

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
BOARD OF TRUSTEES
INNOVATION & IMPACT COMMITTEE
Wednesday – January 21, 2015
2:30 p.m.
The Carolina Inn – Chancellor’s Ballroom West

OPEN SESSION

FOR INFORMATION ONLY

(No formal action is requested at this time)

1. [Report on Angel Investing and Venture Capital Availability in North Carolina and the Southeast region, as compared to other U.S. regions](#)
Randy Myer, Professor of the Practice of Strategy and Entrepreneurship, Kenan-Flagler Business School
2. [Report on the Governor’s Task Force for Innovation-to-Jobs and its recommendations on funding](#)
Clay Thorp, General Partner, Hatteras Venture Partners
3. [Discussion of what the University is doing to help close the funding gap for its own startup companies](#)
Trustee Sallie Shuping-Russell

*Some of the business to be conducted is authorized by the N.C. Open Meetings Law to be conducted in closed session.

Committee Members

Phillip L. Clay, Chair
Steven J. Lerner, Vice Chair
Jefferson W. Brown
Peter T. Grauer
Andrew H. Powell
Sallie Shuping-Russell
Administrative Liaison:

Judith Cone, Special Asst. to the Chancellor for Innovation & Entrepreneurship



UNC
KENAN-FLAGLER
BUSINESS SCHOOL

BENCHMARK STUDY – Financial Resources for Entrepreneurial Community

Randy Myer

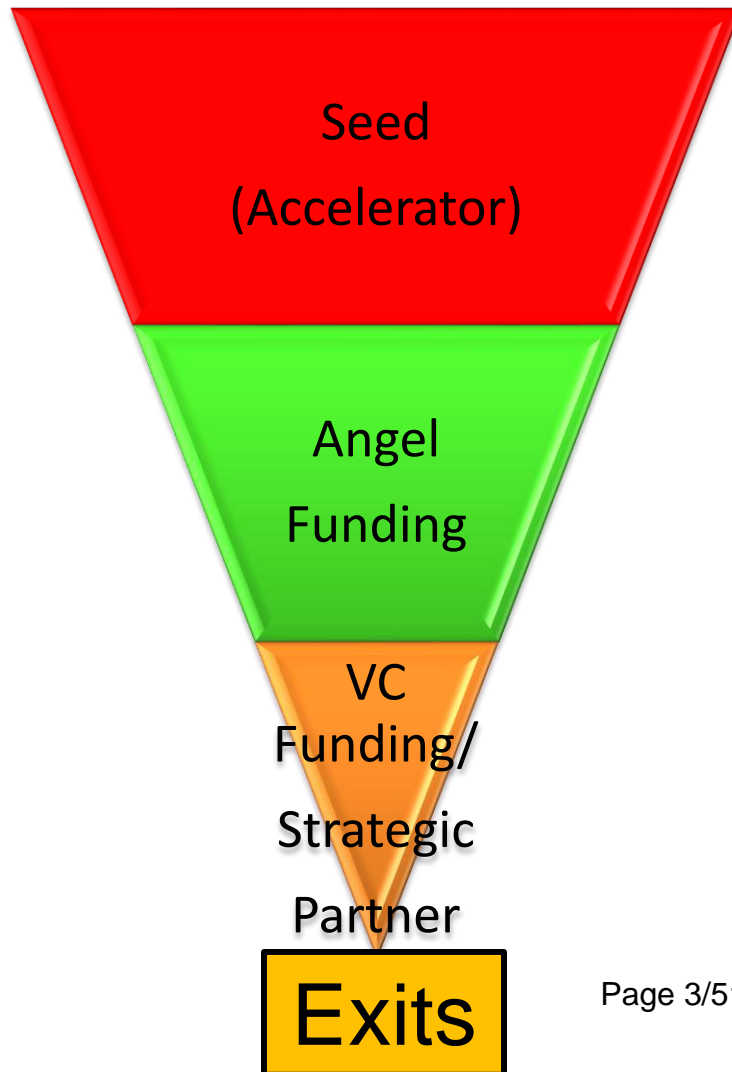
Entrepreneurial Professor of the Practice

Kenan-Flagler Business School

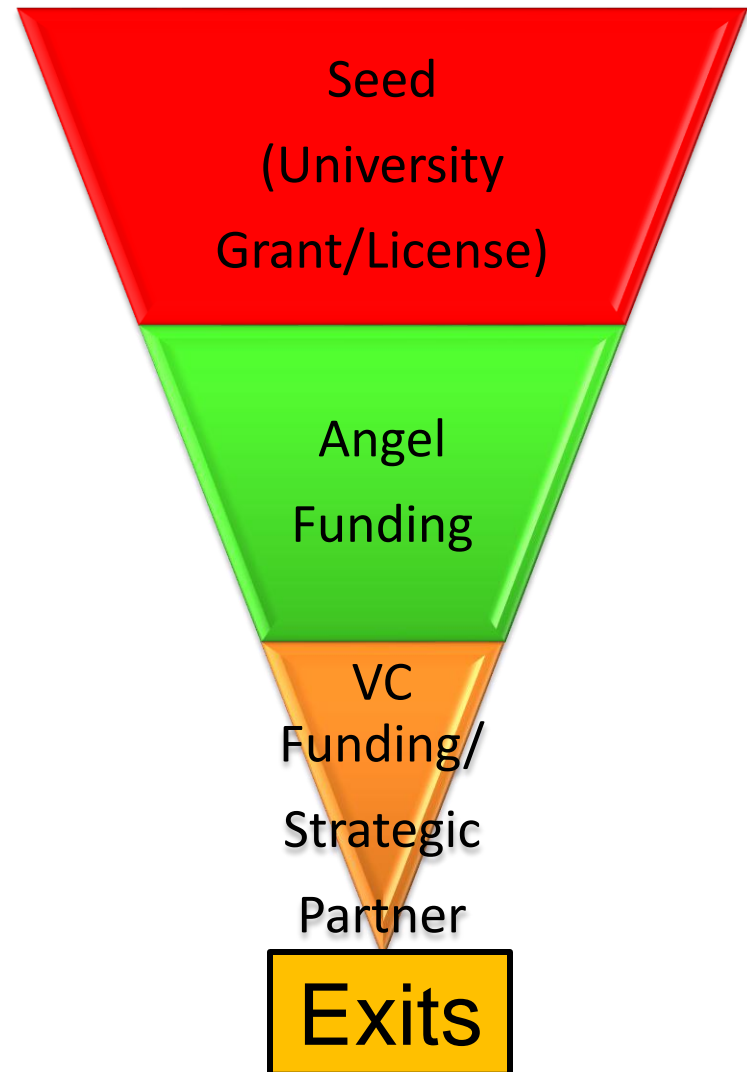
January 21, 2015

Three Levels to Evaluate

IT/MED DEVICE FUNNEL

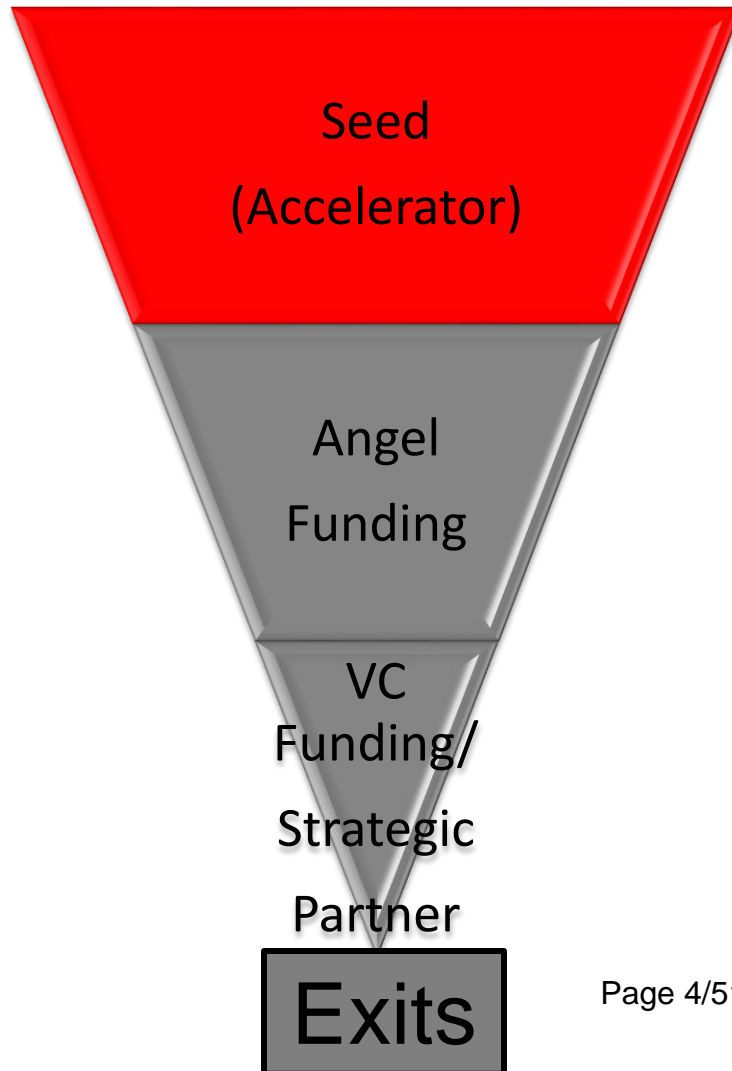


BIOTECH FUNNEL

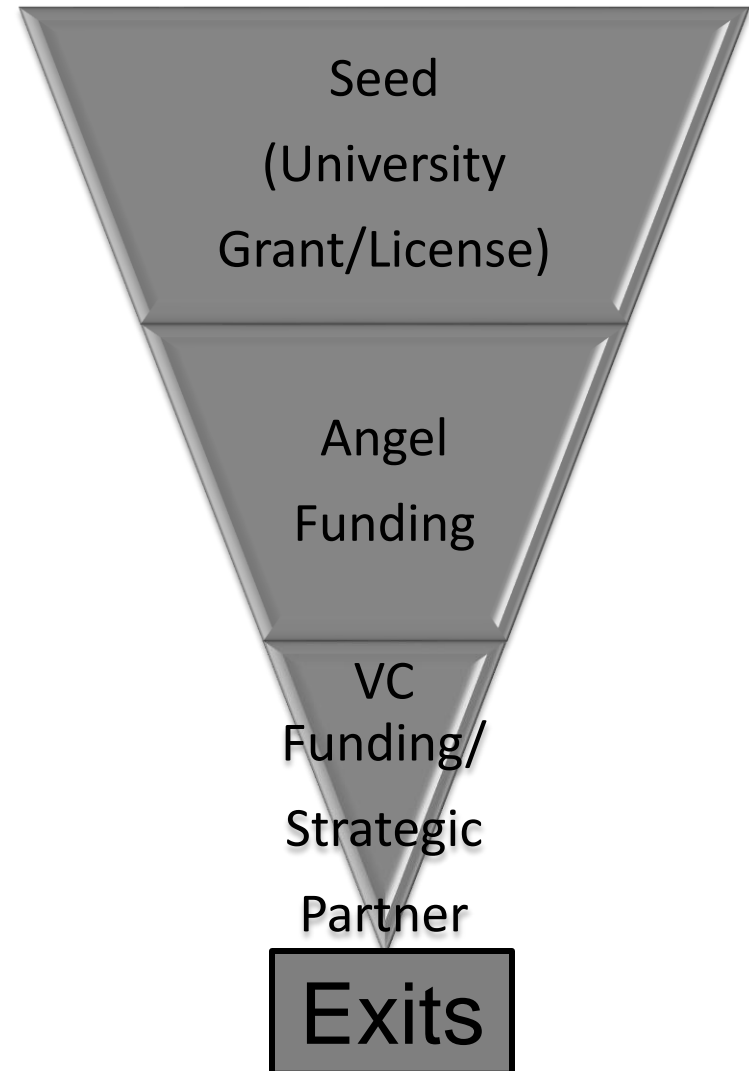


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IT/MED DEVICE FUNNEL

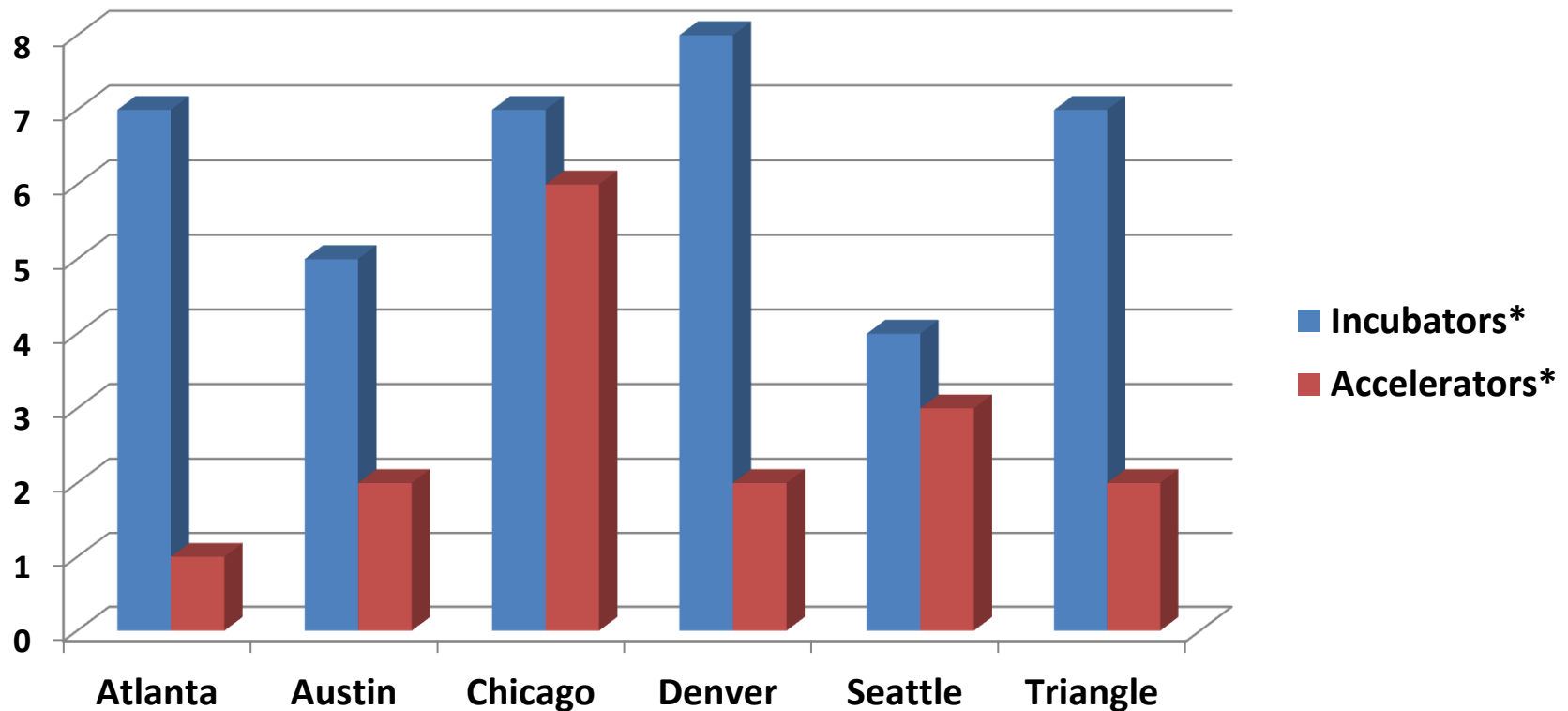


BIOTECH FUNNEL



TRIANGLE NEEDS MORE PROVEN ACCELERATORS (like TechStars)

Number of Incubators and Accelerators



CHICAGO Leads In StartUp Programs

| Atlanta | Austin | Chicago | Denver | Seattle | Triangle |
|--|-----------------------|--------------------------------|----------------------------------|-----------------------------------|----------------------------|
| Accelerators* | | | | | |
| Atlanta Ventures** | DreamIt Ventures | Excelerate Labs | Boomtown | 9Mile Labs | The Startup Factory |
| | TechStars | Healthbox - Chicago | TechStars | Microsoft Accelerator | Raleigh Innovators |
| | | Impact Engine** | | TechStars | |
| | | Lightbank | | | |
| | | StartupFront | | | |
| | | TechStars | | | |
| Incubators* | | | | | |
| Advanced Tech Dev Center (ATDC) ** | Austin Tech Incubator | EnterpriseWorks** | CID4** | EO Seattle | Bull City Forward/Stampede |
| Atlanta Tech Village | Capital Factory | Industrial Council of Nearwest | Colab Boulder | Founders Co-op | First Flight |
| Collab Tech Business Incubator** | Incubation Station | Platform Venture | Galvanize | SURF Incubator | Groundwork Labs |
| Flashpoint** | Launch Lab | Sandbox Industries | Greenlite Labs | UW Center for Commercialization** | Hub Raleigh |
| NewME Atlanta | TechRanch Austin | Syncubator | Impact Hub Boulder | | Investor Circle |
| StartupChicks | | TechNexus | Innovation Center of the Rockies | | Launch Chapel Hill** |
| Venture Lab Georgia Tech** | | University Tech Park at IIT** | Innovation Pavillion | | NC State Tech Incubator** |
| | | | Unreasonable Institute | | |
| * Accelerators are defined as programs where there is equity offered; ** University-based programs | | | | | |

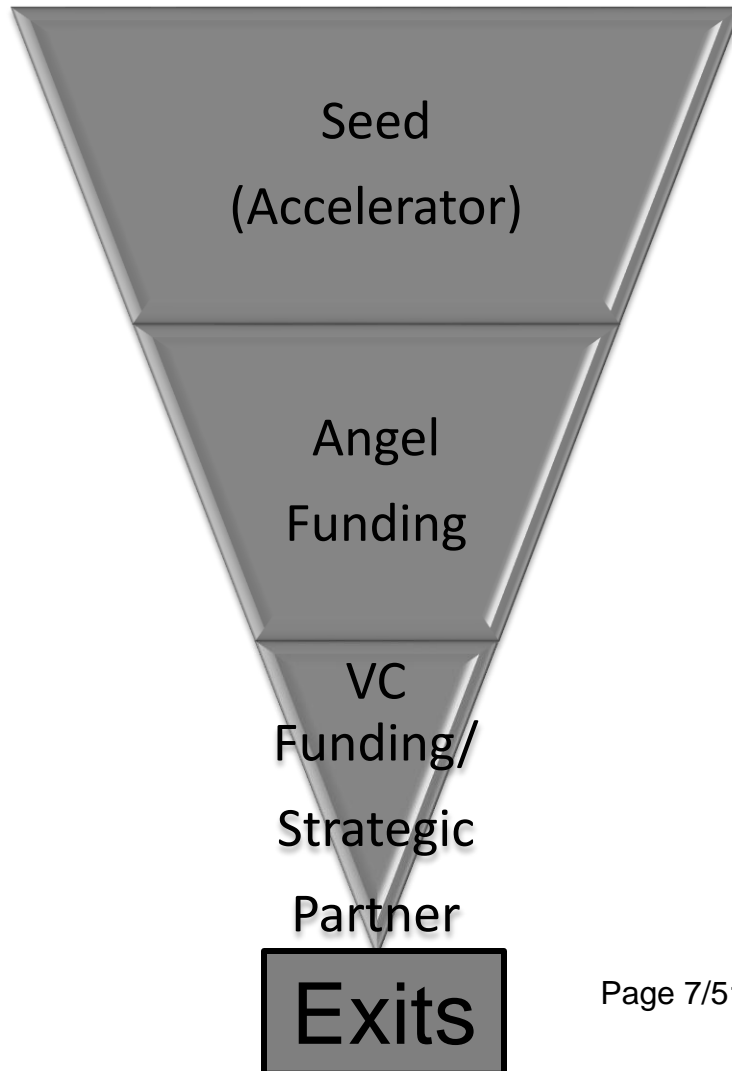
Recognized by all (Global Accelerator Institute, by Seed DB as “premier accelerators or incubators” and by National Business Incubator Association)

Recognized by two of the three (Global Accelerator Institute, Seed DB and National Business Incubator Association)

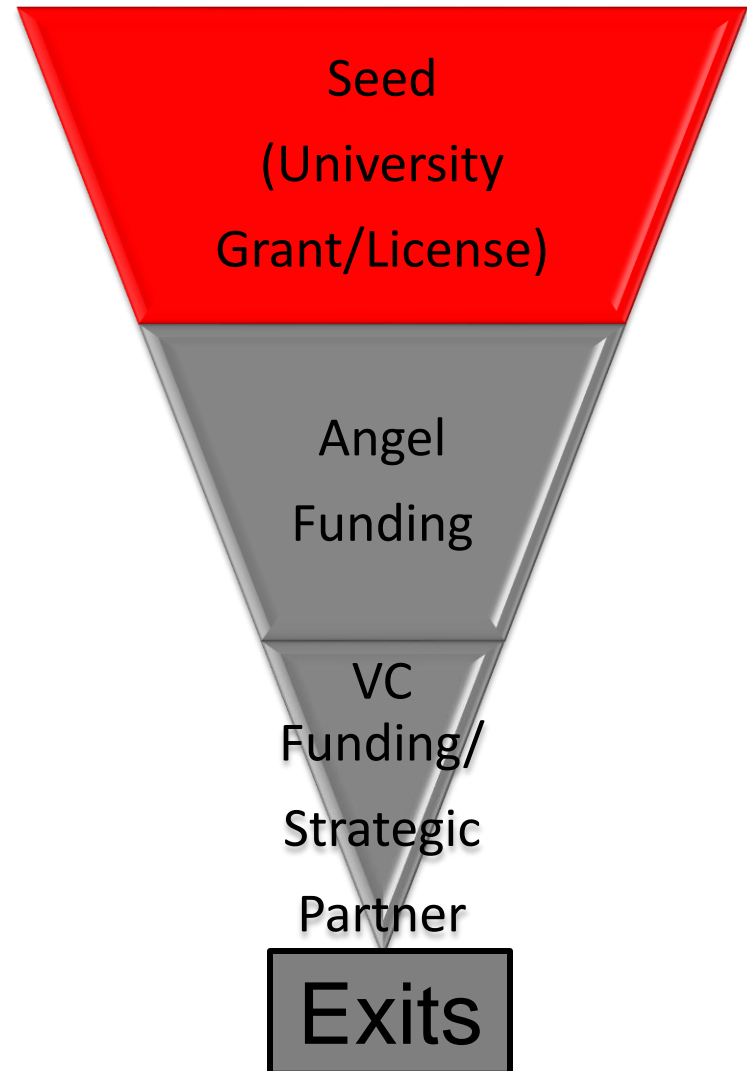
Recognized by one of the three (Global Accelerator Institute, Seed DB and National Business Incubator Association)

Three Levels to Evaluate

IT/MED DEVICE FUNNEL



BIOTECH FUNNEL



Our Research and License Base is Strong

| UNIVERSITY BASED RESEARCH \$ and TT LICENSES (2009-12) | | | | | | |
|--|----------------------------------|-----------------------------|-------------------------------|----------------------------------|-----------------------------|----------|
| | | Total Research Expenditures | Federal Research Expenditures | Industrial Research Expenditures | Other Research Expenditures | Licenses |
| Austin | University of Texas System | \$9,681,371,959 | \$5,383,478,332 | \$924,358,979 | \$3,474,534,648 | 506 |
| | | | | | | |
| Chicago | Univ. of Chicago/UC Tech | \$1,489,731,358 | \$1,337,223,803 | \$23,466,666 | \$129,040,889 | 96 |
| | Northwestern Univ. | \$2,057,437,014 | \$1,567,692,269 | \$110,183,789 | \$379,560,956 | 132 |
| | Univ. of Illinois Chicago Urbana | \$3,682,313,000 | \$2,199,424,000 | \$127,542,000 | \$1,355,347,000 | 218 |
| | Loyola University of Chicago | \$169,033,583 | \$110,013,033 | \$8,929,031 | \$50,091,519 | 3 |
| | TOTAL | \$7,398,514,955 | \$5,214,353,105 | \$270,121,486 | \$1,914,040,364 | 449 |
| | | | | | | |
| Triangle | UNC Chapel Hill | \$2,953,030,115 | \$2,145,815,353 | \$121,654,426 | \$685,560,336 | 212 |
| | Duke Univ. | \$3,231,278,129 | \$1,935,386,884 | \$928,282,117 | \$367,609,128 | 393 |
| | North Carolina State Univ. | \$1,523,774,000 | \$604,447,000 | \$162,379,000 | \$756,948,000 | 260 |
| | TOTAL | \$7,708,082,244 | \$4,685,649,237 | \$1,212,315,543 | \$1,810,117,464 | 865 |
| | | | | | | |
| Seattle | Univ. of Washington | \$3,925,815,375 | \$2,891,360,310 | \$104,211,515 | \$930,243,550 | 791 |
| | Fred Hutchinson Cancer Res. Ctr. | \$1,313,754,000 | \$1,181,441,000 | \$24,926,000 | \$107,387,000 | 64 |
| | TOTAL | \$5,239,569,375 | \$4,072,801,310 | \$129,137,515 | \$1,037,630,550 | 855 |

WE DOMINATE HEALTH CARE GRANTS

| NIH GRANTS (2010-2013) by REGION | | |
|---|---------------|----------------------|
| | Number | Grant Dollars |
| AUSTIN | 69 | \$ 28,330,755 |
| CHICAGO | 73 | \$ 25,340,422 |
| TRIANGLE | 258 | \$ 117,858,246 |
| SEATTLE | 173 | \$ 68,869,192 |

WE LAG BEHIND IN TECH GRANTS

SBIR and STTR GRANTS (2010-13)*

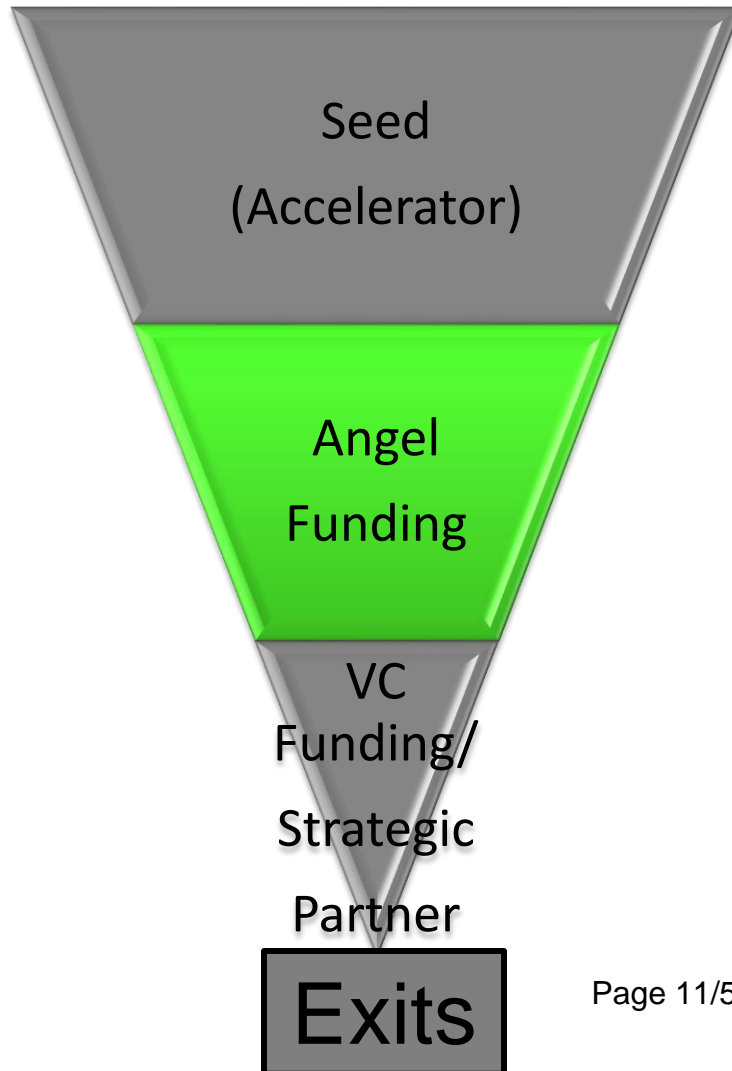
| | Phase I | | Phase II | | TOTAL | |
|-----------------|---------|--------------|----------|---------------|-----------|----------------------|
| | Number | Dollars | Number | Dollars | Number | Dollars |
| AUSTIN | 49 | \$ 4,720,183 | 26 | \$ 20,846,464 | 75 | \$ 25,416,647 |
| CHICAGO | 41 | \$ 4,132,166 | 25 | \$ 18,138,091 | 66 | \$ 21,699,190 |
| TRIANGLE | 24 | \$ 2,935,910 | 12 | \$ 7,807,888 | 36 | \$ 10,118,802 |
| SEATTLE | 35 | \$ 4,167,990 | 16 | \$ 12,931,259 | 51 | \$ 15,307,258 |

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* DOD and NSF grants are dominant categories; DOE, EPA and USDA limited

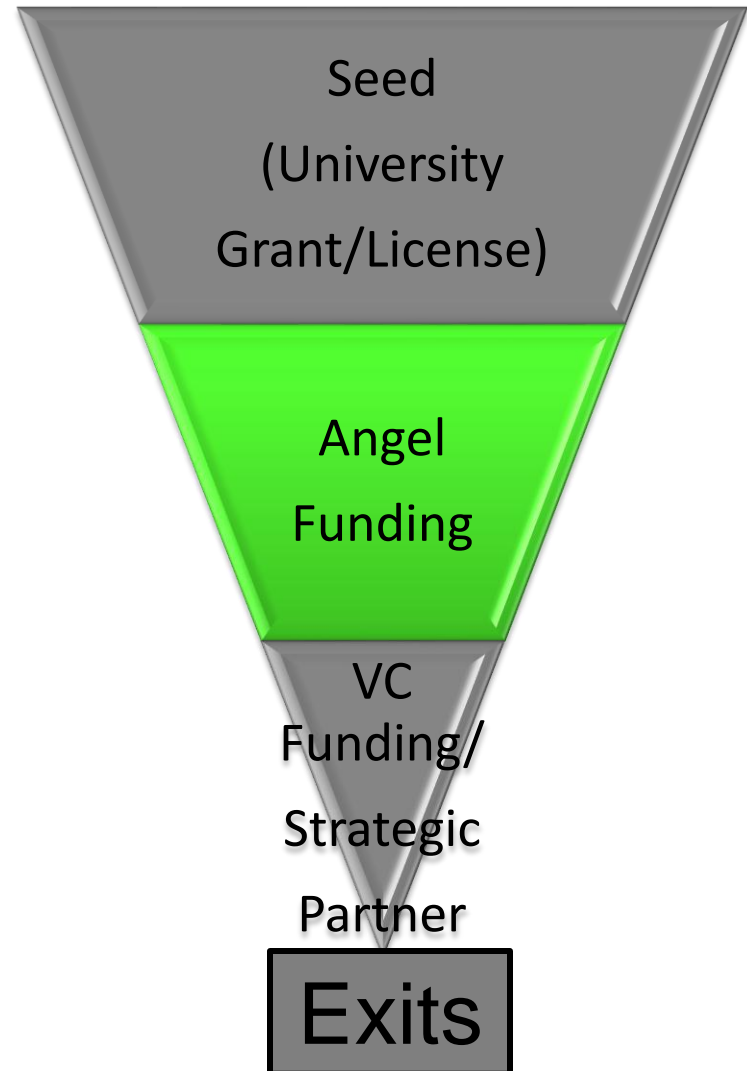
Source: SBA Tech Net

Three Levels to Evaluate

IT/MED DEVICE FUNNEL



BIOTECH FUNNEL



Austin, Chicago and Seattle Have The Large Premier Angel Groups

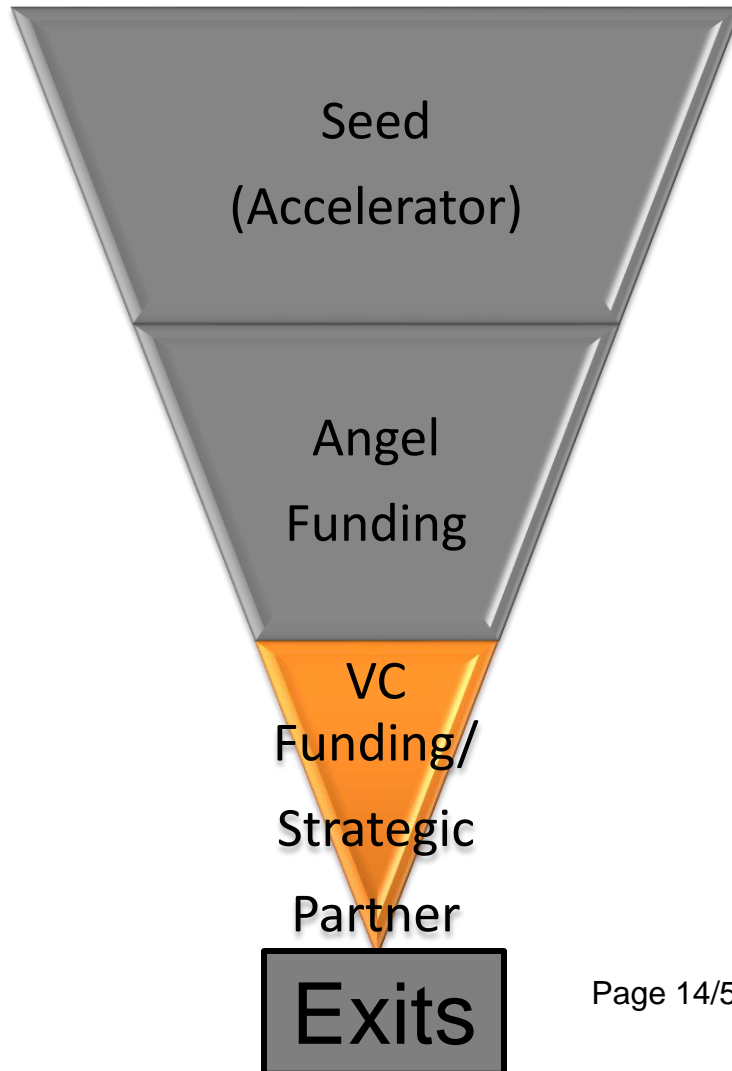
| | Small (Under 50) | Medium (50-100) | Large (Over 100) | TOTAL MEMBERS | |
|-----------------|-----------------------------|----------------------------|-----------------------------|--------------------------|--|
| Atlanta | | 1 | | 83 | |
| Austin | | | 1 | 119 | |
| Chicago | 2 | 1 | 2 | 299 | |
| Denver | 3 | | | 72 | |
| Seattle | 4 | 1 | 2 | 597 | |
| Triangle | | 4 | | 213 | |

...But the Triangle has Very Good Participation in Angel Groups

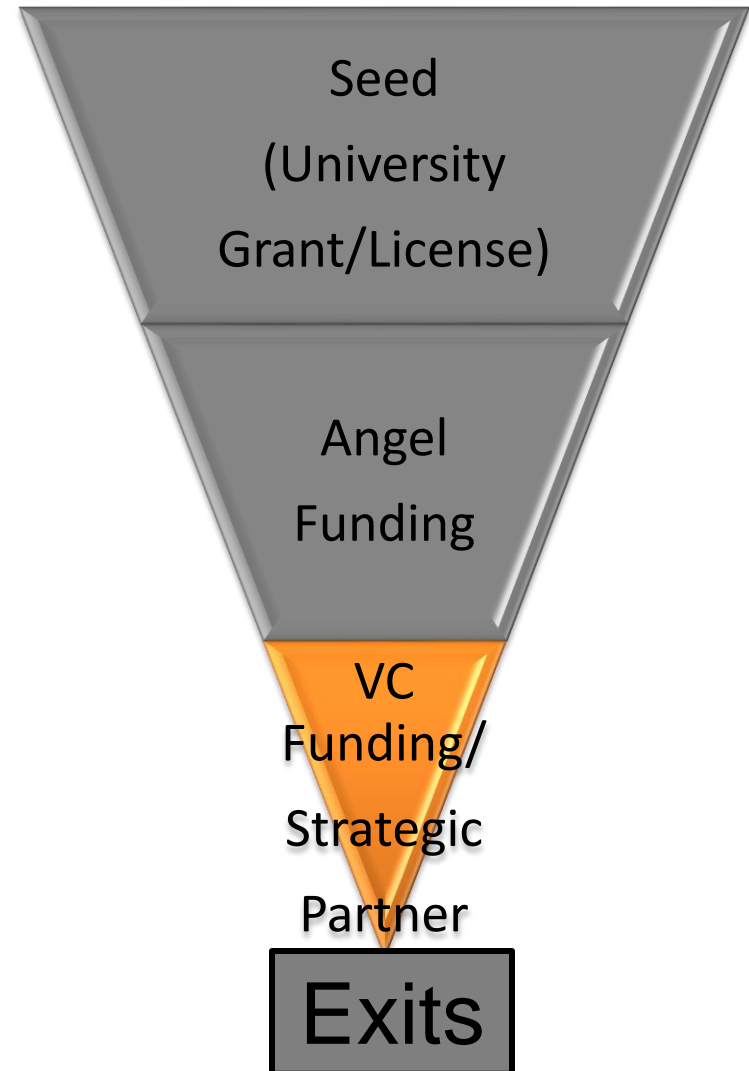
| | Small (Under 50) | Medium (50-100) | Large (Over 100) | TOTAL MEMBERS | Population Index vs Triangle* |
|-----------------|-----------------------------|----------------------------|-----------------------------|--------------------------|--|
| Atlanta | | 1 | | 83 | 3.08 |
| Austin | | | 1 | 119 | 1.05 |
| Chicago | 2 | 1 | 2 | 299 | 5.33 |
| Denver | 3 | | | 72 | 1.68 |
| Seattle | 4 | 1 | 2 | 597 | 2.02 |
| Triangle | | 4 | | 213 | 1.00 |

Three Levels to Evaluate

IT/MED DEVICE FUNNEL



BIOTECH FUNNEL



We Have the Fewest VC Firms HQ In Region

| | Number of Firms | Number of In Region Deals* | Current Fund Size (\$millions)** | Largest VC firms (Over 50 Deals and over \$100m latest fund) |
|----------|-----------------|----------------------------|----------------------------------|--|
| Atlanta | 9 | 216 | \$439 | Accuitive Medical |
| Austin | 10 | 344 | \$1488 | Austin Ventures, Covera Ventures, LiveOak, Sante |
| Chicago | 15 | 270 | \$1880 | Adams Street, Apex, Arch Ventures, Beecken Petty, JK&B, Lightbank, Sandbox |
| Denver | 7 | 178 | \$395 | Foundry Group |
| Seattle | 11 | 423 | \$1302 | Frazier, Ignition, Madrona, Maveron, Voyager |
| Triangle | 6 | 121 | \$627 | Intersouth |

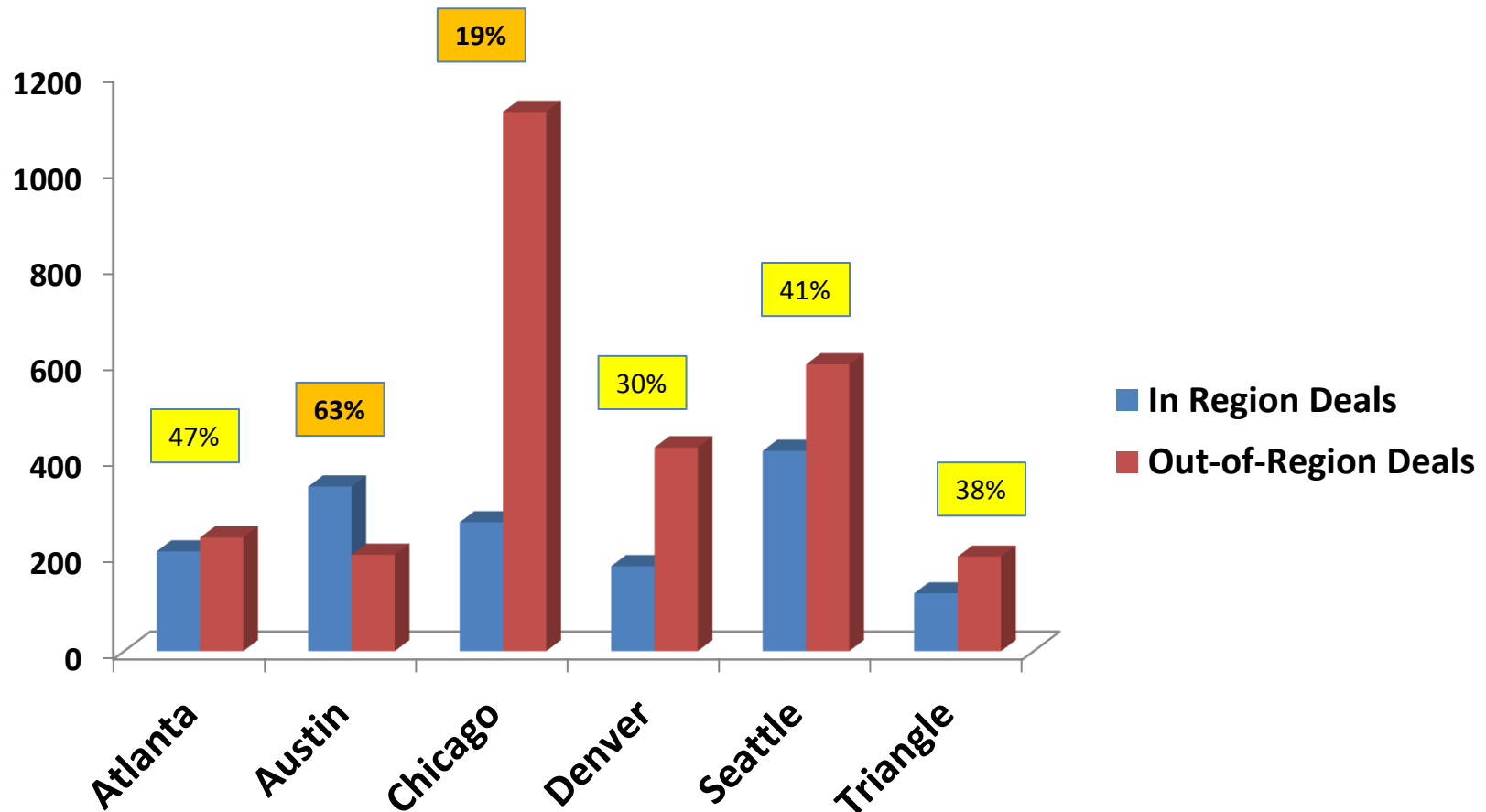
And Even Lower Number of In Region Deals

| | Number of Firms | Number of In Region Deals* | Current Fund Size (\$millions)** | Largest VC firms (Over 50 Deals and over \$100m latest fund) |
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Considerable Differences in \$ Committed In Region

| | Number of Firms | Number of In Region Deals* | Current Fund Size (\$millions)** | Largest VC firms (Over 50 Deals and over \$100m latest fund) |
|----------|-----------------|----------------------------|----------------------------------|--|
| Atlanta | 9 | 216 | \$439 | Accuitive Medical |
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| Triangle | 6 | 121 | \$627 | Intersouth |

Triangle VC Firms Commit Less Than 40% of their Funds In Region



AMONG TOP 50 VCS WE GET SMALLEST % OF FIRMS DOING DEALS IN REGION

| | Percent of Top 50 | TOTAL CURRENT DEALS | VC firms with Most Deals |
|----------|----------------------|------------------------|--|
| Atlanta | 72% | 78 | |
| Austin | 88% | 192 | Intel Capital (20); Floodgate (17); NEA (16); Interwest (15); Lightspeed (11); Battery (10) |
| Chicago | 62% | 93 | NEA (18) |
| Denver | 72% | 152 | Intel Capital (16); NEA (14) |
| Seattle | 84% | 329 | Redpoint (17); Intel (16); Kleiner Perkins (13); NEA (11); Andreessen (10) |
| Triangle | 46% | 66 | Canaan Partners (11) |

...AND SMALLEST NUMBER OF DEALS

| | Percent of Top 50 | TOTAL CURRENT DEALS | VC firms with Most Deals |
|----------|-------------------|---------------------|---|
| Atlanta | 72% | 78 | |
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| Triangle | 46% | 66 | Canaan Partners (11) |

TOP 50 VC PRIORITIES

| Rank | | Current and Prior Portfolio | Current Portfolio | Investments Since 2010 | NC But Non Triangle |
|------|---------------------------|-----------------------------------|----------------------|---------------------------|------------------------|
| 13 | Canaan Partners | 11 | 5 | 4 | 0 |
| 2 | New Enterprise Associates | 7 | 4 | 1 | 3 |
| 48 | Venrock | 6 | 2 | 2 | 0 |
| 26 | Intel Capital* | 8 | 3 | 1 | 0 |
| 24 | Polaris Partners | 5 | 1 | 1 | 0 |
| 44 | Trinity Ventures | 3 | 2 | 1 | 0 |
| 42 | True Ventures | 2 | 2 | 1 | 0 |
| 8 | General Catalyst Partners | 2 | 1 | 1 | 0 |
| | | | | | |
| 4 | Kleiner Perkins | 3 | 1 | 0 | 0 |
| 27 | Interwest Partners | 3 | 0 | 0 | 0 |
| 18 | Benchmark Capital | 2 | 0 | 0 | 0 |
| 25 | Bessemer Venture Partners | 2 | 0 | 0 | 0 |
| 47 | Menlo Ventures | 2 | 0 | 0 | 0 |
| | TOTAL | 56 | 23 | 13 | 3 |



West of the Mississippi



East of the Mississippi

Some Regions Attract VC Firms from Out of Region To Open Office In Region

| | Number of Firms | Number of In Region Deals* | % of Total Portfolio | Largest VC firms (over 100 deals lifetime)* |
|----------|-----------------|----------------------------|----------------------|---|
| Atlanta | 2 | 16 | 13% | |
| Austin | 6 | 62 | 5% | Draper Fisher (679) Advantage Capital (239) Arch Venture Partners (164) |
| Chicago | 3 | 22 | 2% | Draper Fisher (679) Hercules Technology (244) |
| Denver | 4 | 43 | 4% | Draper Fisher (679) Hercules Technology (244) GroTech (146) |
| Seattle | 1 | 40 | 24% | Arch Venture Partners (164) |
| Triangle | 3 | 14 | 2% | Intel Capital (712) |

...BUT LEVEL OF PARTICIPATION VARIES WIDELY

| | Number of Firms | Number of In Region Deals* | % of Total Portfolio | Largest VC firms (over 100 deals lifetime)* |
|----------|-----------------|----------------------------|----------------------|---|
| Atlanta | 2 | 16 | 13% | |
| Austin | 6 | 62 | 5% | Draper Fisher (679) Advantage Capital (239) Arch Venture Partners (164) |
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| Seattle | 1 | 40 | 24% | Arch Venture Partners (164) |
| Triangle | 3 | 14 | 2% | Intel Capital (712) |

AND SOME VC FIRMS HAVE MADE DEEP COMMITMENTS IN REGION

| ATLANTA | | AUSTIN | | CHICAGO | | DENVER | | SEATTLE | | TRIANGLE | |
|--------------------------|-----|--------------------------|------|--------------------------|-----|----------------------|------|-----------------------|-----|-------------------|-----|
| Kinetic Ventures | 9 | Advantage Capital | 17 | Draper Fisher | 13 | GroTech Ventures | 26 | Arch Venture Partners | 40 | Intel Capital | 8 |
| Harbert Venture Partners | 7 | Access Venture Partners | 15 | Hercules Tech Growth | 9 | Draper Fisher | 8 | | | River Cities | 5 |
| | | Adams Capital Management | 17 | Harbert Venture Partners | 0 | Hercules Tech Growth | 7 | | | Syngenta Ventures | 1 |
| | | Draper Fisher | 13 | | | Point B Capital | 2 | | | | |
| | | Gefinor Capital | 11 | | | | | | | | |
| | | Arch Venture Partners | 7 | | | | | | | | |
| TOTAL | 126 | TOTAL | 1282 | TOTAL | 971 | TOTAL | 1084 | TOTAL | 164 | TOTAL | 817 |

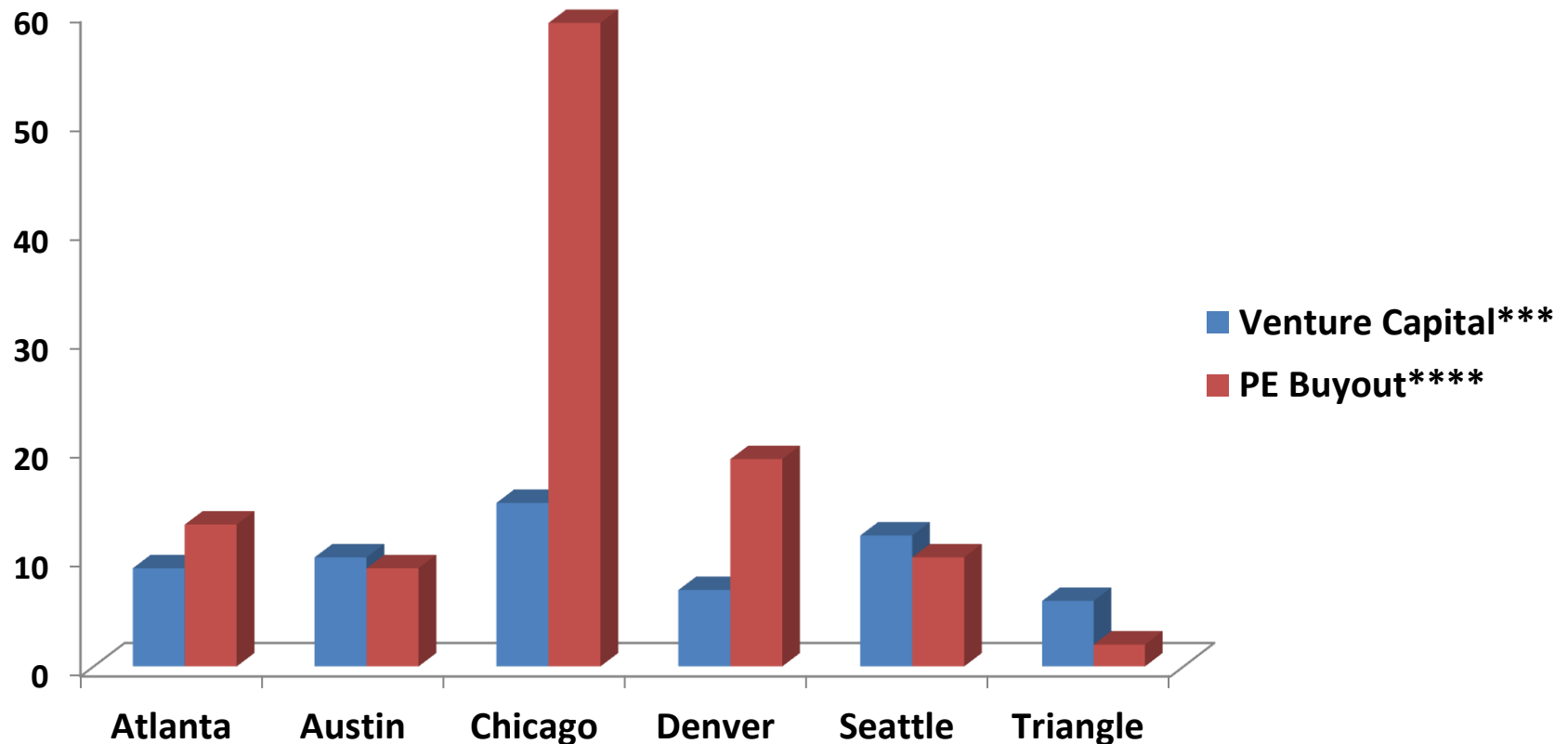
Numbers reflect In region current or prior deals done

Total reflect all deals for those firms, both prior and current regardless of location

Source: Capital IQ database

WE HAVE HARDLY ANY LOCAL PE BUYOUT FIRMS

Number of “ACTIVE” VC and Private Equity Buyout Firms



NC INNOVATION FUND

- **First Fund Characteristics - \$232m in 2009**
 - State Employees Pension Fund money
 - Grosvenor as the fund manager
 - Approx. 50% in VC and PE funds; 50% in companies ('direct')
 - Fund of funds balance between early stage VC, growth stage VC, buyout
 - "Direct" investment as co-investor only in later stage companies
 - No geographic or industry fund restrictions within the state
 - Broad industry categories
- **Results**
 - 20 investments – 8 funds and 12 direct investments
 - 3 Triangle-based VC funds (Hatteras, Bull City, River Cities) of 8
 - No Triangle-based direct investments – early or later stage VC – of 12
 - Strong early performance driven by direct investments
 - No out-of-region VCs with new offices here
- **Second fund - no commitment yet**



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APPENDIX

Austin, Chicago and Seattle Have The Large Premier Angel Groups

GROUPS by MEMBERSHIP SIZE

| Atlanta | Austin | Chicago | Denver | Seattle | Triangle |
|-------------------------|-----------------------------|-------------------------|---------------------|--------------------------|-------------------------|
| Large (> 100) | | | | | |
| | Central Texas Angel Network | Hyde Park Angel Network | | Alliance of Angels | |
| | | Irish Angels | | Keiretsu Forum | |
| Med (50-100) | | | | | |
| Atlanta Tech Angels | | Cornerstone Angels | | TiE Angel Group (TAG) | Excelerate Health |
| | | | | | IMAF RTP |
| | | | | | RTP Capital |
| | | | | | Triangle Angel Partners |
| Small (< 50) | | | | | |
| | | The Angel Food Network | Angel Capital Group | Element 8 Angels | |
| | | SloFIG | Boulder Angels | Puget Sound Venture Club | |
| | | | RVC Angel Group | Seraph Capital Forum | |
| | | | | WINGS | |

LOCAL VENTURE CAPITAL FIRMS

| ATLANTA | # | AUSTIN | # | CHICAGO | # | DENVER | # | SEATTLE | # | TRIANGLE | # |
|----------------------------|-----|--------------------------|-----|--------------------------------|------|-------------------------|-----|-----------------------------|------|----------------------|-----|
| Accuitive Medical Ventures | 22 | Alara Capital | 9 | Adams Street Partners | 189 | Access Venture Partners | 78 | The Benaroya Capital | 67 | Hatteras | 45 |
| BLH Venture Partners | 20 | Austin Ventures | 323 | Apex Venture Partners | 126 | Appian Ventures | 33 | Divergent Ventures | 26 | Idea Fund Partners | 20 |
| Buckhead investments | 8 | Covera Ventures | 49 | Arch Venture Partners | 167 | Boulder Ventures | 82 | Founder's Co-op | 6 | Intersouth | 141 |
| Forte Ventures | 9 | LiveOak Venture Partners | 21 | Chicago Venture Partners | 35 | eonCapital | 103 | Frazier Healthcare Ventures | 133 | Pappas | 49 |
| Fulcrum Equity Partners | 25 | PTV Healthcare Capital | 24 | GSV Ventures | 72 | Foundry Group | 194 | Frazier Technology Ventures | 21 | So Capitol/Bull City | 20 |
| Imlay Investments | 96 | S3 Ventures | 17 | Hyde Park Venture Partners | 27 | Primera Capital | 26 | Ignition Partners | 169 | SJF | 44 |
| TechOperators | 12 | Sante Ventures | 17 | IllinoisVentures | 45 | Sequel Venture Partners | 87 | Madrona Venture Group | 161 | TOTAL | 319 |
| TTV Capital | 59 | Silverton Partners | 61 | JK&B Capital | 105 | TOTAL | 603 | Maveron LLC | 102 | | |
| Noro-Moseley Partners | 204 | Stage One Capital | 25 | Jump Capital | 26 | | | OVP Venture Partners | 115 | | |
| TOTAL | 455 | Sentient Capital | ??? | Lightbank | 136 | | | Second Avenue Partners | 39 | | |
| | | TOTAL | 546 | OCA Ventures | 43 | | | Trilogy Equity Partners | 47 | | |
| | | | | Origin Ventures | 26 | | | Voyager Capital | 74 | | |
| | | | | Partisan Management Group | 21 | | | TOTAL | 1015 | | |
| | | | | Pritzker Group Venture Capital | 183 | | | | | | |
| | | | | Promus Ventures | 110 | | | | | | |
| | | | | Sandbox Industries | 79 | | | | | | |
| | | | | TOTAL | 1390 | | | | | | |

PRIVATE EQUITY/BUYOUT Firms

| Austin | Chicago | Chicago (con't) | Denver | Seattle | Triangle |
|--------------------------------|---|------------------------------------|---------------------------------|--------------------------------------|------------------------------|
| Blue Sage Capital | 2x Consumer Products Growth Partners | Matthew Pritzker Company LLC | Black Diamond Financial Group | Columbia Pacific Advisors, LLC | NovaQuest Capital Management |
| Daylight Partners | Adams Street Partners, LLC | Merit Capital Partners | Centurion Resource Group | Divergent Ventures, LLC | Plexus Capital |
| Escalate Capital Partners | Aldine Capital Partners, Inc. | New Rhein Healthcare LLC | Confluence Capital Partners | Evergreen Pacific Partners | |
| Hale Holdings Group, LLC | Alpha Capital Partners, Ltd. | Northport Investments | Coulton Creek Capital | Frazier Healthcare Ventures | |
| Harris Preston & Partners, LLC | Beecken Petty O'Keefe & Company | Old Willow Partners, L.L.C. | Excellere Partners | Ignition Capital | |
| TGF Management Corp. | Blumenstein/Thorne Information Partners | P.A.G. Capital Partners, LLC | Grey Mountain Partners, LLC | Montlake Capital | |
| Tritium Partners | Bounds Equity Partners, LLC | Prairie Capital, L.P. | Highline Equity Partners | Northwest Capital Appreciation, Inc. | |
| Virgo Capital | Bridge Investments LLC | Pritzker Group | Iron Gate Capital, LLC | Skylight Capital | |
| Vitesse Capital Partners, LLC | CIVC Partners, L.P. | Prospect Partners, LLC | KRG Capital Partners | Swiftsure Capital LLC | |
| | Continental Investors LLC | Red Barn Investments | Lariat Partners | Tola Capital | |
| | Cressey & Company, LP | Riker Capital | Mantucket Capital | | |
| | Ellipse Capital LLC | Rock Gate Partners, LLC | Platte River Equity | | |
| | Fidus Investment Advisors, LLC | Rock Island Capital LLC | Quince Associates, L.P. | | |
| | Frontenac Company | Second Century Ventures, LLC | Raindrop Partners | | |
| | Garland Capital Group | Shore Capital Partners, LLC | Resource Capital Funds | | |
| | GTCR, LLC | SilkRoad Equity LLC | Revelry Brands | | |
| | HCP & Company | Silver Oak Services Partners, LLC | Revelstoke Capital Partners LLC | | |
| | Hennessy Capital LLC | Sterling Partners | Silver Peak Partners | | |
| | Industrial Innovation Partners | Svoboda Capital Partners LLC | Vision Ridge Partners | | |
| | Industrial Opportunity Partners LLC | Synetro Group, L.L.C. | | | |
| | Invision Capital | The Banc Funds Company, L.L.C. | | | |
| | Lake Capital | The Randolph Group, Inc. | | | |
| | LaSalle Capital | Valor Equity Partners L.P. | | | |
| | Leo Capital Holdings, LLC | Vernon & Park Capital, L.P. | | | |
| | Linden LLC | Victory Park Capital Advisors, LLC | | | |
| | Longview Capital Partners, LLC | Water Street Healthcare Partners | | | |
| | Madison Dearborn Partners, LLC | Waud Capital Partners, L.L.C. | | | |
| | Manasota Capital LLC | Winona Capital Management, LLC | | | |
| | | Z Capital Management LLC | | | |

Moving Forward on the Innovation Triangle

*Recommendations from the
Governor's Innovation-to-Jobs (I2J) Working Group*



Clay Thorp
Co-Chair, I2J Working
Group

January 21, 2015

Innovation-to-Jobs (I2J) Initiative

5/8/2013: Governor convenes NC's venture capital and investment leaders:

- Group describes challenges in commercializing innovations
- Group identifies gap in venture capital available in NC
- Governor is encouraged to reach out to Silicon Valley venture community

4/15/2014: Governor convenes leaders of NC universities and RTI International:

- Recognizes competitive advantage of NC's academic R&D & innovations
- Shares insights from recent visit to Silicon Valley
- Hears current innovation commercialization efforts & challenges in NC
- Calls for Innovation-to-Jobs (I2J) Working Group to address challenges

6/26/2014 – 10/1/2014: Led by Thomas Stith, I2J Group holds 8 meetings:

- Conducts comprehensive, statewide assessment of I2J challenges in NC
- Collects input from more than 500 well-informed stakeholders
- Drafts package of 6 recommendations for Governor's consideration

I2J Working Group Members

| University/Tech Commercialization | Investor/Business |
|---|---|
| Chris Brown (Co-Chair) Vice President for Research & Graduate Education UNC General Administration | Clay Thorp (Co-Chair) General Partner Hatteras Venture Partners |
| Judith Cone Special Asst. to Chancellor for Innovation & Entrepreneurship UNC-Chapel Hill | John Cambier Founding Managing Partner IDEA Fund Partners |
| Joseph DeSimone Chancellor's Eminent Professor of Chemistry UNC-Chapel Hill | Igor Jablokov Entrepreneur in Residence Blackstone Entrepreneurs Network |
| Galen Hatfield Vice President, Commercial Programs Division RTI International | Karen LeVert CEO and Co-Founder Southeast TechInventures, Inc. |
| Terri Lomax Vice Chancellor for Research, Innovation & Econ. Dev. NC State University | Robert Long Co-Founder & Partner Long Miller & Associates |
| Laura A. Schoppe President Fuentek, LLC | Mitch Mumma General Partner Intersouth Partners |
| Eric Tomlinson President Wake Forest Innovation Quarter | Steve Nelson Co-Founder EiPi Systems |
| Eric Toone Vice Provost & Director, Innovation & Entrepreneurship Duke University | Carlos Parajon Co-Founder Harbor Island Equity Partners |

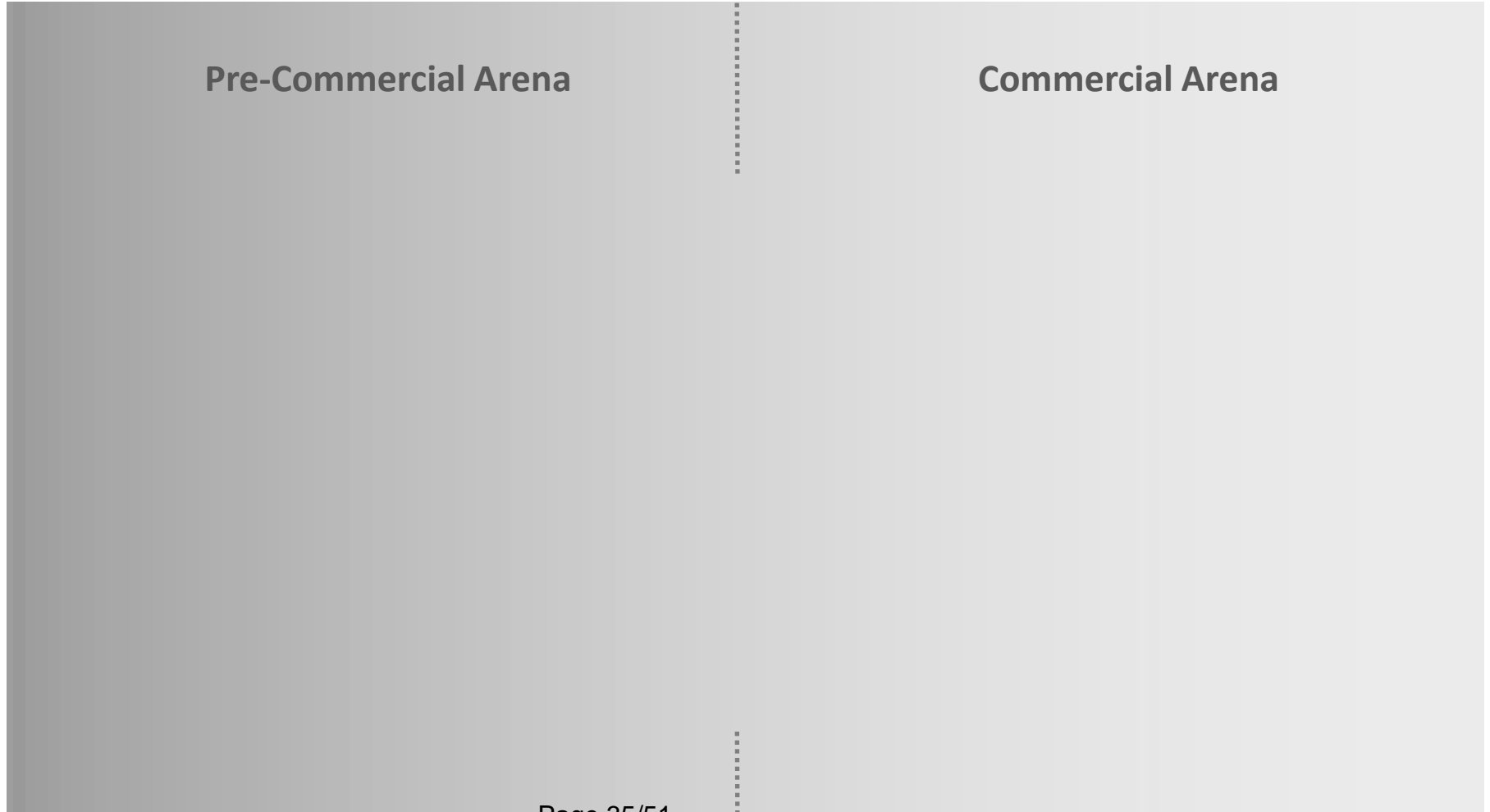
Major I2J Challenges

1. **Translation** – Insufficient development and/or dissemination of university-based structures and practices for technology commercialization
2. **Capitalization** – Insufficient funding for technology proof of concept, validation, IP protection, commercialization, early and mid-stage product development/production, and business expansion
3. **Operation** – Insufficient number and utilization of seasoned, mature, business professionals to run startups and guide companies through growth and expansion

I2J Working Group Recommendations

(Integrated Plan for I2J)

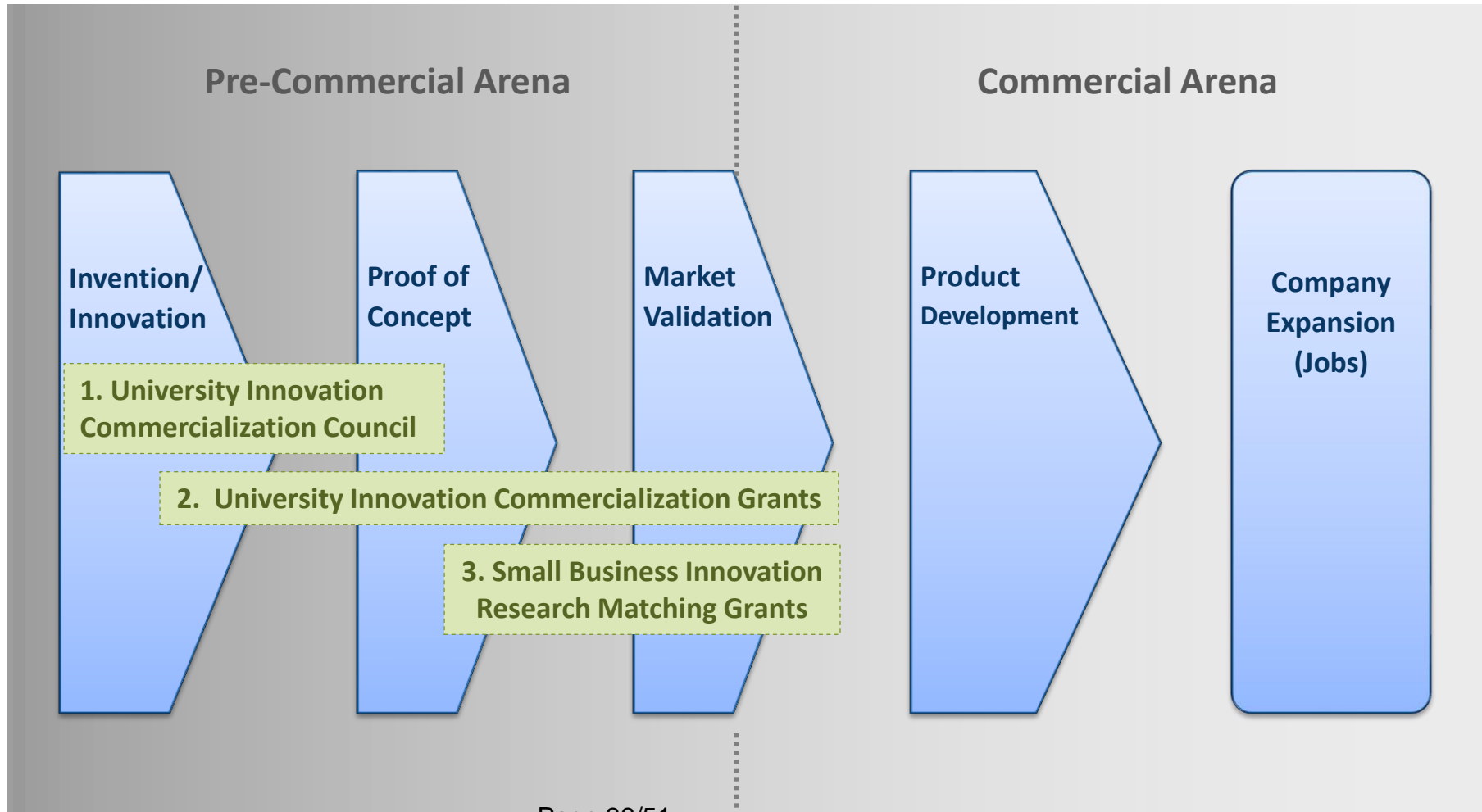
Sequential Model of Innovation Commercialization Ecosystem



I2J Working Group Recommendations

(Integrated Plan for I2J)

Sequential Model of Innovation Commercialization Ecosystem



I2J Working Group Recommendations

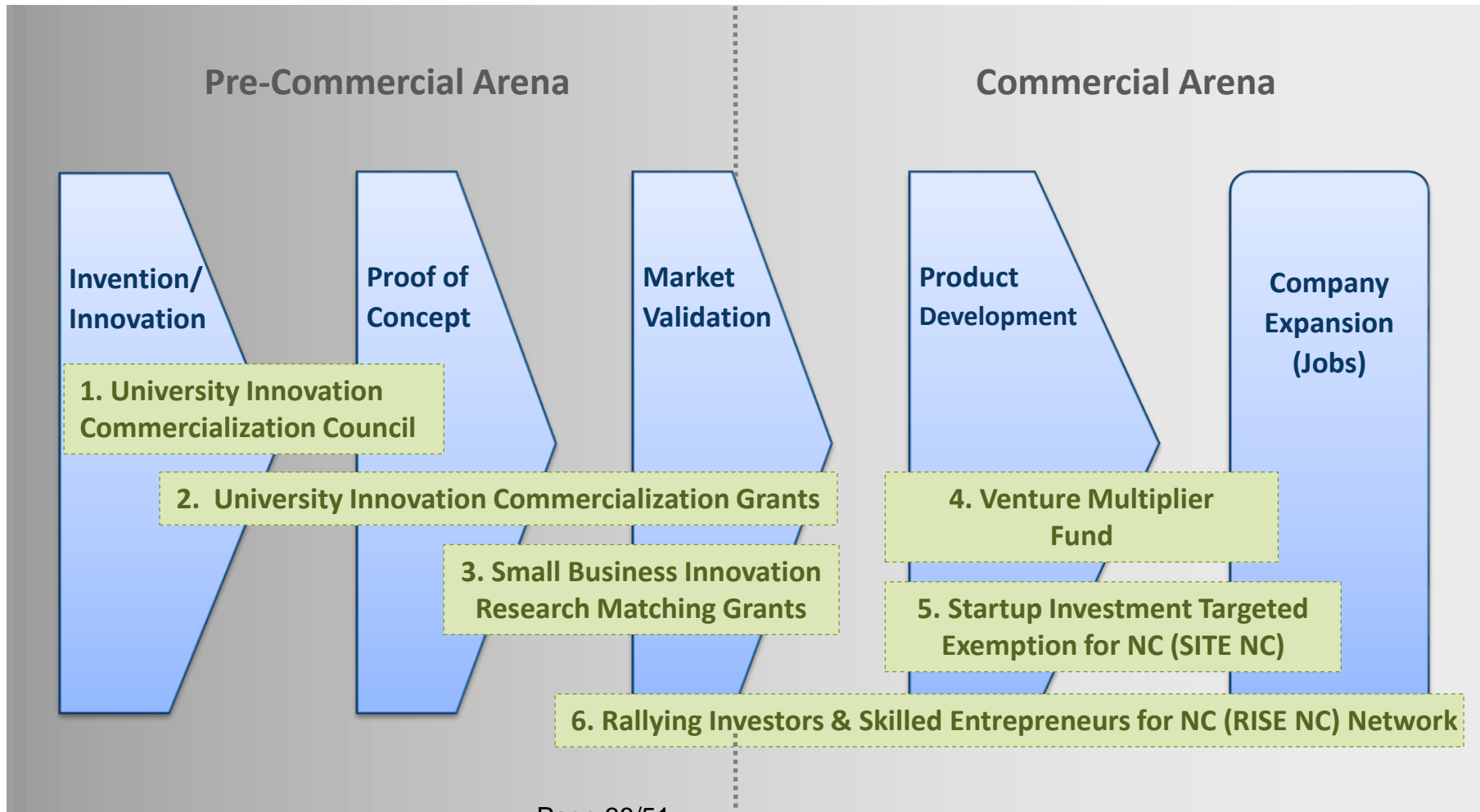
(Overview of components)

| RECOMMENDATION | SUMMARY | TOTAL COST | SOURCE |
|--|---|--|---|
| <i>Developing and Positioning Pre-Commercial Innovations for the Market</i> | | | |
| 1. University Innovation Commercialization Council | Defines best practices for innovation commercialization at NC universities, promotes inter-university cooperation and standardization where possible, and catalyzes transformation in culture to encourage technology commercialization | No new funding needed | Expenses minimal and absorbed by participants |
| 2. University Innovation Commercialization Grant Program | Provides funding and process for technology proof of concept, validation, commercialization, translation, etc., for technologies developed by NC universities and research not-for-profits | \$10MM annually, phased in over four years | Expanded state appropriations |
| 3. Small Business Innovation Research Matching Grant Program | Re-names the existing “One NC Small Business Program” the “Small Business Innovation Research Matching Grant Program,” and appropriates sufficient funding to support eligible applicants at 100% of statutory maximum | Recurring \$5MM annually, ongoing as needed. Currently \$2.5MM; was \$5MM in FY 2007 | Expanded state appropriations |

I2J Working Group Recommendations

(Integrated Plan for I2J)

Sequential Model of Innovation Commercialization Ecosystem



I2J Working Group Recommendations

(Overview of components)

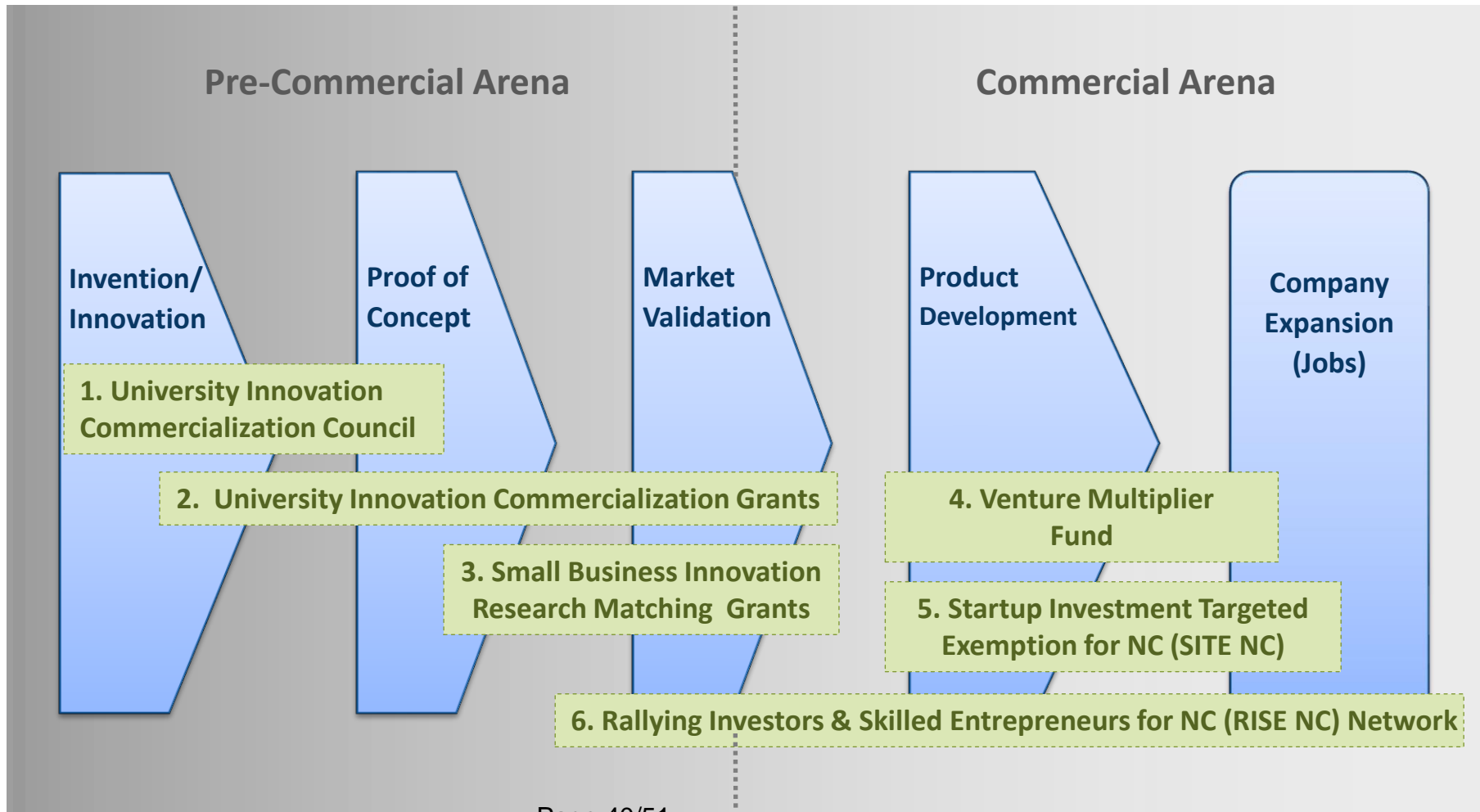
| RECOMMENDATION | SUMMARY | TOTAL COST | SOURCE |
|---|--|--|--|
| <i>Accelerating Growth of Commercial Innovations in the Market</i> | | | |
| 4. Venture Multiplier Fund | Creates early stage investment fund, consisting of fund-of-funds and a direct-investment fund component, to invest in early stage commercial ventures | \$120 million, one time from investable funds | Long-term investible state-focused funds |
| 5. Startup Investment Targeted Exemption for NC (SITE NC) Designation | Creates the Startup Investment Targeted Exemption for NC (SITE NC) designation, authorizing an exemption from NC capital gains taxes on investments in startup companies headquartered (i.e., sited) in NC | Capped at level determined by Governor and Legislature | Tax exemption |
| 6. Rallying Investors & Skilled Entrepreneurs for NC (RISE NC) Network | Creates a statewide network that develops and leverages existing NC entrepreneurial management talent and recruits world-class investors, skilled entrepreneurs, and managers to NC | \$7.5MM* annually, for three years | Expanded state appropriations, leveraged 1:2 by foundation, corporate, and private sources |

* Only \$2.5MM of this total cost would be provided through state appropriations; \$5MM would be provided by foundation, corporate, and private sources.

I2J Working Group Recommendations

(Integrated Plan for I2J)

Sequential Model of Innovation Commercialization Ecosystem





THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Carolina Research Venture Fund

Fund Overview

The Challenge

The Funding Gap for UNC Startup Companies

Discoveries
and Ideas



Innovative
Products



Grants

Venture Capital
Corporate Partners

Research

Technology
Development

Startup
Licensing

Product
Development

Product
Launch



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

The Challenge

The Funding Gap for UNC Startup Companies

Discoveries
and Ideas



Innovative
Products



Beyond Scope of Grants

Too Risky for VCs and
Corporations

Too Much Capital for Angel
Investors

Grants

Venture Capital
Corporate Partners

Research

Technology
Development

Startup
Licensing

Product
Development

Product
Launch



Bridging the Gap

Discoveries
and Ideas



Innovative
Products



Carolina
Research
Venture
Fund

Grants

Venture Capital
Corporate Partners

Research

Technology
Development

Startup
Licensing

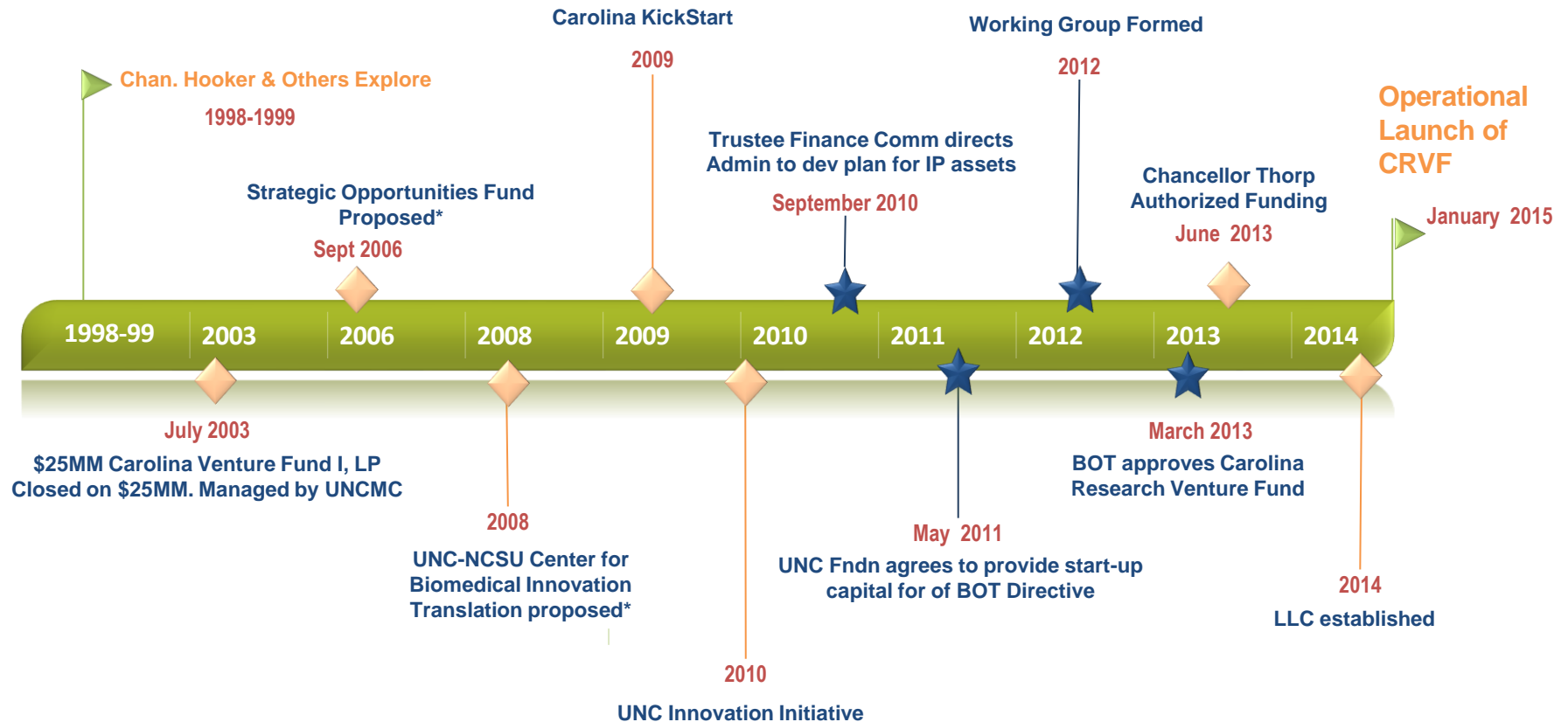
Product
Development

Product
Launch



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

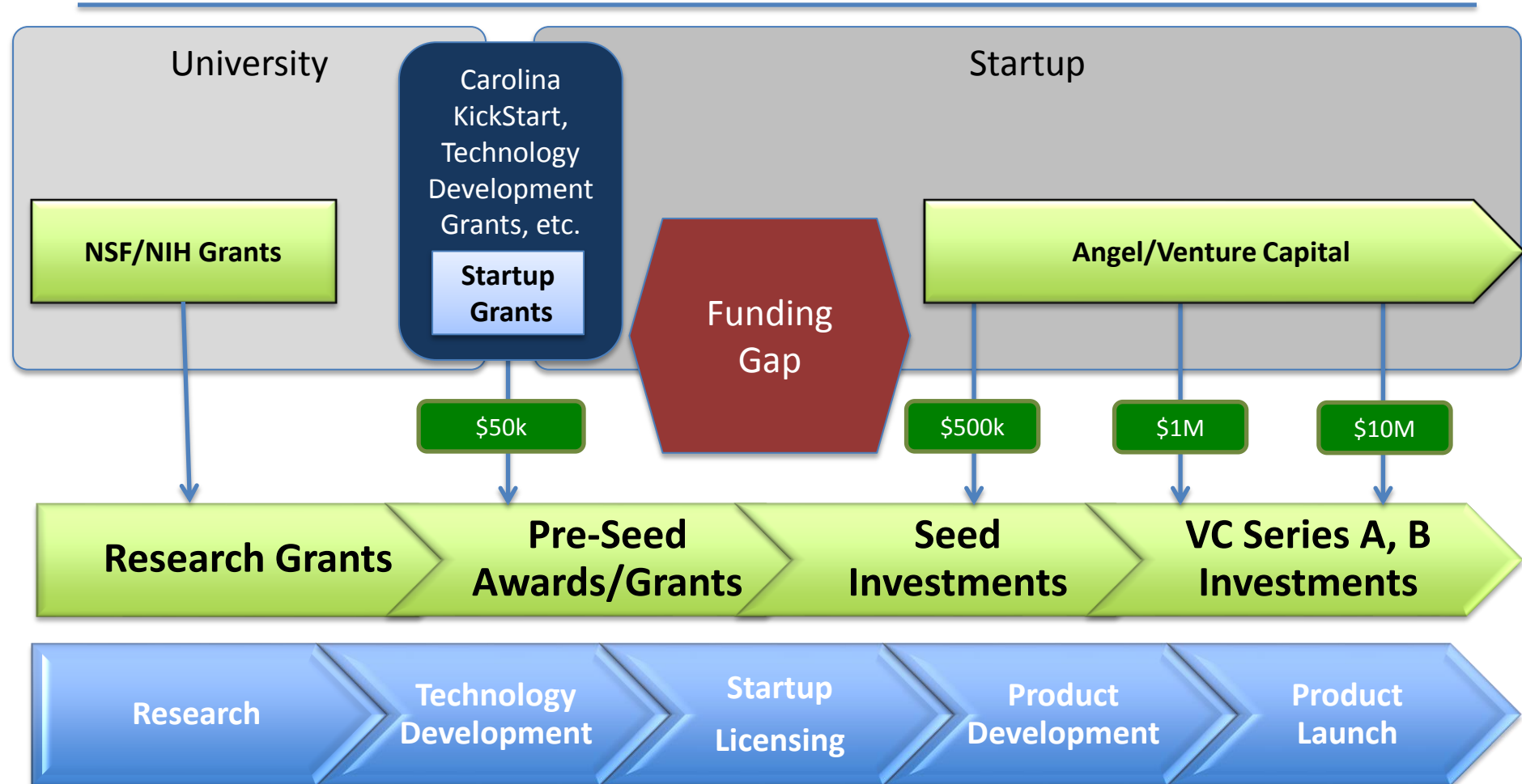
History of Efforts to Commercialize UNC IP



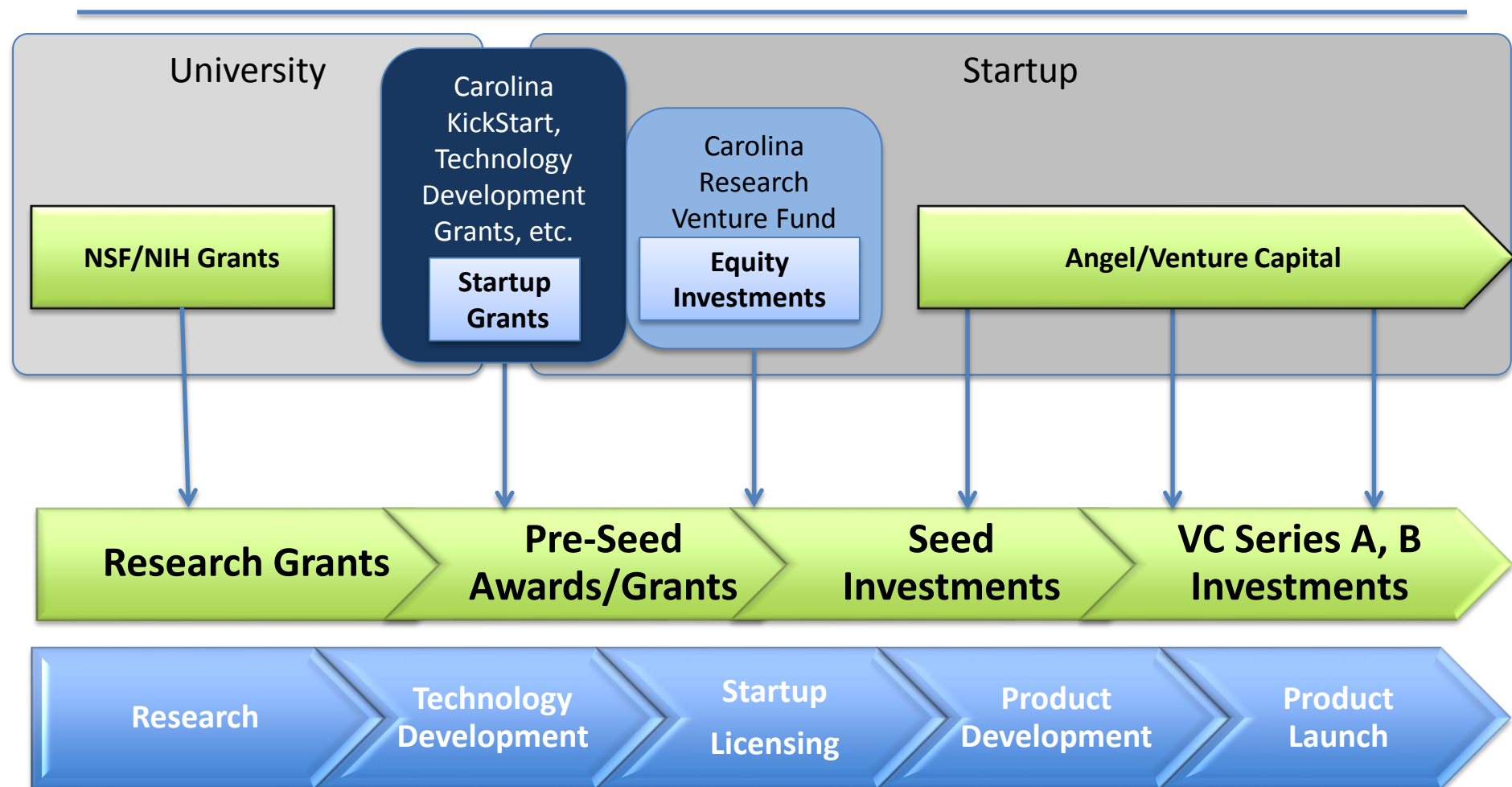
*Not implemented



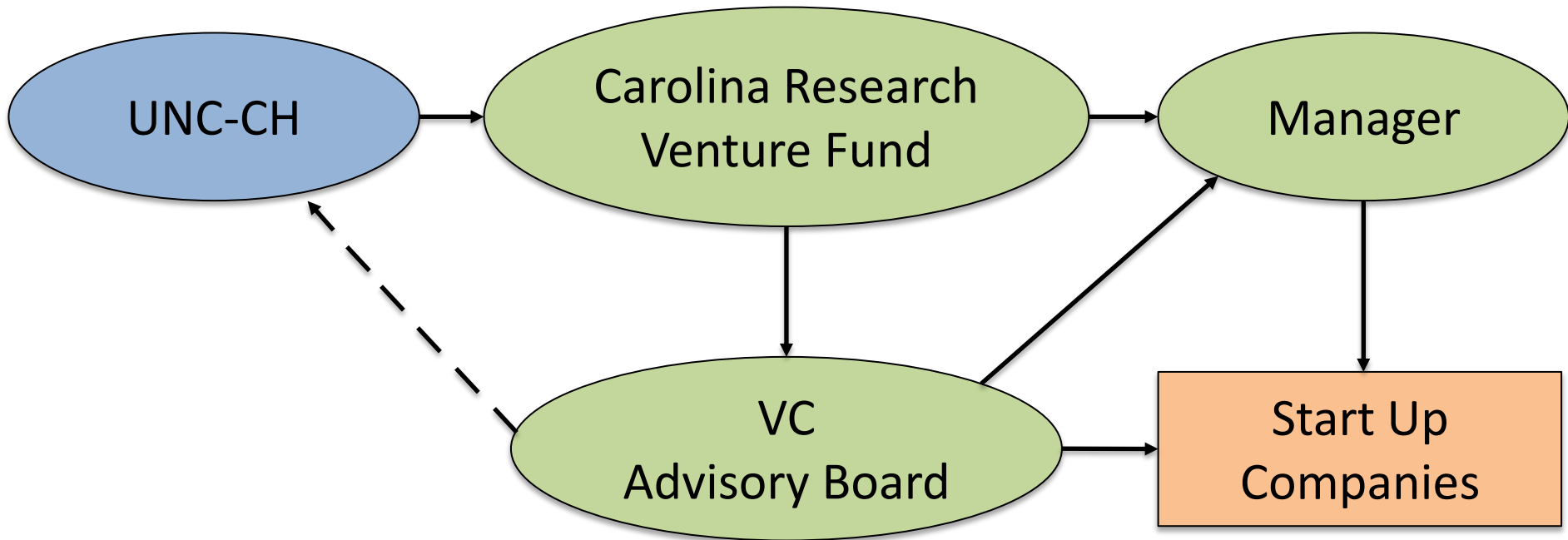
Startup Funding at Carolina



Startup Funding at Carolina



Fund Structure



Fund Management

Board of Directors – Oversees fund management, sets investment objectives, establishes and meets with Advisory Board and other activities as needed

- 5 ex-officio members
 - Vice Chancellor for Finance & Administration
 - Vice Chancellor for Innovation and Economic Development
 - CEO of UNC Management Co, or designee
 - 2 Trustees, appointed by BOT Chair
- Up to 4 members elected by Ex-officio members to serve up to 2 terms of 4-years

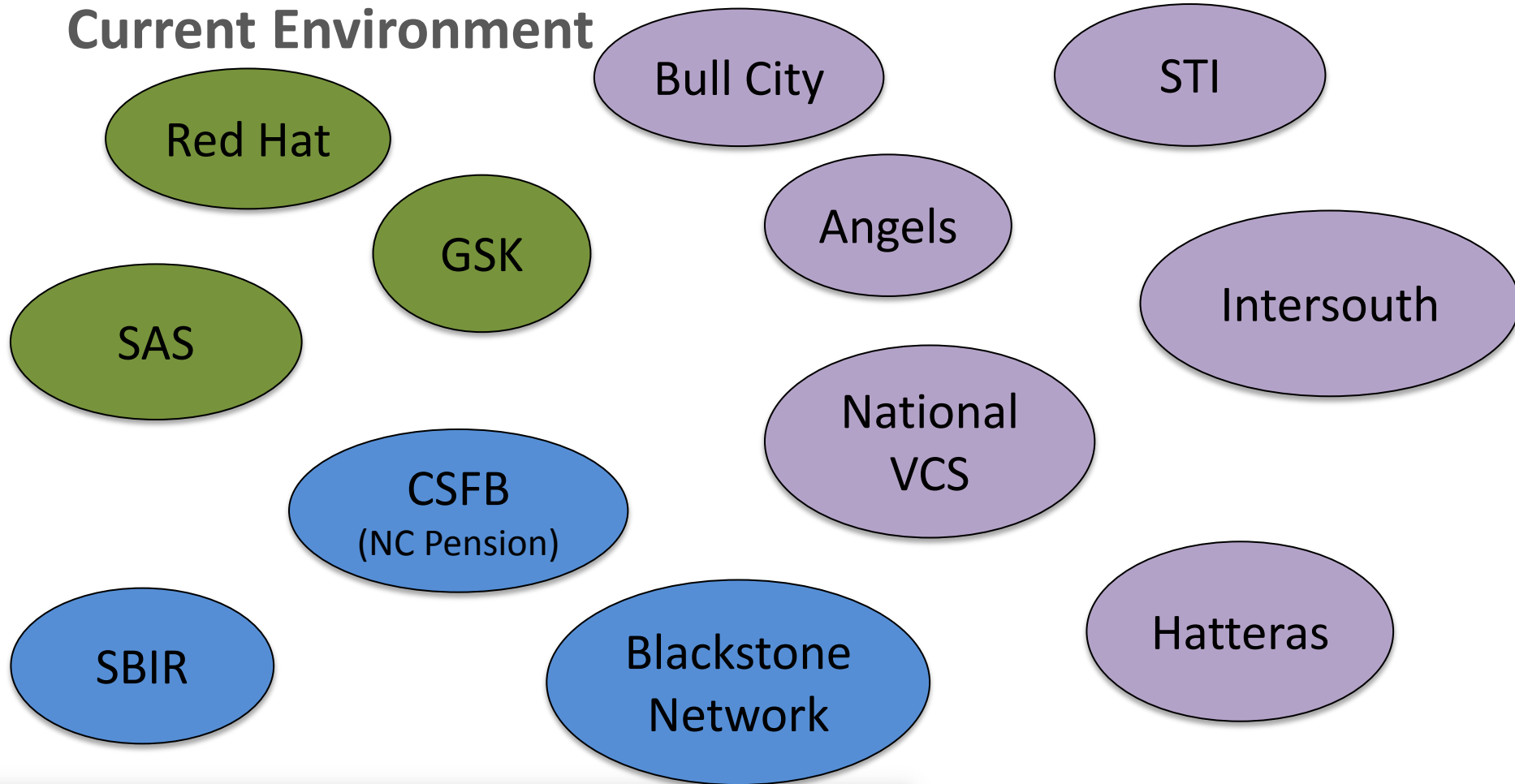
Manager(s) – Outside investment manager, hired by Board of Directors, to select technologies, structure investments, develop new companies, and maximize University return on IP

Advisory Board – Group of 10-20 national venture capitalists to review and advise manager, young companies and Board. In addition, will meet on campus 1-2 times a year to review a range of University technologies



Building “Community of Capital”

Current Environment



Building “Community of Capital”

New Environment

