



PennState

College of Agricultural Sciences

Northeast Ag Tech Corridor

Harnessing our unique characteristics to lead the nation in
developing scalable, sustainable solutions

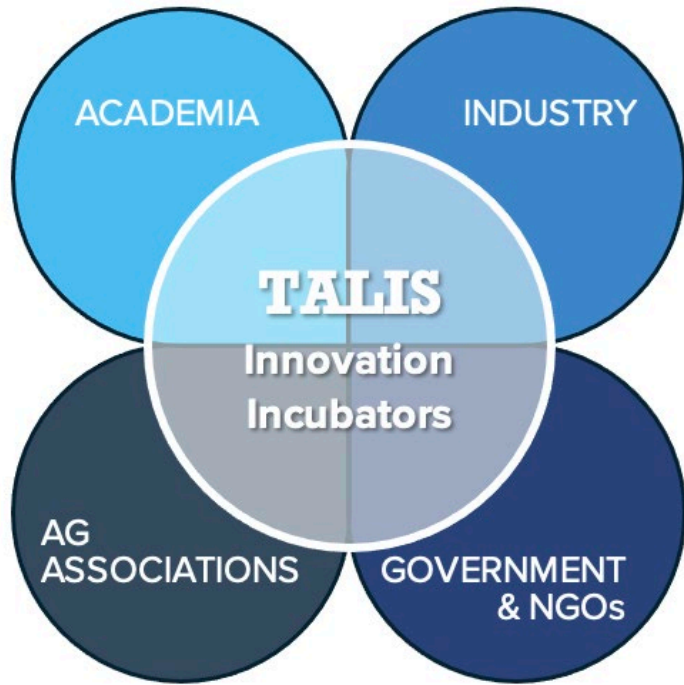


Technologies for Agriculture and Living Systems Initiative

- Emphasizes the interconnectedness of agricultural and living systems, **balancing production with conservation**
- Integrates across a **broad range of technologies** to improve food production, biodiversity, natural resource management, and human health

How we've envisioned the TALIS Initiative

- Penn State and the **land-grant mission** (capacity and responsibility)
- **Interconnectedness** of Agriculture and Living Systems
 - Clean water
 - Ecosystem services provided by healthy soils and pollinators
 - Resilient plants and animals
 - Thriving communities with diverse growth opportunities
 - Healthy communities with access to safe, affordable, and nutritious food
- Harnessing Technologies for **Practical Solutions**
 - Cutting-edge technologies to balance the need for increased food production with the conservation of our vital living systems
 - Developing sustainable, affordable, and scalable solutions for farms and forests in our region
- Pennsylvania: Ideal Environment to be a **Living Laboratory**
 - An excellent testbed for integrating technologies across different types of agriculture and natural ecosystems
 - Conditions that translate to many parts of the world (operation scales, urban/rural proximity, mosaic landscapes)



- Invest in pilot sites that provide real-world conditions to test technologies
 - Build academic partnerships to underpin technology development and ensure successful adoption
 - Close the innovation gap by providing industry responsiveness resources
 - Provide educational and training opportunities

Pilot Incubators

- **Fruit Research and Extension Center (FREC)**
 - Specialty crops, emphasis on tree fruits
 - **TRANSLATION NODE** pilot: to focus on technologies that support management and production
- **Southeast Agricultural Research and Extension Center (SEAREC)**
 - Agronomic crops, ornamentals
 - **DECISION SUPPORT NODE**: to focus on technologies that support monitoring and decision support for ecosystem services

An Ag Tech Corridor

Inspired by the Senate Farm Bill Text

IDEA: to build a regional network of demonstration sites that will support closing the innovation gap in ag tech specific to the needs of the Northeast region

- Build frameworks to support growth in technology development, manufacturing, implementation, and adoption
- Leverage our RECs as sites
- Capitalize on what we are already doing
- Build collective competitiveness in an already crowded space
- Take the lead in the nation for scalable technologies with potential for global applications

Innovation Incubator Network



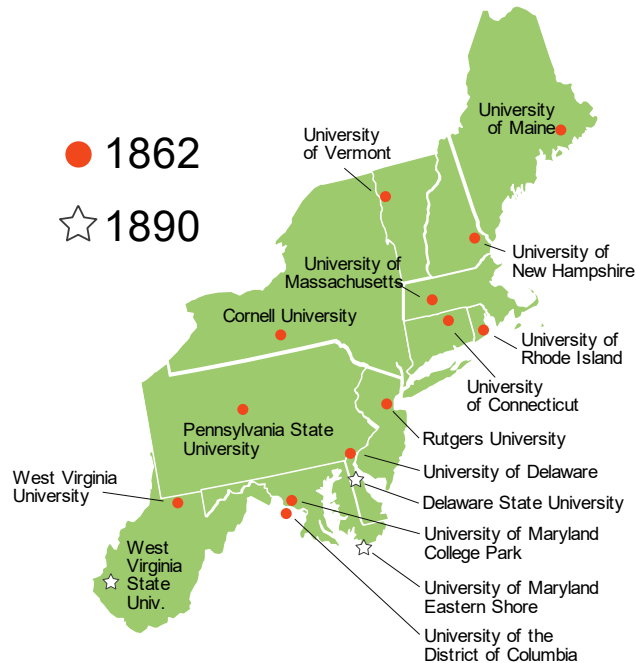
- Establish a network of **demonstration and engagement nodes** throughout the Northeast region

• Areas of Strength

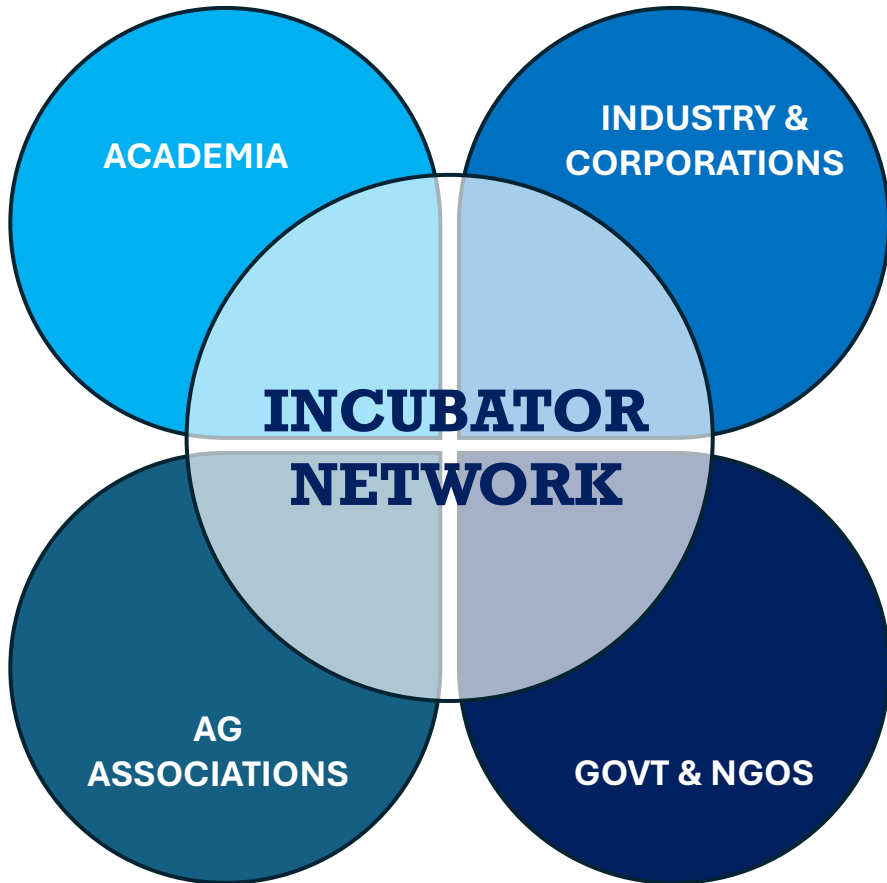
- Automation and robotics for production/management
- Biotechnology
- Monitoring and decision support (AI/ML)
- Controlled environment agriculture
- Energy technologies

• Building the Network

- Pilot Nodes: Investments at our Research and Extension Centers
- Regional Network: Socialize and build partnerships through academic institutions in the region



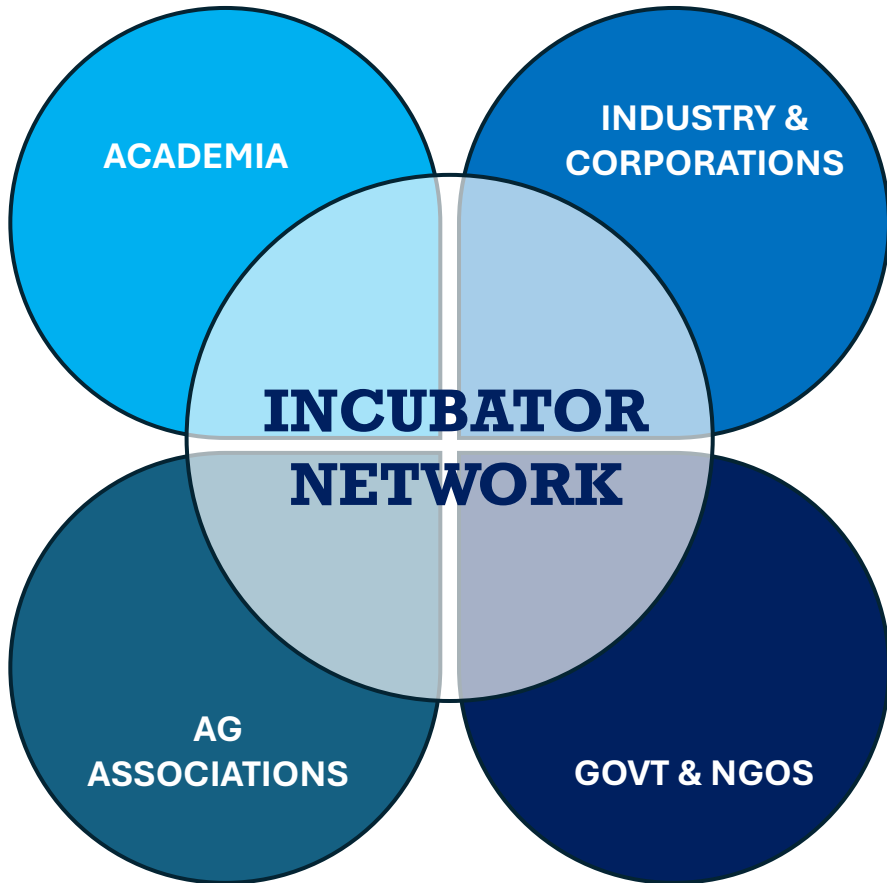
Bridge Across Sectors



An Innovation Incubator Network can foster the creation of additional AES-centered nodes in other states, developing a **regional corridor of innovation**.

- Build on strengths already forming and established at other institutions and in states (e.g., robotics in Pittsburgh and Boston)
- Generate solutions that benefit the Northeast in particular and can be extrapolated to similar regions worldwide.
- Increase readiness and competitiveness for large extramural proposals in the future.

Pursue Together?



- *Key personnel who may be interested?*
- *Align with priorities at your institution?*
- *Existing strengths?*