1.20.25 STEM Ecosystem Report

Infrastructure & Operations Overview

Website- Complete and updated twice monthly stemmn.org. *Note- If you have an event that you would like highlighted on our calendar/event page, please provide the description and link.*

MN Advisory Council on STEM Learning & Workforce Development- Structure and purpose complete; updated to align with STEM and emerging tech workforce development.

Learning Partners- Established a network across Minnesota including over 50 learning and workforce development partner organizations.

Recognized as an Ecosystem – by TIES Teach. Note- Provided development/function information to US State Dept. and hosted international education visits; also provided "how to" guidance to several states including VA and WI.

FY25 Financial Overview (to date)

Additional Support YTD

- Private:
  - Boston Scientific $20,000.00
  - Medtronic $10,000.00
  - Xcel Energy: $5,000.00
  - Misc. recovered SSC/Ignite/MGM (estimated) $6,000.00
- Public:
  - DEED Program Grant $32,000.00 (Specific Program Funding)

Initiatives

Regional STEM Asset Mapping- FY24-25 Goals Complete. Four of the MN Service Cooperates were well positioned and ready to take on regional STEM hub mapping and projects:

- Lakes Country Service Cooperative serving nine counties in West Central Minnesota.
- Resource Training and Solutions serving nine counties in East Central Minnesota.
- Sourcewell serving six counties in central Minnesota.
- Southeast Service Cooperative serving eleven counties in Southeastern Minnesota.

Community of Practice Timeline:
Nov 6, 2023: Introduction to Asset Mapping
Dec 12, 2023: Asset Mapping Deep Dive
February 7, 2024: Asset Mapping Check-In
April 2, 2024: Regional Convening Planning
June 6, 2024 Innovation Project Discussion
August 14, 2024: Innovation Project Debrief

Regional STEM Convenings:
April 24, 2024 Southeast Service Cooperative
April 25, 2024 Lakes Country Service Cooperative
May 8, 2024 Sourcewell Service Cooperative
May 21, 2024 Resource & Training Solutions

Note- The regions were also required to do an innovation project, many presented them at the STEM Convening.

STEM JOY (Pedagogy)- Goals Complete. This training was completed in two regions: Southeast through SSC and Northeast through Northern Lights Collaborative. It was attended by 40+ educators and youth STEM-based employers; estimated impact of over 3000 young people based on the interactions at attendees over a 1-year period. The impact report can be found HERE.

AI Summit (Pedagogy)- Goals Complete. The AI Summit 9.19.24 the Minnesota STEM Ecosystem and the Minnesota State Advanced Manufacturing Center of Excellence, hosted the AI Education Summit at Bemidji State University, attended by approximately 100 educators. Learning sessions were provided by aiEDU, the Northern Lights Collaborative, the Coding School and Project Leo and a panel discussion including MTN, NCAT, IT COE and Raspberry Pi. The event program can be found HERE. The summary report can be found HERE.

Robotics, Internships and STEM Career Exploration- *This program in on-going through 2026.* The Minnesota STEM Ecosystem was part of a collaboration that secured a grant from the Minnesota Department of Employment and Economic Development (MN DEED) to advance our commitment to expanding STEM workforce development and career exploration opportunities across the state. This program has been extremely successful, with a focus on providing opportunities to Greater Minnesota. More about this collaboration can be found HERE. Additional information, including the funding formula and internship components, is available upon request. *We are seeking funding to ensure the continuity of this program.*

Integrating Technology into the Classroom- Goals Complete. A public-private partnership between Medtronic and the Minnesota STEM Ecosystem is provided immersive virtual reality (VR) tools for STEM career exploration and learning throughout the state. Valued at over $30,000.00, 200 Quest 2 Oculus headsets were distributed to several educational cooperative lending libraries, after-school STEM outreach and learning programs serving Greater Minnesota. They will support STEM career exploration and career focused learning in areas such as health sciences, natural resources, and advanced manufacturing. More on this program can be found HERE.

Events

STEM Day at the Capitol 2024- Event Complete. On March 26, 2024, the Minnesota Capitol was a buzz with STEM! The Minnesota STEM Ecosystem and SciMathMN hosted a morning of STEM activities and demonstrations. There were more than 25 STEM organizations representing in-school and after-school learning. The full summary and list of participants can be found HERE.

STEM Together 2024- Event(s) Complete. STEM Together was an informal two-part series hosted by the MN STEM Ecosystem over the Spring/Summer of 2024: April 30, and July 9, 2024, to bring together STEM learning and program providers to address common issues, identify barriers to participation and opportunities to collaborate. *This series will be returning in 2025; dates TBA.*

Minnesota STEM Convening 2024- Event Complete. On October 14, 2024 at Dean Lakes Education Center, the MN STEM Ecosystem hosted the Statewide STEM Convening bringing together business and industry, education, government, afterschool programs, museums, non-profit and community organizations to learn, collaborate and share STEM strategies and programs, including breakout sessions with Raspberry Pi and a discussion panel introducing the Mn State Centers of Excellence. The program for the day can be found HERE; the summary report can be found HERE.

Current Initiatives 2025

STEM Day at the Capitol 2025- *Completion in progress*. On January 31st, the Minnesota Capitol will be a buzz with STEM! The Minnesota STEM Ecosystem and SciMathMN invite you to join us for an afternoon of STEM! You can expect to see and hear members of the STEM Learning Community who represent in-school and afterschool STEM learning, and workforce development. New this year- the STEM project showcase! Information on the event can be found HERE; and anticipated attendees can be found HERE.

Legislation- *Legislative Session 2025.* The MN STEM Ecosystem has requested funding to continue the development of the statewide learning and workforce development strategies including expanding the internship and STEM career exploration program and building regional STEM Networks connecting STEM learning to workforce development. (FY26) The STEM Ecosystem will seek formal recognition of the STEM Learning and Workforce Development Council.

Building Public-Private Partnerships supporting Emerging Technology Skills- CS/IT summer camp to come here from out of Ohio: Tech Corps at no cost through sponsorship from Nordson. The MN Tech Network and the IT Center of Excellence are helping to facilitate the project.

Jump into STEM- Partnering with SkillsUSA Minnesota to bolster the new "Jump into STEM" program. The SkillsUSA Jump into STEM program expands middle school students' awareness and engagement in STEM and Career and Technical Education (CTE) pathways. Designed to introduce younger students to the diverse career opportunities available in technical and skilled trades, Jump into STEM aligns with the Minnesota STEM Ecosystem's goals to foster early interest in high-demand STEM and CTE careers.

Continuation of the STEM Internship Program- *This program is ongoing through 2026; expanded with legislative funding.* The Minnesota STEM Ecosystem, as noted above, will be looking for additional funding to continue this program and potentially expand it to include additional regions and industry partners.

The STEM Together Series- The first in the series will occur in May, July, September 2025. The topics will include Legislative Session Review and Opportunities; Building Collaborations; and Identifying [program] Learning Outcomes.

Continue the STEM Asset Mapping Process- *Dependent on Legislative funding.* The Southwest, Northwest, and Northeast regions of Minnesota, with the help of the Minnesota Service Cooperatives and partners like the Northern Lights Collaborative. Developing a new COP with those regions incorporating peer support with those regions from the 2024 Asset Mapping COP.

Emerging Technology Pedagogy- *Dependent on Legislative funding.* The MN STEM Ecosystem will be working in cooperation with the Mn State Centers of Excellence and industry to develop educator externships; bring industry standards and practices into the classroom; this may include additional AI Summits and training in cooperation with the Mn Technology Network, Mn State IT Center of Excellence and Raspberry Pi .

MN STEM Convening- The statewide STEM Convening will return in 2025 with a similar structure to 2024 with a focus on the STEM internship program and integrating STEM and emerging technology career exploration into STEM programs.