

**COMMISSION ON UNIVERSITY SUPPORT  
MEETING  
March 18, 2021  
Videoconference (via Zoom)**

**Present:** Judy Alford, John Benner (Chair), Michael Borowski, William Dougherty *for Scott Midkiff*, Martha Glass, Kristie Caddick *for Charles Phlegar*, Jon Clark Teglas *for Chris Kiwus*, Jeff Earley, Polly Middleton, Debbie Greer *for Ken Miller*, Phil Miskovic, Connie Stovall, Robert Sumichrast,

**Absent with Notice:** Bradley Klein, Ryan Speer

**Absent:** Patrick Pithua

**Guests:** Denny Cochrane, Susan Duncan, Alisha Ebert, Christina King, April Myers

**Recorder:** Teresa Thompson

**1. Welcome and Roll Call**

Commission Chair, John Benner, called the meeting to order at 2:00p.m.; initiated introductions and roll call. A quorum was present.

**2. Approval of Agenda**

Proper motion was made, seconded, and unanimously passed to accept the March 2021 agenda.

**3. Approval of the February 2021 meeting minutes**

Chair Benner noted that these minutes have been voted on electronically and can be publicly accessed on the Governance Information System on the Web (<http://www.governance.vt.edu>).

**4. Old Business**

No old business for discussion.

**5. New Business**

Dr. Susan Duncan, Associate Director of the Virginia Agricultural Experiment Station provided her presentation on the CALS SmartFarm Innovation Network/Center for Advanced Innovation in Agriculture which is attached and incorporated herein as part of the minutes.

**6. Updates from Committee Representatives**

Campus Development Committee – Christina King reported committee has nothing new to report.

Energy and Sustainability Committee – Denny Cochrane reported the committee met on January 25, 2021; no new minutes for Commission review to date; work continues with the process and recommendation for 2020 Climate Action Commitment Resolution that will be presented at the March 2021 Board of Visitors meeting for approval; they initiated Virginia Tech's 5<sup>th</sup> STARS submission on February 18 and awaiting review; Green RFP update: 18 student proposals have been prioritized; Earth Week (April 18-24, 2021) update; coordination efforts are ongoing to finalize the schedule of events. Look for announcements in the near future.

IT Services and Systems Committee – William Dougherty shared that Google services will be implementing changes with G Suite by spring/fall; meetings are ongoing and he will share updates from those discussions and way ahead as this develops. Virginia Tech's license with Qualtrics will expire May 2021. They are looking into options for the university and additional information will be shared in the near future.

Transportation and Parking Committee – Nothing new to report.

## **7. Acceptance of Committee Minutes**

Campus Development Committee – no new minutes submitted to the Commission.

Energy and Sustainability Committee – January 25, 2021 minutes approved by the Commission.

IT Services and Systems Committee – IT Services and Systems March 5, 2021 minutes approved by the Commission.

Transportation and Parking Committee – February 3, 2021 minutes were received and shared for information purposes. Since no representatives for the committee could attend this meeting, the Commission will review and vote on them at the April meeting.

## **8. Next Meeting Date**

Next meeting date April 15, 2021 and will include a presentation by John Ignosh, Specialist with Biological Systems Engineering and Virginia Cooperative Extension, on Virginia Cooperative Extension programs on solar projects and programs.

## **9. Adjournment**

There being no further business, proper motion was made to adjourn the meeting at 2:58pm.

Respectfully submitted,  
Teresa Thompson



COLLEGE OF  
AGRICULTURE AND  
LIFE SCIENCES  
VIRGINIA TECH.



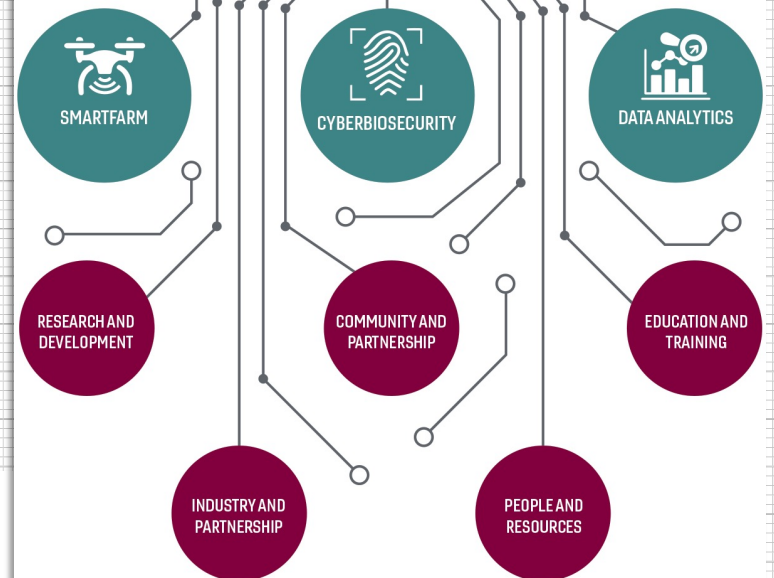
COLLEGE OF AGRICULTURE AND LIFE SCIENCES  
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INNOVATION IN AGRICULTURE  
VIRGINIA TECH

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SmartFarm Innovation Network™

*Harnessing Technology to Drive Future Economies*

## CENTER FOR ADVANCED INNOVATION IN AGRICULTURE (CAIA)



[caia.cals.vt.edu](http://caia.cals.vt.edu)

# U.S. Agriculture and the 4<sup>th</sup> Industrial Revolution

The McCormick Farm was central to the agricultural technology revolution in the 19<sup>th</sup> century.

**1st Revolution:  
mechanization,  
steam, water  
power**

**2nd Revolution:  
mass production  
and electricity**

**3rd Revolution:  
electronic and IT  
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**4th Revolution:  
Cyber+physical+  
biological  
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- Convergence of digital, physical, and biological innovations
- Transformational technologies
- Artificial intelligence, genome editing, robotics, 3-D printing, augmented reality,.....
- Systematic change across many sectors



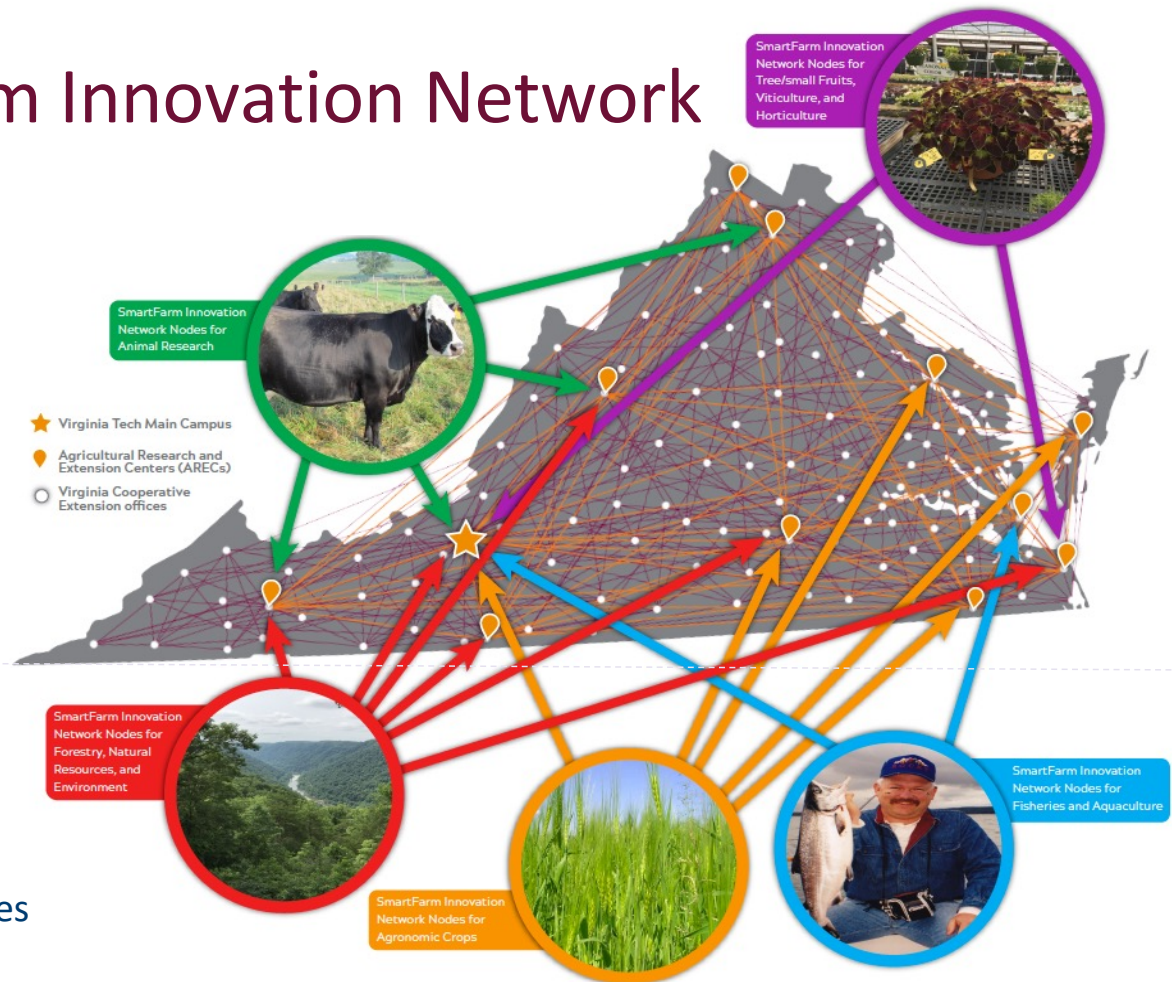
## USDA Priorities – Food and Agriculture Cyberinformatics and Tools Initiative

- Data science
- Enable systems and communities to effectively utilize data
- Improve resource management
- Integrate new technologies and approaches
- Examine value of data for variety of stakeholders

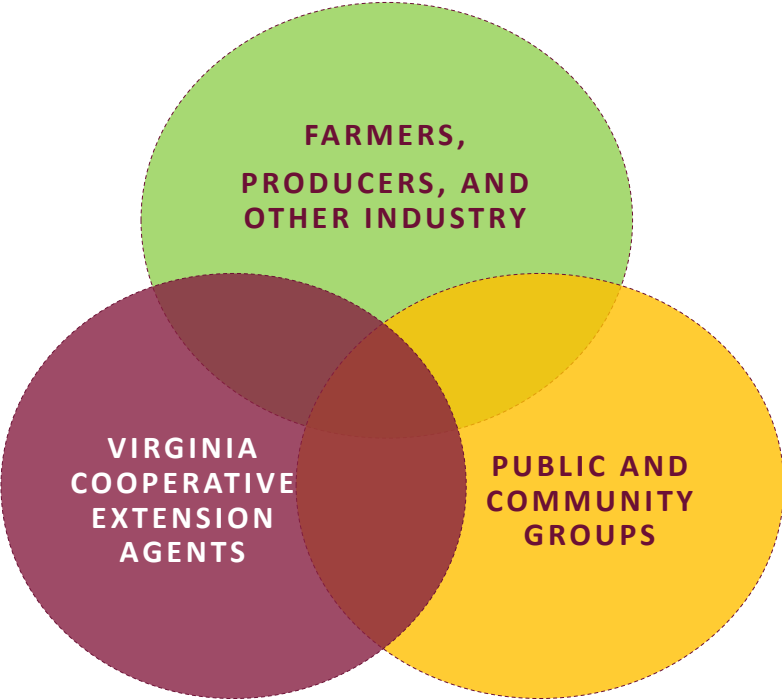


# The VT SmartFarm Innovation Network

- VT campus + 11 ARECS + VCE + industries
- Testbeds for creating technologies
- Implementing Networks
- Securing data for agriculture, food, natural resource industries
- Experiential learning
- Workforce training
- Translation into practice for small businesses and corporate enterprises

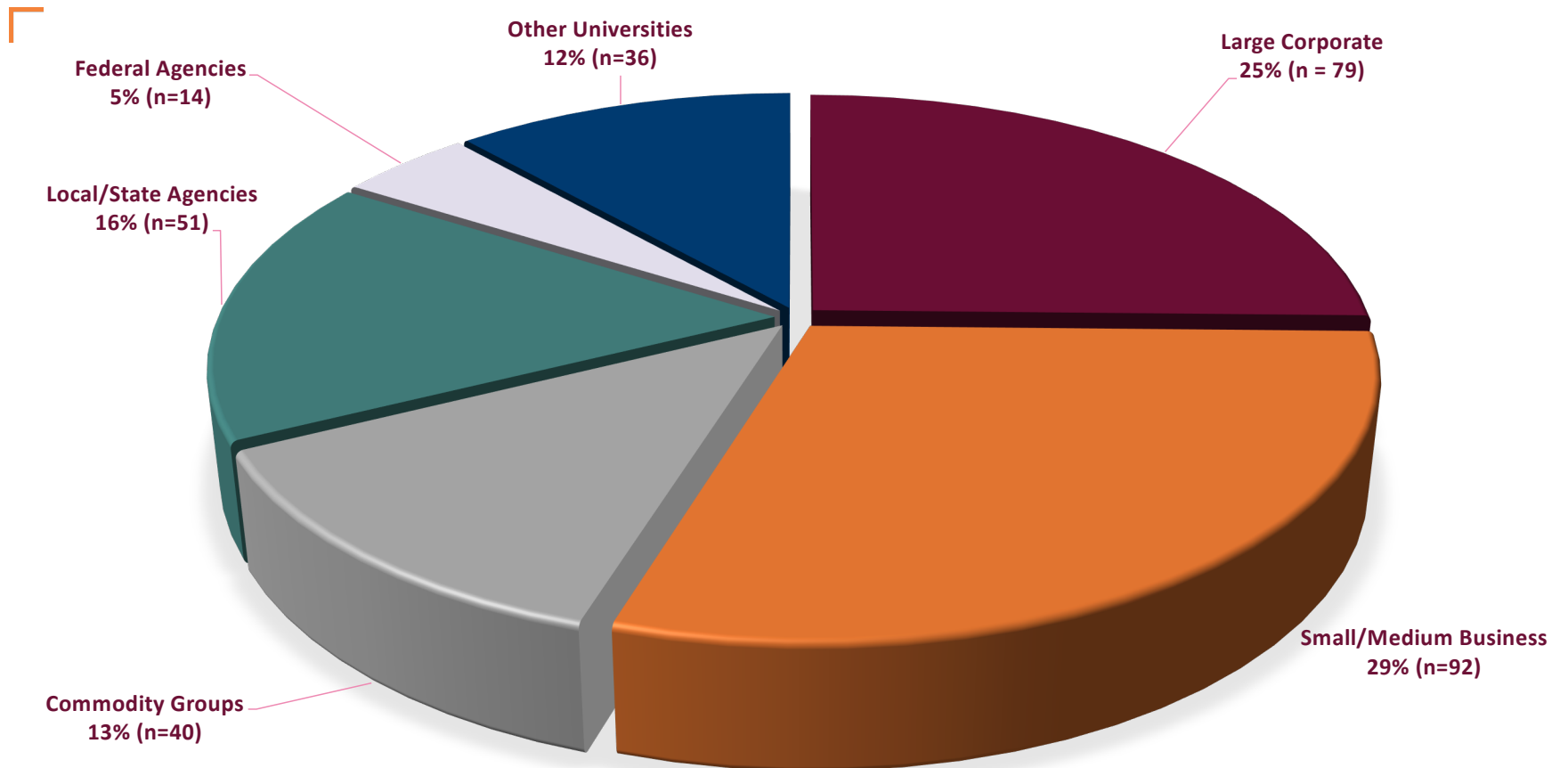


# ARECs connect VT to the Virginia Communities

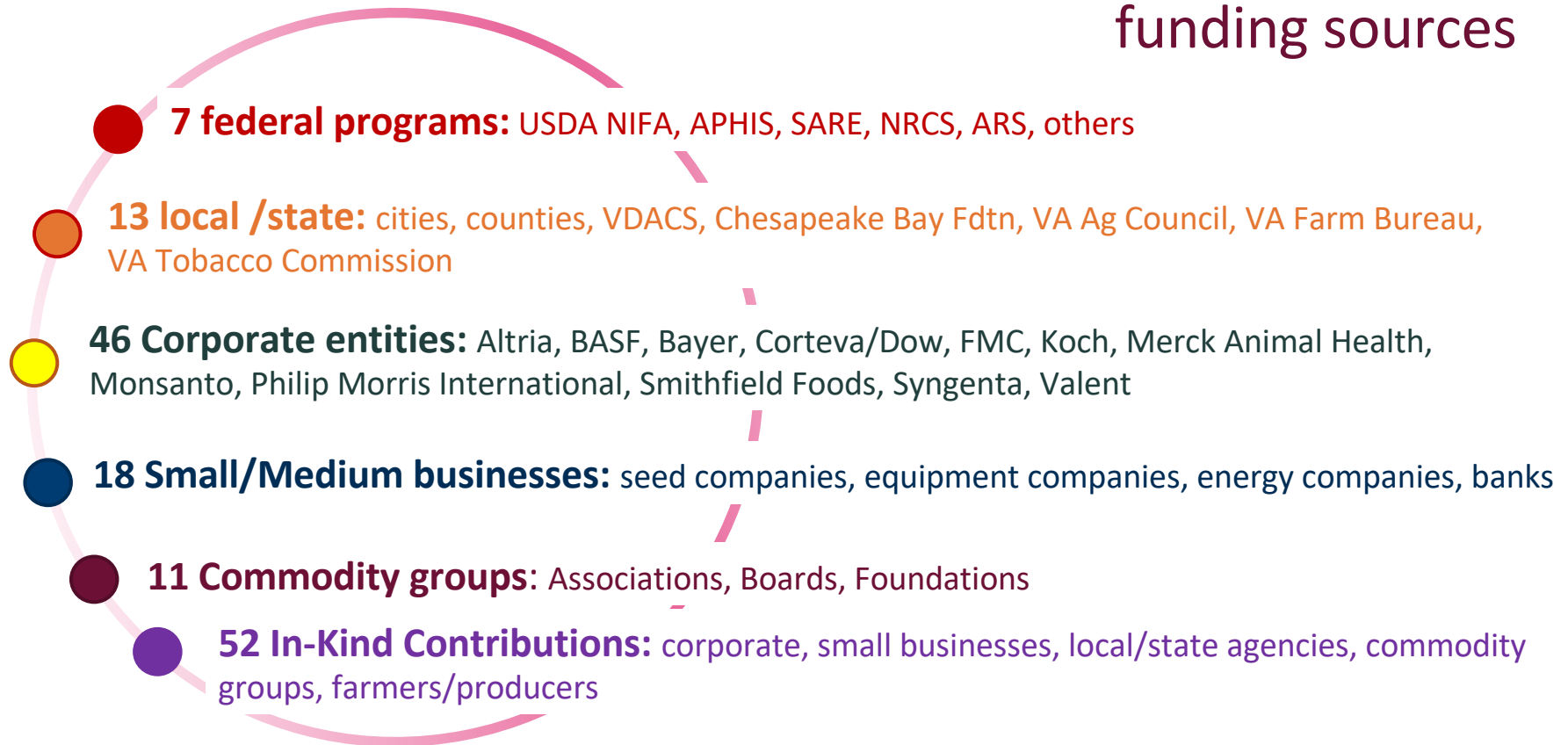




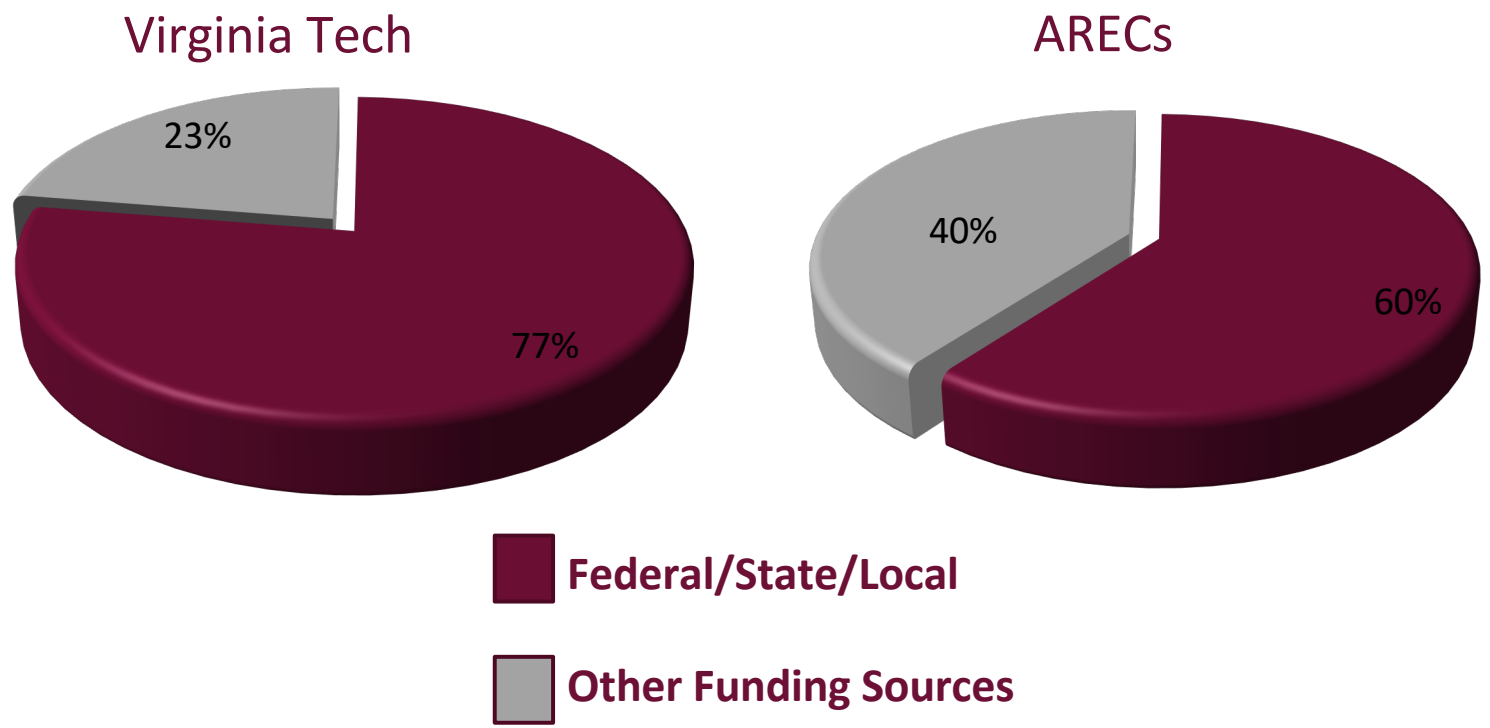
## ARECS ANNUALLY ENGAGE WITH OVER 300 STAKEHOLDER GROUPS (2018; N=312)



# In 2018, ARECs were supported by **147** different funding sources



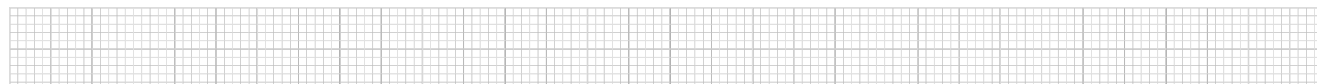
# Private Industry Funding



# NEEDS AND ISSUES



- Failing structures
- No classroom spaces for groups
- Wireless connectivity challenges
- Outdated field equipment
- Limited capacity for smart technologies, equipment, and data analytic





# Strategic Facility Plan for Virginia Tech's Agricultural Research and Extension Centers

Virginia Agricultural Experiment Station  
College of Agriculture and Life Sciences

## Virginia Agricultural Experiment Station and its Agricultural Research and Extension Centers



Virginia Tech  
College of Agriculture and Life Sciences  
Virginia Agricultural Experiment Station

## The Plan Covers Four Major Strategic Areas

- Capital Project Needs
  - Top Immediate Priorities
- Infrastructure and Land Needs
- Comprehensive Preventive Maintenance Plan
- IT, Connectivity, Wi-Fi Availability, A/V Needs, and Signage

## Summary of Capital Projects & Land Needs

Core Facility Type	No. Projects	New Cons. (ft <sup>2</sup> )	Renovation (ft <sup>2</sup> )	Est. Cost
Research Support	35	97,510	27,000	\$21,560,000
Extension/Outreach	6	27,500	2,500	\$8,363,000
Infrastructure	25	150	500	2,930,000
Admin/Office	2	--	900	199,000
Housing	12	14,200	24,700	4,671,000
<b>Grand Total</b>	<b>80</b>	<b>139,360</b>	<b>55,600</b>	<b>\$37,723,000</b>
<b>Land</b>	<b>3</b>	<b>350 acres</b>	<b>--</b>	<b>\$3,150,000</b>

## High Priority Capital Projects by AREC

AREC	Item	Estimated Cost	Est. Sq. Ft.
A. H. Smith	Pesticide Storage (R)	\$675,000	5,400
Eastern Shore	Tenant House (N)	\$240,000	1,200
Eastern Virginia	Seed Drying and Experiment Bldg (R)	\$195,000	1,100
Hampton Roads	Classroom Expansion (N)	\$812,500	2,500
MARE Center	Animal Teaching/Outreach (N)	\$1,050,000	7,500
Reynolds Hstd	Basement upgrade (R)	\$310,000	1,240
S. Piedmont	Lab facility (N)	\$1,125,000	2,500
Shen. Valley	Multipurpose building (N)	\$937,500	7,500
Southwest	Livestock facility Expansion (N)	\$625,000	5,000
Tidewater	MPB and Smart greenhouse (N)	\$1,850,000	13,000
<b>TOTAL</b>		<b>\$7,820,000</b>	<b>46,940</b>

## IT Infrastructure Upgrade at ARECs

Component	Fixed-One Time Cost	Annual Cost
Router Upgrade	\$55,000	--
Building Re-wiring	\$850,000	--
Interior Wi-Fi Upgrade	\$132,000	--
RTK (GPS Accuracy)	\$190,000	\$14,000
Exterior Wi-Fi Network	\$1,030,000	--
Communication (A/V)	\$195,000	--
Annual Service Cost	--	\$414,000 (\$117,000)
<b>TOTAL</b>	<b>\$2,452,000</b>	<b>\$428,000</b>



## Maintenance Reserve Projects: Recent Actions & Discussions

MR Project Type	No. of Projects	Cost (Million)
Moisture Penetration	17	\$1.824
MEP Systems	12	\$1.444
Structure	8	\$1.130
Other	13	\$0.828
<b>TOTAL</b>	<b>50</b>	<b>\$5.226</b>

- Maintenance Reserve Funds  
Allocation : \$250,000/YR  
Actual: \$395,000/YR  
On-going discussion to increase allocation for future years
- CALS Expenditure:  
2010-2018 : \$601,000/YR



# Summary

- SmartFarm Innovation Network™ is the testbed for transformational agricultural technologies.
- ARECs are the gateway to VT for many communities, particularly in rural areas
- Impressive level of engagement with private industry
- CALS and VT investment in ARECs, while significant, is not keeping up with the needs
- Significant need for preventive maintenance, connectivity, infrastructure and capital projects
- Developing different policies/mechanisms for procurement and delegated authorities for ARECs

# Workforce development key for Virginia's rural communities, governor says during Virginia Tech visit

Gov. Ralph Northam also stressed the need for technological investments in rural communities

September 25, 2019



## Rural Virginia Initiative- Economic Development



[HTTPS://VTNEWS.VT.EDU/ARTICLES/2019/09/CALS-GOVERNORSSUMMIT.HTML](https://vtnews.vt.edu/articles/2019/09/cals-governorssummit.html)