



## **Executive Summary**

1 March 2017

**We** envision Pembroke as a model micro-politan entrepreneurial economy in North Carolina through our innovative work in sustainable construction, agribusiness, and home health care. We are seeking \$195,000 in year one to jumpstart this initiative and \$160,000 ongoing.

### **Overview of Pembroke and Community Assets**

The Town of Pembroke is a small rural community of roughly 3,000 citizens – tenfold higher in the surrounding area – at the crossroads of interstates 95 and 74:

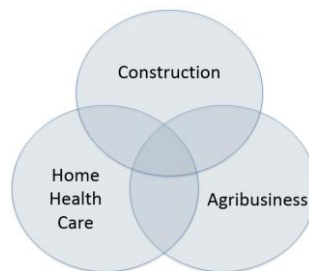
- Home to the Lumbee Tribe which makes up 80% of the community and is a participant in the 8(a) Business Development Program, operating primarily in the management and consulting sector.
- Home to UNC Pembroke with 6,500 students, expected to increase in the next two years to 8,500 students as a result of the NC Promise initiative.
- Historically an agricultural economy with nearly 1,000 farms on 250,000 acres today; the community ranks #1 in grain production and #6 in chicken production in North Carolina.
- Home Health Care is a large, fast growing sector, driven in part by a tradition of 'Aging in Place', high rates of obesity (39%) and diabetes (15%) among the population.
- Our local 'Innovation Council' includes the Town of Pembroke, Lumbee Tribe of North Carolina, University of North Carolina at Pembroke, Robeson Community College/SBC, COMtech, and Lumbee Guaranty Bank, among others.
- Recently opened an 18,000 square foot entrepreneurial co-working community with the support of US Commerce Dept of Economic Development Administration and the Golden LEAF Foundation.
- Current initiatives supporting this vision include UNCP Incubator startups in Hydroponics and Home Health Care; UNCP research in Hb Nematodes/Alzheimer's; NC Growth, NC Next Generation Network to improve connectivity, and NC Promise to reduce tuition and expand the student base.
- Hurricane Matthew caused significant damage to the Pembroke area, with over 160 families needing help. The Lumbee Tribe has started a number of initiatives to repair and improve housing damaged by the storm, as well as tax credit programs to assist low-income families with housing.

### **Project**

With an intentional investment of time, technical assistance, and resources we believe there is a strategic opportunity to create new jobs and foster new enterprise development while reducing costs and increasing quality of life for our community behind new technologies in sustainability in three key sectors:

- Construction -- specifically latest 'Green Energy' systems employed to retrofit Lumbee public housing and new school construction/dorms in support of NC Promise expansion. Repairs needed from Hurricane Matthew offers an opportunity to implement these systems sooner.
- Home Health Care – specifically new 'Digital Health' technologies and high-touch home health care solutions that enable seniors to "Age in Place" and delay or avoid hospital care, as well as reduce the severity of obesity and diabetes.
- Agribusiness – specifically use of latest 'Internet of Things' technologies such as drones and soil monitors and new techniques in hydroponics to make farms cleaner, more efficient and profitable.

We believe focusing on these three sectors leverages the heritage of the community, takes advantage of new technologies, creates jobs, and builds synergies. We also are interested in how these sectors overlap to help Pembroke create a strong, diverse, innovation ecosystem:



Pembroke Innovation Ecosystem

For example, innovative strategies to retrofit homes with solar and energy efficient technologies creates opportunities for new and existing businesses, more entre-level jobs, and can reduce the energy costs of our citizens. Similarly, improved agribusiness provides opportunities for revenue growth among local enterprises, creates more job opportunities and enables better local 'Farm to Market' products which improves nutrition and health.

Developing a robust home health care economy provides entrepreneurial opportunities for enterprises focused on high-touch/high-tech solutions for improving health and allowing our citizens to 'Age in Place' – again creating jobs and opportunities for new venture development and improving the quality of life for our community.

In short, developing each sector synergistically creates a stronger, healthier, job creating ecosystem. Models of success in these areas include Evergreen Cleveland OH, Sandy Grove NC Schools, and Tytocare in NY. The crux of this project is to find and evaluate technologies and models in these three sectors and re-deploy in to the Pembroke ecosystem.

### Outcomes (years 1-3)

Strategies		Measures	Outcomes (yrs)		
			1	2	3
#1	Create Jobs from sustainability startups and existing businesses	# Jobs Created	10	40	75
		# Startups	2	5	10
#2	Unify community behind sustainability in our three key sectors	Awareness %*	30	60	80
#3	Find and evaluate technologies and models to re-deploy	# Technologies	10	25	50
#4	Increase activity, spirit, confidence of startup community	Key Rating*	>7	>8	>9

\*note: data from InnovateNC/RTI study repeated annually

Strategies	Projects	Responsibilities	Year(s)
#1	Hire Entrepreneur-in-Res to consult with businesses	UNCP Incubator	1-3
	Inventing/ideation sessions to create new companies	UNCP Incubator	1-3
	Workshops, prototyping, teaching sustainability	UNCP/RCC Faculty	1-3
	Roll out NC NGN team to improve connectivity	UNCP IT/Coop	2
#2	Engage Lumbee Tribe and UNCP leadership	Lumbee Tribe/UNCP	Started
	Create website; communicate initiative to community	InnovateNC Team	1-3
	Hold monthly update meetings, gain feedback	InnovateNC Team	1
	Set up sustainability group for school construction	InnovateNC Team	1
#3	Hire sustainability resource to coordinate tech search	UNCP Incubator	1-3
	Review best practices from NC, US, global; prioritize	InnovateNC Team	1
	Create Makers Space to evaluate and adapt techs	UNCP Incubator	1
	Repair Lumbee Housing damaged by recent flooding	Lumbee Tribe	Started
	Support startup(s) to assess, retrofit Lumbee Housing	Lumbee Tribe	2
	Roll out health monitoring with incubator startup	UNCP Incubator	2
	Test home monitoring system in ten homes; scale	UNCP Incubator	2
#4	Highlight potential, best practices; communicate	InnovateNC Team	1
	Hold workshops, HS summer sustainability camp	UNCP ORI	2
	Launch Artist and Farmers Market at Incubator	Artists Coop	Started
	Integrate 'Farm to Market' with Home Health Care	InnovateNC Team	2
	Launch 'Chancellor's Challenge' in sustainability	UNCP Incubator	Done

### Responsible Partners

UNC Pembroke was recently ranked the 'Most Diverse College in the South' by US News and World Report. Our community is comprised of Lumbee Native Americans, Americans of African, European and Asian heritage, UNCP students, faculty, and staff of all ages and economic backgrounds.

Our InnovateNC team is made up of leaders from all these important backgrounds committed to the development of our strategy and success of this initiative. These include:

UNCP Incubator	Town of Pembroke	Lumbee Tribe of NC
Robeson CC/SBC	COMtech	Lumbee Regional Development Assoc
Howington LLC	Lowry Construction	UNCP Faculty/Staff
LL&J	Dial Insurance	Lumbee Guarantee Bank
First Bank	1 <sup>st</sup> Choice Realty	Porter Scientific
SBTDC	KAP Inner Prizes	Metcon
		Pembroke Chamber

Importantly, the UNCP Entrepreneurship Incubator Executive Director will serve as the Operational Lead of this initiative, serving on the InnovateNC Executive Council, receiving, coordinating and tracking funds, driving strategies, and measuring outcomes.

## Investment

Year One	<u>\$195,000</u>
Hire one sustainability coordinator/researcher	\$60,000
Hire one sustainability Entrepreneur in Residence	\$80,000
Equipment for Makers Space (testing/technology)	\$15,000
Marketing activities (website, workshops)	\$40,000
Year Two/ongoing	\$160,000

## Next Steps (by 1 June)

1. Complete InnovateNC strategy; establish execution plan
2. Develop website; begin to communicate strategy to community
3. Begin projects we have resources to complete; gain sector experts
4. Roll out and complete “Chancellor’s Challenge”
5. Request additional funds listed above

## Contact Information

### Operational Lead

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### Executive Committee

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Agriculture Sector Sustainability Expert (TBD)  
Home Health Care Sector Sustainability Expert (TBD)  
Sustainable Construction Sector Expert (TBD)

### InnovateNC Council\*

Spencer Howington	Marcus Bryant
Jonathan Locklear	Sarah Willets
Aaron Thomas	Joe West
James Chavis	Nancy Crouch
Thornton Lowry	Gregory Cummings
Freda Porter	Mark Moser
Lindsey Locklear	Bryan Maynor
David Jones	Lawrence Locklear
Charles Graham	Bob Moore
Theresa Locklear	Ryan Sampson
Faline Locklear	Tommy Lowrey
Channing Jones	Tim Locklear
Tasha Oxendine	Jan Maynor
Stewart Thomas	Judy Sampson

\*note – includes all members of Executive Committee