



The University Connection

Partnerships to Leverage SBIR/STTR for Regional Growth

Presentation to The National Academies: SBIR/STTR & the Role of State Programs

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Quasi-public organization formed 25 years ago to:

- Promote innovation and help promising, early-stage, high-tech companies start and grow
- Create and retain high-quality jobs; build economic value

We ...

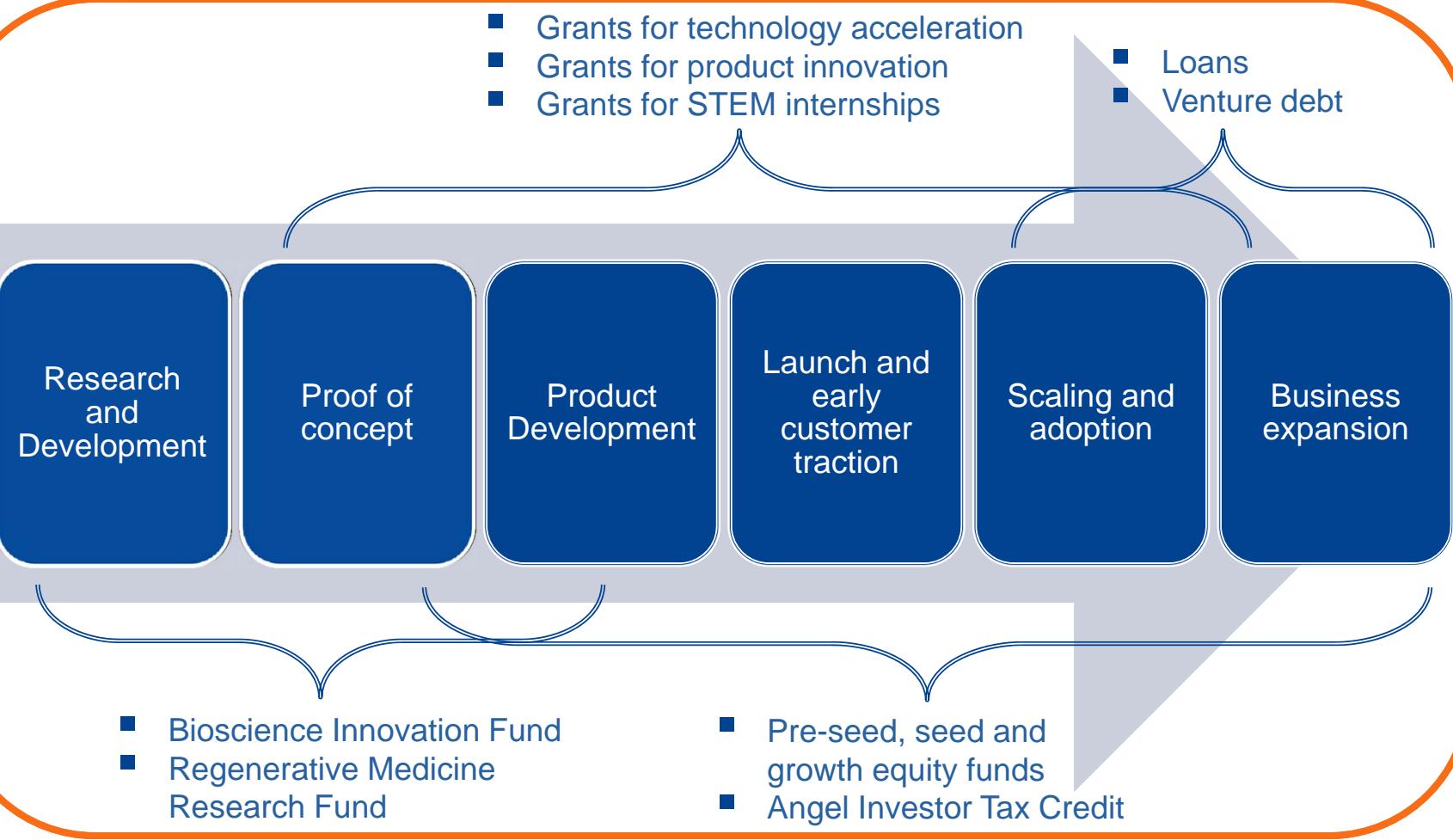
- Invest using private sector principles to achieve a public purpose
- Provide more than money
- Fill gaps
- Leverage capital



Stages of Company Development

How does CI help?

CTNext—Entrepreneurial Ecosystem, Networks and Partnerships

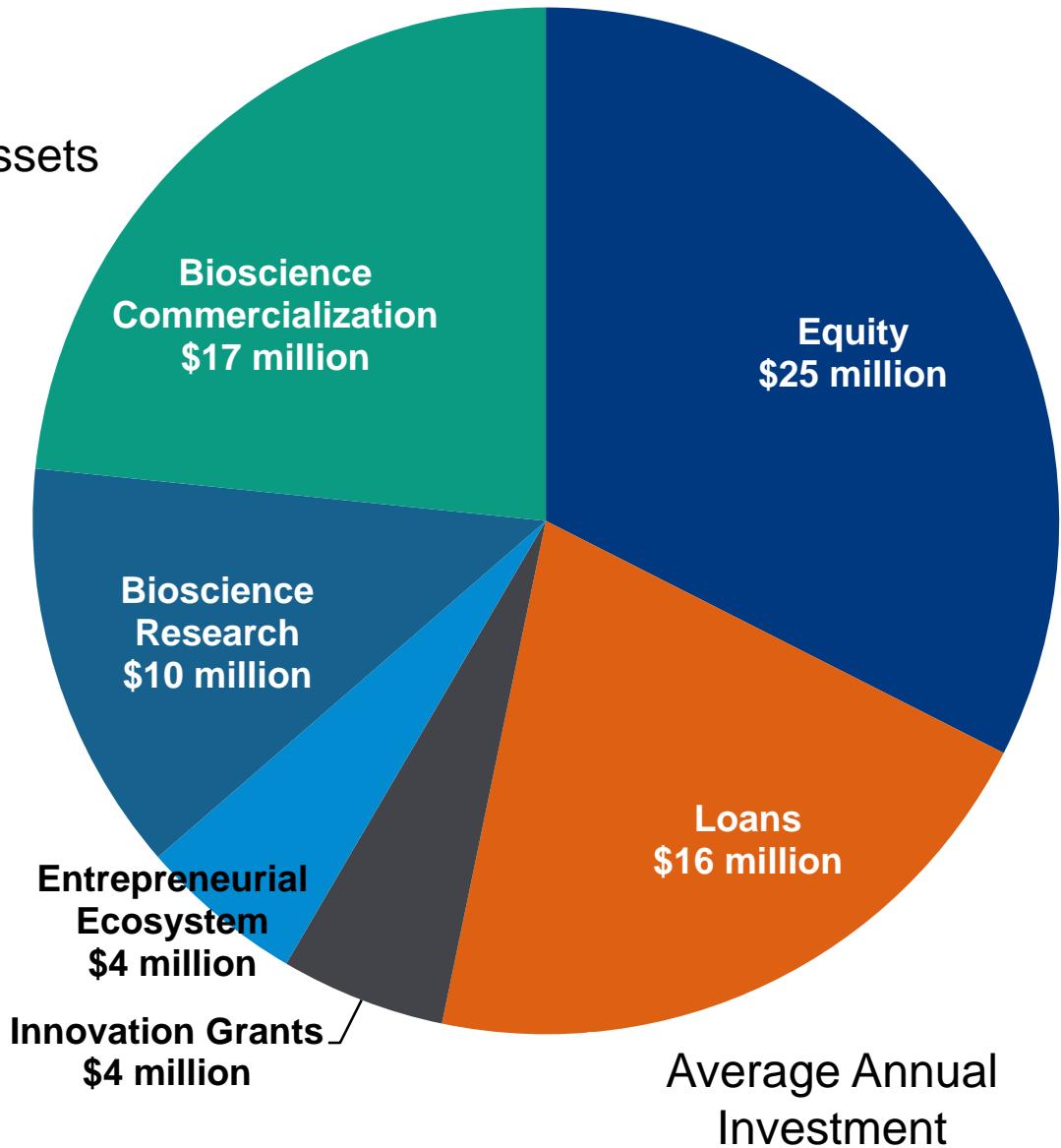


June 2014 Stats

- More than \$200 million in assets
- 520 portfolio companies
- More than 19,000 jobs (current)

Annual Activity

- \$76 million for investments and programs
- \$60 million non-cash assistance
- Support more than 150 companies and 40 scientists
- \$3 million for angel investor tax credits



Growing a vibrant innovation ecosystem that incorporates networks of business support and resources

- Promote and provide support to Connecticut entrepreneurs and companies through programs and initiatives such as:
 - SBIR/STTR grant support
 - Assessment reports: technology and market
 - Interns: talent access and funding -Technology Talent Bridge Internship Grant Program
 - Grants for innovative manufacturing – Small Business Innovation and Diversification Program - \$25K grants
 - Making connections – matching programs
 - CTNext (Connecticut's entrepreneurial ecosystem)
 - Accelerate company development
 - Improve entrepreneur connections
 - Provide grants for entrepreneur-focused programs i.e. accelerators, co-working space, 10K competitive grants for startups



CI Engaging Universities



Started in 2004

- Counseled hundreds of companies
- Hosted two national SBIR/STTR conferences
- Hosted several regional conferences, workshops and webinars
- Recent initiatives: Acceleration and Commercialization Program
- One-on-one outreach to students, faculty and small businesses
- FAST outreach – dedicated consultant to educate minority-owned, woman-owned and veteran-owned small businesses
 - Outreach throughout the state including community colleges



Engaging Universities - CI

- Office hours on site – began late 2013 at Yale and mid-2014 at UCONN
- SBIR Acceleration and Commercialization Program/federal leveraging
- Internship program
- Reimbursement to attend SBIR conferences
- Accounting support for proposals
- Technology Assessment Reports and Market Assessment Reports
- One-on-one support – proposal reviews and strategy sessions
- Funding to UCONN - Third Bridge
- Funding to Yale - YEI Innovation Fund
- Prototype Fund
- Manufacturing Innovation Fund
- Bioscience Innovation Fund
- Angel Tax Credit Program



Office Hours

Spend three days per month at UCONN and Yale University

- In-depth one-on-one overviews, mentoring and proposal strategies
- Presentations and one-on-one sessions involving university incubators
- Access to technology assessment and market assessment reports
- University startups – access to interns
- Workshops, webinars
- Proposal reviews

Strategic Focus: Leverage academic grants that have technologies that are ripe for SBIR/STTR commercialization

Tech Transfer Issues

Working with UCONN to solve tech transfer stumbling blocks

- IP ownership/sharing
- Facilitating partnerships with small businesses that wish to pursue STTRs
- Future collaborative sessions with researchers and targeted small businesses
- Changing university venture model structure

New University Venture Model

Highlights

Since 2012 we have provided more than **\$2.3 million** to SBIR/STTR winners at **57 companies** and have leveraged more than **\$22 million** in federal dollars and private investment

- We have site visits with all of our companies and track quarterly metrics
- They know and trust us

Additional planned outreach: \$100,000 including \$30K to UCONN and \$30K to Yale to host 2-day intense educational workshops focused on DOD and NIH using SBIR consultants.

- One-on-one support for proposal writing, editing and strategy



SBIR Acceleration and Commercialization Success—Royalty-Based Agreement

Biorasis

- Biorasis – developing a tiny implantable sensor for continuous diabetes monitoring
- Needed a cash match for a Phase IIB SBIR – NSF
- Royalty-based partner agreement is now a state model



Biorasis, Inc.

Long Term, Real Time Glucose and Metabolic Monitoring.

Providing Student Interns with Real-World Experience

- Mission is to provide experiential learning to students at small businesses in CT--experience that leads to jobs
- For the past two years our team has funded 78 grants to companies to hire 145 interns at a total cost of \$1 million
- 22 participating colleges/universities in Connecticut
- 70% job offer rate as of April 30, 2014 with more in progress



Partnering with UCONN's School of Engineering

- CI -\$575,000
- School of Engineering match-\$150,000
- Grant support for commercially viable student- and faculty-led startups.
- Six companies funded:
 - 3 bioscience
 - 1 bioinformatics
 - 2 advanced product development



University, Industry, Government Partnering

- Originally funded \$30k through Third Bridge partnership
- Spin-off: IP generated from UCONN
- Bioinformatics software toolkit
- \$150k award from CI Innovation Challenge
- \$150k company match
- \$150k match from industry partner (Fluidigm)
- Estimate three years to commercialization



Partnering with Yale's Entrepreneurial Institute (YEI)

- The Fund has \$3 million - \$1.25M CI, \$1.25 million match from Yale and \$500K from First Niagara Bank
- Matching funds from the School of Engineering –as grant support for commercially-viable student- and faculty-led startups.
- Results: So far 2 out of the 3 investments have received follow on \$1M+ investments
- Isoplexis received a \$1.25 Series A round including \$300K from CI for a single cell immunoassay device and software that provides in-depth understanding of immune and cancer cell activity. They submitted an SBIR proposal in August.

 Yale University

Federal Leveraging – Cornell with NASA

- Attracted to CT's ecosystem
- Developed wearable ultrasound device targeting back pain
- Won SBIR
- \$2.5 million of CI VC funding and leveraged additional \$250K to win \$250K NASA grant
- \$55K from other CI programs
- Additional \$100K from Dept. of Economic & Community Development
- \$30K grant in progress through SBIR A&C



Summary - Still Reaching!

We're Still Trying New Things

- Collaboration is key to success
- We would like to expand our programs to engage other universities such as Wesleyan University and the University of Hartford
- We added about a dozen new companies to our SBIR pipeline in FY 2013
- At least 1/3 of our SBIR winners collaborate with universities
- We're always open to new ideas and best practices



Questions?

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