

Five Pillars of Thriving Ecosystems

STEM Ecosystems represent a transformative approach to STEM education and workforce development, bringing together diverse partners to create comprehensive learning opportunities for all. Five key pillars form the foundation of our work. These pillars, informed by years of research and practical experience, guide the strategic direction, shape the collective impact, and serve as a roadmap for our efforts to transform STEM education and prepare learners for the challenges and opportunities of tomorrow.



PARTNERSHIPS Catalyzing Cross-Sector Synergies

Igniting vibrant, cross-sector collaborations that harness the power of STEM learning to fuel innovation, drive economic mobility, and strengthen communities.

What We've Learned: Cross-sector collaborations are critical for creating effective Ecosystems. Moving beyond transactional partnerships to more collaborative relationships enhances Ecosystem impact.

SYSTEMS Architecting Inclusive STEM Ecosystems

Designing scalable and adaptable frameworks that empower diverse members to contribute their unique strengths, ensuring access and opportunities in STEM for all.

What We've Learned: A systems approach creates coherent STEM learning experiences across settings. Strong leadership, clear structures, and shared goals lead to success. Infrastructure and common language are important for cross-sector alignment.

ALIGNING TEACHING & LEARNING Reimagining STEM Learning Landscapes

Leading the charge in transforming STEM education through dynamic partnerships that seamlessly blend formal and informal learning experiences.

What We've Learned: Aligning in-school and out-of-school learning experiences enhances student engagement. Building educator capacity through learning experiences across sectors is key to improving the quality of STEM learning opportunities.

DATA MANAGEMENT Pioneering Data-Driven STEM Advancement

Leveraging cutting-edge measurement frameworks to illuminate the impact of STEM, driving evidence-based decision-making and continuous evolution.

What We've Learned: Adopting evidence-based frameworks and assessment tools drives continuous improvement in Ecosystems. A shared vision around data collection is essential for success in complex collective impact initiatives.

WORKFORCE Cultivating Future-Ready STEM Talent

Forging robust pathways between education and industry, nurturing lifelong learners and building a diverse, adaptable STEM workforce primed for tomorrow's challenges.

What We've Learned: Workforce development is a youth development strategy. Collaborating with business and industry is vital for fostering STEM interest and creating clear career pathways. Upskilling is also important.