



RUTGERS-NEW BRUNSWICK
Climate and Energy Institute

2025 - 2026

Annual Impact Report



Photo credit: [The Rutgers Agrivoltaics Program](#), Rutgers University (with permission)

Advancing Rutgers' leadership in climate resilience, equity, and sustainability through research, innovation, and education.

rcei.rutgers.edu

Director's Forward

The recent success of the Artemis mission offers a powerful reminder of what is possible when we invest in knowledge, expertise, and shared ambition. It underscores a simple truth: when we value science and perseverance, extraordinary progress follows. That same spirit defines our work at RCEI. At a time when renewable energy research faces new headwinds, the need for discovery, innovation, and collaboration is not diminishing—it is accelerating. Today, solar energy paired with battery storage is the fastest and most cost-effective way to meet growing energy needs while advancing global climate goals. At this

moment, economic progress and environmental stewardship are moving forward together rather than pulling in opposite directions, an extraordinary achievement built on decades of science, policy, and persistence.

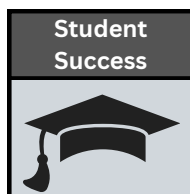
Yet this moment is not an endpoint; it is an invitation. There is still so much to learn and to do: reimagining and modernizing our energy grid, designing renewable energy systems that are environmentally responsible across their full lifecycle, and navigating the complex “messy middle” of transitioning from fossil fuels to renewables.



“Let us meet this moment with urgency, creativity, and resolve, and work together to turn today’s alignment of opportunity into a lasting, abundant, and sustainable energy future for all.”

Dr. Julie Lockwood, Director of Rutgers Climate and Energy Institute

In this report, we incorporate four logos aligned with the four pillars of the [Rutgers Academic Master Plan](#), visually reinforcing our connection to the university’s strategic priorities:



Cover Image: Single-axis tracking agrivoltaics solar installation at the Rutgers Agricultural Research and Extension Center (RAREC) in Bridgeton, NJ. Soybeans and specialty crops are grown in the 32-foot spacing between the rows. Photo credit: [The Rutgers Agrivoltaics Program](#), Rutgers University (with permission).



Our Impact

2025 - 2026

240

RCEI faculty and
staff affiliates

New

Clean Energy
Graduate Certificate

8x ROI

Yielded from
Groundwork Grants

385

Total attendees
from 8 events

19

Students supported
via travel grants

\$75K

Awarded in
Groundwork Grants
in 2026 (5 awards)

51

Original articles
written on RCEI
affiliate research

129K

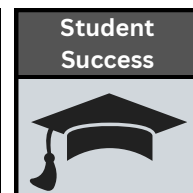
Social media post
impressions from
763 posts

2x

Website views
compared to last year

Signature Initiatives

UPDATES



Center on Sustainability and Governance

Led by Professors Pamela McElwee and Rachael Shwom, CSG is advancing sustainability governance research amid complex, interconnected global challenges — emerging as a hub connecting research, practice, and public engagement.

CSG Spring 2026 Events

AI & Sustainability Forum — March 27, 2026
Sustainability Impacts of Artificial Intelligence, and How to Govern Them?

Experts from U. Chicago, The Australia Institute, and Rutgers Institute for Corporate Social Responsibility examined how AI energy demand — growing 4× faster than global electricity demand — threatens net-zero commitments.



A networking table at the RCEI Convergence Café

RCEI Convergence Café — April 8, 2026

Theme: Sustainability Governance

Faculty, graduate students, and external partners convened across thematic tables (biodiversity, fisheries, food systems, climate and energy) at local-to-global scales.

Discussions surfaced a governance-technology gap and persistent scale mismatch between where problems are governed vs. experienced.

Governance Workshop — April 24, 2026
Overcoming Tensions in Climate and Sustainability Governance

This workshop brought together 30+ researchers, regulators, practitioners, and advocates to examine the tension between scientific complexity and democratic participation. Speakers framed governance failures as design failures — highlighting New Jersey as an exceptional laboratory for participatory governance experiments.



Prof. Shwom presents opening remarks for CSG's Governance Workshop

Wind Energy Test (W.E.T.) Center Project

The WET Center Project, co-led by Dr. Onur Bilgen and Dr. Josh Kohut, tackles the future of wind energy with a focus on validation of predictive models for floating offshore wind turbines, in return, addressing challenges in installation, transportation, and ultimately the cost of energy.

New Closed-Circuit Wind Tunnel – Completed April 2026

After a two-year design and manufacturing process with Aerolab the new closed-circuit low-speed wind tunnel was installed in April 2026 and is now fully operational. The closed-circuit design enables more stable airflow, lower turbulence, and quieter operation than the previous tunnel, significantly expanding the range and precision of wind energy experiments the Lab can support.

Data collection began immediately following installation, and the Team is now completing characterization and calibration of the facility. With the tunnel online, the WET Center is shifting from infrastructure buildout into a sustained phase of experimental research, faculty collaboration, and student training – solidifying its role as a hub for wind energy innovation at Rutgers.



Undergraduate and Graduate Smart Systems Lab (SSL) students received hands-on training from Aerolab's Chief Technology Officer Paul Vasilescu and from Prof. Onur Bilgen. The completed and renovated Aerolab closed-circuit low-speed wind tunnel can be seen in the background.

Research Community Building

Annual Climate Symposium

Since 2006, the Rutgers Climate Symposium has brought together researchers, students, and faculty from across the Mid-Atlantic to collaborate on climate solutions. Featuring leading voices across science, technology, policy, and the humanities, the event fosters transdisciplinary exchange and innovation across RCEI's four focus areas—including a dynamic, interactive poster session.



The Blue Planet 2025 THEME

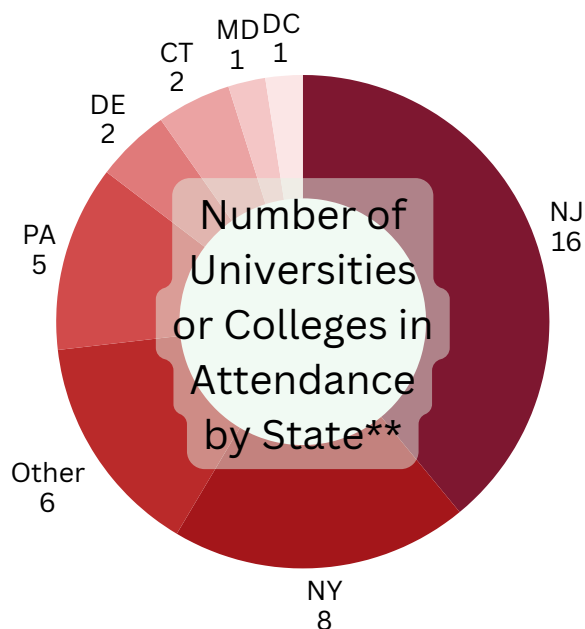
240

Attendees
in 2025*



37

Posters
presented



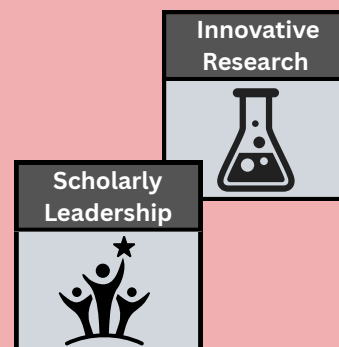
<https://rcei.rutgers.edu/about/climate-symposium/>

*Including in-person and zoom attendees

**Combined number from 2023, 2024, 2025

Convergence Events

RCEI hosts dynamic gatherings that bring faculty together across disciplines to spark new ideas, connect complementary expertise, and catalyze collaborative research. These events are designed to foster collaboration on complex climate and energy challenges, laying the groundwork for innovative, fundable solutions.



7

Convergence
Events

145

Attendees

+10% increase

9

Schools
in attendance

Sustainability
Governance
Convergence Cafe

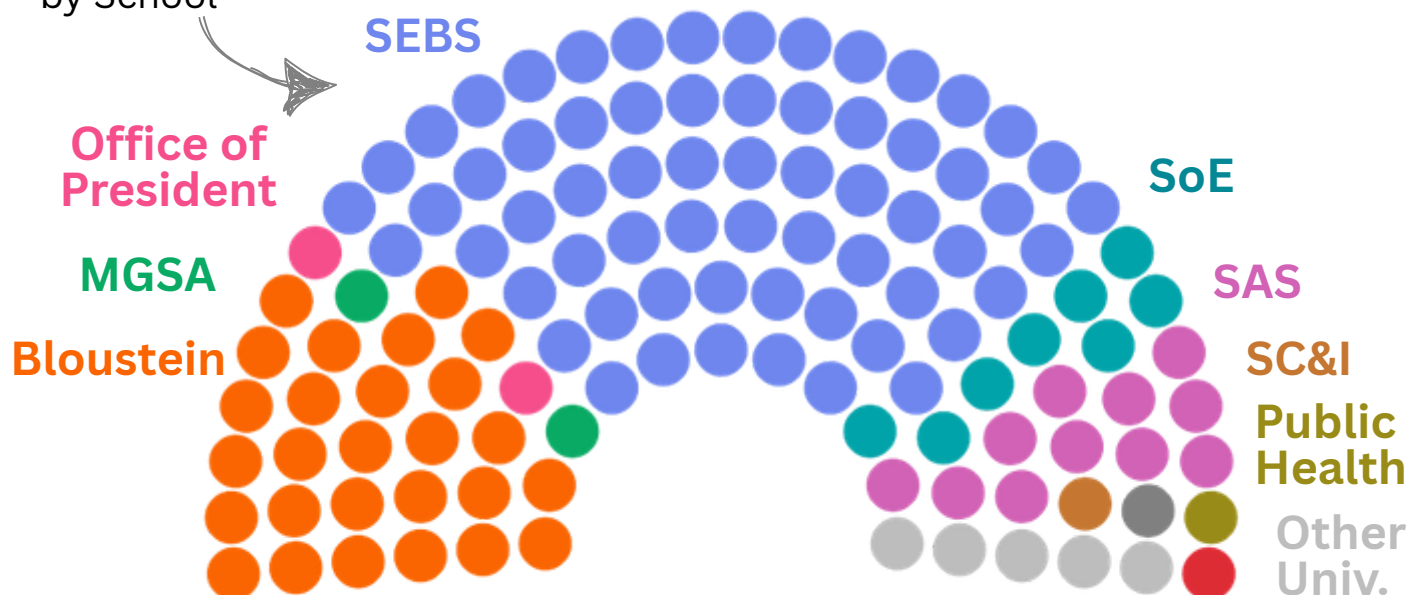
Responding to
Challenges to the
Endangerment
Finding

Slices of Insight:
Climate Lunches

Climate/Energy AI
Interest Group
Meetings

Fostering
Connections to
National Labs

Attendance
by School



Event Outcomes

72%

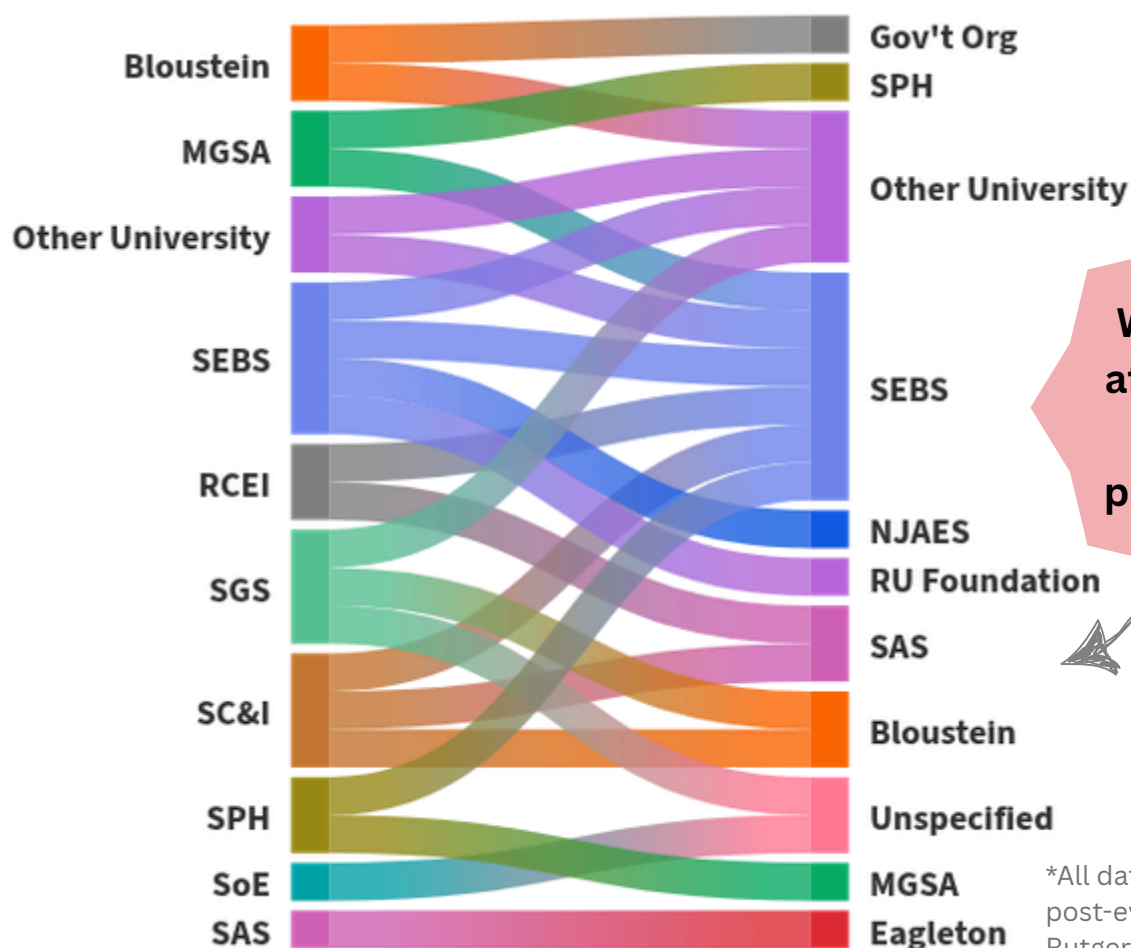
Met someone new

96%

Learned something new

92%

Event was a valuable use of time



What is the affiliation of the new person met?

*All data derived from all post-event surveys, including Rutgers Climate Symposium



Carmelo Ignaccolo of the Bloustein School of Planning and Public Policy presenting his research during the “Slices of Insights” climate lunch on April 17, 2026, fostering discussion among attendees.

Research Development Support

Groundwork Grants

RCEI’s Groundwork Grants are conceived to serve as a catalyst, empowering affiliates of RCEI to develop comprehensive, competitive external funding proposals.



2026 THEME

Sustainability Governance

17 applications
+89% increase

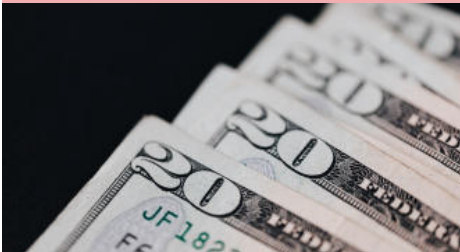
6 grants awarded

\$75k total awarded

Farmer-Developer Dynamics
in Agrivoltaics Project



Private Climate Finance
as part of Private Sector
Climate Governance



Climate Governance in Crisis:
Legitimacy of UN Framework
Convention on Climate Change



Critical Minerals, Climate
Change, and Sustainability
Governance in Greenland



Socializing Atomic
Legacies in the Age of
Nuclear Evangelism



Community-led
Adaptation Governance
in Greater New York City



Completed Groundwork Grant Outcomes

Faculty-reported outcomes attributed to Groundwork Grant support.

External Funding Outcomes

For every **\$1 invested** through Groundwork Grants, recipients were **awarded \$8 in additional funding**, to date.

RCEI Awarded

>\$100,000

in 2024 and 2025
Groundwork Grants, \$15K
per award

Awardees Applied for

\$8.9 Million

15 proposals submitted



\$150K

Not selected

\$50K

Cut by DOGE*, no
awards given for
applied Program(s)

\$7.9M

Decision pending
for 10 proposals

\$815K

Awarded from 3
proposals

\$375K

Awarded but then
cut by DOGE (1
proposal)

Other Outcomes

- ▶ 1 patent pending
- ▶ 2 undergraduate research opportunities created
- ▶ 6 conference talks
- ▶ 4 papers submitted
- ▶ 23 new partners in research, industry, gov't

*DOGE = Department of Government Efficiency

Navigating the Changing Federal Funding Landscape

Climate and Energy Research Faces New Federal Funding Challenges

How has RCEI responded?

Since early 2025:

- **~\$10B in climate/environment grants cut.**
- **Programs repurposed cancelled, or unfunded** across DOE, EPA, NOAA, NEH, NIH, NSF, USDA, and USGS.
- **Entire offices dismantled or slated for elimination** — e.g., DOE's EERE, OCED, and USGS's \$294M Ecosystems Mission Area.
- **Congress-appropriated funds sitting unspent** as solicitations stall.

The New York Times

The U.S. Is Funding Fewer Grants in Every Area of Science and Medicine

Dec. 2, 2025

- **Provided hands-on support to affiliates** pursuing specific funding opportunities, from proposal strategy to submission.
- **Expanded philanthropic and private funding pathways** in partnership with RU Foundation to connect affiliates with new funding opportunities.
- **Focused training on engaging with the National Labs** around federally funded research.
- **Coordinated RCEI response to DOE Requests For Information** on upcoming grant programs and agency restructuring, ensuring Rutgers researchers helped shape what comes next.

Lewis-Burke 1-on-1 Meetings

RCEI partners with Lewis-Burke Associates to offer individualized sessions for Rutgers faculty. These consultations help match researchers with funding opportunities aligned to their work and provide up-to-date insights on agency priorities and proposal strategy.

41 faculty sessions

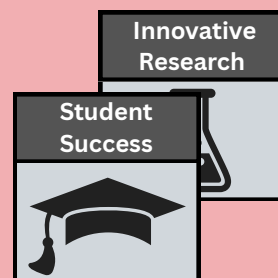
75% would attend again

75% learned about new funding opportunities

Early Career Scholarly Development

Student Support Fund

RCEI funds Rutgers students to travel for field work, conferences, and research collaboration—helping them grow professionally, share their work widely, and prepare for careers in climate and energy.



AWARDS

19

+27% increase

TOTAL AMOUNT AWARDED

\$26K



Miriam Arroyo
PhD Candidate,
Microbial Biology



Jael Estrada
PhD Candidate, Earth and
Environmental Sciences



Alice Jenks
PhD Candidate,
Oceanography



Daniel Moore
PhD Candidate, Industrial
and Systems Engineering



Afroz Mosallaeipour
PhD Candidate,
Journalism and
Media Studies



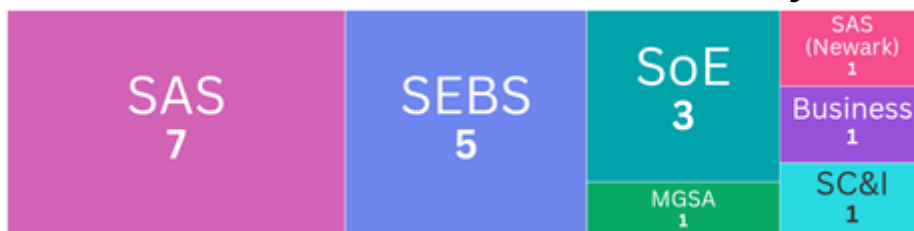
Heshani Pupulewatte
PhD Candidate,
Chemistry and
Chemical Biology



Javiera Madrid-Salazar, PhD Candidate in Geography, used RCEI Student Support funds to travel to Nuuk for Greenland Science Week, where they conducted fieldwork on the emerging “critical minerals” frontier in Greenland—examining how climate change, geopolitics, and Indigenous sovereignty intersect as melting ice reveals resource opportunities central to the global energy transition.

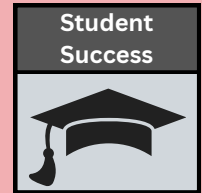
Award Distribution by School

[rcei.rutgers.edu/resources/
student-support-program/](https://rcei.rutgers.edu/resources/student-support-program/)



Rutgers Climate & Energy Fellows

Rutgers Climate and Energy Fellowships provide support for early-career researchers to participate in RCEI program offerings.



Sharanya Sahu

Master's student, Public Policy

Project: Mainstreaming AI Where It's Needed Most: Frontline Community Resilience Hubs. The project explores how AI can improve the planning and operations of Community Resilience Hubs to strengthen local climate resilience and adaptation through enhanced preparedness, coordination, and service delivery.



Md Arafat Hassan

PhD candidate, Geography



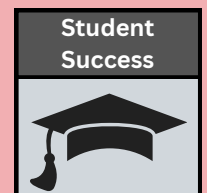
Zeri Shi

PhD candidate, Computer Science

Project: AI detection of meltwater on the Greenland Ice Sheet. The project combines climate science and computer science to develop AI tools for monitoring meltwater runoff and advancing emerging AI applications in hydroglaciology.

Clean Energy Graduate Certificate

The Clean Energy Graduate Certificate provides Master's-level students with interdisciplinary training in engineering, policy, and economics through a clean energy focus. Developed in partnership with the New Jersey Board of Public Utilities, the 9-credit program prepares students for careers across the clean energy sector.



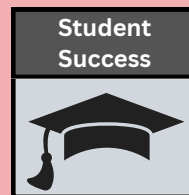
The RCEI Clean Energy Certificate launched in May 2026.

[Learn more](#)

NOW
ACCEPTING
STUDENTS

Clean Energy Fellowship

A prestigious, paid opportunity, in partnership with NJ Board of Public Utilities (NJBPU), this fellowship provides Rutgers graduate students with hands-on experience within the clean energy sector at NJBPU.



6 Rutgers Master's students

placed within NJBPU Division of Clean Energy

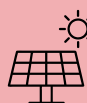
Focus Areas of Fellows



Clean Transportation



Garden State Energy Storage Program

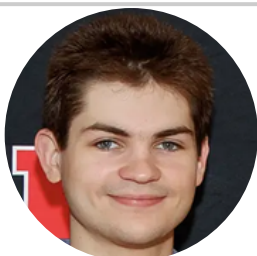


Competitive Solar Incentive Program



Budget Analysis

2025-2026 Fellows



Alex Koskoski,
Public Policy



Erica Harmon,
Public Policy



Vincent Fedoryka,
Economics



Adnan Zia,
Public Informatics



Daniel Greenman,
City and Regional Planning



Shivani Mishra,
Business and Science

<https://rcei.rutgers.edu/about/programs/clean-energy-fellowship-certificate/graduate-fellowship-program/>

Digital Outreach and Engagement



Weekly Digest email	Internal Rutgers contacts	Weekly open rate	Includes news, events, jobs, grants, affiliate highlights
	2,450 +14% increase	40% no change	

Biannual Newsletter	Contacts reached	Average open rate	RCEI Newsletter Archive
	10,000 no change	40% no change	

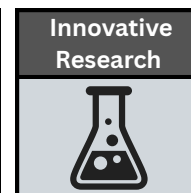
RCEI Website	Page views	Top pages:
	138,000 +225% increase	• Clean Energy Fellowship Program • Student Support Program • Climate Education Resources • Affiliate Search

Social Media	Post 'impressions'	Followers	Posts
	129,000 +200% increase	2,917 +26% increase	763 >200% increase

RCEI Newsroom	Original articles	
	51 highlighting research by RCEI affiliates	



RCEI Staff Highlights



In addition to the initiatives detailed in this report, the following highlights reflect further contributions by RCEI staff over the past year.



LOCKWOOD

Julie gave an invited talk at the Resilient Long Island Symposium entitled Evidence-based hope within invasive species management.



LOCKWOOD

Julie's research and lab are featured the National Wildlife Federation Magazine, in an article entitled Following the Trail of eDNA.



KAPLAN

Marjorie co-authored the State of the Climate: New Jersey report, which summarizes the latest climate trends to inform a diversity of end users.



KAPLAN

Marjorie co-led a workshop on Extreme Weather and Climate Change, building capacity for NJ agricultural technical service providers to support climate adaptation and mitigation.



ONG

Joyce co-authored a study in *Reviews in Fish Biology and Fisheries* investigating changes in life history patterns in fish populations.

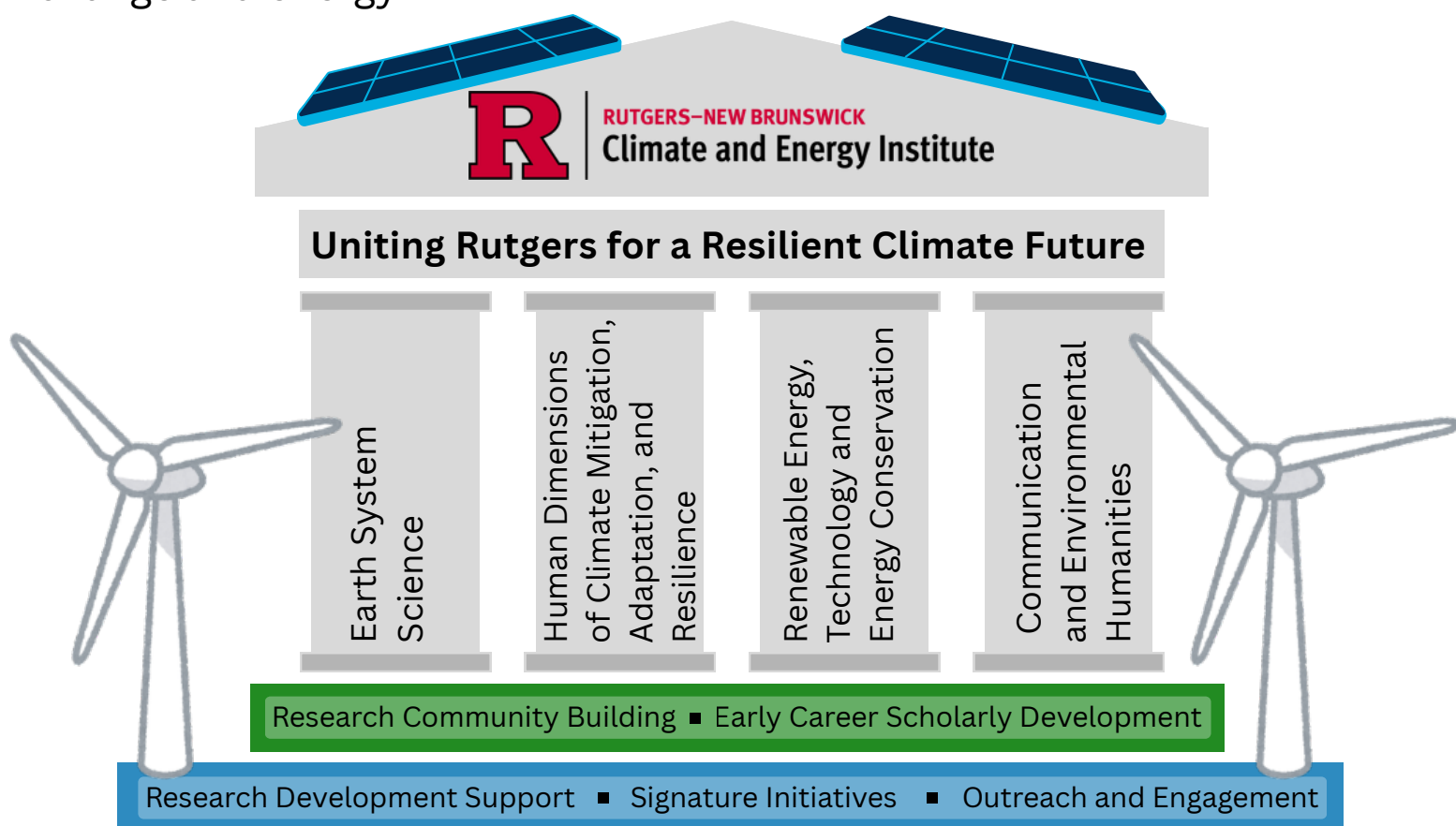


STRINGHAM

Oliver co-authored a study in *Current Biology* entitled "Mapping the global dimensions of US wildlife imports".

About RCEI

Rutgers Climate and Energy Institute is designed to break down silos and bring people together across disciplines. By connecting expertise in science, engineering, policy, economics, the arts, and more, RCEI integrates knowledge to address the complex challenges of climate change and energy.



RCEI engages faculty, staff, and students from across Rutgers, including:

- School of Environmental and Biological Sciences
- New Jersey Agricultural Experiment Station
- School of Arts and Sciences
- School of Engineering
- Bloustein School of Planning & Public Policy
- Mason Gross School of The Arts
- 14 Additional Schools or Units

RCEI Affiliates

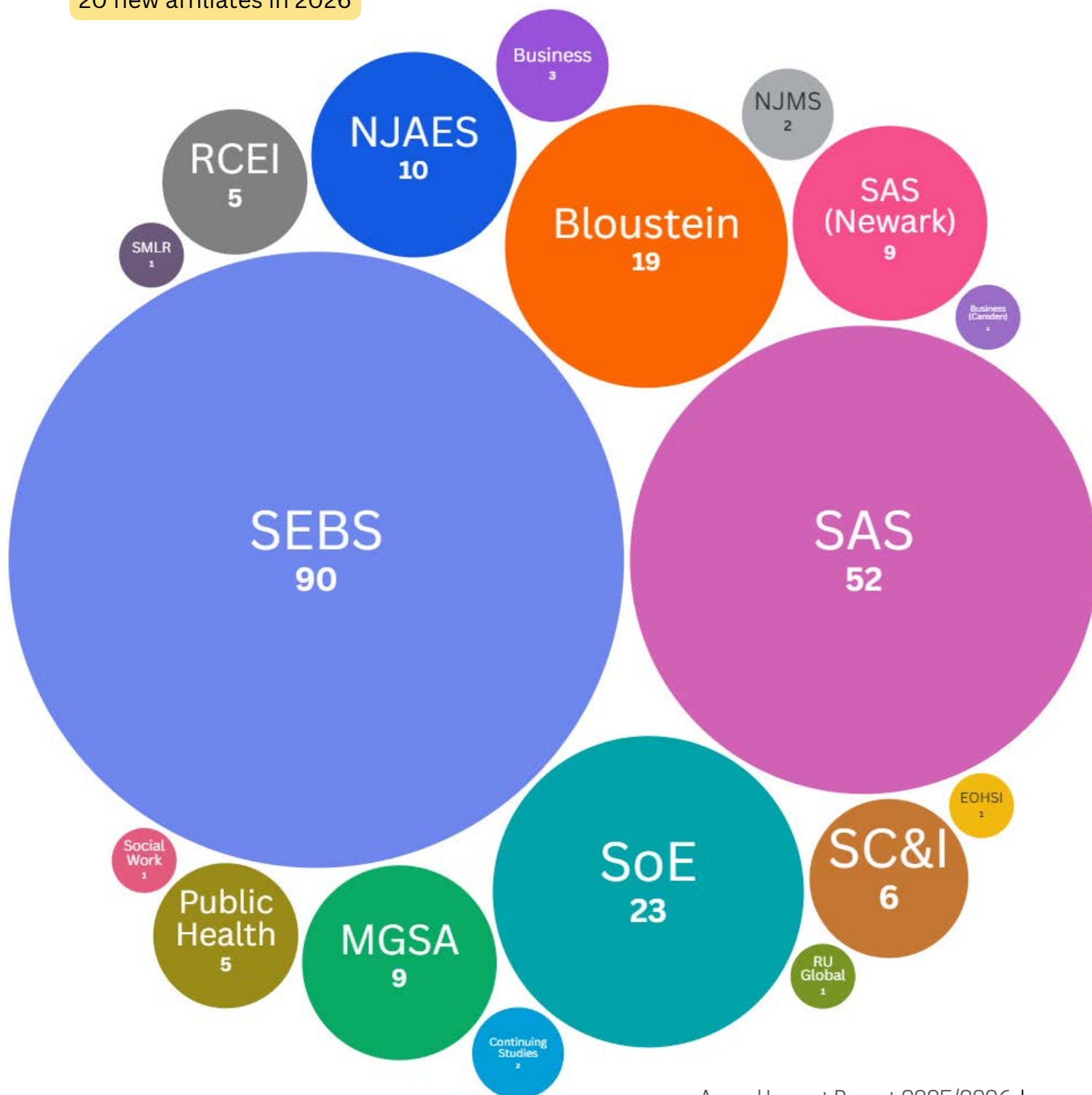
Rutgers faculty or research staff affiliated with RCEI



240

Affiliates

20 new affiliates in 2026



Governance



STAFF



Julie Lockwood
Director



Marjorie Kaplan
Senior Associate
Director



Joyce Ong
Research and
Grants Facilitator



Oliver Stringham
Research Analyst



Sean Harris
Clean Energy Program
Coordinator



Matthew Drews
Digital Media Coordinator,
Web Designer



Leon Green-Tkacenko
Post-doctoral Research
Associate

AREA LEADS



Atif Akin
Climate Change
Communication and
Envir. Humanities Lead



Dunbar Birnie
Renewable Energy,
Tech., and Energy
Conservation Lead



Anthony Broccoli
Earth Systems
Science Lead



Kevon Rhiney
Human Dimensions of Climate
Mitigation, Adaptation, and
Resilience Lead

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Graduate Program
Director; Sociology



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and Biological Sciences



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Sciences



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Portuguese



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Rachael Shwom

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Shriya Golugula



Aleen Mirza



Parie K. Patel



Kenneth Tam



Mia Vaccarella



Edith Zhao



Photo credit: Matthew Drews



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