITAL

QUESTIONS?

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