

## CIRTL INCLUDES

*Toward an Alliance to Prepare a National Faculty for Broadening Success of Underrepresented 2-Year and 4-Year STEM Students*

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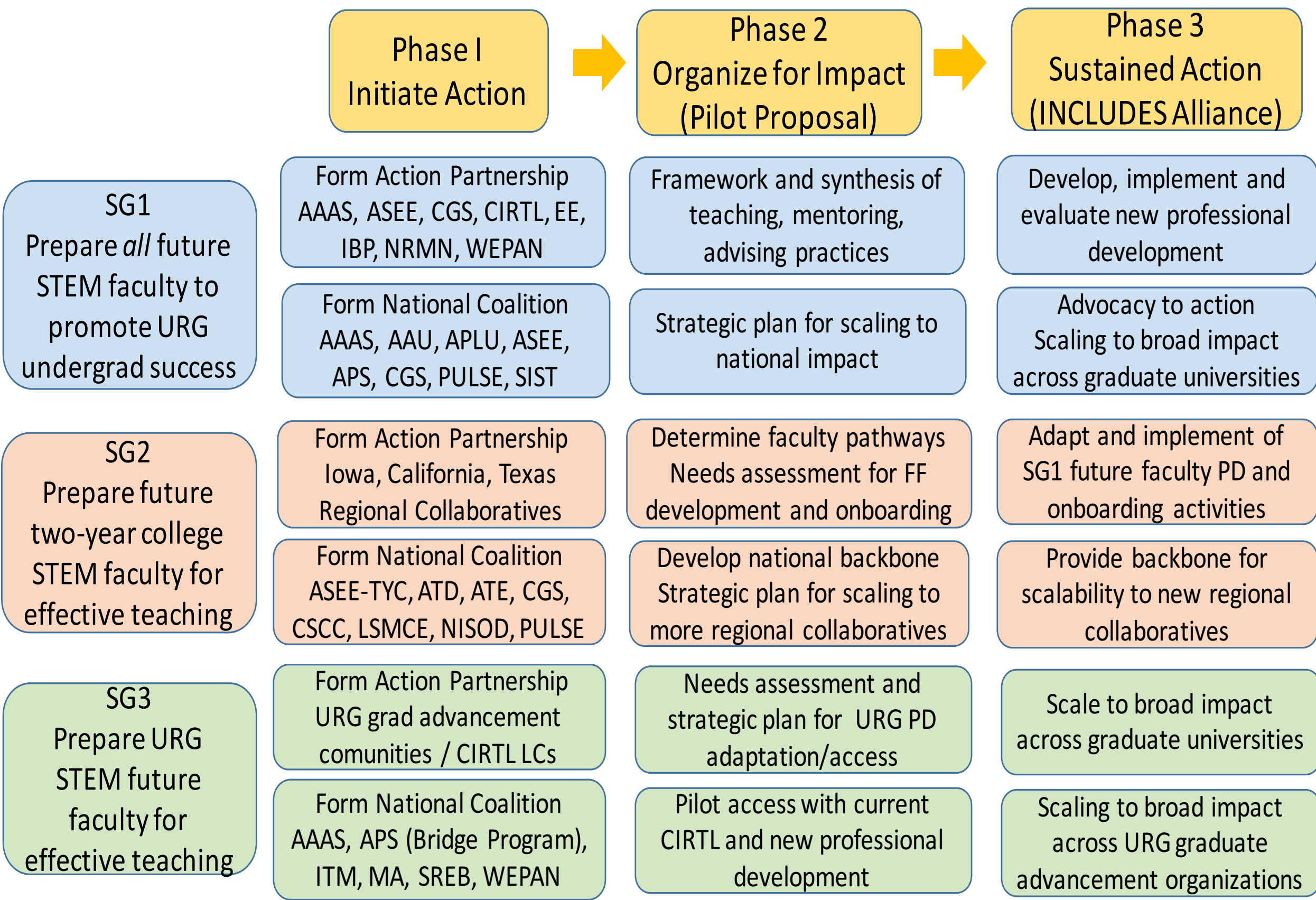
## The Challenge

- Fewer than 40% of U.S. students who enter college intending to major in a STEM field complete a STEM degree.
- The loss is highest for students from underrepresented groups.
- Attrition is higher still at 2-year colleges, where many URG students first enroll in STEM.
- The National Academy of Sciences Committee on Underrepresented Groups and the Expansion of the Science and Engineering Workforce Pipeline made *increased undergraduate retention and completion* its Priority 1 recommendation for increasing URG participation in the STEM workforce.

*National Research Council (2011). Expanding underrepresented minority participation: America's science and technology talent at the crossroads. Washington, D.C.: National Academies Press.*

## Project Design

Each Strategic Goal is organized by *Action Partnerships* of alliance members who plan, develop, implement, and evaluate actions, and *National Coalitions* of alliance members who will provide system knowledge, advocacy, and frameworks for scaling each goal up to a national impact.



See the "Strategic Goals" section of the right sidebar for a description of each goal.

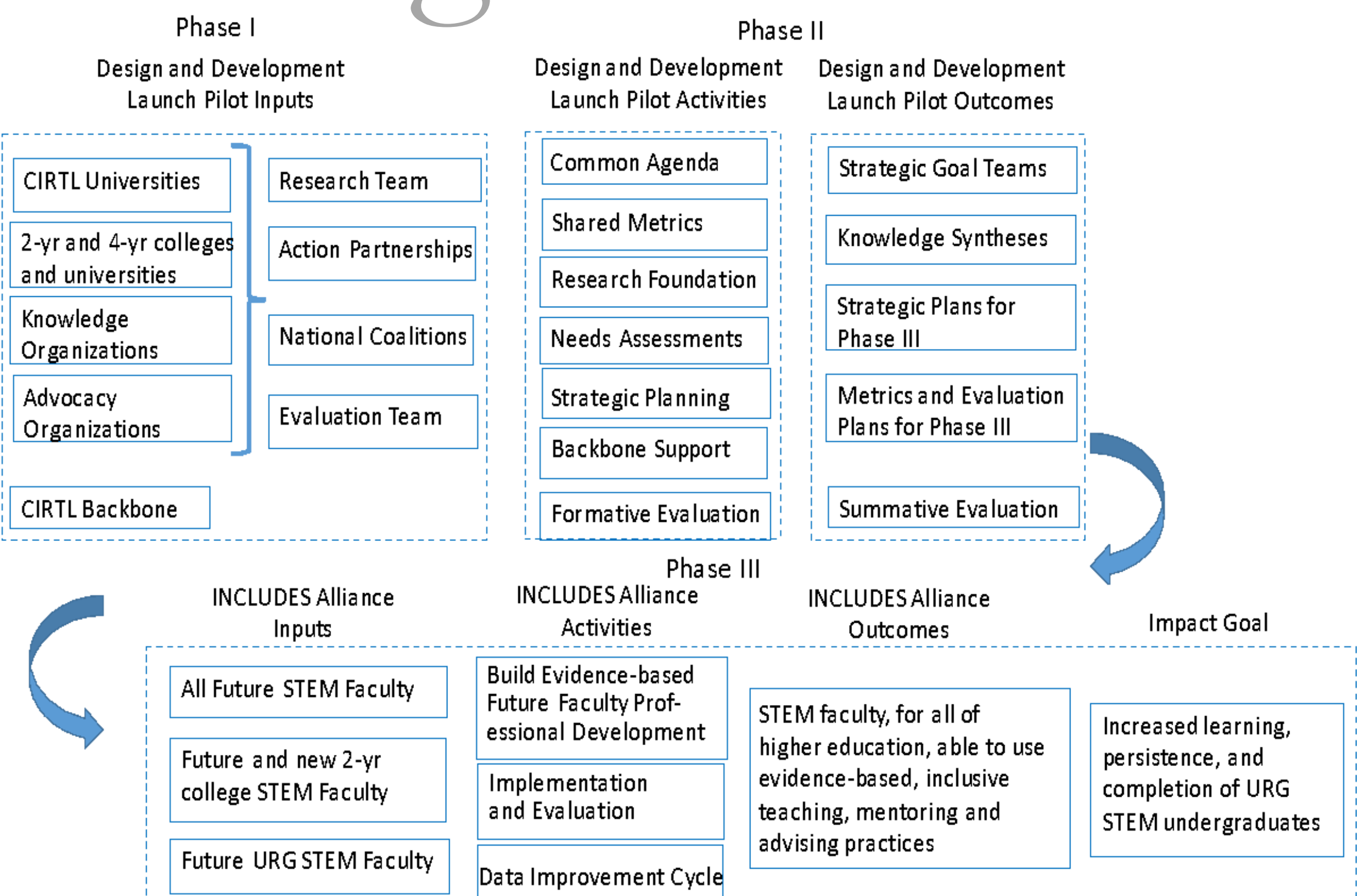
## The Vision

To build the foundation for a national cross-sector alliance that will *increase the learning, persistence, and completion of URG STEM undergraduates across the entire higher education landscape*, and thereby increase their contribution to the U.S. STEM enterprise.

## The Strategy

CIRTL INCLUDES will develop STEM faculty, for all sectors of postsecondary education, able to use and adapt evidence-based, inclusive teaching, mentoring and advising practices that help underrepresented students succeed. The specific *Strategic Goals* of CIRTL INCLUDES are

## Logic Model



## Social Innovation

Principles	Rationale	Action	Assessment of action	Assessment of process	Impact
Alignment	Ensure a common understanding across diverse organizations;	Create common goals	Are goals common?	How were common goals resched?	Partners can move forward rapidly with aligned goals, strategies, and metrics.
		Develop and use common agendas	Are there single agendas?	How was the agenda created?	
		Agree upon strategies	Are they aligned with goals and metrics?	How were the strategies defined and revised?	
		Mutually specify indicators	Are the data and indicators common?	How were the metrics defined?	
Communication	Ensure open dialogue, conflict resolution, participation, and collective decision making.	Define communication principles	Are there agreed upon principles?	How were the principles created?	Partners implement mechanisms and deliberately share information, leading to a common knowledge base.
		Agree upon common mechanisms	Are the mechanisms consistent with principles?	How were the communication mechanisms created?	
		Deliberate info and data sharing	Is there deliberate data sharing, with active review?	How was deliberate data sharing developed?	
Collective Decisions	Collective decision making supports mutual trust, buy-in and commitment to mission.	Create, agree upon and implement an explicit process for reaching decisions, including conflicts.	Does the decision process support open dialogue, participation, and belonging?	How was the decision making process created, revised, and agreed upon?	Partners reach collective decisions, have broad participation
Continuous improvement	Programs improved through intentional reflection and deliberate exploration of data	Create explicit improvement cycles	Do cycles reflect strategies and are based on data outcomes?	How were cycles of improvement developed?	Improvement cycles implemented, advance projects on outcomes of metrics.



## Strategic Goals

- SG1:** Deepen the preparation of all future STEM faculty in evidence-based teaching and mentoring and advising practices that promote undergraduate success among underrepresented groups.
- SG2:** Expand and strengthen faculty preparation specifically for 2-year colleges, where many students from underrepresented groups have their first STEM undergraduate experience.
- SG3:** Target the preparation of future underrepresented STEM faculty for effective teaching and mentoring, contributing to earlier success across the spectrum of their early-career responsibilities.

## Collaborators

- Lead Partner**  
Center for the Integration of Research, Teaching, and Learning (a network of 43 research universities)
- Cross-Sector Partners**  
American Association for the Advancement of Science  
Association of American Universities  
American Mathematical Society of Two-Year Colleges  
Association of Public and Land-grant Universities  
American Physical Society  
American Society for Engineering Education  
Achieving the Dream  
Advanced Technological Education Central  
Council of Graduate Schools  
Council for the Study of Community Colleges  
Excelencia in Education  
Institute for Teaching and Mentoring  
Louis Stoke Midwest Center for Excellence  
Math Alliance  
National Institute for Staff and Organizational Development  
National Research Mentoring Network  
Partnership for Undergraduate Life Science Education  
Summer Institutes on Science Teaching  
Southern Regional Education Board - State Doctoral Scholars Program  
Women in Engineering Programs and Advocates Network
- Iowa Regional Collaborative**  
Iowa State University  
Des Moines Area Community College  
Drake University  
IINSPIRE LSAMP  
Kirkwood Community College  
Marshalltown Community College  
University of Iowa  
University of Northern Iowa
- California Regional Collaborative**  
University of California, Los Angeles  
California State University, Long Beach  
California State University, Los Angeles  
Cerritos College  
College of The Canyons  
East Los Angeles College  
Santa Monica College  
University of California - Irvine  
University of California - Riverside
- Texas Regional Collaborative**  
University of Texas at El Paso  
Midland College  
El Paso Community College  
Tarrant County College District  
Tyler Junior College  
University of Texas of the Permian Basin  
University of Texas at Tyler