



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

BOARD OF TRUSTEES
COMMERCIALIZATION & ECONOMIC
DEVELOPMENT COMMITTEE

SEPTEMBER 21, 2016, 2:30PM
ALUMNI HALL II,
GEORGE WATTS HILL ALUMNI CENTER

OPEN SESSION

FOR INFORMATION ONLY

(No formal action is requested at this time)

1. Chair's Remarks
Julia Grumbles, UNC Board of Trustees
2. [Update on Roadmap 1.0 and 2.0](#)
Judith Cone, Vice Chancellor for Innovation, Entrepreneurship, & Economic Development
3. Startups Aligned to the Pan-University Theme: Food for All (Attachment A)
 - [University Support for Socially-Oriented Student/Faculty Ventures](#)
Richard Harrill, Director, Campus Y
Laura Fieselman, UNC Social Innovation Initiative Coordinator
 - [Campus Y Co-Presidents](#)
Lauren Eaves, UNC Class of 2016
Reagan Buchanan, UNC Class of 2016
 - [Seal the Seasons](#)
Patrick Mateer, CEO & Founder, UNC Class of 2015
 - [Meantime Café](#)
Scott Diekema, UNC Class of 2018
Keegan McBride, UNC Class of 2017

COMMITTEE MEMBERS

Julia Sprunt Grumbles, Chair
Jefferson W. Brown, Vice Chair
W. Lowry Caudill
Haywood D. Cochrane, Jr.
Donald Williams Curtis
Hari H. Nath

Administrative Liaison:

Judith Cone, Vice Chancellor for Innovation, Entrepreneurship, & Economic Development



INNOVATE CAROLINA



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

PUTTING IMPORTANT IDEAS TO USE FOR THE PUBLIC GOOD

UNC Board of Trustees
Committee on Commercialization and
Economic Development
Judith Cone, Vice Chancellor
Innovation, Entrepreneurship & Economic Development

2/48

September 21, 2016

Putting Important Ideas to use for the public good

VISION

With a special focus on urgent challenges, innovations and innovators launched at Carolina consistently apply important ideas for a better world.

MISSION

Be a place where innovators thrive.



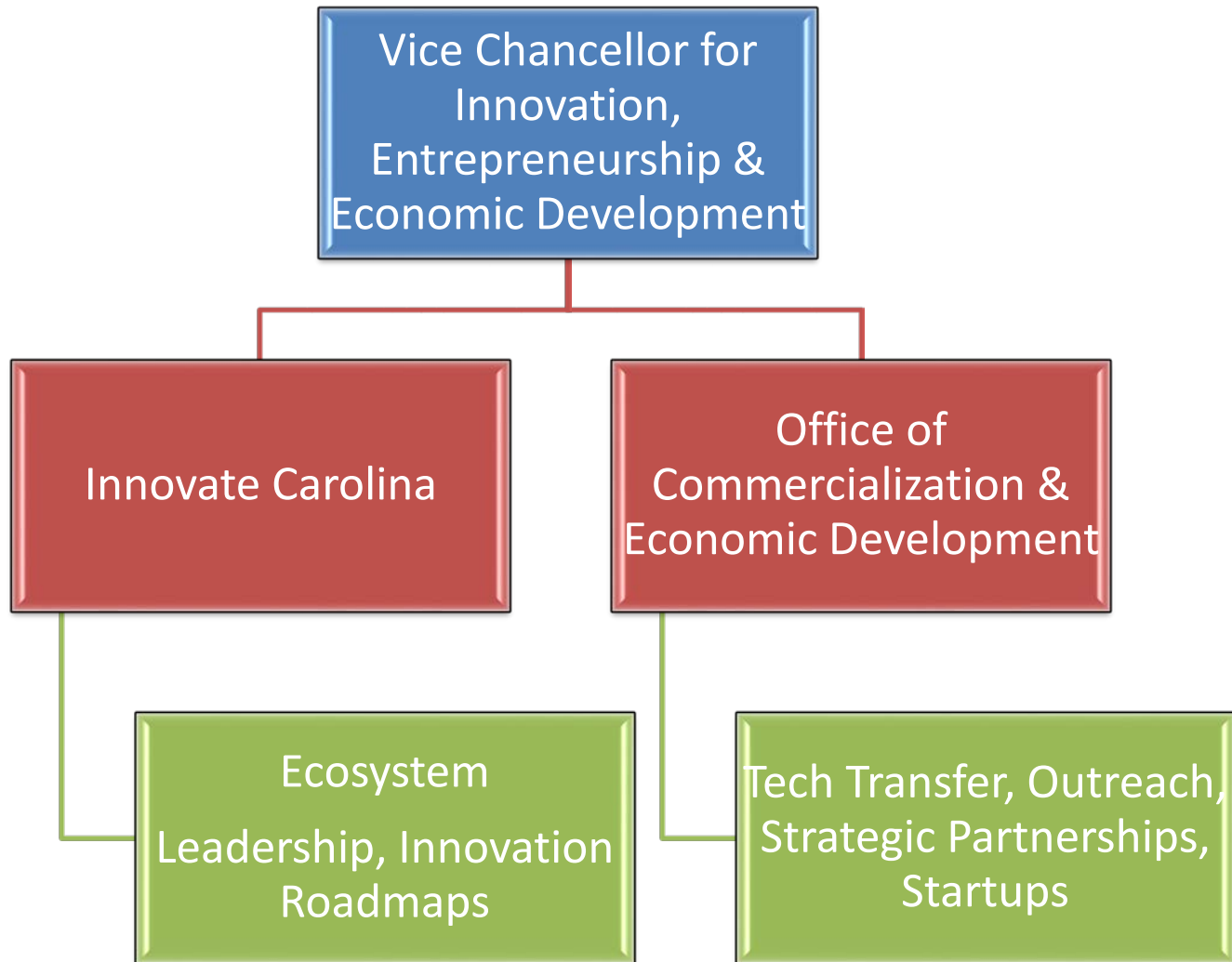
Universities' To-Do List

Committed to helping solve the state's and world's pressing challenges

- Improve health by preventing diseases, inventing better medicines and devices, curing diseases, and getting those cures to all the people who need them.
- Find, invent, gain adoption of clean energy solutions.
- Feed seven billion people.
- Inspire and prepare students in our schools.
- Promote widespread prosperity.
- Describe the world, and replace conflict with understanding.
- Inspire through art, music, and writing.



We are here to deliver social and economic benefit to North Carolina, the world and to the university.



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

INNOVATE CAROLINA

INNOVATION & ENTREPRENEURSHIP AT UNC

About

Impact

Get Started

Search Our Site



UNC-Chapel Hill Climbs in Ranking of Top 100 Universities Granted Utility Patents >



UNC Researchers Preventing World's Water From Running Dry >

From rivers in the backcountry of Alaska, down the Sierra mountains, up into space, and through commercial waterways in North Carolina — UNC researchers are measuring the world's water and developing solutions.

SPECIAL FOCUS



CAROLINA CREATE-A-THON VIDEO 2016

Watch scenes from the 2016 Carolina Create-a-thon

[MORE INFORMATION >](#)

DATES TO KNOW

MORE

- | | |
|--------|-----------------------------|
| Sep 8 | Hopscotch Design Festival |
| Sep 13 | CED Tech Venture Conference |
| Sep 22 | CityCamp NC 2016 |
| Sep 29 | Triangle Tech Breakfast |

IN THE NEWS

VIEW ALL



OFFICE OF **COMMERCIALIZATION** AND **ECONOMIC DEVELOPMENT**

INVENTORS - | INDUSTRY | STARTUPS - | IMPACT - | ABOUT US - | GIVE



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL



SANDBAR OYSTER COMPANY

UNC startup has developed a substrate for oyster seeding and growth that promotes oyster propagation and shoreline protection

[Read more](#)



Report an Invention



Request an MTA



Available Technologies

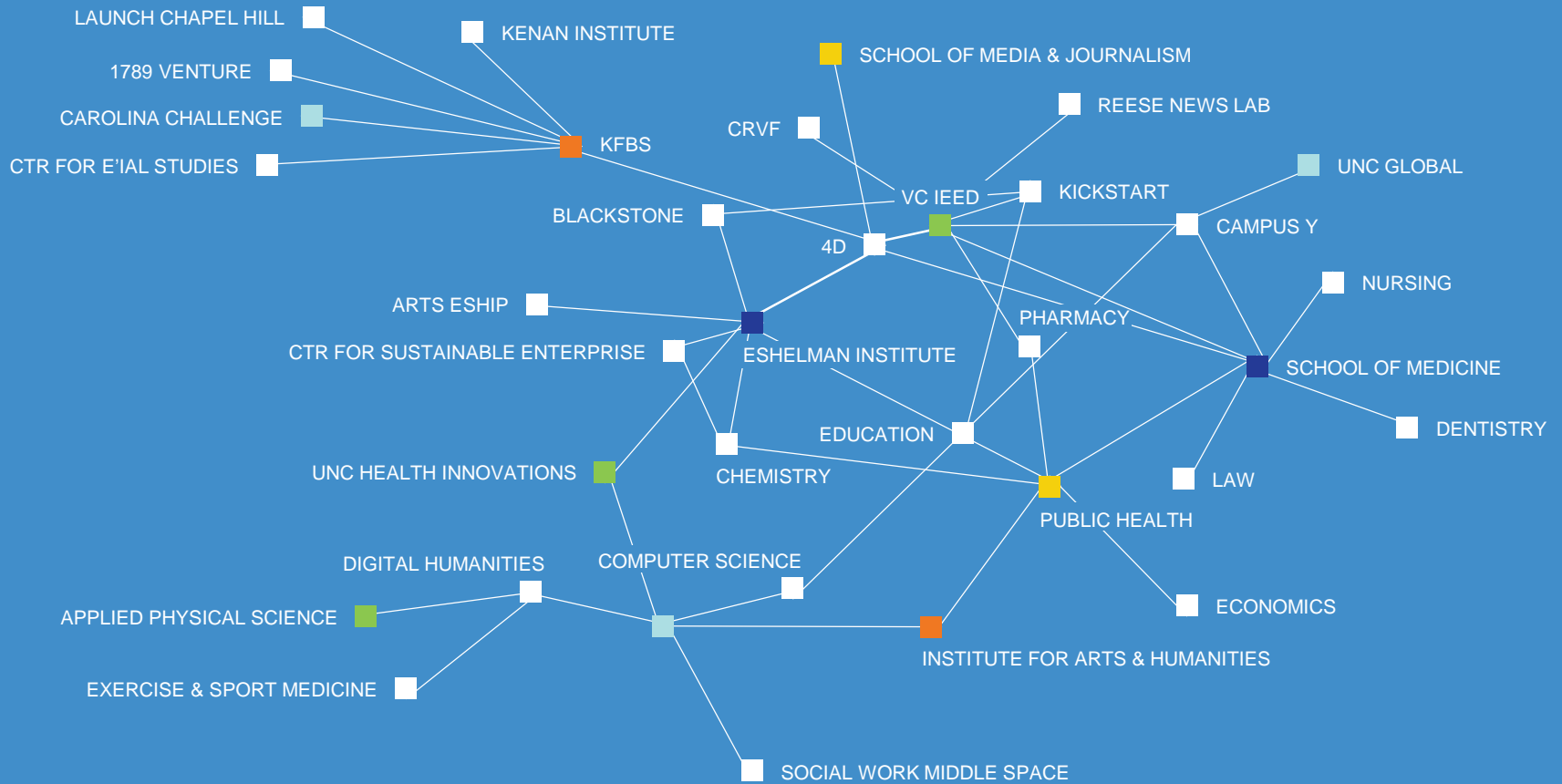


Contact Our Team



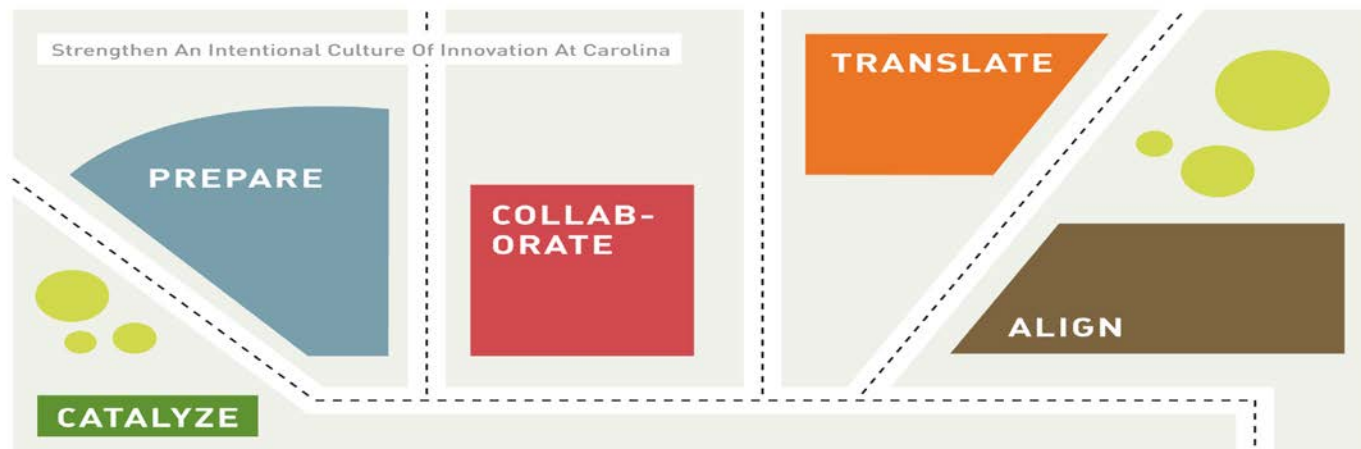
Ecosystem





INNOVATE @ CAROLINA

IMPORTANT IDEAS FOR A BETTER WORLD



Important ideas
for a better world ►



CRITICAL AREAS



Build the Foundational Elements

Support and integrate translational areas of study and tools.

1. Areas of study - applied physical sciences, biomedical engineering, environmental engineering, data studies, computer science, law, marketing, business).
- 2.Tools - app development, serious games, BeAM--be a maker

CRITICAL AREAS



Promote Diverse Teams That Cross Boundaries

Inspire and encourage co-creation of solutions through collaboration across disciplines with teams that are diverse in background, experience and expertise.

CRITICAL AREAS



Teach the Skills

Elevate UNC-Chapel Hill as a model for formal and informal teaching of the entrepreneurial mindset and skillset necessary in the 21st century innovation economy.

CRITICAL AREAS



Translate Ideas into Impact

Effectively guide people as they seek the maximum social and/or economic value of important ideas.

CRITICAL AREAS



Strengthen the Global and Local Innovation Network

Activate an extended network of alumni, friends, and experts as collaborators in creating solutions and moving them forward.

CRITICAL AREAS



Provide Appropriate Spaces

Expand current innovation spaces and create new ones on or adjacent to UNC-Chapel Hill's campus.

CRITICAL AREAS



Fund High-Potential Ideas & the Ecosystem

Secure funding for all stages of translating important ideas into practical value for society. Fund the work of the Innovate Carolina Network.

CRITICAL AREAS

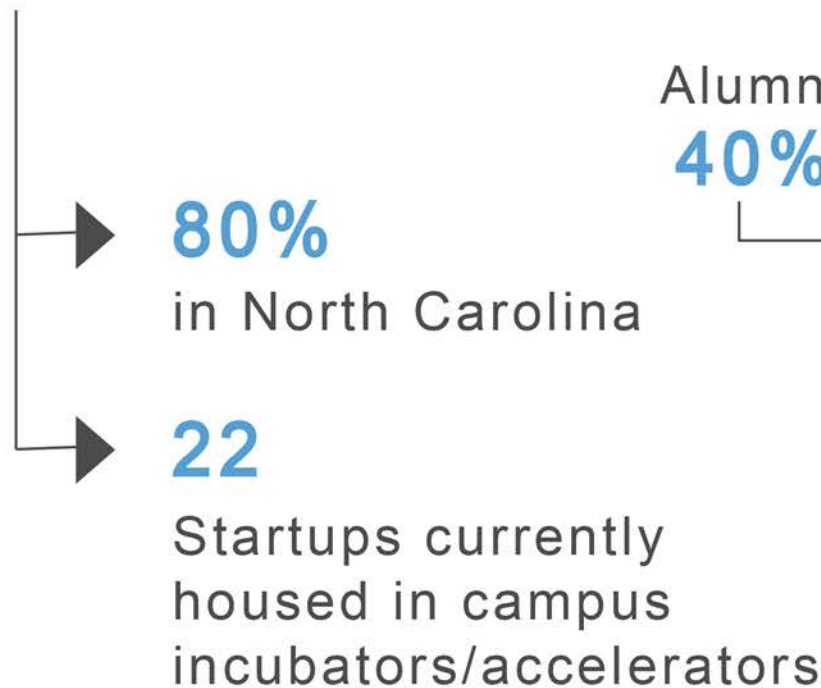


Communicate the Impact

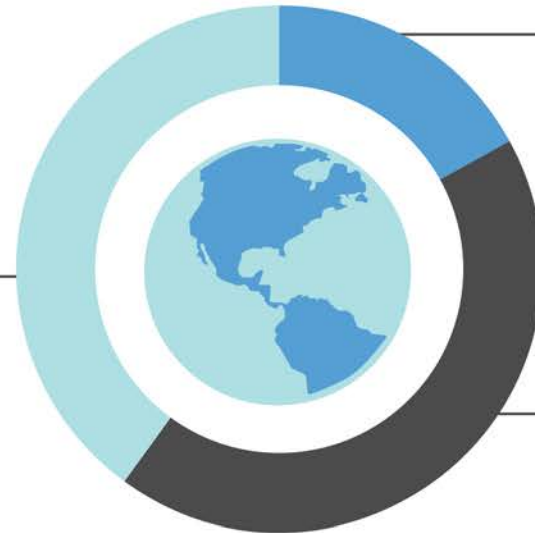
Integrate Innovate Carolina into all UNC-Chapel Hill communication strategies to more effectively share the collective story.

INNOVATION

346 Startups founded
(293 active)



Alumni
40%



17%
Students

43%
Faculty

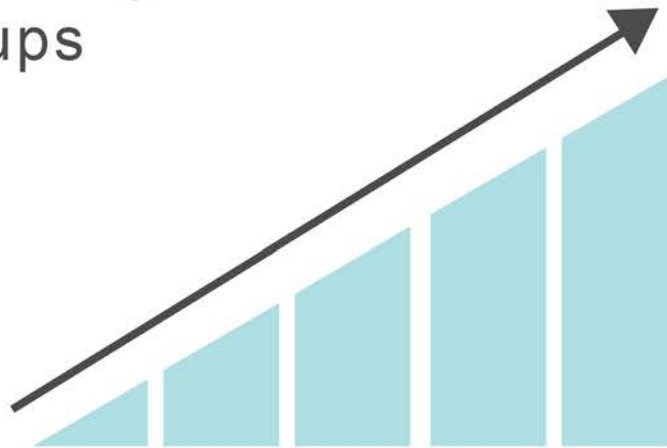
ECONOMIC DEVELOPMENT

**\$5.5
BILLION**

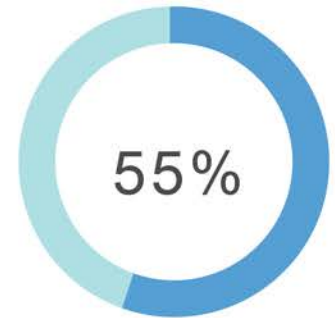
Total funding
of startups



\$6.1BIL
Revenue



33,958
Employees



Funding
Raised

UNC-CHAPEL HILL STARTUP STATS

20 JANUARY 2016

Cumulative-to-Date Stats

Total firms: 346 startups with 293 active (of those 293 active firms, 232 are headquartered in North Carolina)

Total funding (VC, PE, SBIR, STTR, etc.): \$ 5,519,575,105

Snapshot 2014*

Annual Sales/Revenues of UNC Startups: \$6,156,180,426

Employees of UNC Startups: 39,958 total, with 6,943 in North Carolina

Notes

* includes 3 large firms: Quintiles, RTI, and FHI 360

Annual Sales/Revenues without these: \$616,593,114

Employees without these: 4,558 total, with 2,143 in North Carolina

RTI is a shared startup with NC State University and Duke University

UNC-Chapel Hill startups' economic impact from the UNC General Administration (GA) 2015 report on the UNC System's Economic Impact, from Economic Modeling Specialists International (EMSI)

Estimated 8,000 jobs created in North Carolina and 35,000 worldwide

Estimated \$1.6B impact on the state's economy overall

Details at <http://uncnews.unc.edu/2015/02/18/analysis-finds-unc-chapel-hill-unc-health-care-medical-center-contribute-7-billion-north-carolina-economy/> and <http://www.northcarolina.edu/economic-impact-2015>

Tech Transfer Stats

Stats

Facts and Figures

2015 Figures* ►	136	73	181	9
	INVENTIONS DISCLOSED	LICENSE AGREEMENTS	PATENT APPLICATIONS	STARTUPS LAUNCHED
Cumulative* ▼			Economic Impact ▼	
658	\$53M	106	\$3.3B	\$243M
PATENTS ISSUED	LICENSING REVENUE	STARTUPS LAUNCHED*	INVESTED IN UNC STARTUPS*	ANNUAL REVENUE OF UNC STARTUPS

*Arising from UNC-licensed technologies as reported to the Association of University Technology Managers (AUTM)

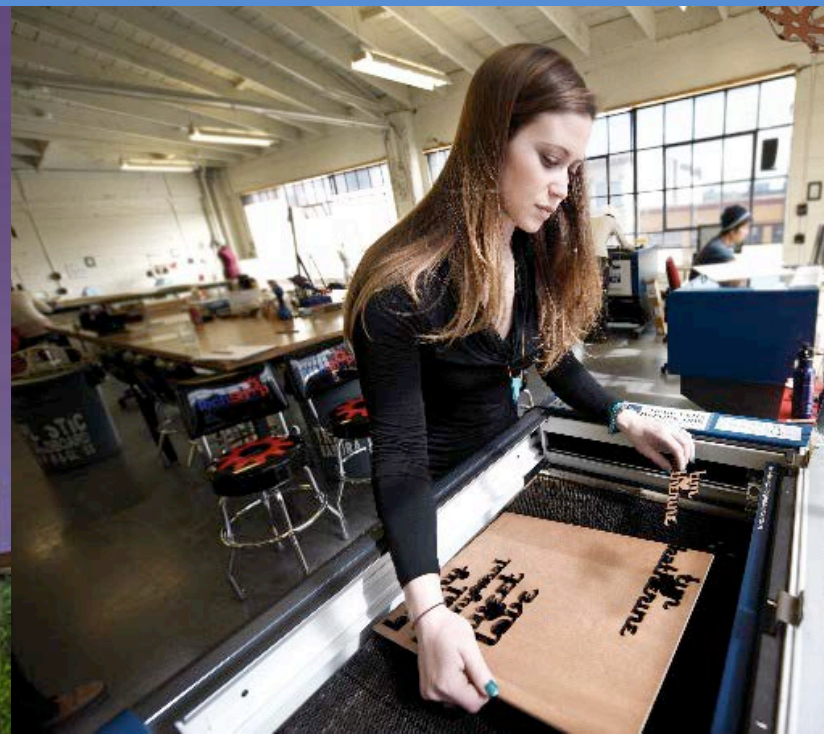
*Only IP-based startups

Tech Transfer Stats - Comparison

Description	Cumulative	5-yr Ave FY06-10	5-yr Ave FY11-15
Disclosures	2566	118.8	146.4
New Patent Applications	1304	63.8	74.8
US Patent Applications	2357	113.2	155.4
Issued US Patents	658	24.2	34.6
Licenses (Total)	1130	58.4	50.4
Startups	106	3.2	9.8
Startups – Express License	34	3	6.2
Licensing Income (\$MM)	\$53.10	\$2.58	\$3.66



INVEST





Provide Spaces on Campus and in the Town



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**1789 Venture Lab: Space for UNC
Startups**

[Learn More](#)

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launch
CHAPEL HILL



CUBE
VENTURES

2016-17



HEALTH

MedUcate- an app that will teach both Cystic Fibrosis patients and their caregivers about the complicated medication regimen of CF patients and how to deal with side effects.

ChitoSan- a potentially disruptive water treatment technology for widespread use, but especially in low resource settings.

MedServe- a 1:1 partnership between “high primary care potential” pre-medical recent college graduates and a rock-star primary care physician.



EDUCATION

Monikos - an app that will empower healthcare students and professionals by giving them a fun and educational way to learn/remember different drugs that are used on a daily basis.

we are (Working to Extend Anti Racist Education) - a program that will equip students, parents, and educators with the knowledge and skills necessary to understand the complexity of racism and to extend anti-racist education with the ultimate goal of dismantling systemic racism.

Steps Program- a 10-week, cognitive-behavioral, school-based, group intervention for Black males (grades 9-12) with a history of physical or verbal aggression.



ENVIRONMENT

GreenChar Solutions – a venture that provides households with an affordable and safer alternative for their cooking fuel.

Solar Head of State (SHoS) – a nonprofit that supports solar panel projects and pledged energy goals by installing solar on influential government buildings



ARTS

Global Music Outreach (GloMo)- a music program at Good Hope School and Orphanage in Arusha, Tanzania that also provides scholarships to students through the sale of CDS.



FOOD

So Good Pupusas- an alternative food truck that strives to provide an authentic eating experience and directs profits towards supporting education equity.

The Sonder Market- a student-run business that brings local produce and value-added healthy foods to UNC students.

The Meantime- a student-owned and operated coffee shop serving ethically sourced coffee and local products.

GreenBus- a mobile food market that aims to fight the ongoing food insecurity problem in the eleven food deserts in East Durham by providing fresh, affordable produce.



DEVELOPMENT

Build the Hill- a venture that seeks to empower individual business owners by increasing their access to capital and building their credit scores, while also growing the local economy by enabling grassroots business growth and strengthening community links to university resources.



The Campus Y

UNC'S CENTER FOR SOCIAL JUSTICE



157 years of student-led service, activism and advocacy





CUBE

Global

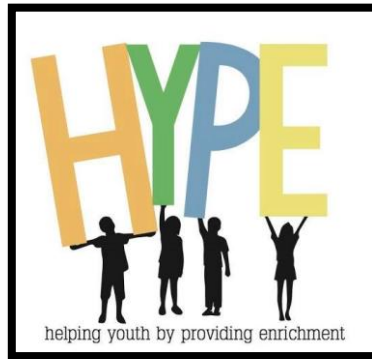
32 student
run
committees

Bonner
Leaders
Program



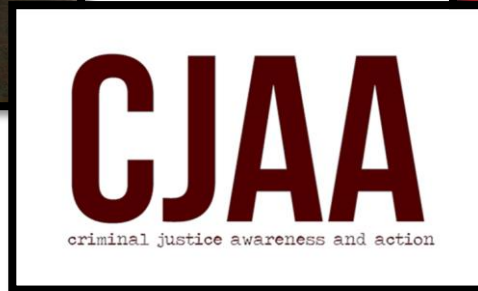


Helping Youth By Providing Enrichment





Criminal Justice Awareness and Action





Mission:

To make all North Carolina fruits and vegetables available to all North Carolinians all year round.

Value Proposition:

We partner with small local farmers to freeze, market, and distribute locally grown fruits and vegetables.

Patrick Mateer, CEO Seal the Seasons
September 2016

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The Problem



Farmers:

1. No commercial freezing exists in NC.
2. Farmers can only serve in-season markets.
3. Farmers have to farm AND market/sell.

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Consumers:

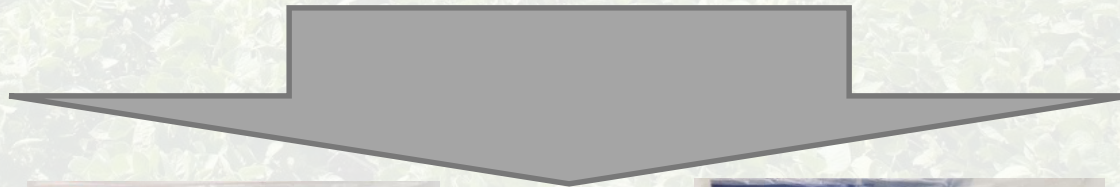
Love local and supporting small farmers, can only do so in-season. Can't access local out of season.

Chain Stores:

Can't serve their consumers needs. Can't support local farms.



Challenges





Seasonal Manufacturing Business

The STS System



Small farm
partnerships



Contract + Internal
Manufacturing



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High movement, non-differentiated category



Integrated with mainstream
supply chain



Collaboration creates success



PIEDMONT FOOD & AG
PROCESSING CENTER
HILLSBOROUGH, NORTH CAROLINA





Market Validation

Sales match or exceed national competitors from day 1

Products capture >40% of non-organic market share

Frozen blueberries are highest movement item in frozen



Frozen Fruits and Vegetables

Local Produce

\$13B

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\$6B

19% Growth



Customer Rollout



2015 Q3
5 Stores



2016 Q2
120 Stores



2016 Q3
323 Stores committed

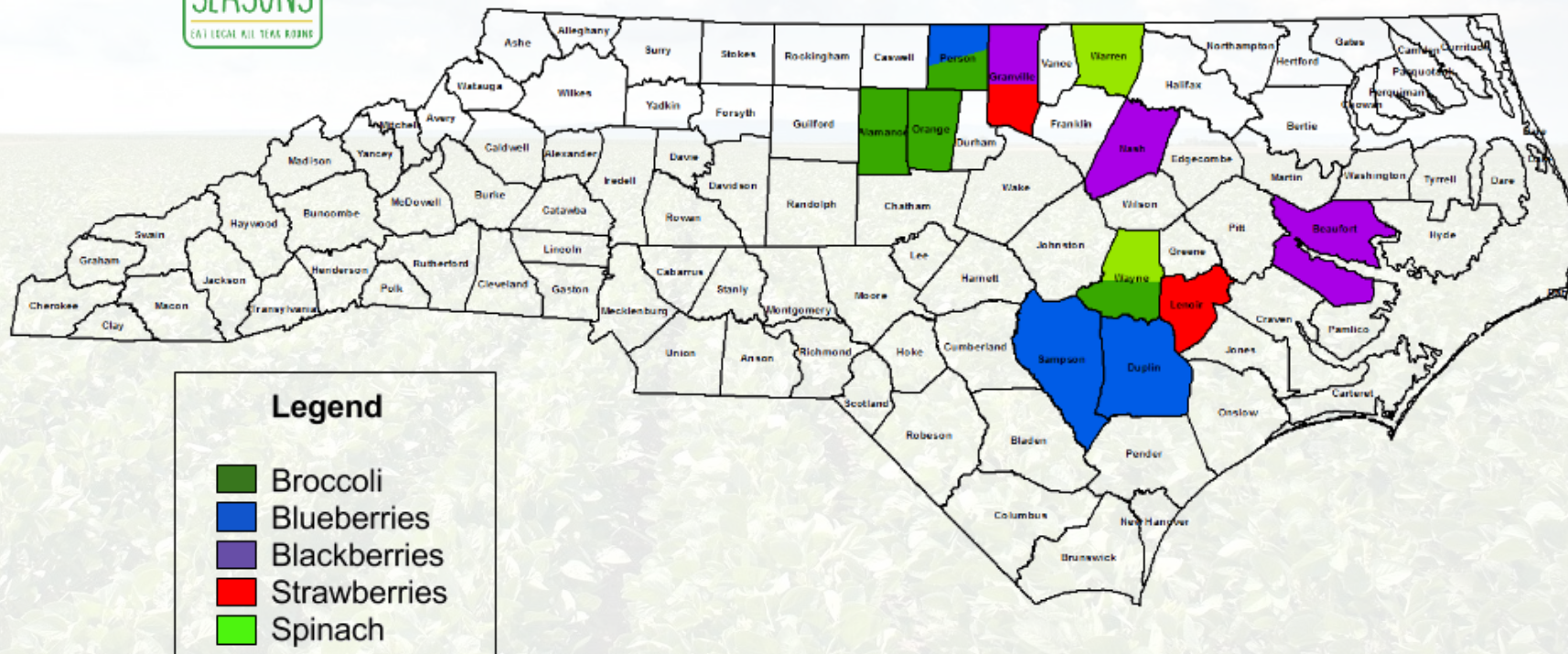




Sourcing



Seal the Seasons Farmer Counties by Crop, 2015

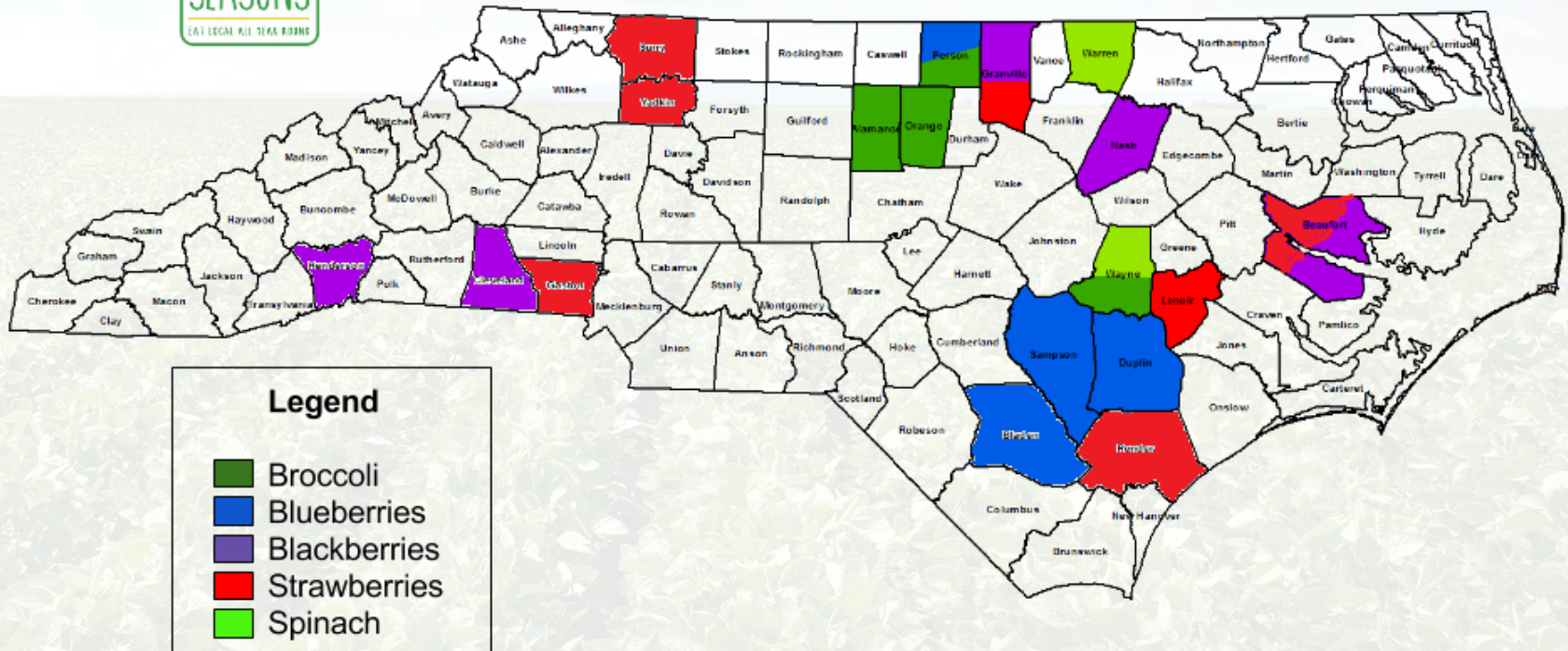




Sourcing



Seal the Seasons Farmer Counties by Crop, 2016





Economic Job Impact

Job Creation:

- 1 Founder – Salaried Chief Executive Officer
- 5 Managers - Salaried full time office and operations staff
- 2 Supervisors – hourly full time production staff
- 7 Associates – hourly part time production staff
- 2 Interns – hourly part time office staff
- 17 new North Carolina jobs

Professional Services:

Attorney:

Smith Anderson

CPA:

Blackman & Sloop

Incubator:

Launch Chapel Hill



NC Farm Impact

5 acres

50 acres

200
acres



10X

40X

2015

2016

2017

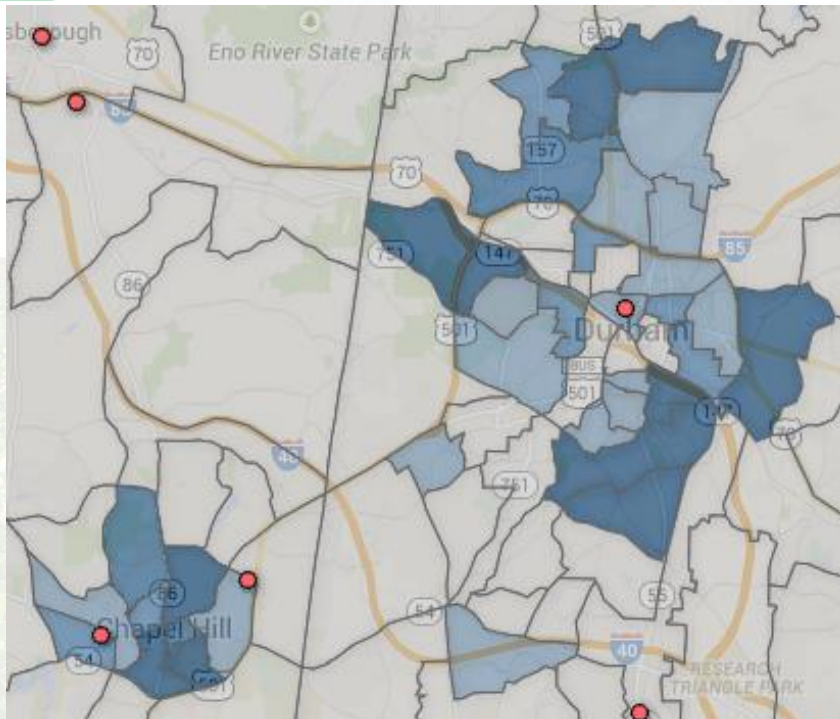
Food Access
Funding:

\$

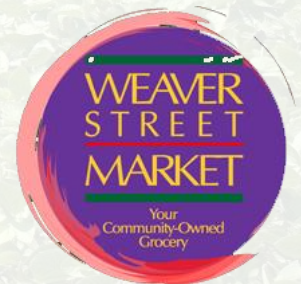
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Social Impact: 20% Pledge



- Purchasing Barriers
 - High cost
 - Lack of transportation
- Potential Solutions
 - Corner stores
 - Mobile grocers
 - CSA



FARMER FOODSHARE

Seal the Seasons



Eat local all year round!

Patrick Mateer, CEO

patrick@sealtheseasons.com

919-360-7618



The only student-run, non-profit
coffee shop at UNC Chapel Hill

Scott Diekema and Keegan McBride

meantimecoffee.com

Bringing Carolina together with great coffee.

IMPACT



Professional
Development



Reinvested
Profits



Sustainable
Food Hub

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FEASIBILITY



Precedent



Institutional
Support



Market
Demand



Tar Heel Born.
Tar Heel Brewed.