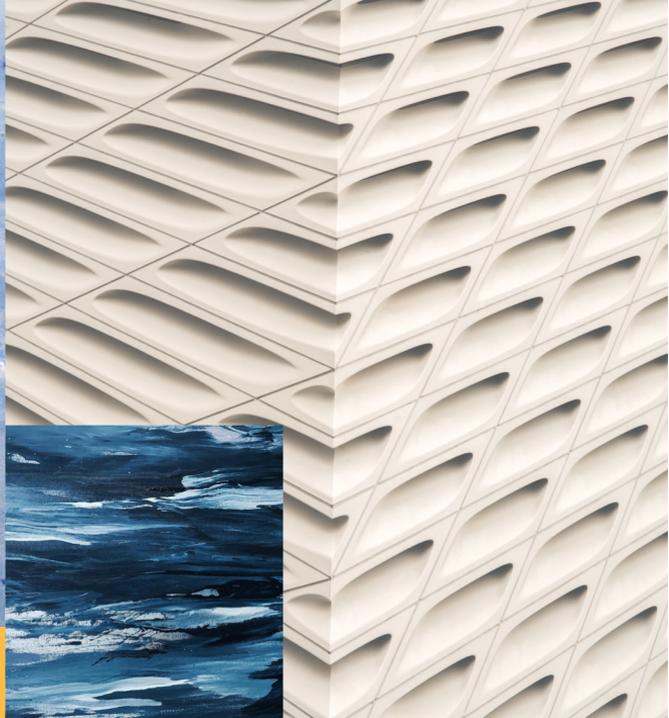


SPARC-ing

*A University of Minnesota model
addressing global challenges*



UNIVERSITY OF MINNESOTA
Driven to Discover®

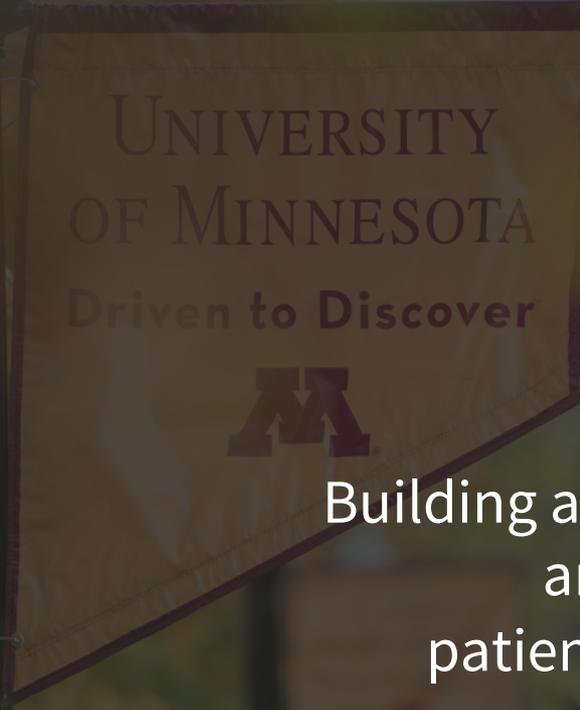


Meredith McQuaid

Associate Vice President and Dean
Global Programs and Strategy Alliance
University of Minnesota

Amy Kircher, DrPH

Director, Food Protection and Defense Institute
Co-Director, Strategic Partnerships and Research Collaborative
University of Minnesota

A banner hanging from a post, featuring the University of Minnesota logo and text. The banner is light-colored with dark text and a logo. The text reads "UNIVERSITY OF MINNESOTA" in large letters, followed by "Driven to Discover" in a smaller font. Below the text is the stylized "M" logo of the University of Minnesota. The banner is set against a background of trees and a building.

UNIVERSITY
OF MINNESOTA
Driven to Discover



When the Stars Align

Building a novel collaborative hub within
an 167-year-old institution takes
patience and a whole lotta meetings.

NEED • DESIRE • RIGHT LEADERSHIP

Challenges to Overcome

- No university structure for teams to submit and execute complex international grants
- University not resourced to support interdisciplinary teams
- Non-traditional funding mechanisms have unique requirements
- Accessing experienced administrative teams that can execute complex grants
- Junior faculty are increasingly challenged to land large grants that support their career

• • •



We envisioned

An institutional hub established to support collaboration across the University of Minnesota system with networks and partners in industry, government, and non-profit sectors.



In our mind

Vision

Be a global catalyst for team science and deployable solutions that benefit our world.

Mission

Collide science and innovation across disciplines to catalyze solutions for complex global challenges.

...





Our Approach

Catalyze Collaboration

To convenes and supports partners from around the globe with leading experts from across the University of Minnesota to organize, fund, and implement large-scale impactful programs.



Innovate

To foster innovation by colliding academic, industry, government, community, and nonprofit researchers and practitioners to work together across disciplines.

Deliver Practical Solutions

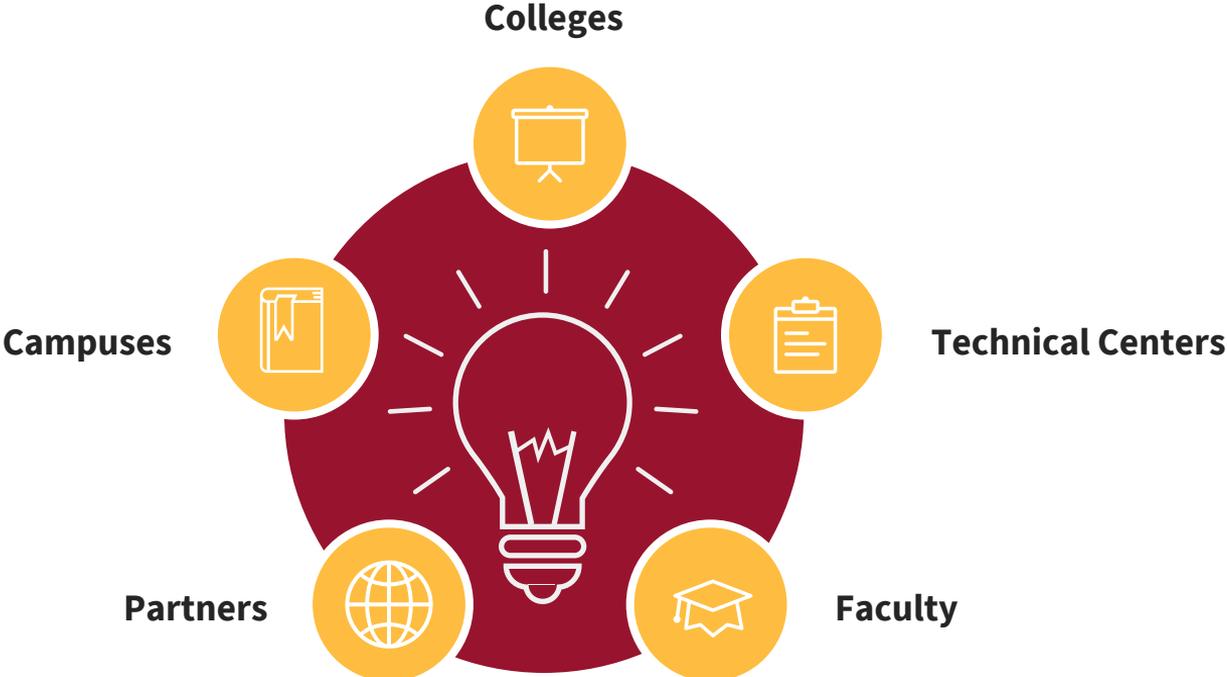
To bring innovation to the front lines of addressing grand challenges in the US and globally by leveraging and sharing expertise, tools, and resources to bring knowledge and innovation to the field.

Filling an important niche at the University



- **Implement** horizon scanning and forward strategy
- **Provide** a conduit to promote and advocate for impactful work
- **Strategically leverage** work & expertise for new opportunities
- **Foster** multi-college, complex research & projects
- **Establish** a creative space for partners to collaborate
- **Effectively propose and administer** administratively complex, interdisciplinary grants and projects

Supports Technical Experts and Entities



Playing a Role at All Levels



Individual Goal:
Improved faculty and student opportunities, capacities and competencies to have impact globally



Team Goal: Opportunity to collide new ideas, build new partnerships and collaborations.



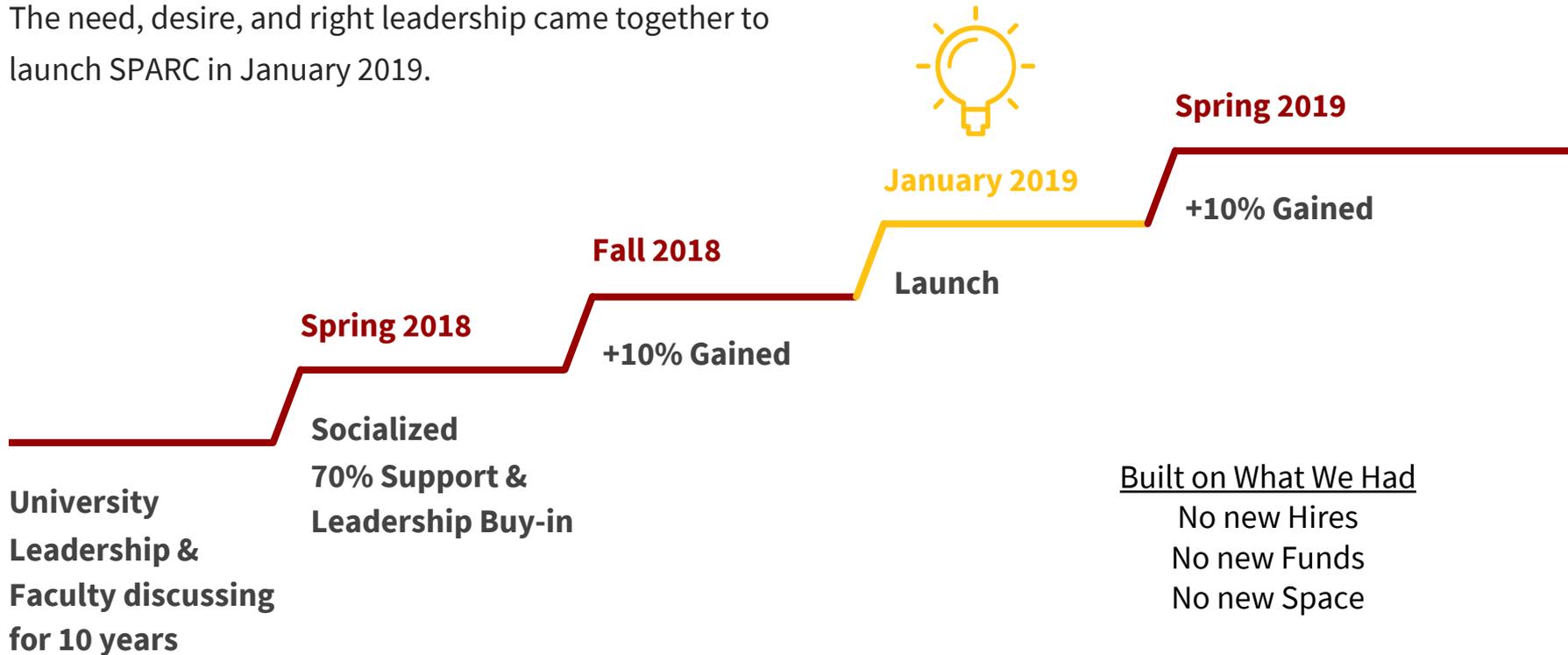
Institution Goal: Disrupting 'business as usual' to foster new models that promote collaboration.

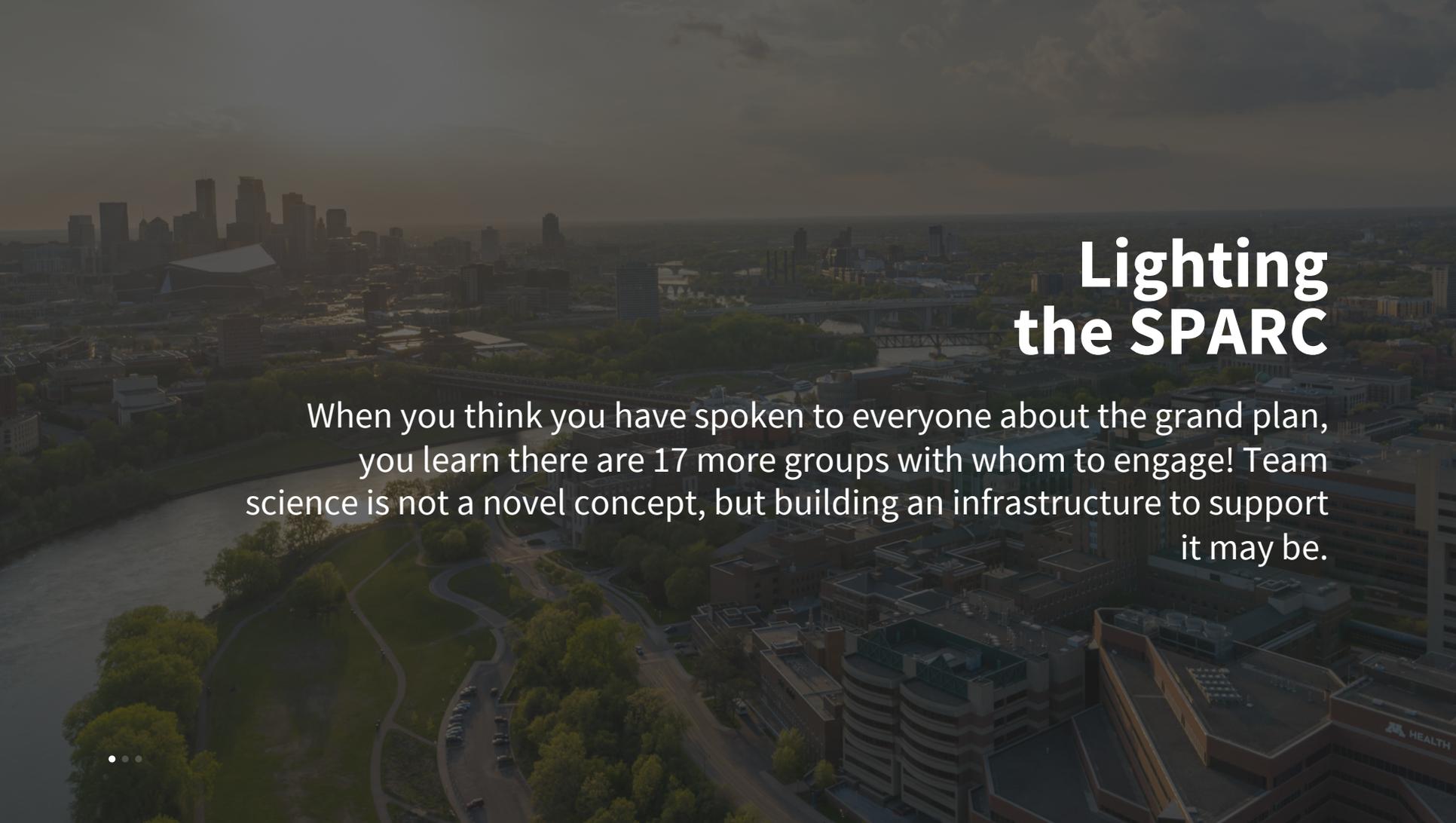


Global Goal: Leveraging tools, expertise and partners to conduct high impact science.

Evolution

The need, desire, and right leadership came together to launch SPARC in January 2019.



An aerial photograph of a city, likely Pittsburgh, showing a river, a park with winding paths, and a dense urban skyline in the background. The image is dimmed to serve as a background for text.

Lighting the SPARC

When you think you have spoken to everyone about the grand plan, you learn there are 17 more groups with whom to engage! Team science is not a novel concept, but building an infrastructure to support it may be.

Proposed Models for Engaging SPARC

> \$1 million, at least 2 colleges, administrative complex/non-traditional mechanisms/funders

Tier One

Pan-University Proposals

Administration

Propose, manage and execute project at SPARC

Faculty and Student Engagement

SPARC team identifies and leads strategic large proposals and projects that UMN can lead or partner in. Faculty could send, or SPARC team can horizon scan to find.

Example

USAID LASER - \$70M, 577 partners; 13 colleges, 14 external networks; 2 domestic partners

Tier Two

Multi-College, Administratively Complex

Administration

Split responsibilities with administration and PI negotiated based on circumstance of project..

Faculty and Student Engagement

SPARC team works with faculty teams or individuals based on faculty interest to submit proposal and support project work.

Example

CDC Technical Assistance, USAID Feed the Future Food Safety Laboratory

Tier Three

College-Based, College Run, Need SWAT Team

Administration

Provide temporary administrative support to propose and/or launch project. After award the project is completely managed by PI's department.

Faculty and Student Engagement

College and/or faculty request SPARC team support to develop proposals, establish teams or support project start up or management as needed

Example

AMR Center Grant

Team built from Diverse and Non-Traditional Funding

\$161,647,668 External Grants since 2004

Amy Kircher, *Co-Director*

Katey Pelican, *Co-Director*

Stephen Streng, *Proposal Developer and Editor*

Brittany Mader, *Finance Manager*

Annie Branan, *Finance Manager*

Kendra McCormack Grahl, *Communications Officer*

Penny Norquist, *Project Manager*

Carrie Coslin, *Project Manager*

Ian Allen, *Monitoring & Evaluation Specialist*

• • •



World Health Organization



FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS



skoll global threats fund

THE PAUL G. ALLEN FAMILY foundation



USAID FROM THE AMERICAN PEOPLE



WORLD BANK GROUP

SPARC Advisors

Dean, Early Adopter with International Experience

Dean, Early Adopter with International Experience

Former Dean, Center Director, 10 year Champion

Administrative Leader, Advocate

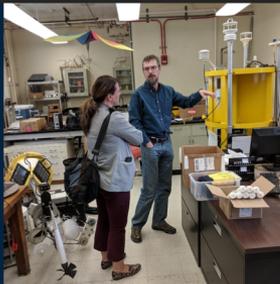
Faculty, Entrepreneur

Faculty, International Experience



UMN SPARC Services

Strategy	Pre-Award	Implementation	Impact
<ul style="list-style-type: none">• Opportunity identification and analysis• Resource for external and internal stakeholders• Sponsor-responsive strategies• Horizon Scanning• Proposal Review• Foster and leverage UMN and Global Portfolio	<ul style="list-style-type: none">• Budgets• Proposal Team Support• Facilitate Cross-University Teams• Recruit external partners• Proposal writing and logistics• Cost share strategy and recruitment• Project governance planning and recruitment	<ul style="list-style-type: none">• MOUs• Subcontracts• Communications• Accounting & Banking• Project Management• International Logistics & Safety• Cost share management• Facilitation	<ul style="list-style-type: none">• Collaboratory• Monitoring & Evaluation• Scholar Support• Shared and Leveraged Toolkit• Shared and Leveraged Partners• Shared and Leveraged Products





Build a Presence and Launch




Let's discover solutions together.

Engaging Faculty

Visit sparc.umn.edu

- Join our Faculty Pool of Experts
- Request our Services



And We Have Fire

Even without a major win, SPARC had success almost immediately (and eventually). In search of “blue ocean” opportunities, the Collaborative created robust international proposals and relationships by leveraging existing networks within the University and strategically developing teams and research plans to satisfy funders. We will share our “wins” both in establishing our efforts and with research funding.

Example: Leveraging Partners Across the Globe



International Partners - Scope and Scale

African Science Partnership for Intervention Research Excellence (Afrique One-ASPIRE)

• 7 Countries in Africa • 25 HEIs in Region • 3 HEIs in Europe

Partnership for African Social and Governmental Research (PASGR)

• 12 Countries in Africa • 17 HEIs in Region • 2 HEIs in Europe

Economic Research Forum

• 16 Countries in the Middle East, Asia, Eurasia • 42 HEIs in Region
• 13 HEIs in Europe • 29 HEIs in North America

Economic and Social Research Consortium (CIES)

• 1 Country in Latin America and the Caribbean
• 37 HEIs in Region

Tropical Agricultural Research and Higher Education Center (CATIE)

• 19 Countries in Latin America and the Caribbean • 65 HEIs in Region
• 16 HEIs in Europe • 1 HEI in Asia • 25 HEIs in North America

Latin American Faculty of Social Sciences (FLACSO)

• 15 Countries in Europe and Eurasia, and Latin America and the Caribbean • 15 HEIs in Regions

One Health Network South Asia

• 12 Countries in Asia, Afghanistan and Pakistan (India, Pakistan, Bangladesh, Nepal, Bhutan, Sri Lanka, Indonesia, Thailand, Vietnam, Malaysia, Laos, Philippines • 140 HEIs in Region • 1 in Oceania

International Waters Research and Education Network

• 17 Countries in Africa, Asia, Central and South America, Eurasia, and Afghanistan/Pakistan • 21 HEIs in Regions • 7 HEI members from Europe • 10 HEI members from North America

Eurasia Foundation

• 11 Countries in Asia, Europe and Eurasia, and the Middle East
• 120 HEIs in Regions

One Health Central and Eastern Africa (OHCEA)

• 8 Countries in Africa • 17 HEIs in Region

Southeast Asia One Health University Network (SEAOHUN)

• 6 Countries in Asia • 67 HEIs in Region • 2 HEIs in North America

Indonesia One Health University Network

• 1 Country in Asia • 20 HEIs • 2 HEIs in North America

Malaysia One Health University Network

• 1 Country in Asia • 17 HEIs • 2 HEIs in North America

Thailand One Health University Network

• 1 Country in Asia • 8 HEIs • 2 HEIs in North America

Vietnam One Health University Network

• 1 Country in Asia • 20 HEIs • 2 HEIs in North America

Example: Leveraging a Motivated Faculty Network

EXPERTISE

The Network of Research Consultants has **577** experts in USAID technical expertise areas.



184 experts in agriculture and food security



37 experts in democracy, human rights and governance



70 experts in economic growth and trade



84 experts in education



68 experts in environment and global climate change



40 experts in gender equality and women's empowerment



324 experts in global health



32 experts in water and sanitation



25 experts working in crises and conflict

GLOBAL REACH

The Network of Research Consultants has **157** experts with worldwide expertise.

PARTNER DATA

The Network of Research Consultants is a diverse group of experts.



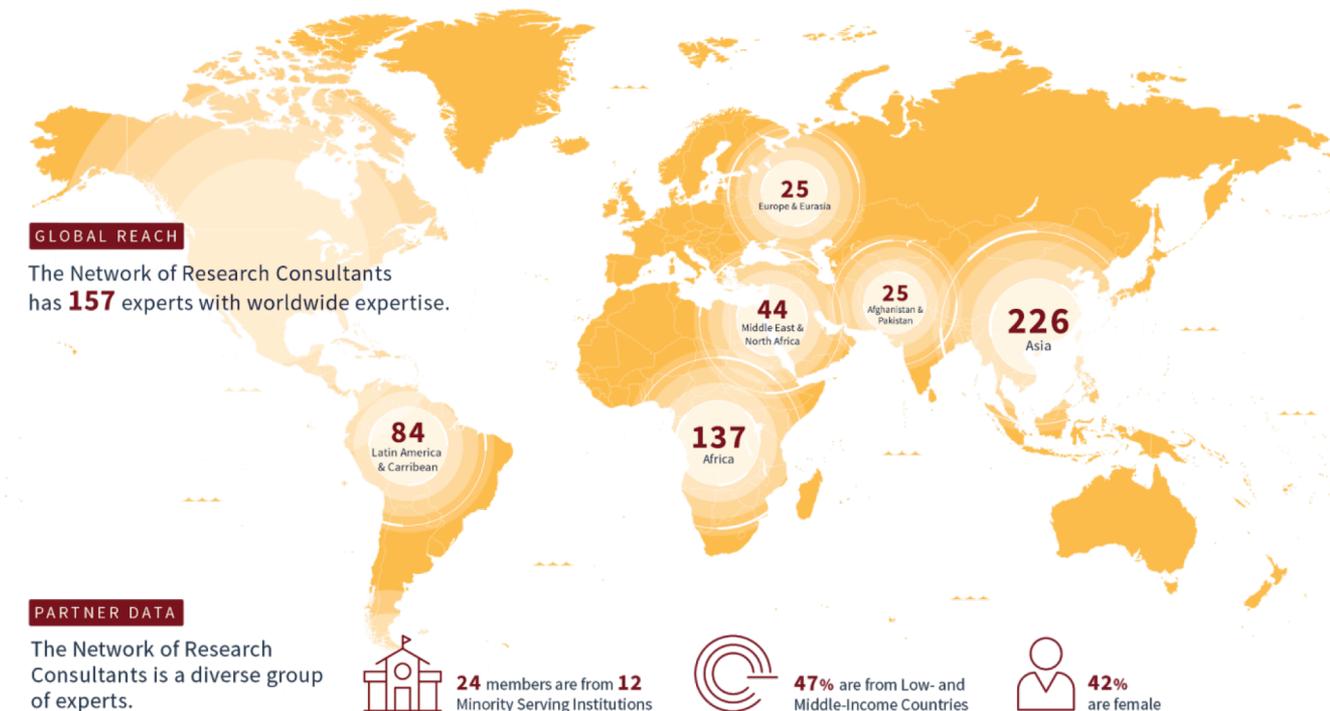
24 members are from **12** Minority Serving Institutions



47% are from Low- and Middle-Income Countries



42% are female



Discover and Innovate

CURRENT WORK

Smart and Connected Communities

SPARC hosted a Collision event in May 2019 to convene interested researchers to meet each other and to discuss topics for the NSF Smart and Connected Cities grant. 6 teams were created at UMN around the following topics:

- Disasters/Resilience/Smart Grid
- Heat Islands
- Equity and Accessibility
- Sensing/Wearables/Health
- Mobility and Technology
- SOD, Internet of Things, Sustainable Buildings



“

SPARC is truly an amazing research hub for UMN faculty. Even though SPARC is new, the kinds of connections and interdisciplinary partnerships the efforts have been developing has been phenomenal so far.

–Professor Abimbola Asojo



Deliver Practical Solutions

CURRENT WORK

Crop Improvement Innovation Lab

SPARC identified this opportunity as strategic for UMN. Currently 21 FTF Innovation Labs in 15 Universities, none at UMN. SPARC convened the faculty, identified the leadership team and supported them in preparing and submitting the proposal through SPARC.

- 5 Colleges (CFANS, CBS, Extension, CEHD, SON)
- Red Team Review
- Cost Pool Exception Request
- External candidate for Director, Deputy Director



“

SPARC is like
an incubator
for UMN.

–Dr. Gabe Gusmini,
PepsiCo



Catalyze Collaboration

CURRENT WORK

UMN Grand Challenge Innovation Programs

SPARC catalyzes collaboration at UMN by focusing on large programmatic areas of work that contribute to grand challenge solutions.

- Partners for Resilient Communities: Establishing Sustainable East African Field Sites
- Poverty to Plank and Sustainable to Smart Housing



“

I feel it is my responsibility to see these scary smart researchers unpack grand challenges to mobilize sustainable change at the community level in a way that no single PI-driven grant could do.

–Professor Cheryl Robertson, SON



Measuring Year 1 Engagement

Touchpoint

Over 600 unique visitors have visited our website.

- Attending SPARC events, meetings or briefings
- Subscribing to our newsletters
- Following SPARC on Twitter
- Visiting the website

Engagement

Over 600 are part of our SPARC consultancy list.

- Attending in 1 on 1 meetings
- Joining the SPARC consultancy group
- Joining SPARC as a resource partner

Investment

We've engaged over 100 people on SPARC related proposals.

- Joining a proposal team
- Sitting on the SPARC Advisory Board

Project Administration

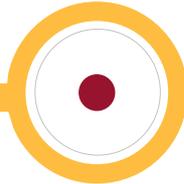
SPARC has 9 employees working on administrative matters.

- Administering projects and writing proposals on behalf of SPARC
- Project managing current projects



Measuring SPARC's Impact Long-Term

FORMATIVE



Defining the Needs

- How many people are we engaging?
- How many projects are we submitting proposals for?
- Are we achieving the goals of the university?

PROCESS



Utilization

- How do users of SPARC's services feel about the process?
- Is there continuous improvement? (What do we learn from each proposal writing process?)
- What connections are we facilitating?

IMPACT



Changes

- What changes at UMN has SPARC brought about?
- As we begin facilitating more projects, aggregating data to show broader trends in change for the betterment of society.
- Demonstrating financial viability and sustainability

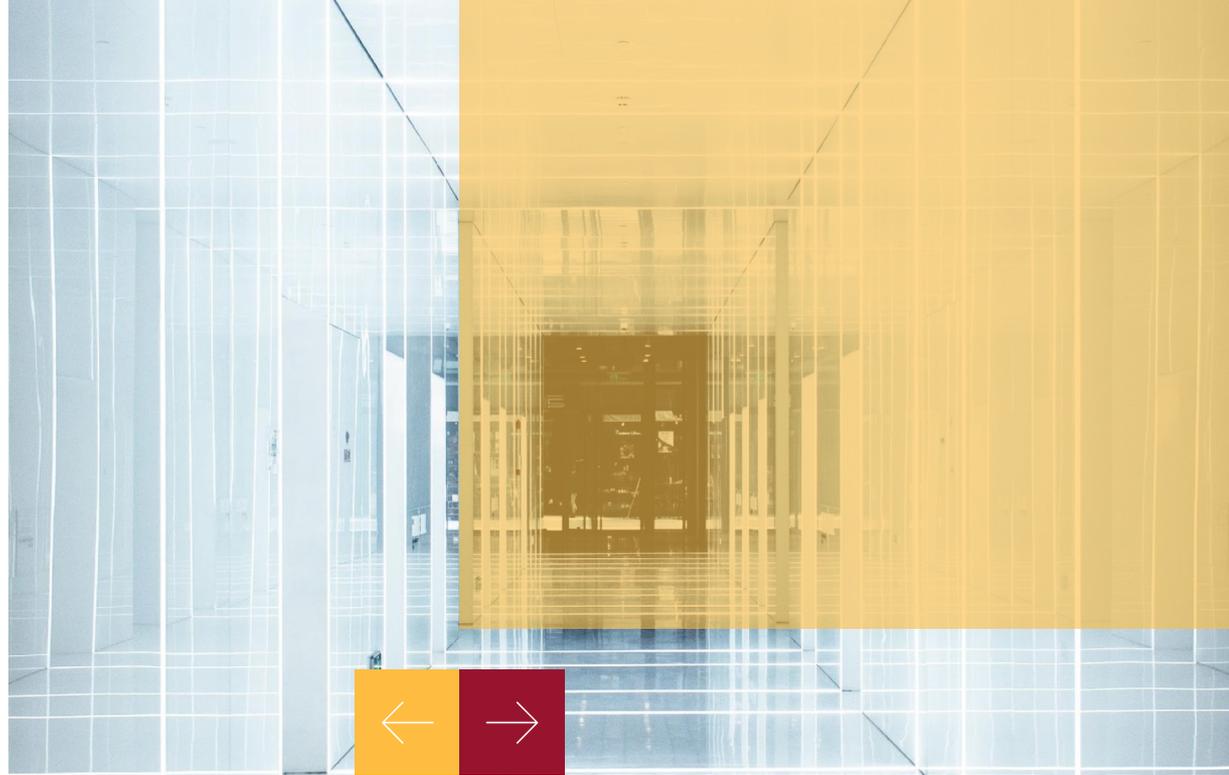
Questions to Consider

- Non-proposal work
 - SPARC as a Service vs. Business?
 - Junior faculty engagements and capacity building
 - Strategic research advising
 - Growing and maturing relationships
 - Wrangling international and national university partners, students, alums



Thank you

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Office of the Vice
President for Research

UNIVERSITY OF MINNESOTA

GPS**Alliance**

UNIVERSITY OF MINNESOTA

