SOCKS Sustainability Discussion

VERMONT NSF EPSCoR
ADVANCING GEOGRAPHIC DIVERSITY IN STEM

NSF Sustainability Expectations

- Catalytic investment, not permanent support

  RII funding is intended to launch enduring research capacity—not fully sustain it indefinitely

- Sustainability planning is required

  Projects must articulate a clear, realistic plan for maintaining key investments beyond the award

- Prioritization of critical assets

  Focus on high-impact infrastructure, programs, and capabilities

- Long-term research competitiveness

  Sustained elements should enhance the jurisdiction's ability to compete for external funding

- Institutional commitment is essential

NSF Sustainability Expectations

- Diversified funding strategies
- Support for human capital

  Sustainability includes retaining talent, training pipelines, and workforce development programs
- Operational and financial viability

  Projects should address ongoing costs (maintenance, staffing, upgrades) with feasible solutions
- Measurable milestones and timelines

  Include benchmarks to track transition from NSF support to sustained operation
- Adaptive and scalable approach

  Sustainability plans should allow for evolution based on outcomes, demand, and new opportunities

Goals and Progress (SOCKS Strategic Plan)

VERMONT NSF EPSCoR ADVANCING GEOGRAPHIC DIVERSITY IN STEM

I1. Cyberinfrastructure

- Objective I1.1: Storywrangler 2.0

  Network with regional and national stakeholders for potential partnership leveraging opportunities and organizational models

  Continue to seek funds from donors and stakeholders

- Objective I1.2: High-Performance Computing

  Network with regional and national stakeholders for potential partnership leveraging opportunities and organizational models

  SOCKS investments complete ($1 million)

  MRI grant will add significant capability

  Additional opportunities to invest in the VACC

- Objective I1.3: Open Science Program Office (OSPO)

  Identify federal funding, tech transfer, licensing agreements and corporate partnership opportunities

  Vermont Research Open Source Program Office (VERSO) activated

  Kendall Fortney (Director) assembled advisory committee

  Additional grant funding from Alfred P. Sloan Foundation

  New grant from NSF (FAIROS program)

Goals and Progress (SOCKS Strategic Plan)

I2. Early-career researchers

- Objective I2.1: Hire and sustain three new tenure-track faculty members
  Three new tenure-track faculty hires at UVM are in place by year 3
  Hires completed. Sustain activities ongoing
- Objective I2.2: Junior faculty mentoring
  No activity scheduled in year 3
  Mentoring activities are ongoing
- Objective I2.3: Post-award plans for early career researchers
  All SOCKS scholars have a post-award plan and provided with mentorship on career strategies
  Ongoing
- Objective I2.4: SOCKS teacher licensure program
  No activity scheduled in Year 3
- Objective I2.5: Champlain Digital Humanities Program
  Every Digital Humanities student will receive direct research experience that is integrated into the curriculum via research opportunities like this project funded through the SOCKS program, specifically through Project B5
  Ongoing. Students hired, including summer intern

Goals and Progress (SOCKS Strategic Plan)

I3. Post RII Track-1 extramural funding

- Objective I3.1: Support non-EPSCoR funding for SOCKS researchers

  SOCKS Investigators identify 10 research funding opportunities, four of them being major awards (of $750k or more) before the end of the grant period

  Ongoing

Sustainability Highlights

- Teachers' Academy in computer science
- New PhD program: Computational Studies in Culture and Society $(CS)^2$
- Success of the VACC
- Success of VERSO
- Reorganization of Vermont EPSCoR
- SOCKS summer internship program
- SOCKS high-school program
- Industrial collaborations
- Connection to Landmark E-CORE
- Vermont Innovation and Research Alliance (VIRA)
- Grant development initiatives—envisioning the future
- Expanding outreach

New Grants (reported at vRSV)

- Vermont Research Open Source Program Offices (VERSO): Catalyzing an Open Research Community Accelerator (PI: Juniper Lovato): $634,375 Alfred P. Sloan Foundation
- Automated Coding of Exposure Therapy Quality using Natural Language Processing (PI: David Jangraw): $693,657 NIH
- The Leahy Rural Resettlement Impact Initiative (PI: Pablo Bose): $269,435 USDA Rural Development Program
- Collaborative Research: SaTC: CORE: Small: Research on Concurrent Inauthentic Account and Narrative Detection (PI: Chris Danforth): $250,000 NSF
- Deep Neural Networks to Identify Moments of Human Connection in Cancer Communication (PI: Robert Gramling): existing grant with $164,093 NIH
- Usability and Validity of In-Home Assessment of Mobility and Speech Production in Aging Rural Vermonters with and without Mild Cognitive Impairment (PI: David Jangraw): $75,000 University of Vermont
- CURIOSS (Community for University and Research Institution OSPOs) Summer Member Summit 2024 (PI: Kendall Fortney): $46,275 Alfred P. Sloan Foundation
- MRI: Track 2 Acquisition of a Transformational High-Performance Computing Cluster for Leveling up AI Research, Innovation, and Capacity Building for Vermont (PI: Chris Danforth): $2,165,729 NSF
- Vermont Health Equity and Learning Services (VTHEALS) (PI: Matthew Price): $1,243,470 Health Resources and Services Administration

New Grants (Year 3)

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