

Recommended Functions and Related Performance Criteria for STEM Networks

Coordination/Alignment Workgroup of the STEM Operations Board

July 1, 2015

Each Regional STEM Network will collaborate with public and private PreK-12 schools and districts, Readiness Centers, public and private higher education institutions, business and industry, workforce boards and non-profit organizations to align and enhance STEM resources and initiatives in their region and with each other. Each STEM Network, as part of a statewide system, will play a key role in implementing the goals of A Foundation for the Future: Massachusetts' Plan for Excellence in STEM Education (the "State STEM Plan") by coordinating and promoting collaborations of STEM programs, projects, and partners across the Commonwealth.

While such a purpose has been a stated component of the STEM Networks since their establishment in 2004, some Networks primarily focused on the management of a particular project, or small set of projects, that they were funded to implement. We now need to move toward active engagement of all STEM stakeholders to successfully meet the challenges and opportunities identified in the State STEM Plan. The Plan's emphasis on a broader mission—outreach, coordination and collaboration with dispersed regional STEM initiatives—will be implemented through the STEM Networks' mission to bring together key regional stakeholders to actively address and communicate regional STEM needs, opportunities and achievements.

I. Eligibility

The following criteria must be met in order for a STEM Network to be eligible for funding:

- Strong lead partner with history of commitment to regional collaboration and to STEM education that can provide operational infrastructure (staff, space, technology, fiscal management), fulfill reporting requirements, and lead campaigns;
- Existence of, or plans for, an Advisory Board/Steering Committee comprised of regional PreK-12, higher education, and employer representatives as well as other key stakeholders to provide the Network with strategic guidance; and
- Examples of engagement with STEM partners such as area public and private PreK-12 schools and districts, public and private higher education institutions, non-profit and community organizations, plus employers to analyze and address regional STEM education and workforce needs.

II. Performance Criteria

Successful Networks will perform the following three functions by addressing the associated performance criteria:

Function 1: Inform regional stakeholders about STEM initiatives and needs in the region relative to the three themes of the State STEM Plan.

1. Knowledge of regional interests and needs
 - a. Collaborate with the UMass Donahue Institute to conduct surveys of regional STEM partners, organizations, districts, businesses, etc. to determine awareness of the state STEM Plan, goals, regional resources, and how to participate.
 - b. Collaborate with the UMass Donahue Institute to analyze and report data on regional STEM goals, achievements and needs.
2. Awareness of STEM Initiatives
 - a. Periodically contribute to, and update, a state repository of STEM initiatives and programs in the region.
3. General Communications/Public outreach

- a. Participate in statewide STEM outreach campaigns such as the WOW Campaign and Hall of Fame.
- b. Raise educators' and school leaders' awareness of the state STEM Plan, the regional STEM Network and the process for engaging available STEM resources to benefit all students.
- c. Communicate regional STEM opportunities, achievements and needs to schools, parents and businesses through such mediums as newsletters, websites, social events or other outreach activities.
- d. Continue to emphasize regional outreach with particular attention toward diverse student populations and recruitment of business partners.

Function 2: Actively collaborate with regional STEM partners to shape regional STEM initiatives and increase access and engagement of a range of stakeholders in the three themes of the State STEM Plan.

- 4. Representative Advisory Board
 - a. Maintain a strategic plan aligned with the State STEM Plan and regional needs.
 - b. Coordinate with STEM-related regional groups and initiatives such as Readiness Centers, District and School Accountability Centers, Workforce Boards and School-to-Career Partnerships, trade/professional associations, Early Childhood professional development networks, etc.
 - c. Identify key strategies and partners to promote coordination of regional STEM initiatives particularly those initiatives that increase access and engagement of diverse student populations.
- 5. Engagement of early education, PreK-12 Schools and higher education; community organizations and cultural institutions; and businesses.
 - a. Outreach to promote regional STEM initiatives, opportunities and achievements.
 - b. Conduct surveys to identify needs and challenges in your region.
 - c. Actively promote and solicit STEM initiatives, including specific collaborations, roles & responsibilities that address identified needs.
- 6. Account for STEM Pipeline Fund grant expenditures through the annual submission of a detailed budget and narrative report.

Function 3: Track changes in, and status of, regional STEM indicators relevant to the five quantitative goals of the State STEM Plan to assess impact of STEM initiatives and collaborations.

- 7. Regional Data Reports
 - a. Collaborate with the UMass Donahue Institute to develop and disseminate regional STEM data reports.
- 8. Evaluation Metrics Relative to the Goals of the State STEM Plan
 - a. Survey of regional STEM partners (conducted in collaboration with UMass Donahue).
 - b. Improvement in quantitative goals as related to the State STEM Plan (analyzed in collaboration with UMass Donahue).
 - c. Broad base of partnership and collaboration.