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# Welcome and Updates

## SOCKS Year 3 All Hands Meeting

### March 30, 2026

Bernard “Chip” Cole, PhD  
Principle Investigator  
Director, Vermont EPSCoR



# Video / Photography



- Vince Franke will be videoing portions of the meeting
- Purpose is to advance our communications project
- Please let Lillian Gamache ([Lillian.Gamache@uvm.edu](mailto:Lillian.Gamache@uvm.edu)) know if you wish to not be filmed

# Introductions



- Special welcome to...
- Our NSF Program Officer, **Dr. Chi-Chi Whitley** of the National Science Foundation
- Our External Evaluator, **Dr. Marie Steckelberg** of Steckelberg Consulting, LLC
  
- Welcome SOCKS participants and guests...
- Please introduce yourselves

# All Hands Agenda



**8:30 Welcome and updates—***Chip Cole*

**9:30 Research team updates—**  
*Capacity, Health Teams, Social*

**11:00 Break**

**11:15 VACC update—***Chris Danforth*

**11:35 Broader Impacts Team updates—**  
*Renée Simkins, Maggie Jones, Regina Toolin*

**12:00 Lunch and poster session**

**1:00 Poster Awards Ceremony**

**1:15 Research flash talks**

**2:15 Break**

**2:30 Sustainability discussion**

**3:00 External Evaluator and vRSV  
recommendations—discussion and next  
steps**

**4:00 Closing Comments—***Chip Cole, Chris  
Danforth, Peter Dodds, Randall Harp, Juniper  
Lovato*

**4:15 Adjourn**

# SOCKS Update Outline



- SOCKS overview
- Summary of SOCKS Year 3 progress
- Year 3 financial summary
- SOCKS seed-grant programs
- EPSCoR Office updates
- Steering Committee – Vermont Innovation and Research Alliance

# SOCKS Overview



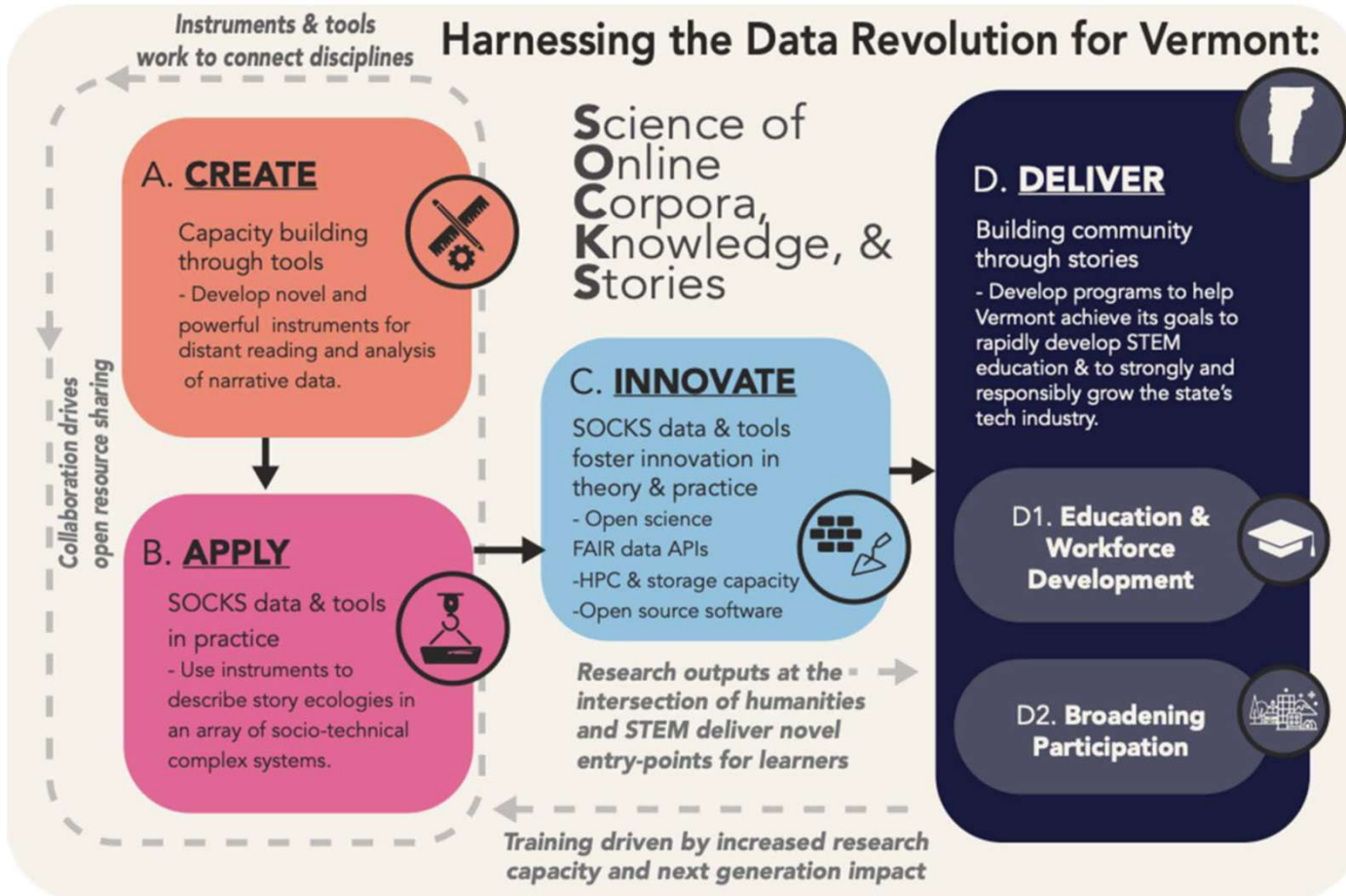
- Science of Online Corpora, Knowledge and Stories (SOCKS)
- Focus on the science of stories, narrative analytics, and computational sociology
- Development of new analytical tools that advance the science and apply those tools in subject-matter areas
  - Healthcare communication
  - Social science themes
- Promote workforce development and new partnerships to advance Vermont's research infrastructure and research ecosystem
- 10 overarching project elements

# SOCKS Vision/Mission Summary



- Vermont is the world's online story observatory
- Telescope-like story-measuring tools for large-scale texts
- Applications: politics, public health, justice, environment, national defense, science
- SOCKS will enhance Vermont's
  - Data science education
  - Workforce development
  - High-performance computing

# SOCKS Elements/Strategic Plan



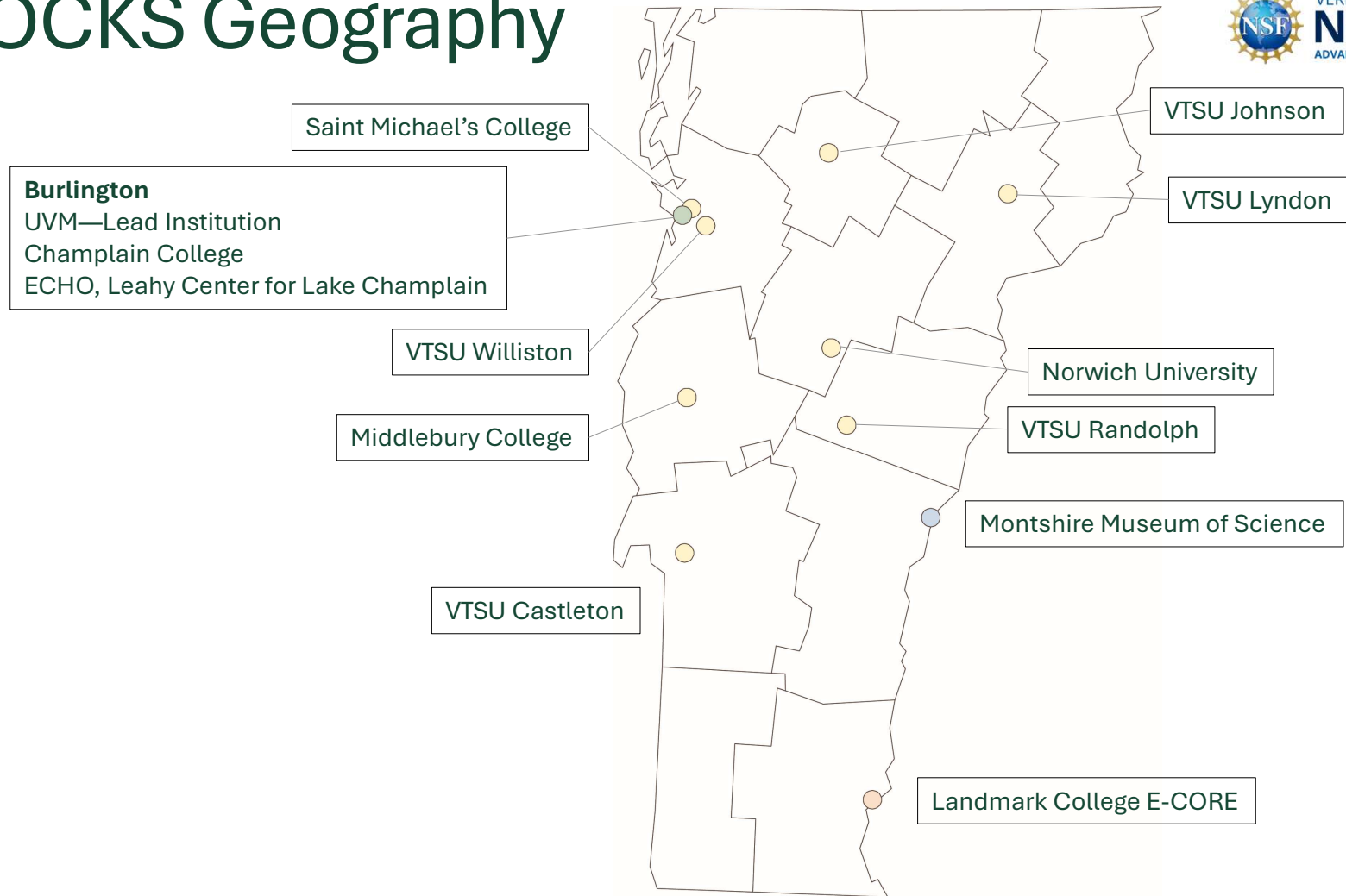
- E. Emerging Areas/Seed Grants
- F. Broadening Participation
- G. Partnerships/Collaborations
- H. Communication
- I. Sustain and Grow
- J. Manage, Evaluate, Assess

# SOCKS Leadership

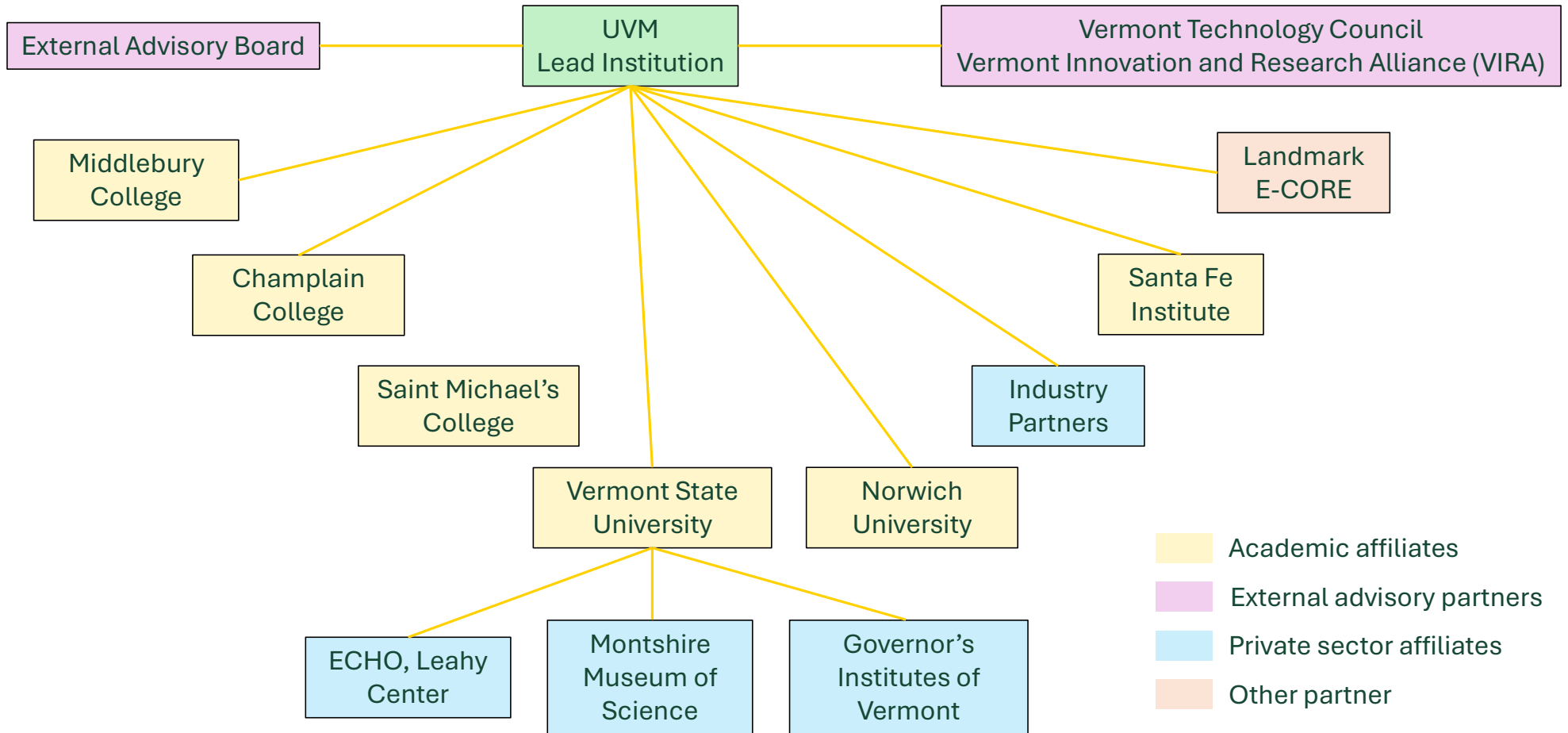


Name	Role	Affiliation
Bernard “Chip” Cole	PI, VT EPSCoR director	UVM / Math & Stat
Chris Danforth	Co-PI, team co-lead	UVM / Math & Stat, Complex Systems Inst, VACC
Peter Dodds	Co-PI, team co-lead	UVM / CS, Complex Systems Inst
Randall Harp	Co-PI	UVM / Philosophy
Juniper Lovato	Co-PI	UVM / CS, Complex Systems Inst
Pablo Bose	Team lead	UVM / Geography
Robert Gramling	Team lead	UVM / Family Medicine
Renée Simkins	Team lead	VTSU / Center for Workforce and Professional Education
Lillian Gamache	VT EPSCoR assistant director	UVM / EPSCoR office

# SOCKS Geography



# SOCKS Organization





# Summary of SOCKS Year 3 Progress



- New PhD program: Computational Studies in Culture and Society (CS)<sup>2</sup>
- Vermont Advanced Computing Center (VACC)
  - IceCore MRI grant
  - SOCKS cluster
  - Secure cluster for Health Team
  - Research Computing Virtual Café
- Onboarding of 2 new tenure-track faculty at UVM
  - **Brennan Dell** (computational linguists)
  - **Michelle Morgenstern** (digital anthropology)
- Onboarding of 1 new postdoctoral research associate at UVM
  - **Julia Zimmerman** (Vermont Complex Systems Institute)
- Recruitment of 1 new postdoctoral research associate at UVM
  - **Milo Trujillo** (Vermont Complex Systems Institute)
- Recruitment of 1 new workforce-development professional at VTSU
  - **Maggie Jones** (Center for Workforce and Professional Education)

# Summary of SOCKS Year 3 Progress



- Vermont Research Open Source Program Office (VERSO)
  - Housed within the Complex Systems Institute
  - Continued strength in advancing sustainable open research infrastructure and technical capacity
  - **Kendall Fortney** awarded new NSF grant
- Graduate Certificate in Computer Science Education
  - 13 scholarships to Vermont high-school teachers in 1<sup>st</sup> cohort
  - Recruitment of 2<sup>nd</sup> cohort is ongoing
- SOCKS Summer Undergraduate Internship Program
  - 14 interns completed the 10-week program, including a symposium
  - Recruitment of 2026 cohort is nearing completion
- New partnership with aiVermont
  - Develop 5 curricular modules for AI education for high-school students

# Highlights—Communications



- [Dr. Juniper Lovato on “Across the Fence”](#)
- [Dr. Chris Danforth on “Across the Fence”](#)
- [Dr. Juniper Lovato on WCAX’s “You can Quote Me”](#)
- Café Scientifique at ECHO Leahy Center for Lake Champlain
  - May 7 evening event with a panel covering AI and education



# Summary of SOCKS Year 3 Progress



- SOCKS research working group
  - December 10-12, 2025 at Santa Fe Institute
  - “Towards a Data-Driven Science of Stories”
  - Organized by SOCKS co-PIs **Peter Dodds**, **Juniper Lovato** and SOCKS pilot grant awardee **Sam Zhang**
  - Attended by SOCKS participants **Chris Danforth** (co-PI), **Julia Zimmerman** (postdoc), and **Aviral Chawla** (GRA)
- UVM, VCSI, and SOCKS to host the 2026 International Conference on Computational Social Science (IC2S2) in Burlington
  - Expecting ~700 participants from across the globe

# Summary of SOCKS Year 3 Progress



- Meeting milestones in SOCKS Strategic Plan
  - Detailed in APR submitted in early April
  - All milestones are either completed (green) or are in progress (yellow)
- Successful completion of virtual Reverse Site Visit in September 2025
  - 5 recommendations
- Successful completion of External evaluation by Dr. Marie Steckelberg
  - 5 “key” recommendations
  - 22 “actionable” recommendations

# SOCKS Year 3 Research Progress



- Substantial progress by research teams
  - Capacity, Health, Social
- 7 peer-reviewed publications
- 8 peer-reviewed conference papers (published or presented)
- 1 dissertation (**Julia Zimmerman**)
- 7 new grants totaling \$4.9 million
- 1 treatise (preprint; 1,090 pages)
  - Archetypometrics, a Pragmateia: Empirical Determination of the Fundamental Archetypes of Fictional Characters

# New Grants



PI	Title (amount)	Agency
Chris Danforth	Equipment: MRI: Track 2 Acquisition of a Transformational High-Performance Computing Cluster for Leveling up AI Research, Innovation, and Capacity Building for Vermont (\$2.2 M)	NSF
Elise Tarbi	Advancing a basic science of telehealth cancer communication (\$729 K)	American Cancer Society
Matt Price	Vermont Health Equity and Learning Services (VTHEALS) (\$1.2 M)	Health Resources and Services Administration
Dave Jangraw	Automated Coding of Exposure Therapy Quality using Natural Language Processing (\$148 K augmentation)	NIH
Dave Jangraw	System of unobtrusive in-home sensors that can monitor the physical and cognitive health of rural seniors (\$25 K)	Johns Hopkins AI and Technology Collaboratory
Dave Jangraw	Functional Magnetic Resonance Imaging (fMRI) to study differences in neural processing during narrative comprehension in autistic individuals	UVM research incentive grant
Kendall Fortney	Cross-Cutting Improvements: Empowering Vermont Open Data (\$584 K)	NSF

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# SOCKS Year 3 Financial Summary



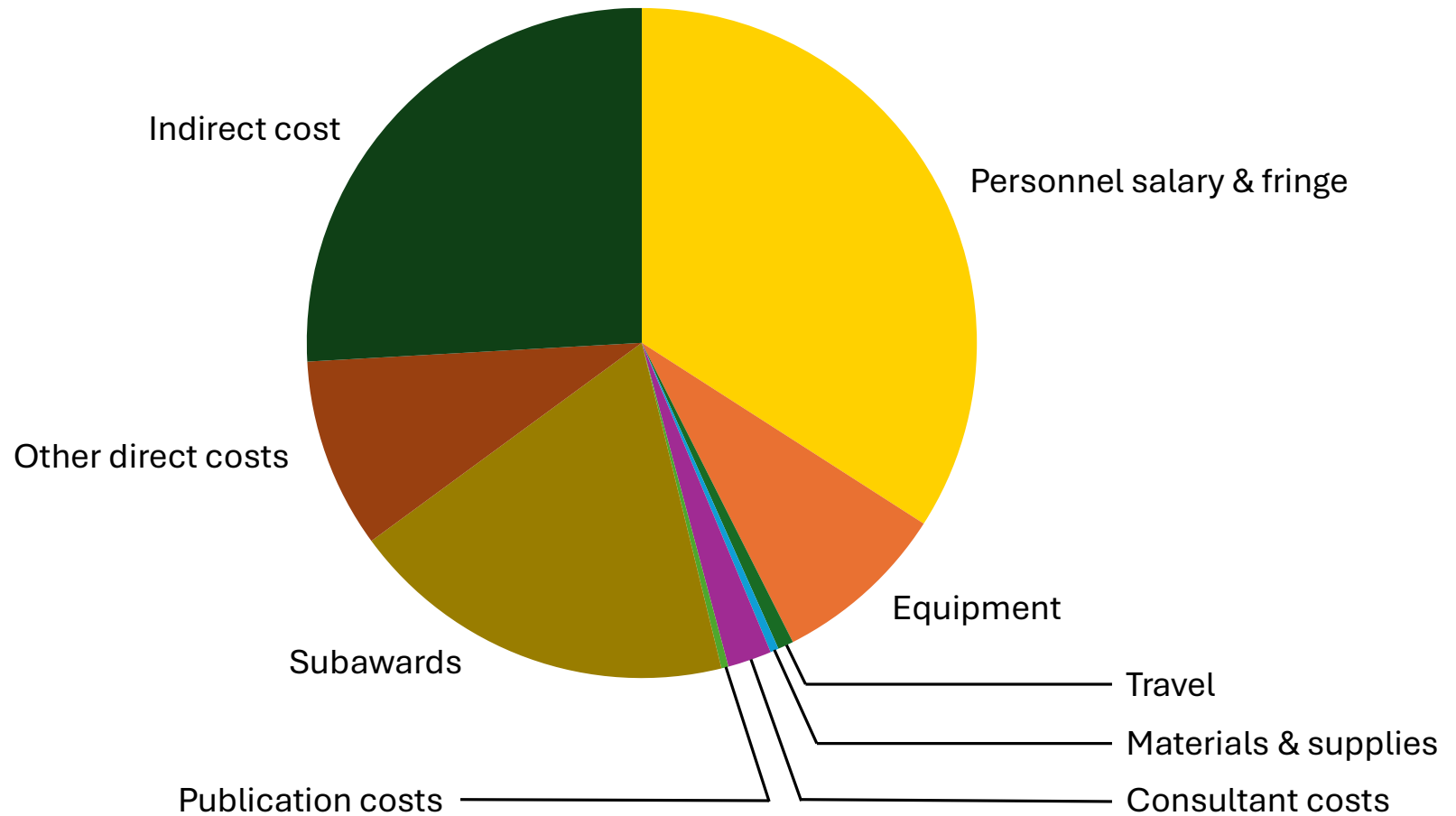
# SOCKS Yearly Allocations (\$000s)



Year	Direct costs	Indirect cost	Total cost
1	2,971	761	3,732
2	2,803	1,111	3,914
3	2,966	1,182	4,147
4	2,928	1,140	4,068
5	2,974	1,165	4,139
Total	14,642	5,359	20,000

Amounts are as originally budgeted in the grant application

# SOCKS Yrs 1-3 Budget Overview



# Year 3 UVM \$(000s)



Item	Budget	Carryforward	Total	Expenses and encumbrances	Balance
Salary	1,174	347	1,521	1,218	303
Fringe	402	153	554	458	97
Equipment	0	76	76	3	73
Travel	30	36	66	29	37
Supplies	6	(1)	5	1	4
Publications	20	0	20	4	16
Consultants	91	54	145	58	88
Computer Devices	0	0	0	4	(4)
Software/Licensing	38	20	58	25	32
SBIR Awards	60	75	135	30	105
Pilot Awards	30	255	285	120	165

# Year 3 UVM \$(000s)



Item	Budget	Carryforward	Total	Expenses and encumbrances	Balance
Communications	50	8	58	44	14
Event Costs	15	3	18	26	(9)
Faculty Startup Funds	70	0	70	105	(35)
OSPO Expenses	44	1	45	9	37
Tuition & Fees	151	23	175	181	(6)
Other Direct Costs	114	0	114	6	108
Indirect Cost	1,148	509	1,658	1,146	512
<b>Total</b>	<b>3,442</b>	<b>1,559</b>	<b>5,001</b>	<b>3,465</b>	<b>1,536</b>

# Year 3 Subcontracts \$(000s)



Item	Budget	Carryforward	Total	Expenses and encumbrances	Balance
Subcontracts	705	677	1,382	1,382	0

# Year 3 Totals \$(000s)



Item	Budget	Carryforward	Total	Expenses and encumbrances	Balance
<b>Total</b>	<b>4,147</b>	<b>2,236</b>	<b>6,383</b>	<b>4,847</b>	<b>1,536</b>

Current expected balance \$ 1,536 K  
Percent of Year 3 allocation 37%  
30% of Year 3 allocation \$ 1,244 K  
Gap to close \$ 292 K

## Strategies

Additional VACC equipment purchase

Augmentations to seed-grant awards

Expansion of awarded seed grants

Remaining carryover spending plan to be developed by co-PIs and submitted for NSF approval

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# SOCKS Seed-Grant Programs



# SBIR/STTR Phase (0) Grant Program



- Small Business Innovation Research (SBIR)
- Small Business Technology Transfer (STTR)
- Support business or industry projects at preliminary stages
- In collaboration with Vermont NASA EPSCoR
- Strong potential for success in federal SBIR/STTR competitions
- Specific areas of interest: data science, computer science, and aerospace technology (for the NASA partnership)
- \$15,000 for 1-year period of performance (no cost share)
- Open to Vermont businesses

# SBIR/STTR Phase (0) Grant Program



- Evaluation criteria
  - Significance and innovation of the proposed research
  - Appropriateness of the methodological approach
  - Qualifications and experience of the investigative team
  - Suitability of facilities
  - Overall impact (potential for success in federal SBIR/STTR competitions)
- Target: fund up to 5 awards

# SOCKS Pilot Research Grant Program



- Support innovative projects that align with SOCKS
- Early-stage, proof of concept projects
- Projects that build on current SOCKS research
- \$15,000 for 1-year period of performance (no cost share)
- Open to all full-time faculty at Vermont institutions of higher education who are not already supported by Vermont EPSCoR RII Track-1 funding

# SOCKS Pilot Research Grant Program



- Evaluation criteria
  - Significance and innovation of the proposed research
  - Appropriateness of the methodological approach
  - Strength of the SOCKS alignment
  - Qualifications and experience of the investigative team
  - Suitability of facilities
  - Overall impact (potential to advance Vermont's research strengths)
- Target: fund up to 4 awards

# Seed-Grant Year 3 Progress Summary



- SOCKS Seed-grant programs
  - Bolstered outreach, including a new informational webinar
  - Grant-writing workshop in collaboration with VBRN (December 2025)
- SOCKS Pilot Research Grant Program
  - 9 applications received in 2025
  - 8 projects awarded (all UVM)
  - 12 applications for 2026 currently under review (8 UVM, 4 from VT PUIs)
- SOCKS SBIR / STTR Phase (0) Grant Program
  - 5 applications received in 2025
  - 2 projects awarded
  - 5 applications for 2026 currently under review

# SBIR/STTR Phase (0) Awardees



## **Eric Gallo, Spikesense Labs, Moretown, VT**

“Low-Cost Event-Based Hyperspectral Imaging” (\$14,588)

New imaging technology and analytical tools to capture rapid intensity gradients. Applications include agriculture and security

## **Bradley Palmer, Sarcometrics, Shelburne, VT**

“Automated assay of muscle function and structure to test efficacy of gene therapies” (\$15,000)

New instrumentation for rapid throughput assessment of muscle structure and function, including robotic sampling and automated data analysis. Applications include assessment of gene therapies to target heritable heart-muscle diseases

# 2025 Pilot Research Awardees



Name	Department	Title	Amount
Emily Coderre	Comm Sci & Dis	The Comic Difficulty Rating (CoDiR) scale: Developing a ranking system of comic complexity	\$14,817
Mikaela Fudolig	Math & Stats	Understanding the trajectory from awareness to action in intimate partner violence using large-scale data from online spaces	\$15,000
Alex Garlick	Poli Sci	Behind closed doors: Tracking American lobbyists and their effects	\$15,000
Ellen Kozelka	Anthropol	Reimagining recovery: Examining mental illness storytelling on social media	\$15,000
Joseph Near	CS	Communicating uncertainty in privacy-preserving data releases	\$15,000
Safwan Wshah	CS	AI-driven road quality and safety assessment using vision-language models (VLMs)	\$14,999
Jean-Gabriel Young	Math & Stats	From crowd to clarity: A data-driven framework for prediction market aggregation	\$15,000
Sam Zhang	Math & Stats	Parsing university course catalogs to map temporal changes in American higher education	\$15,000

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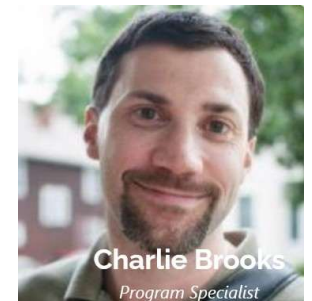
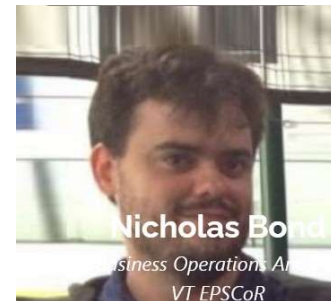
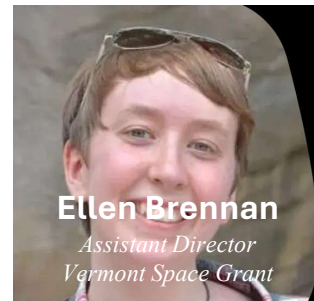
# EPSCoR Office Updates



# The Team...



- **Bernard “Chip” Cole**, Director (SOCKS PI, Space Grant PI)
- **Lillian Gamache**, Assistant Director of Vermont EPSCoR (Ret)
- **Ellen Brennan**, Assistant Director of Vermont Space Grant Consortium
- **Patrick Clemins**, Director of Research Computing and Data
- **Nick Bond**, Business Operations Analyst
- **Charlie Brooks**, Program Specialist



# ... and What We Do



- Coordinate and manage all aspects of NSF EPSCoR and NASA EPSCoR awards
- State-wide outreach to increase research infrastructure, education and workforce development
- Deliver business sector and faculty research seed-grants, graduate research assistantships, post-doctoral associate, undergraduate internship programs, and middle and high school programs
- Seek and coordinate new partnerships to leverage opportunities and expand STEM infrastructure
- Coordinate the Vermont State EPSCoR Steering Committee
- Develop the Vermont Science and Technology Plan in partnership with the steering committee
- Act as a resource for participants and sub-awardees
- Lead efforts to create/update strategic plans
- Partner with OVPR and Sponsored Project Administration re research initiatives
- Liaise with federal agencies and program officers
- Coordinate events and regular meetings
- Manage communications and webpages for EPSCoR activities
- Manage external evaluation processes
- Gather and compile project-related data; prepare annual progress reports

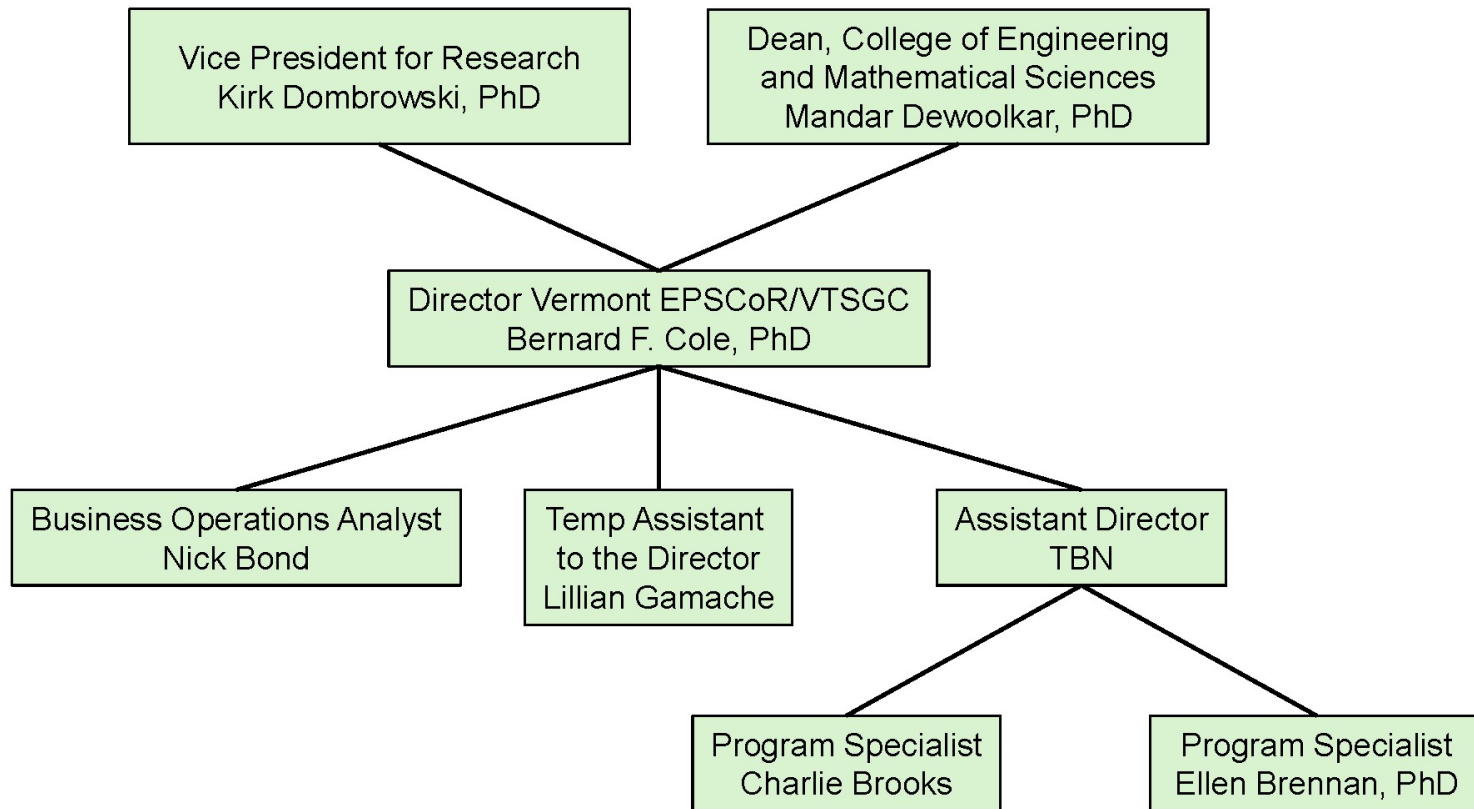


# Reorganization Plan



- **Challenge** To coordinate multiple state-wide EPSCoR-like federally funded programs, effectively leveraging resources and amplifying outcomes for Vermont, in preparation for increased funding opportunities and a changing research eco-system
- **Purpose** Establish a “hub” of EPSCoR jurisdictional activity, strengths, and resources that will position Vermont for continued success; combine staff from Vermont EPSCoR and Vermont Space Grant Consortium (VTSGC); leverage synergistic programs to increase competitiveness for NSF E-CORE and E-RISE, NASA EPSCoR, and other agency-EPSCoR funding mechanisms

# Vermont EPSCoR/VTSGC Structure



# Vermont EPSCoR/VTSGC Budget



Item	2026	2027	2028
	<i>(cost in thousands)</i>		
Salaries	554	544	470
Fringe	296	302	260
Supplies	20	20	20
Travel	10	10	10
Other	65	65	65
<b>Total</b>	<b>924</b>	<b>941</b>	<b>825</b>

Total cost over 3 years: \$2,690 K

Expected funding sources (2026–2028)

SOCKS	\$319 K
State	\$1,141 K
NASA	\$938 K
NSF supplement	\$700 K
<b>Total</b>	<b>\$3,098 K</b>

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# Steering Committee— Vermont Innovation and Research Alliance



# VIRA



- **Mission** Advise Vermont EPSCoR in identifying areas of scientific strength and opportunity in the State of Vermont and improvement strategies that will advance Vermont's scientific competitiveness in research and development. Develop the next **Science and Technology Plan** for Vermont
- **Membership** 12 members with 7 nominees pending election to VIRA
- VIRA represents a diverse group of leaders across Vermont, including in government, academia, and the private sector.
- Members have unique capacity to assess and enhance Vermont's overall research and development ecosystem, with a focus on an evolving science, technology, and workforce landscape

# VIRA Membership



## Executive Board Members (Nominating Committee)

### **Bernard F. Cole (ex officio)**

Director, Vermont EPSCoR  
University of Vermont

### **Kirk Dombrowski**

Vice President for Research  
University of Vermont

### **Otto Funke and Lucy White**

Workforce and Outreach Lead  
GlobalFoundries

### **Neil Goldberg**

Business Growth & Analytics Manager  
Brattleboro Development and Credit  
Corporation

### **Nick Grimley**

Director of Entrepreneurship & Tech  
Commercialization  
State of Vermont

### **Philip Gervais**

Consultant  
Franklin County Industrial  
Development Corporation

Tara Kulkarni

Associate Provost for Research  
Norwich University

Mark Lubkowitz

Professor  
Saint Michael's College

Ryan McDevitt

CFO & Co-Founder  
Benchmark Space Systems

Adam Lalor

Vice President of Neurodiversity Research and  
Innovation  
Landmark College

Sarah DeShaw

Team Member  
BETA Technologies

Lauren Lavallee

Vice President of Human Resources  
OnLogic

### **Zeke Bernstein**

Dean of the College, Vice President of Strategic  
Initiatives  
Bennington College

### **Darcy Brouillette**

Former Vermont educator and Vermont  
workforce-development professional  
Retired from Vermont State University 2025

### **Joseph Chase**

Executive Director  
FIRST in Vermont

### **Nicholas Day**

Engineering Manager  
Chroma Technology Corp.

### **Julia S. Moore, P.E.**

Secretary  
Vermont Agency of Natural Resources

### **Tiffany Walker**

Senior Executive Director of Workforce  
Vermont State Colleges

### **Carla Wuthrich**

Director of Field Operations and Advisor  
Vermont Manufacturing Extension Center

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Team Member  
BETA Technologies

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