



May 18, 2022, 2:20 p.m.
Chancellor's Ballroom, Carolina Inn

OPEN SESSION

FOR INFORMATION ONLY

(No formal action is requested at this time)

1. Innovate Carolina – Overview of Innovation and Economic Development Programs
Michelle Bolas, UNC Chief Innovation Officer, Executive Director, Innovate Carolina
2. A Resolution in Support of Career Services
Perrin Jones, Committee Chair

COMMITTEE MEMBERS

Perrin Jones, Chair	
Ramsey White, Vice Chair	
Dave Boliek, ex-officio	
Rob Bryan	Ralph Meekins
Gene Davis	Marty Kotis

Strategic Initiatives Committee

May 18, 2022

Agenda Item 1

Situation: The Committee has for its consideration a presentation on Innovate Carolina.

Background: Innovate Carolina encompasses UNC's innovation programs, initiatives, and economic development activities. In addition to executing the Chancellor's innovation and economic development priorities, Innovate Carolina supports UNC researchers and scholars through innovation programs and services, including the services provided through the Office of Technology Commercialization (OTC). These activities help UNC transmit and apply research and knowledge for the benefit of North Carolina and its citizens, as reflected in data that Innovate Carolina collects and reports as part of its mission. Innovate Carolina is headed by Michelle Bolas, UNC's Chief Innovation Officer.

Assessment: The presentation to the Committee will orient members to Innovate Carolina's background and development and serve as a foundation for future discussions with the Committee about UNC's innovation and economic activities.

Action: This item is for information only.



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Innovate Carolina

Moving Discovery and Knowledge to Impact

Michelle Bolas
Chief Innovation Officer
Executive Director, Innovate Carolina

May 2022



UNC | INNOVATE
CAROLINA

innovate.unc.edu

INNOVATE CAROLINA

Our Mandate

Do well. For good.

Strategic and well-connected innovation practices leverage public investment in knowledge and discovery to create economic, social and human impact.

- University innovation linked to the prosperity of the state.
- “...passionately public – the most public of publics.”
- National leader in translating knowledge assets into public good.



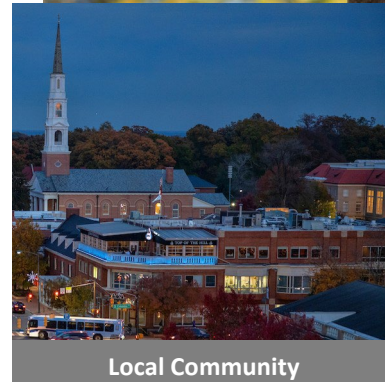
Startups + Ventures



North Carolina



Products, Services + Tech



Local Community



Social and Economic Good



Global Citizen



Solving Intractable Problems



Innovation Workforce



Treatments + Cures

Who We Are

INNOVATE CAROLINA

UNC-Chapel Hill's central team for innovation, entrepreneurship and economic development

Chief Innovation Officer

Executes the University-wide strategy for innovation, entrepreneurship and economic development as set by the Chancellor.

Innovation Practitioners

Skilled experts who put innovation into practice through their combined experience in scientific research development, commercialization, venture creation and business strategy.

Chief Innovation Officer Charge

Innovation Strategy

How do we create a unified strategy and governance for and visibility into the use of innovation resources?

Alignment of Investment + Mission

How do we align the University's investments in innovation with its mission?

External Engagement

How do we engage external industry, research and community partners with a singular focus?

Return on Investment

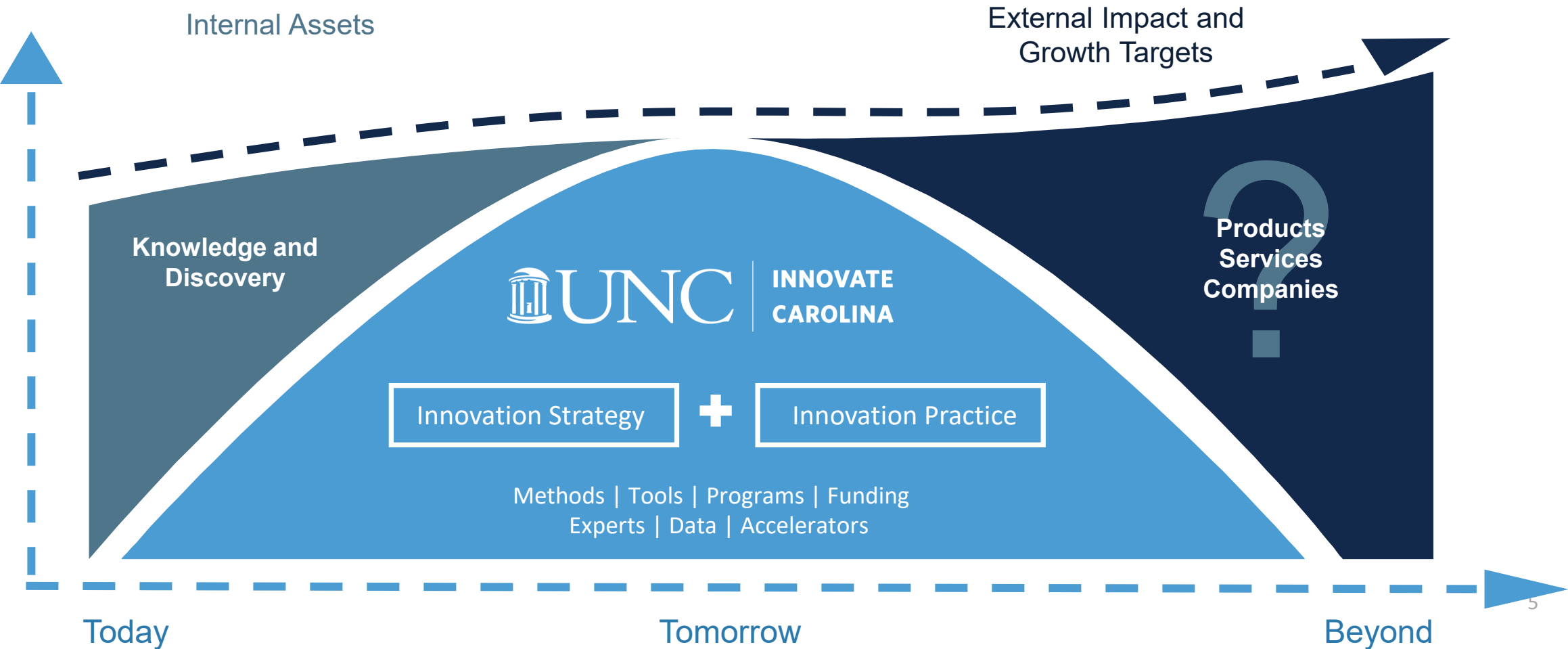
How do we know what works and measure the impact made by UNC innovation?

Emerging Opportunities: State of Innovation

- 1 NSF technology directorate.**
Spur innovation, technology development and commercialization.
- 2 Proposed creation of national technology “hubs.”**
Create through commerce and center in regions of high research output.
- 3 ARPA-Health administration (modeled on DARPA).**
Speed innovation in cures and areas where UNC has considerable strength (cancer, Alzheimer's).
- 4 Creation of an “Innovation State” organization by top NC business and civic leaders.**
Disseminate state investment in innovation over the next decade. Proposal to raise \$250M/year over 10 years to spur innovation and strengthen industry sectors.
- 5 Additional state funding for mitigation of COVID-19.**
Make an impact and prepare for future pandemics.

WHO WE ARE

Bridging the Innovation Gap



Technology Commercialization

USING INTELLECTUAL PROPERTY TO MAXIMIZE THE IMPACT OF UNC RESEARCH

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

TECHNOLOGY COMMERCIALIZATION

Goals: Technology Commercialization

1

Recruit and Retain World-Class Faculty

2

Grow Industry Partnerships and Sponsored Research

3

Translate Research Into Products and Services

4

Bolster Economic Development

5

Reinvest Revenue Into Research and Translation at UNC

6

Support and Engage in University-Wide Initiatives



INNOVATION IMPACT

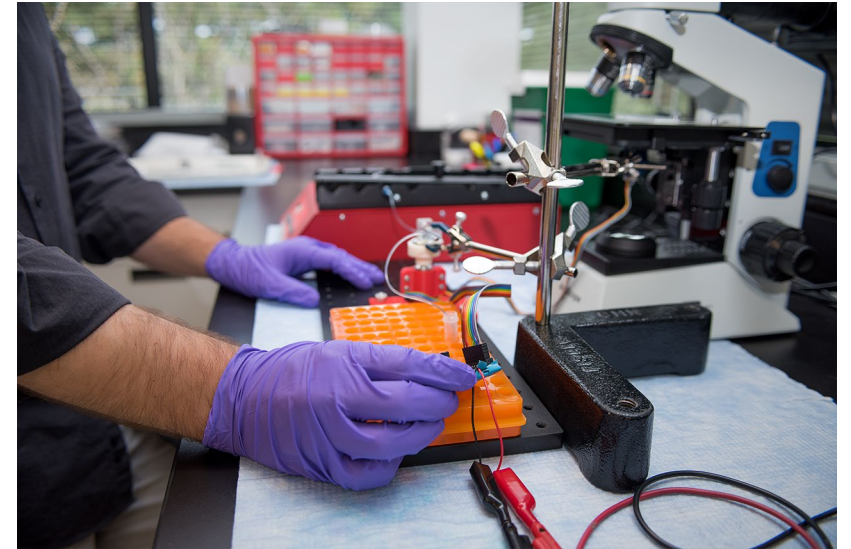
The Power of Alignment: Industry and Strategic Partnerships

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INDUSTRY & STRATEGIC PARTNERSHIPS

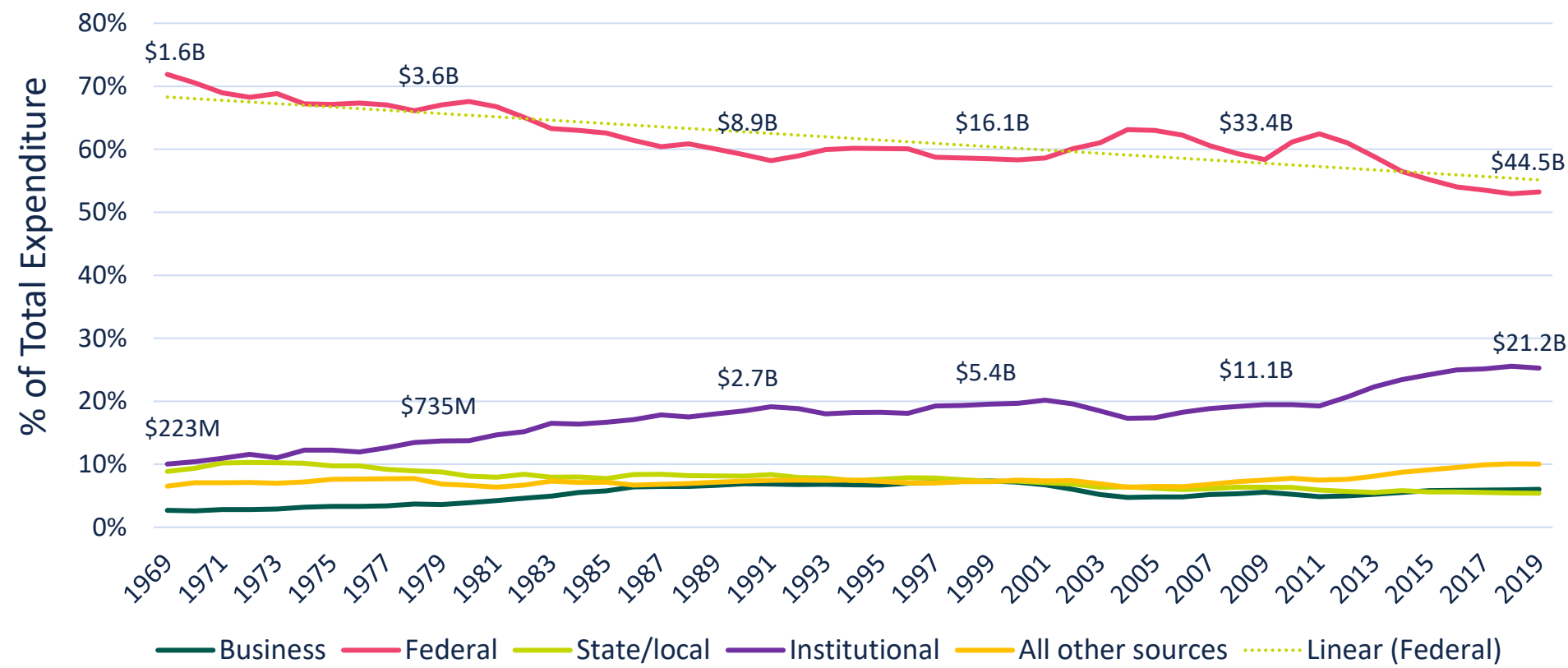
Why Do We Engage With Industry Partners?

- Build relationships with industry partners to understand areas of interest and evolving markets
- Use industry resources and expertise to meet the needs of UNC faculty and technologies
- Connect UNC startups to investors, tech partners and advisors
- Transfer UNC technologies via licenses into companies that can conduct development activities outside of the scope of university research and take products and services to market
- Get industry feedback on UNC technologies
 - Is the technology market ready? Is it what the market wants?
 - What can be done to validate or optimize the technology?
 - Might there be future industry interest?



NSF Higher Ed Research Development Survey

National Picture: U.S. University R&D Expenditures, by Source of Funds, 1969-2019

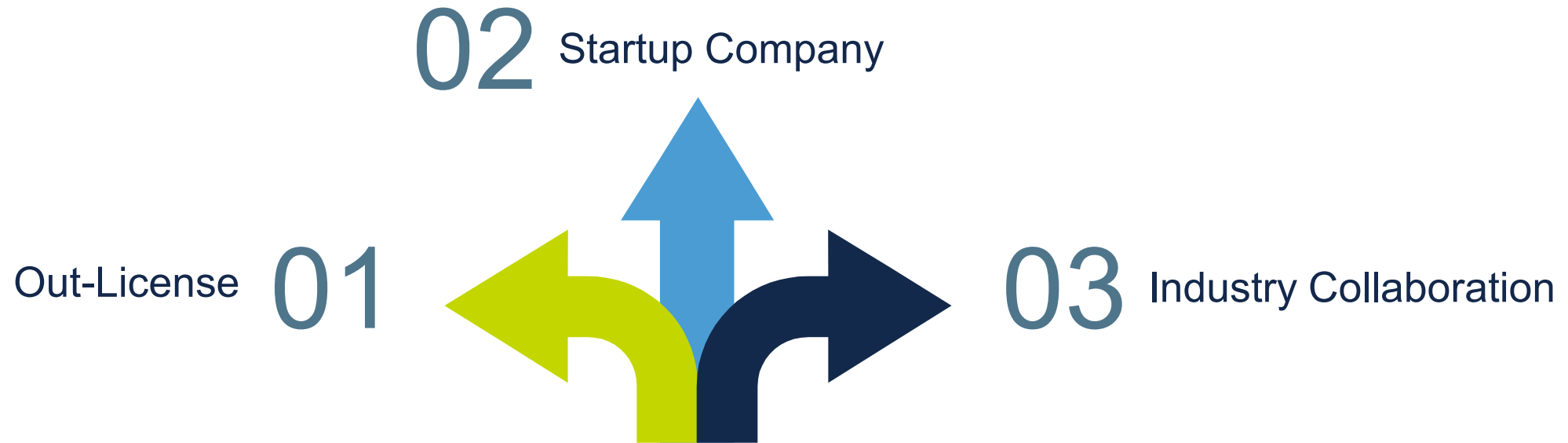


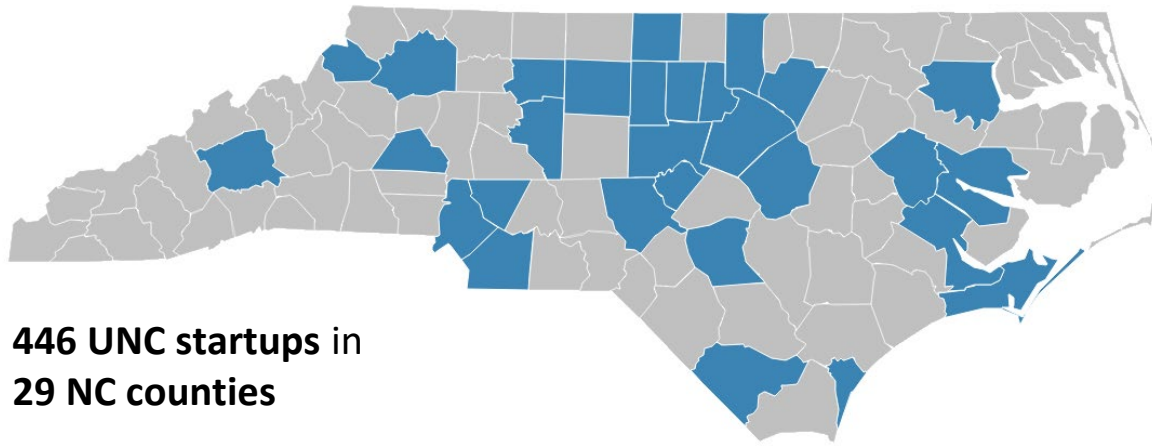
2019 Total Spend

	Spend	% Total
Fed Gov	44.53	53.2%
Business	5.05	6.0%
Institution	21.15	25.3%
State/Local	4.51	5.4%
Nonprofit	5.68	6.8%
All Other	2.70	3.2%
Total	\$83.6B	100%

Source: NSF Higher Education Research and Development Survey (HERD), FY 2019

Translational Paths: Strategy and Practice





UNC Startups: Strength in Numbers

As of July 2021

UNC STARTUPS

446 HQ
in NC

538
Active

814
Total

\$17.8B

Startup revenue raised
(since 1958)

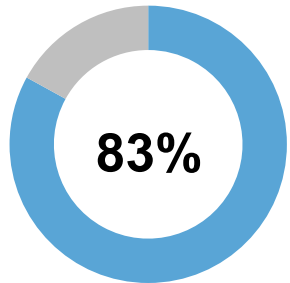
JOBS

12,767
Jobs in NC

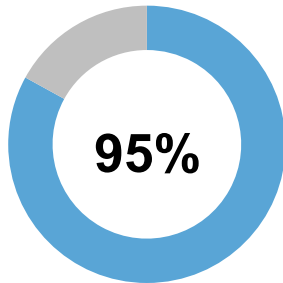
89,589
Jobs Worldwide

\$15.2B

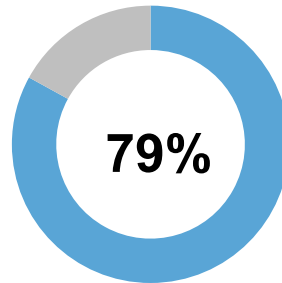
Annual startup
revenue
(2020-21 snapshot)



Active UNC startups
located in NC



UNC startup
revenue in NC



UNC IP-based startups
work in life sciences



Technology Commercialization

3,605

Inventions
Disclosed

1,003

U.S. Patents
Issued

1,547

Technologies
Licensed

\$111.5M

Licensing
Revenue

147

IP-Based
Startups

Cumulative



**U.S. PATENTS
ISSUED**
57% INCREASE



**INVENTION
DISCLOSURES**
7% INCREASE



**TECHNOLOGIES
LICENSED**
38% INCREASE

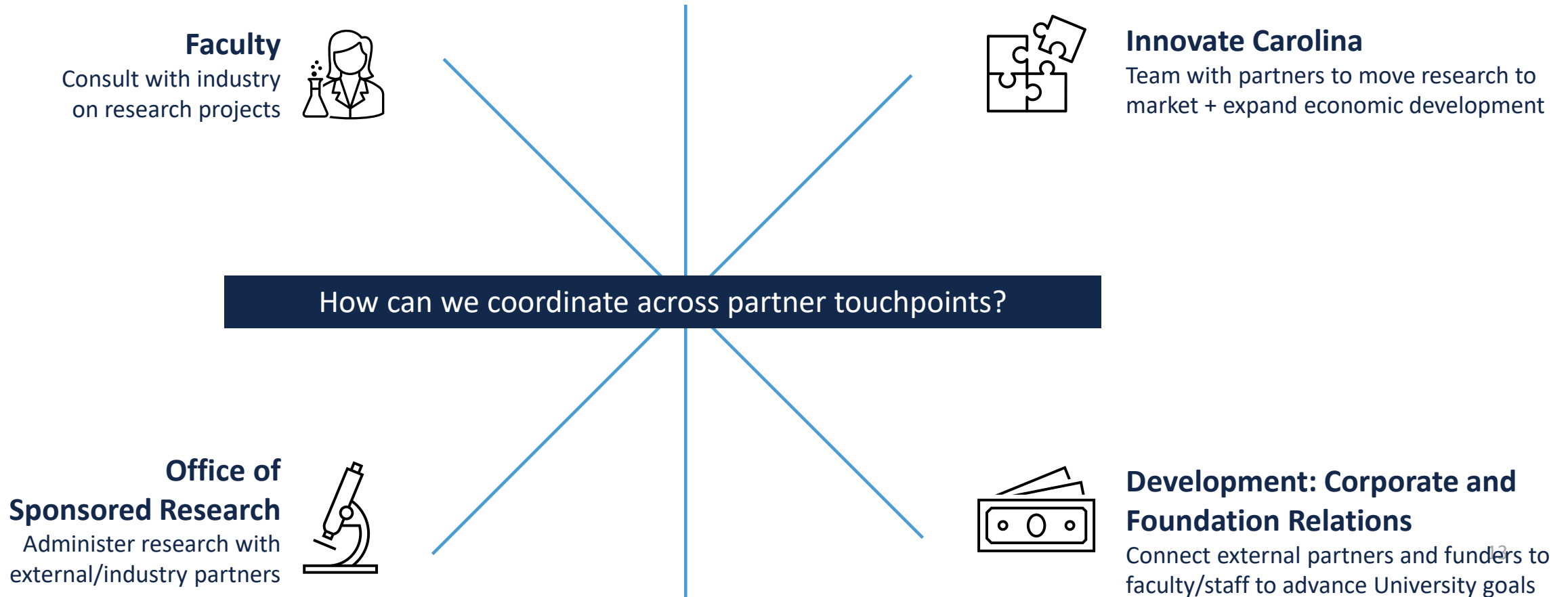


**LICENSING
REVENUE**
162% INCREASE

5 Year Trends: FY2017-21 vs. FY2012-16

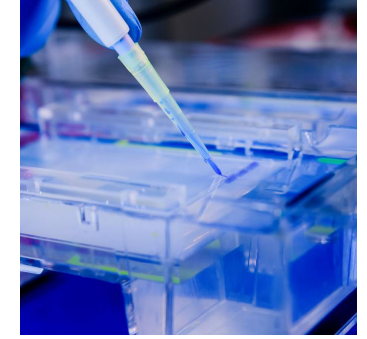
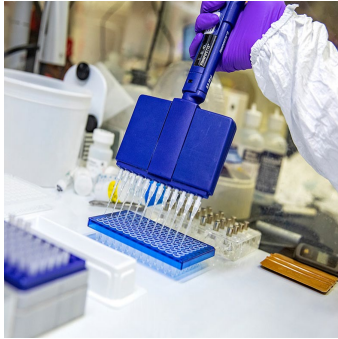
INDUSTRY & STRATEGIC PARTNERSHIPS

Partner Touchpoints



INDUSTRY & STRATEGIC PARTNERSHIPS

Spotlights: Strategic Partnerships



North Carolina Life Science Alliance

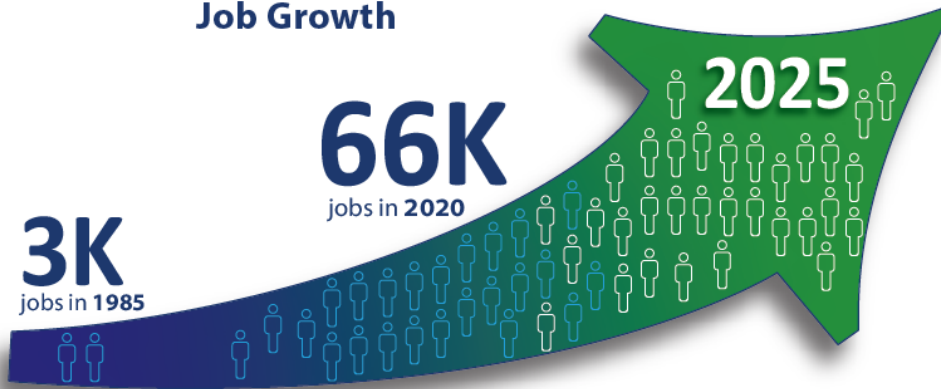
North Carolina Life Sciences 2025
Outline of Opportunities

North Carolina
Life Sciences Alliance



- UNC-Chapel Hill's research and innovation enterprise helps to power a significant state initiative
- Areas of action:
 - Infrastructure
 - Talent
 - Investment
 - Market Development and Attraction

Job Growth



N.C. life sciences jobs, source NCBiotech Life Science Intelligence



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