SPARC-ing
A University of Minnesota model addressing global challenges

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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 convene and support 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

- Colleges
- Technical Centers
- Campuses
- Partners
- Faculty
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.
The need, desire, and right leadership came together to launch SPARC in January 2019.

Built on What We Had
- No new Hires
- No new Funds
- No new Space

University Leadership & Faculty discussing for 10 years

Socialized
- 70% Support & Leadership Buy-in

Spring 2018

Fall 2018

+10% Gained

January 2019

Launch

Spring 2019

+10% Gained
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
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

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Build a Presence and Launch
Engaging Faculty

Visit sparc.umn.edu

- Join our Faculty Pool of Experts
- Request our Services
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.

And We Have Fire
Example:
Leveraging Partners Across the Globe
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

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?

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?

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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