10/19/2022

ALL ABOUT TEAMING

- Working with a Team for a big Proposal
- Introduction to "Strategic Doing"
- Team-related Elements within a Proposal

Office Of Research & Economic Development

2022 Seminar Series

Working with a Team for a Big Proposal

Dr. Wes Burger
Dean, College of Forest Resources
Director, Forest and Wildlife Research Center

Ms. MaryAnn Latham, CRA
Program & Grant Development Specialist
MAFES Administration

Introduction to "Strategic Doing"

Dr. Joe Fratesi
Assistant Director, Stennis Institute of
Government & Community Development

TEAM-RELATED ELEMENTS WITHIN A PROPOSAL

TYPES OF PROJECT TEAMS

TEAM SCIENCE V. COLLABORATION

WHERE TO DEMONSTRATE TEAMING

OFFICE OF RESEARCH DEVELOPMENT

Stephanie Hyche, Office of Research Development

Types of Project Teams

Individual Scientist

Single researcher

“Simple” Team

Group of people from same/similar discipline who work together with shared scientific worldview

Collaboration

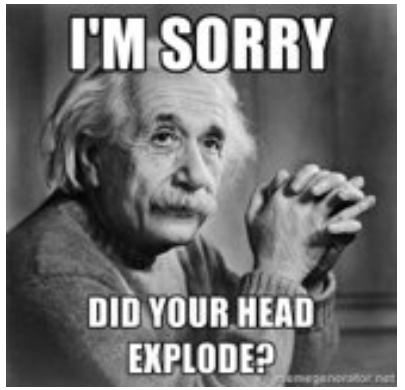
Group of people from different disciplines who share responsibilities or equipment, but retain shared scientific worldview within their disciplines (“silos”)

Interdisciplinary Team

Group of people from different disciplines whose work is characterized by integration and synergy across worldviews to achieve “breakthrough” science

Funding agencies are using team-science-based funding priorities to strategically address multi-factorial problems:

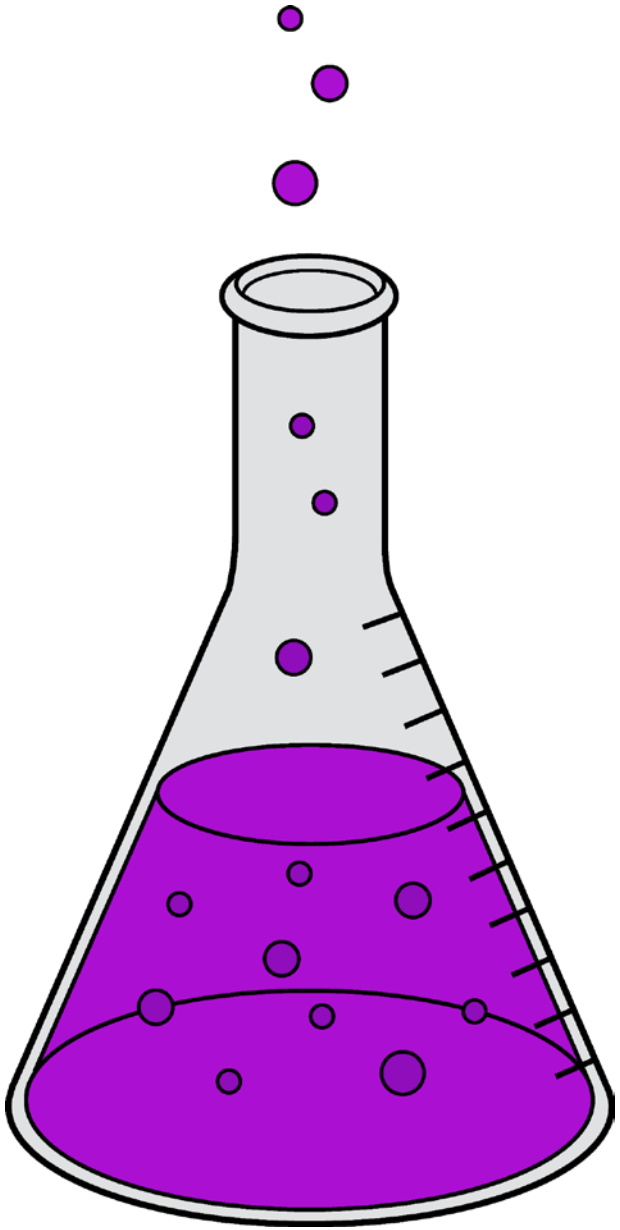
- climate and the environment
- disease and health impacts of social stratification
- big data challenges
- origins of life
- rural prosperity and economic development
- quantum science
- autonomous technology and infrastructure
- equity and equality



Some example mechanisms:

- USAID's Innovation Labs
- NSF & NIH's Centers (research)
- USDE & HHS Centers (training & service)

More than collaborative work:
The Science of Team Science



Beyond the scope of just the research problem(s), Team Science initiatives provide opportunities to study **how and the extent to which** a convergent /team approach itself contributes to outcomes.

The Science of Team Science (SciTS) is a rapidly emerging field focused on maximizing the efficiency, productivity, and effectiveness of team science initiatives.

- Methods and models for studying TS as related to the funder's purpose;
- How collaborative processes and outcomes are affected by a variety of contextual environmental factors
- Team characteristics and group dynamics
  - what type of leadership is effective?
  - What is the ideal team composition for a specific problem?
  - What communication methods are most successful?
  - Do these things vary by type of research? EX: education v. engineering)

Collaborative Proposals have unique development requirements and Merit Review Criteria

Team Grantsmanship

- Types of funded-teams: Research Centers , Institutes, Consortia , Networks, Partnerships
- The way we think about familiar components (shared equipment, facilities and resources, data management)
- How and why team approach is better for project; must make clear the importance of team over individual
- Additional required subsections and specialized components
- Budgeting - often includes start up time, travel to funding agency meetings, essential equipment, coordinating staff, regular organizing meetings
- Separate, specific TS review criteria
- Leadership plans and management/administrative planning (multi PD/PI)
- Demonstration of mutual agreement and commitment of partners (MOAs, etc.)

Other Considerations for Collaborative Project Development

- How do institutional policies and procedures impact team-based endeavors (promotion & tenure? Varying procedures across colleges? F&A splits, credit/effort? Etc.)
- Special considerations for stakeholders' capacity limitations (i.e. awareness of/compensation for lack of infrastructure/ cultural considerations (private companies move faster than univ.)
- Broader Impacts 2.0 (diversity, training of next generation, scaffolding for future opportunities)

Demonstrating Teaming in a Proposal Components

- Should ALWAYS be project-specific

- Budget
- Leadership/management plan
- Narrative

- Facilities and other resources:
  - physical (lab, clinical, classroom), technologies, human resources (partnerships, advisory, non-funded personnel)

- Equipment:
  - actual equipment with shared use described, as well as shared responsibilities for management

- The research environment:
  - administrative and management support infrastructure; physical facilities, new or planned investments/ identification of strategic priorities/focus on training demonstrated through programs/initiatives/REUs/diversity initiatives, etc.

- Evidence of partnerships:
  - existing formal research/teaming agreements
  - previous funded collaboration

- Organizational experience/history:
  - results or success managing similar projects (similar scope/location/target population)
  - Letters
  - Bios/COA/references

Team-related Elements within a Proposal

Ms. Tonya McCall
Director, MSU Center for
Advanced Vehicular Systems Extension

Mr. Eric Hill
Director, MSU Center for
Entrepreneurship and Outreach

Studies of scientific teams suggest effective teams have:

Organizational structure

- Clear purpose
- Appropriate culture
- Specified task
- Distinct roles
- Suitable leadership
- Relevant members
- Adequate resources
- Consistent with funding initiative or problem characteristics
- Institutional support

Team processes

- Effective leadership and management
- Shared vision
- Coordination
- Communication
- Cohesion
- Decision making
- Conflict management—disagreement with contained conflict
- Social relationships
- Performance feedback
- Appropriate recognition and credit
- Frequent communication

Individual contributions

- Self knowledge
- Trust
- Commitment
- Flexibility
- Humor
- Attitudes and beliefs
- Awareness of self and others
- Enjoy science and working together

e.g., Bammer, 2008; Bennet & Gadlin, 2013; Collier, 2008; Vogel, 2014

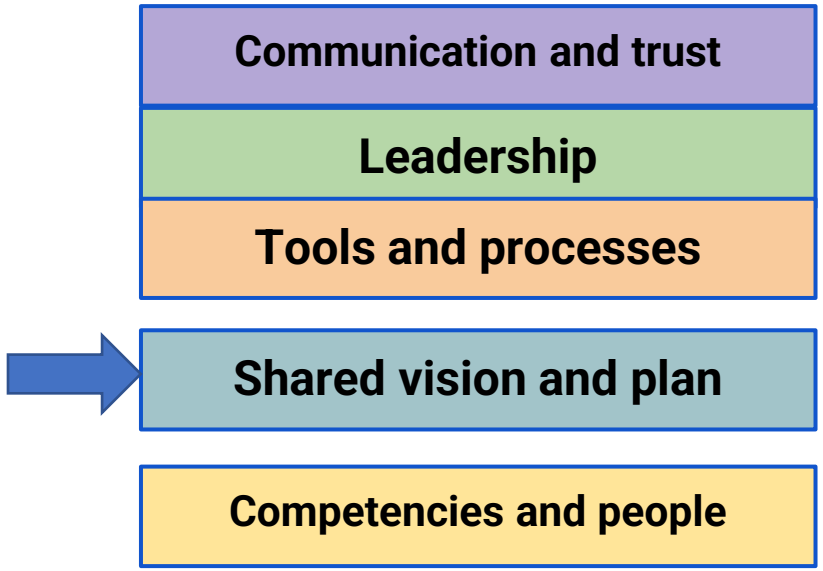
Some examples of "team" or "collaborative" Review Criteria

- Does the program involve innovative ideas or approaches that would be very difficult to pursue through independently funded individual or multiple PD/PI research project grants?
- Are the critical mass and diversity of investigator backgrounds and expertise sufficient to address the proposed scientific problem? Is there evidence for synergistic interactions among PD/PIs beyond the additive benefits of additional investigators?
- Is a convergent research approach needed for the targeted societal impact?
- Does the proposed Management Team have the vision, experience, and capacity to manage a complex, multi-faceted, and innovative enterprise that integrates research, education, diversity and outreach at the network level?
- Will the proposed project link scientists, engineers and educators in multiple institutions and be geographically dispersed?
- Does the program involve innovative combinations of scientific fields and/or intellectual viewpoints to address its goals?
- Will the range of departments and/or institutions involved enhance the diversity of the team in terms of the backgrounds, expertise and skills of the researchers?
- Is the program presented as a coherent and fully integrated set of specific aims or objectives?
- Does the team management plan describe adequately the governance and processes that will be used for decision making?

A Shared Vision and Plan

Developing a shared vision can be challenging when there are differences across disciplines in:

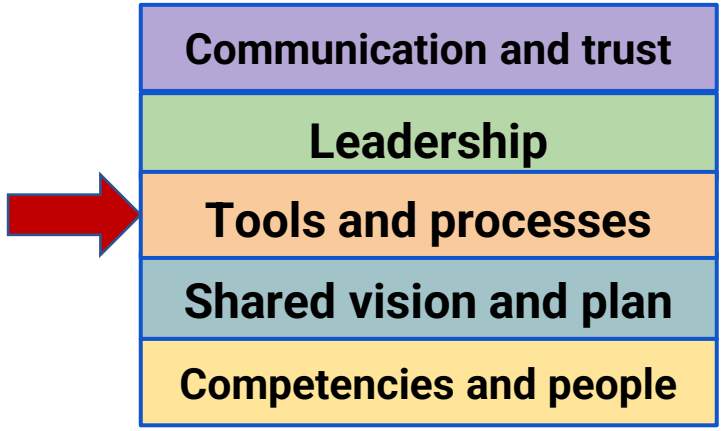
- Perspectives
- Terminology
- Focus
- Paradigms
- Motivation and rewards
- Methods
- Ways of thinking and working



And so . . . .

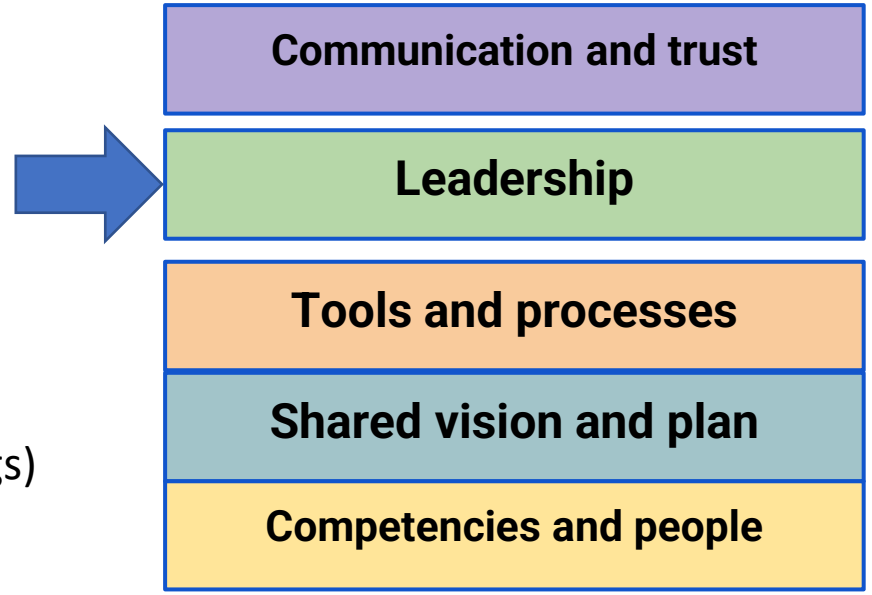
- **Take time** to build a shared understanding
- **Teach** each other about disciplines and expertise
- **Learn** others' values, unique contributions, concepts, theories, variables, methods, etc.

Common Tools and Processes

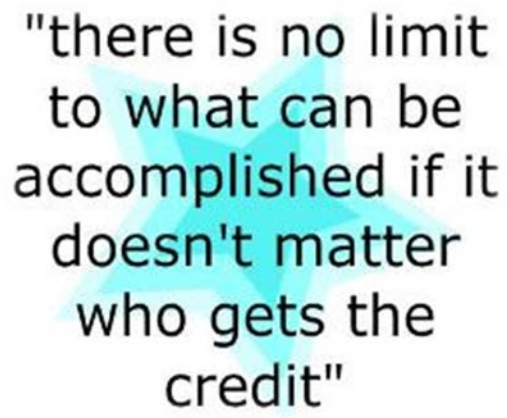


- **Flash Talks:** Group members give mini talks about their expertise related to the topic/problem, approaches to the problem, etc.
- **Priority idea:** Everyone privately writes their most important word or phrase to address the question. Share or post, then group so that common themes become visible
- **Initial ask:** Go around the room, and ask each person, "What do you most want to [do, accomplish, learn] about [topic under discussion]?
- **Multi-voting**: Generate ideas, use dot stickers (e.g. 3 per person) to vote for top ideas, eliminate ideas with fewer than X stickers (narrow choices to come to consensus)
- **Concept maps**: Use sticky notes or concept map apps to brainstorm, collect ideas, organize ideas, find themes, etc.

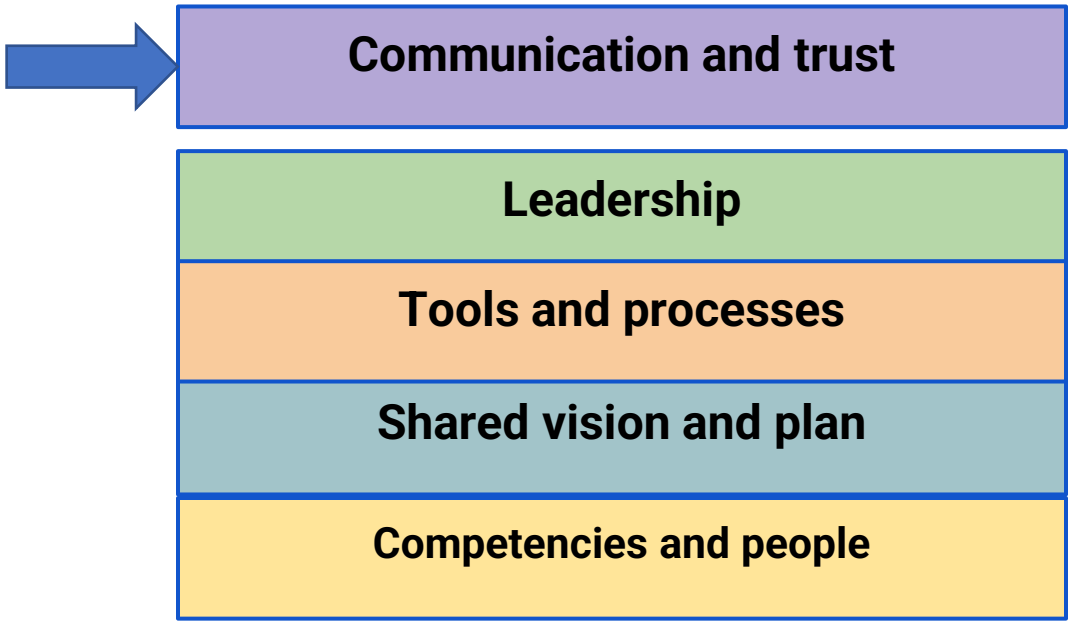
Leadership:
Engaging and getting the most from your team



1. Keeping the main thing the main thing (no metameetings)
2. Compelling. Why does it MATTER?
3. Creating a solid work plan (project AND proposal)
4. Clear contact info
5. Incentives?
6. Meet them where they are – work styles
7. Assign equal parts “sexy” and “lame”
8. Attitude of gratitude
9. Evaluating



Communication and Trust



Active Listening

Listen to understand what another is saying rather than as a platform for responding

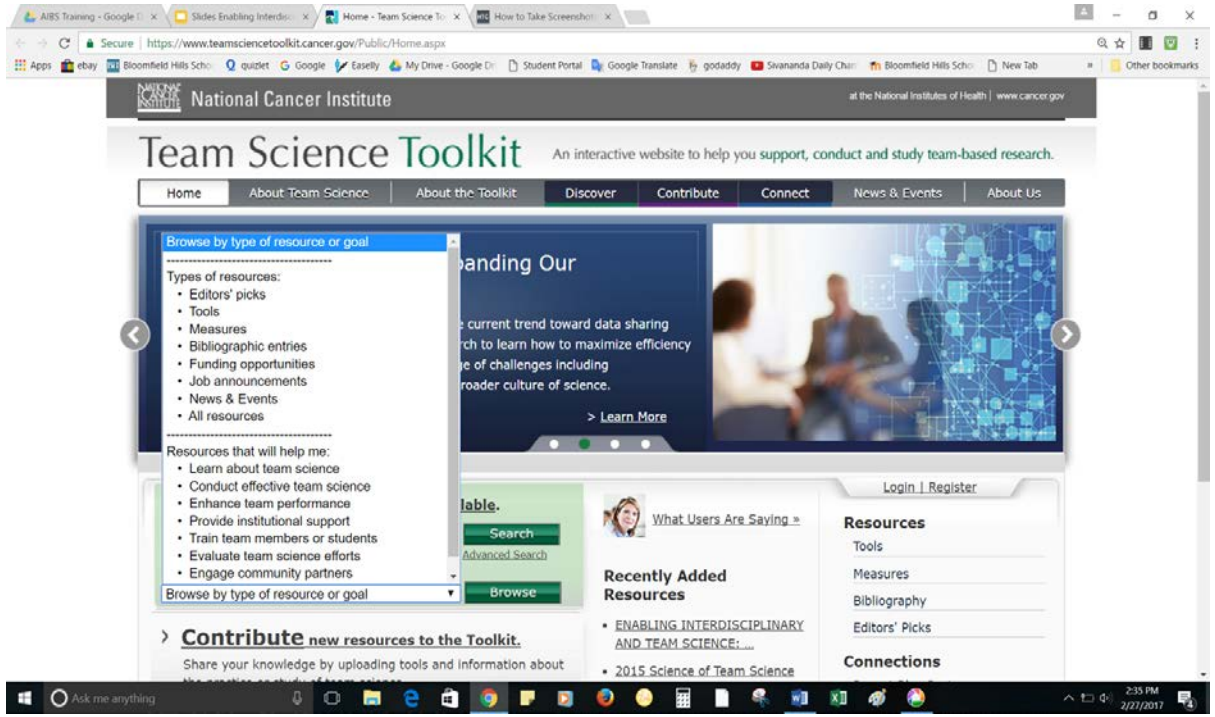
- Pay attention, show that you're listening
- Provide feedback: paraphrase/ summarize/ask questions
- Defer judgment (don't interrupt)
- Respond to ideas appropriately

Resources for Collaboration

- Research Development Services (ORED, ORD, OSP)
- Familiar Tools: OneDrive, WebEx, Teams, PIVOT
- Project Management Tools: Trello, Asana, Monday, Base Camp, Slack, etc.
- Project management training programs (IAPM)
- Michigan State University Toolbox Dialogue Initative
- Facilitator's Guide (handout)
- Collaborating Agreements: NDAs, MOUs, etc.

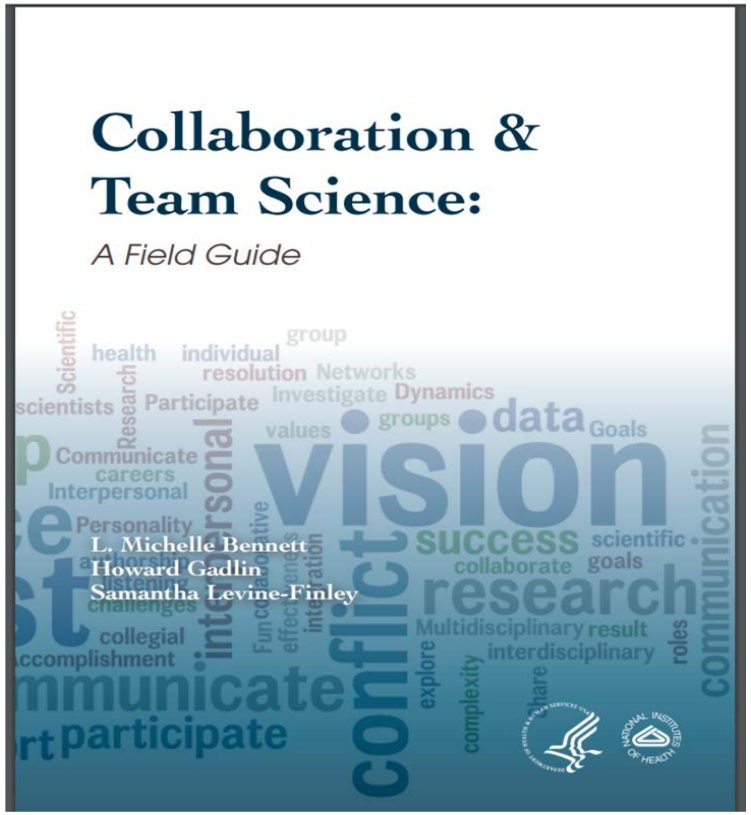
Team Science Web Resources

[NCI Team Science Toolkit]



Team Science Web Resources

[NIH Collaboration & Team Science: A Field Guide]



QUESTIONS?