



# NC STATE THINK AND DO THE EXTRAORDINARY

**Richard H. Linton, Dean-College of Agriculture and Life Sciences  
Association of Public Land-grant Universities  
August 5, 2017**

# Agriculture in NC is **STRONG/GROWING**

Agriculture and agribusiness generate

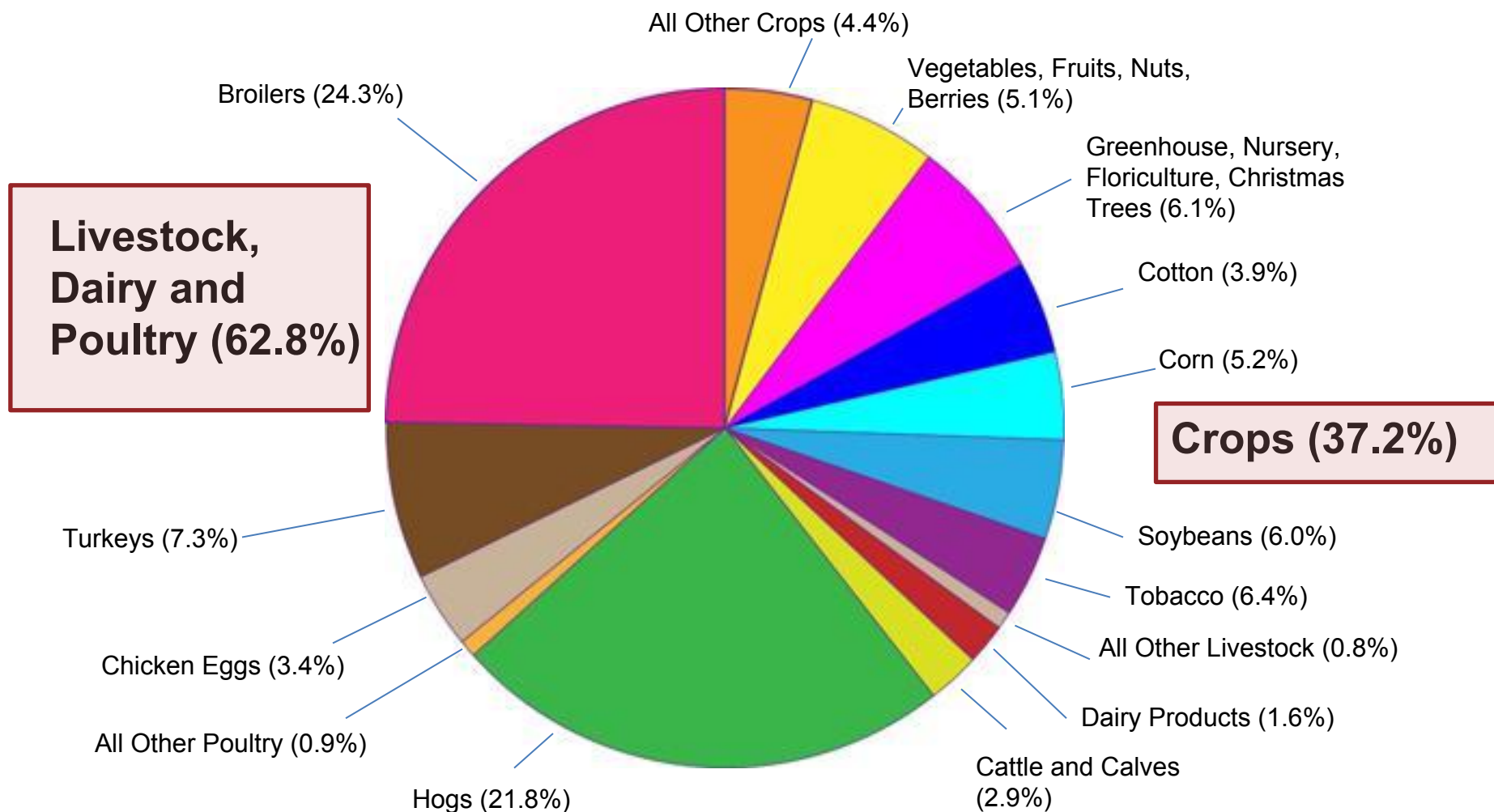
***\$84 billion or 17%***

of \$495 billion annual gross state product

***>686,000 jobs or (16%)*** of 4.2 million jobs



# NC Agricultural Diversity = Opportunity



\*Total Source of Farm Cash Receipts = >\$11.7 billion

Source: NCDA&CS, 2014



# Globally Recognized Land-grant University

**#20**

Forbes top STEM colleges of 2016

**2,000+**

research, teaching, extension faculty and doctoral scholars

**\$349m**

in research awards (FY16)

**12**

colleges

**70%+**

faculty engaged in sponsored research

**#3**

in industry sponsored research\*

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**24**

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in all research expenditures\*

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# CALS by The Numbers

**2,826**

Undergraduate  
& AGI Students

**18**

Undergraduate  
Degree  
Programs

**994**

Graduate & PhD  
Students

**25**

Graduate  
Programs

**1,623**

Faculty & Staff

**4 + 12**

4 Systems  
12 Departments

**22**

Centers &  
Programs

**18 + 4**

18 Research  
Stations  
4 Field Labs

**\$114M**

Sponsored  
Programs

**\$84M**

Fundraising

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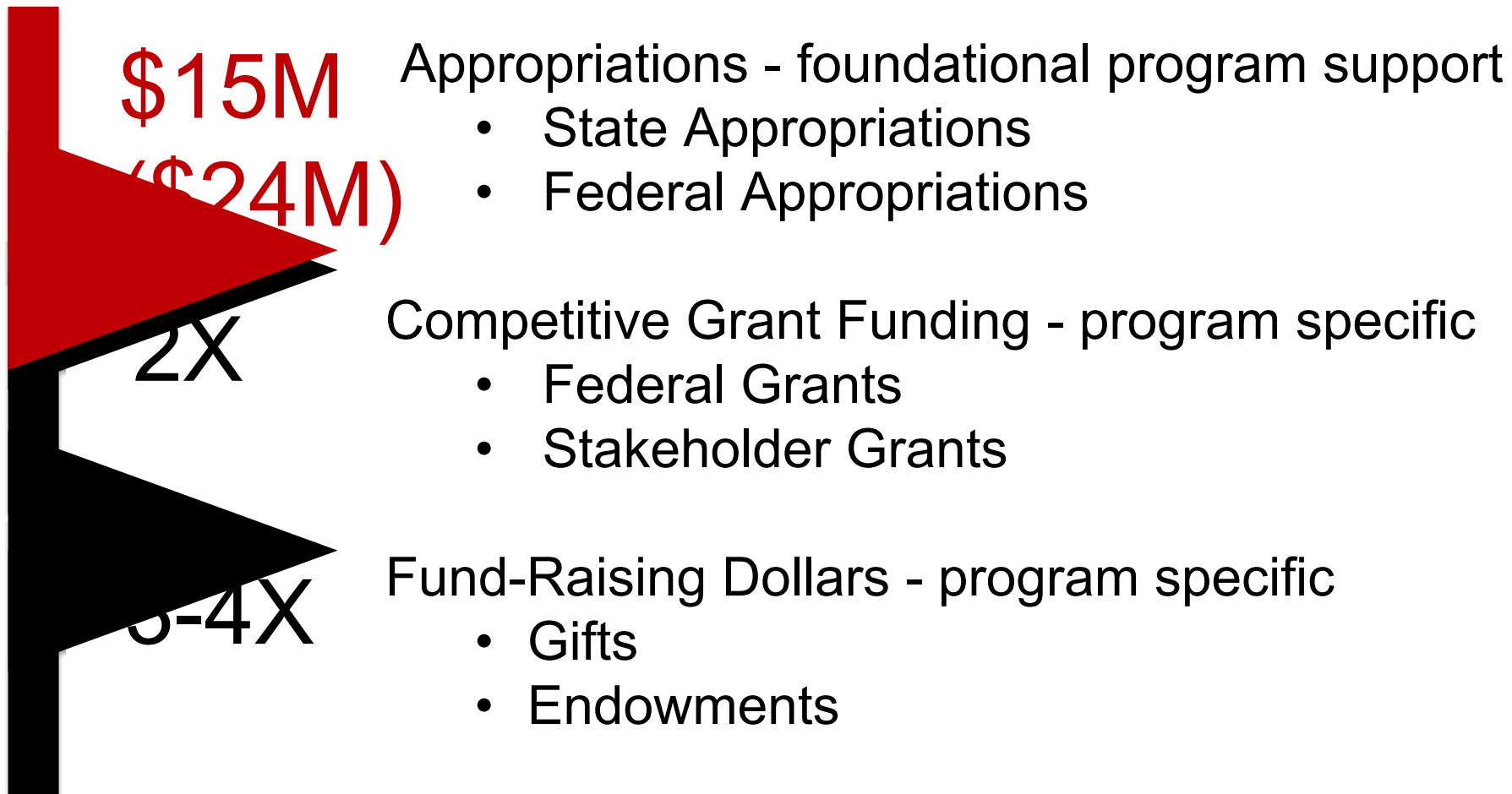
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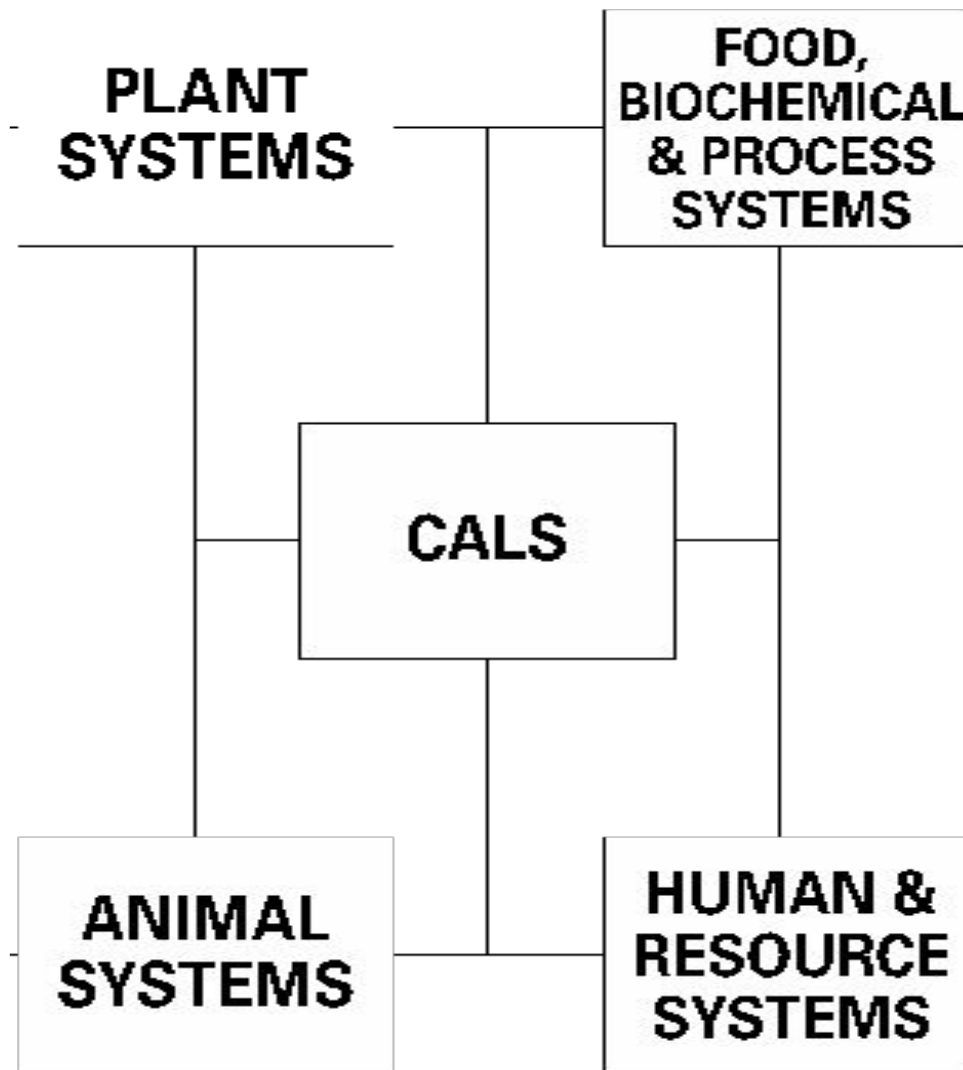
Fundraising

# Financial Challenges

## Create New Possibilities (2013-17)

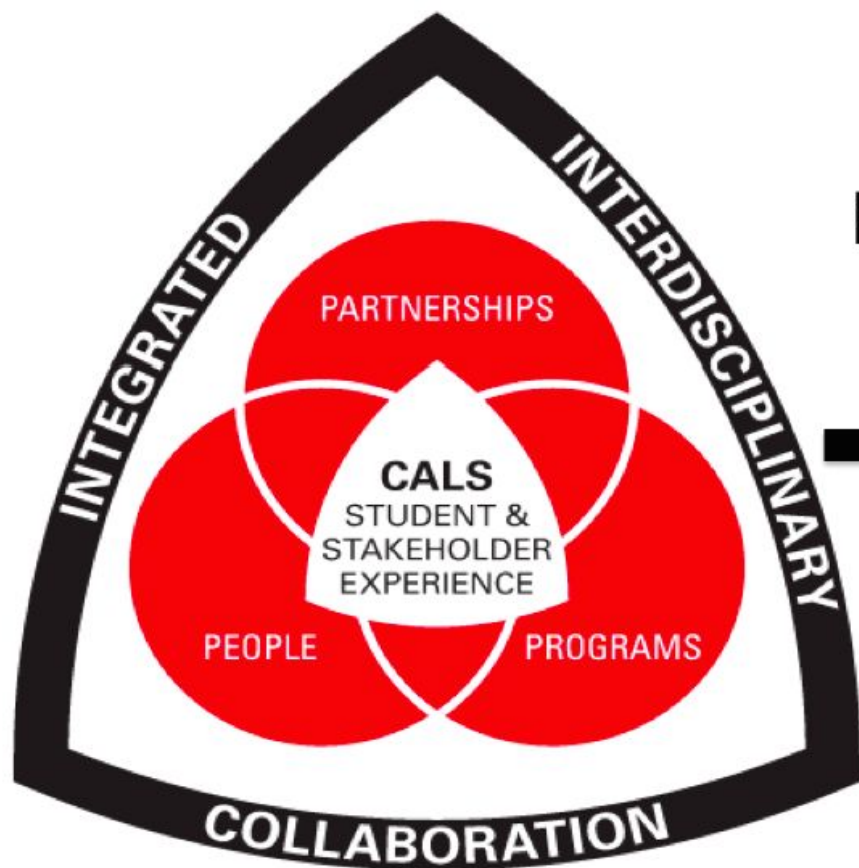


# A New Structure: A New Way of THINKING





# CALS is Working on BIG IDEAS



- Food Manufacturing Initiative
- Plant Sciences Initiative
- Food Animal Initiative
- Leadership

# NC Plant Sciences: Core Goals

**Establish the world's foremost  
Plant Sciences Enterprise**

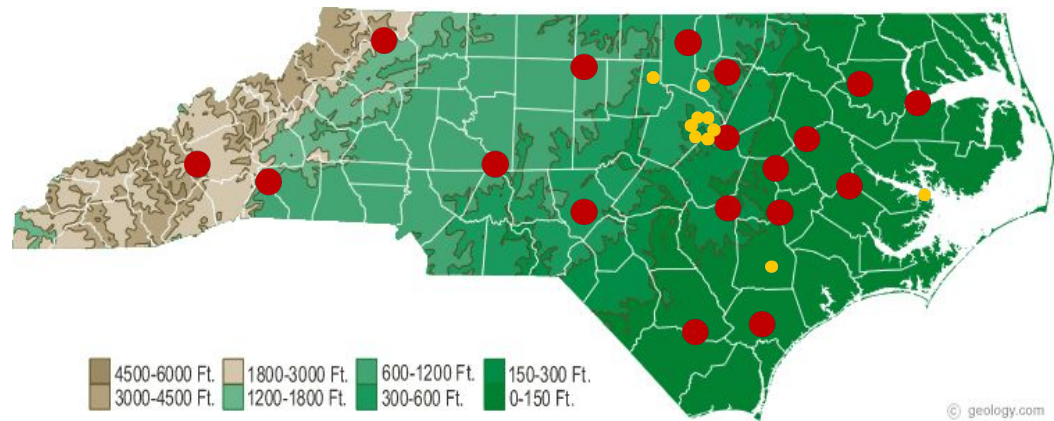
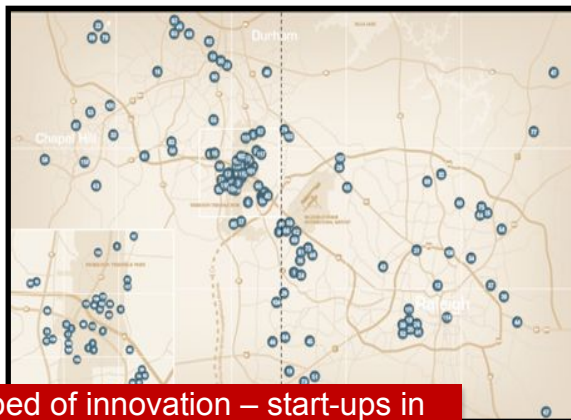
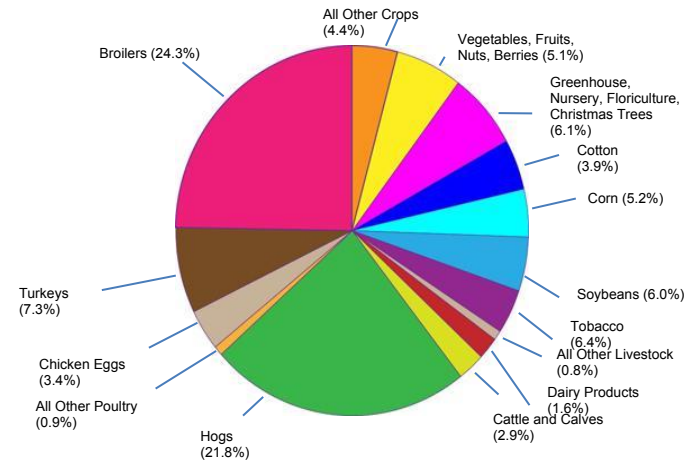
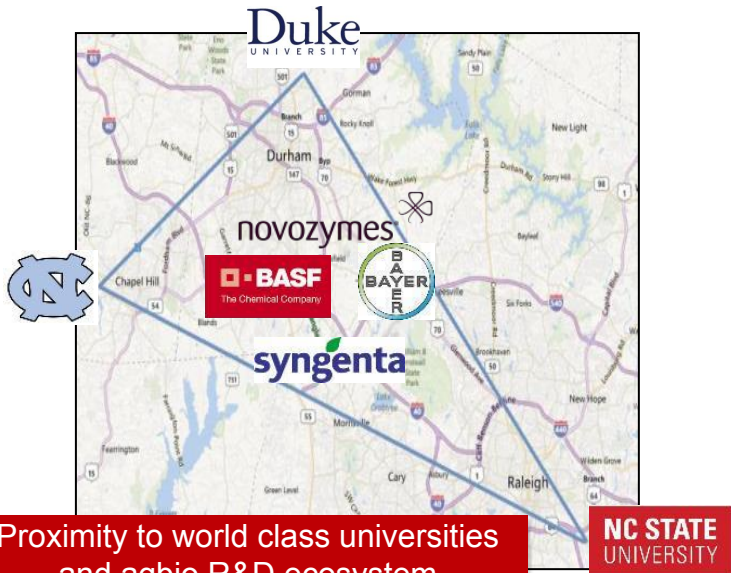
Recruit world class leadership

Interdisciplinary teams

Partnership-driven

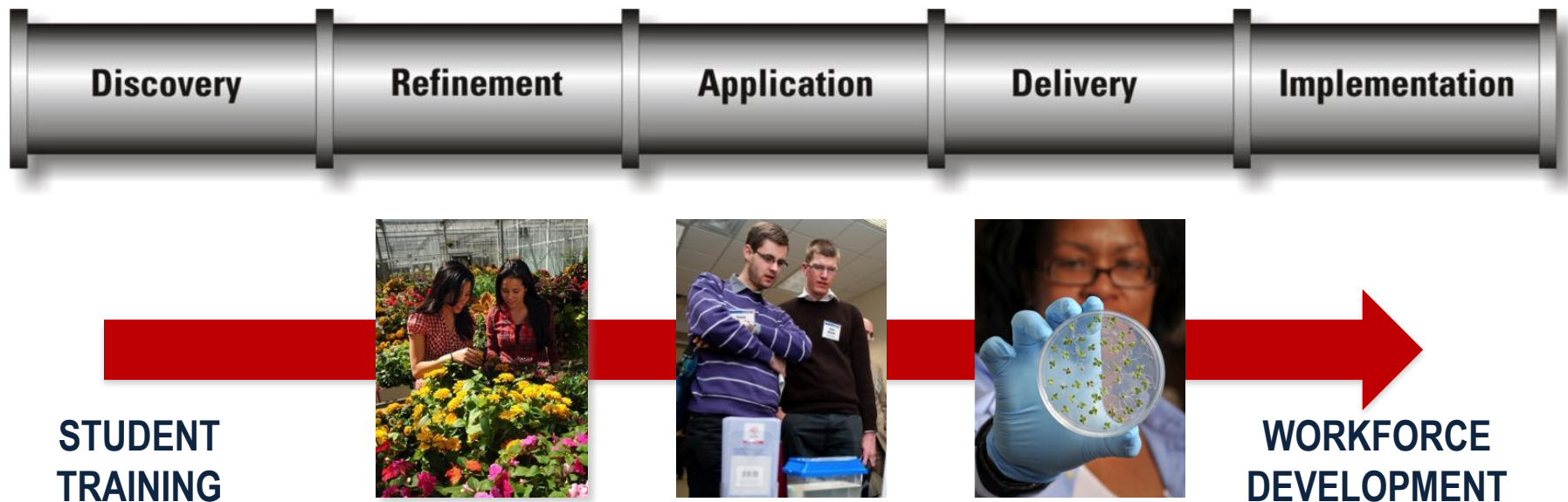
\*\*World-class facility

# Why here? Why now?



# How is the NC PSI different?

- Interdisciplinary, multi-partner teams focused on projects to address grand challenges & opportunities
- Embedded entrepreneurial network with a focus on IP and launching start-ups
- A uniquely integrated innovation pipeline:





# The Journey for a World-Class Facility



**2013**

**Strategic  
Plan**

**Economic  
Study**

**Stakeholder  
Support**

**Bond  
Passage**

**2016**

**Golden LEAF  
Grant**

**= \$144M  
\$160M**

# Broad Stakeholder Support

- > Carolina Feed Industry Association
- > Corn Growers Association of NC
- > FAIR Products
- > Golden LEAF Foundation
- > NC Ag & Life Sci. Research Foundation
- > NC Agricultural Consultants Association
- > NC Agricultural Foundation
- > NC Blackland Farm Managers
- > NC Blueberry Council, Inc.
- > NC Cattlemen's Association
- > NC Composting Council, Inc.
- > NC Cotton Producers Association
- > NC Dairy Foundation
- > NC Farm Bureau
- > NC Farm Credit Banks (3)
- > NC Fisheries Association
- > NC Forage & Grasslands Council
- > NC Green Industry Council
- > NC Herb Association

**\$14+ Million Raised from our NC Stakeholders**

- > NC Irrigation Society

# The Next 5 Years for PSI

- > Programmatic Development
- > Strategic and Administrative Hiring
  - “Launch” then Full-time Director
- > PSI Complex Construction

**2016**

**2021**

Building  
Planning

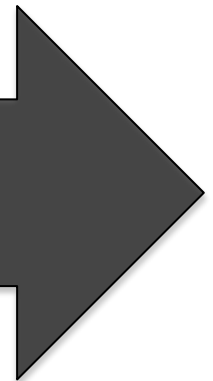
Program  
Development

PSI Strategic  
Hiring

Begin  
Construction

Hire PSI  
Director

Construction  
Completed





# NC Food Manufacturing Initiative



- Develop a network in NC to support a “New Economy” of Food Manufacturing
- Recruit new FM companies to come to NC or expand existing FM companies in our state
- Support FM companies using an inter-agency approach



Dan Forest  
Lieutenant Governor  
State of North Carolina



College of Agriculture  
and Life Sciences



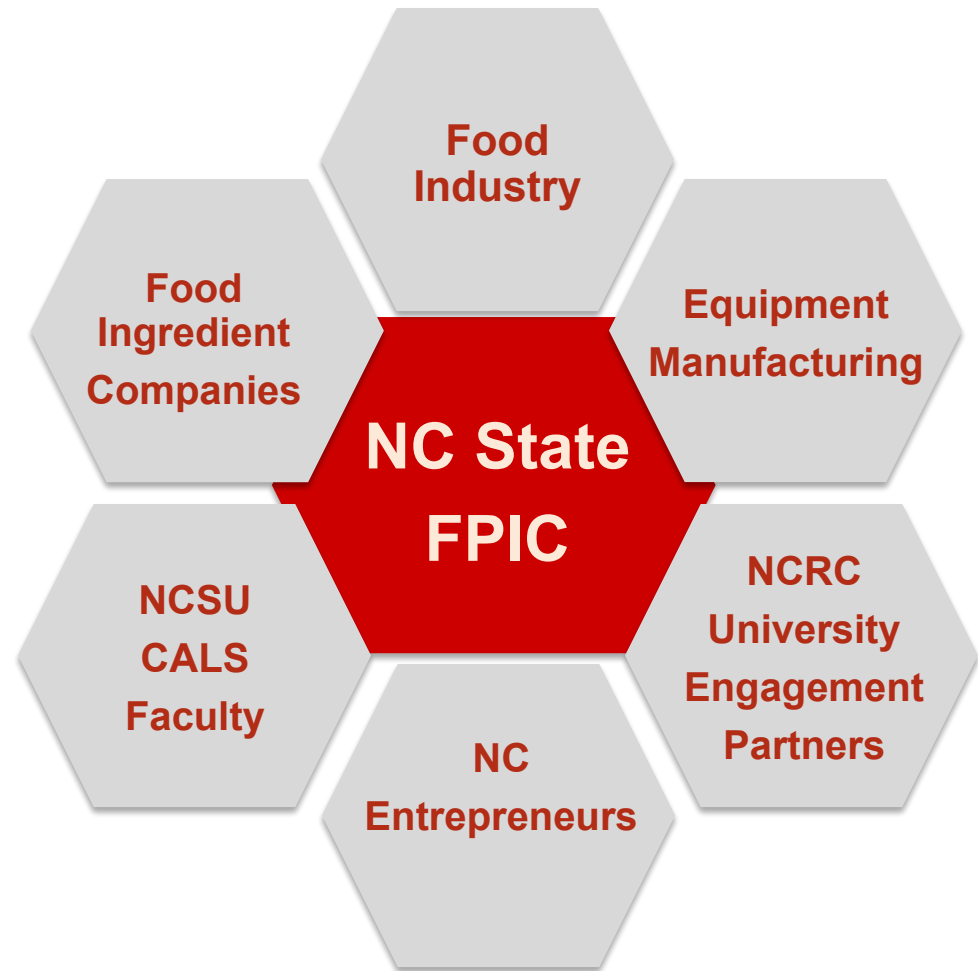


# Food Processing and Manufacturing: The Opportunity

- NC's diverse and productive agricultural sector
- 2014 legislated economic feasibility study set the stage
  - Food processing as a means to diversify and grow manufacturing in North Carolina
  - Estimated 38,000 jobs and \$10.3B annual boost to state income
- Key recommendation included creation of an **innovation center** that would enable development of entrepreneurship and attract broader food manufacturing industry to NC

# Role of the Food Processing Innovation Center

- Serve as a hub for the State's growing food entrepreneur network
- Unite food processing entities in our state and nationally
- Accelerate projected economic benefits and job growth potential by integrating national and local food industries



# Food Animal Initiative

**We have the resources, partners and skilled personnel to shape the growth of the state's food animal economy.**



### 5 Poultry Facilities

Chicken, turkey, feed mill and waste management units. Free-range and layer program.



### 4 Pork Facilities

Specialized units for genetics, sustainability and biosecurity.



### 14 Dairy and Beef Facilities

Providing uniform genetics, health and record-keeping in diverse locations and climates.



### 3 Aquaculture Facilities

Fresh and saltwater research focused on our evolving resources.



### 3 Ruminant Facilities

Goats, sheep and alpaca research to meet growing global needs.



Percentage of animal food production must increase by 2050 to feed a population of over nine billion.

# 73%



**Collaboration is in NC State's DNA**



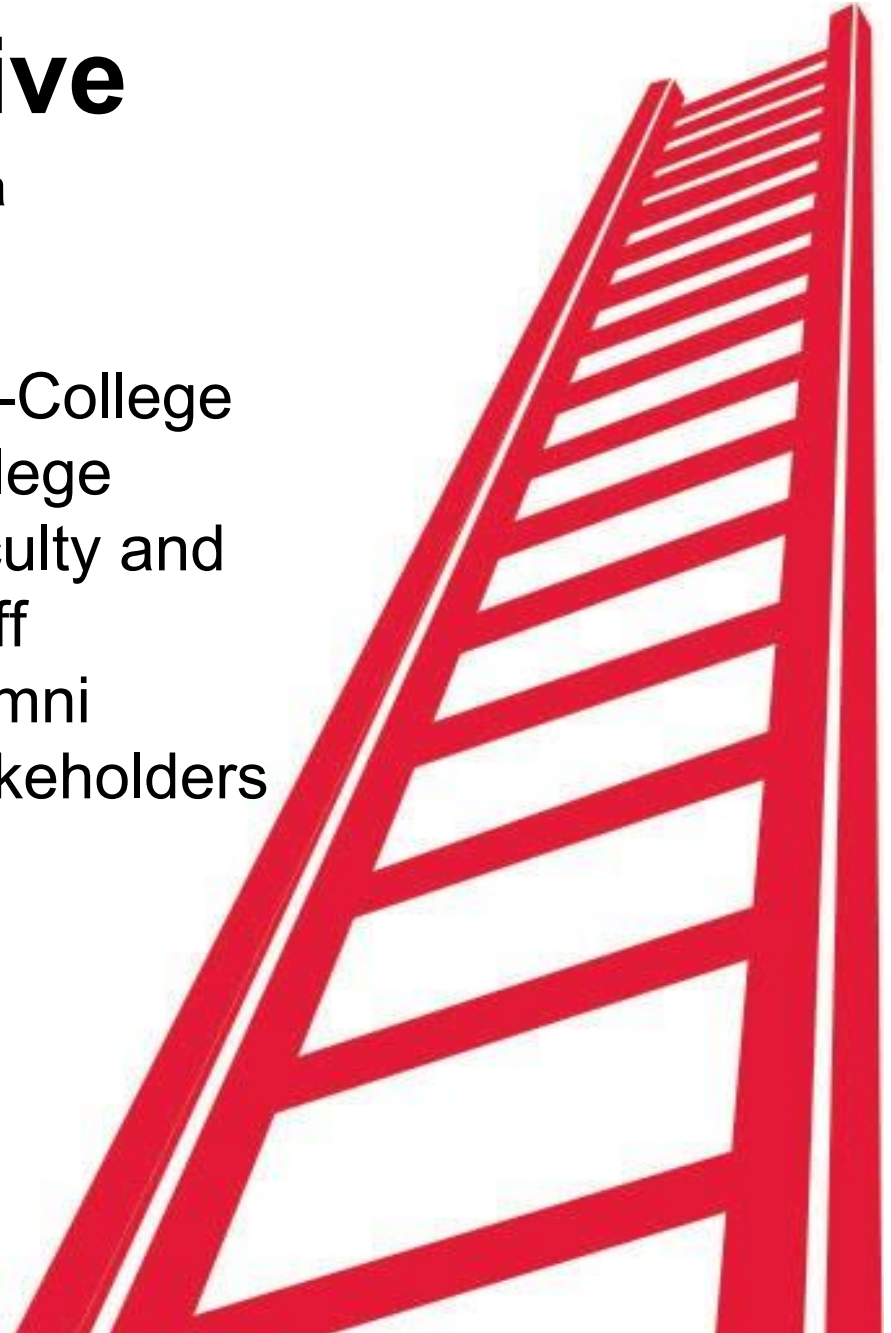
Agriculture and Life Sciences  
Veterinary Medicine

# Leadership Initiative

Growing generations of North Carolina agriculture and life sciences leaders.



Pre-College  
College  
Faculty and  
Staff  
Alumni  
Stakeholders





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**Thank You!**