

The Minnesota STEM Ecosystem

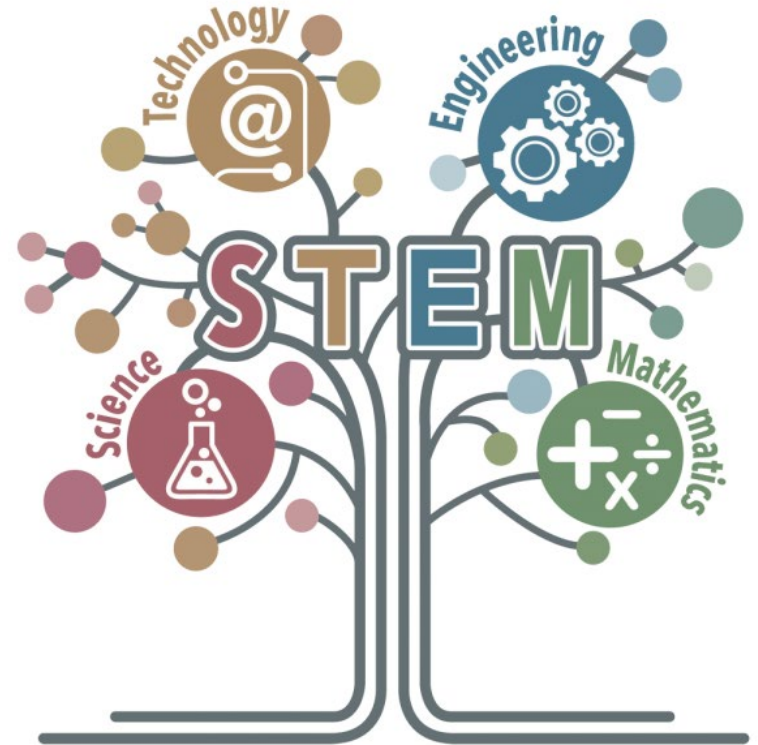
The Minnesota STEM Ecosystem was created through a cross-sector, cross-system collaboration of business and industry, K12 and higher education, government, afterschool STEM learning programs, museums, libraries and community organizations.

The Minnesota STEM Ecosystem supports STEM learning and workforce development across sectors and systems to build and coordinate statewide learning strategies, aligning after-school and in-school STEM learning outcomes.



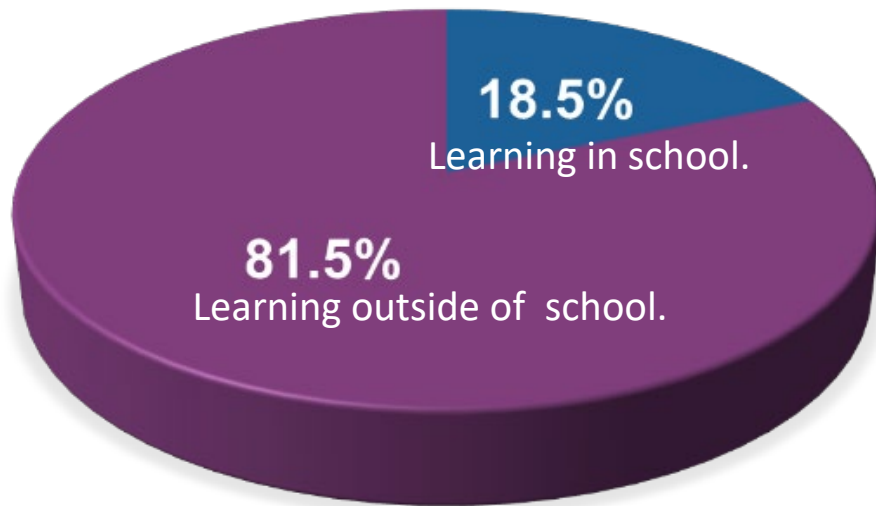
What is STEM?

STEM is an acronym for **Science, Technology, Engineering and Math education**. STEM Learning is an interdisciplinary approach that helps students succeed in future learning and in their career path. The focus of a STEM learning is generally hands-on, problem or project-based learning.



The STEM Opportunity Gap: Learning

Did you know more than 80% of all learning is done outside of the classroom?⁽¹⁾



The STEM Opportunity Gap: Jobs

- ▶ Over the next 10 years, STEM and STEM-related occupations will grow at a rate of more than 12%!⁽¹⁾
- ▶ **20% of jobs in Minnesota** are in a STEM profession and more than **40% of job openings** are STEM-based.⁽²⁾



Non-STEM Occupations



STEM and STEM-related Occupations



The STEM Opportunity Gap: Wages

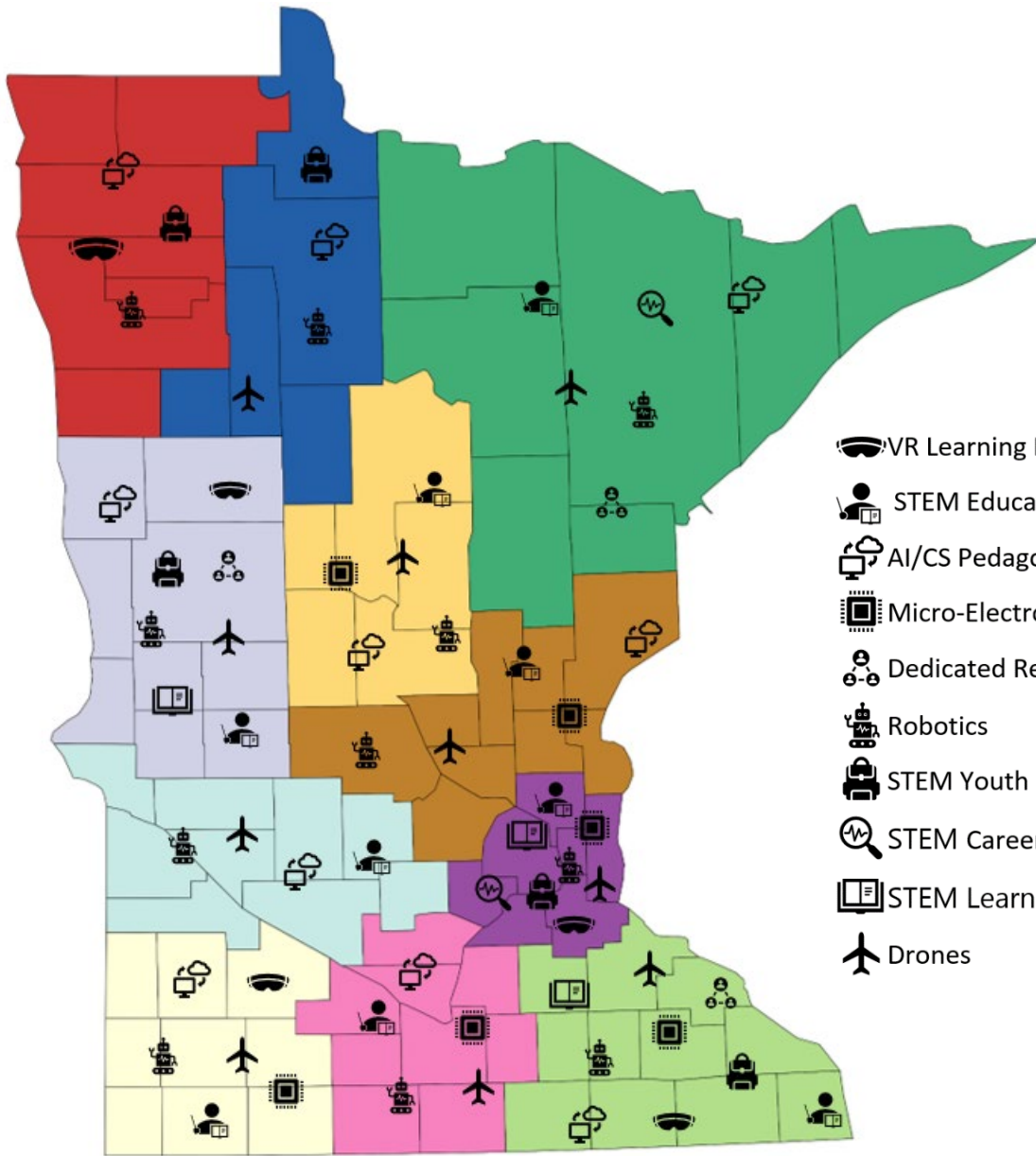
- ▶ On average STEM and STEM-related occupations pay on **average \$20,000 a year MORE** than non-STEM occupations.⁽¹⁾
- ▶ **Minneapolis-St. Paul** was ranked 11th in the nation on the **2023 STEM Job Growth Index**.⁽²⁾



**Non-STEM
Occupations
\$49,903**

**STEM and
STEM-based
Occupations
\$68,976**

What We Are Doing: Supporting STEM Learning



- VR Learning Programs
- STEM Educator Externships
- AI/CS Pedagogy
- Micro-Electronics and Semi-Conductor Program
- Dedicated Regional STEM Coordinator
- Robotics
- STEM Youth Internships
- STEM Career Exploration
- STEM Learning and Lending Library
- Drones



MINNESOTA
STEM
ECOSYSTEM

What We Are Doing: Strengthening STEM Networks

Identify Assets

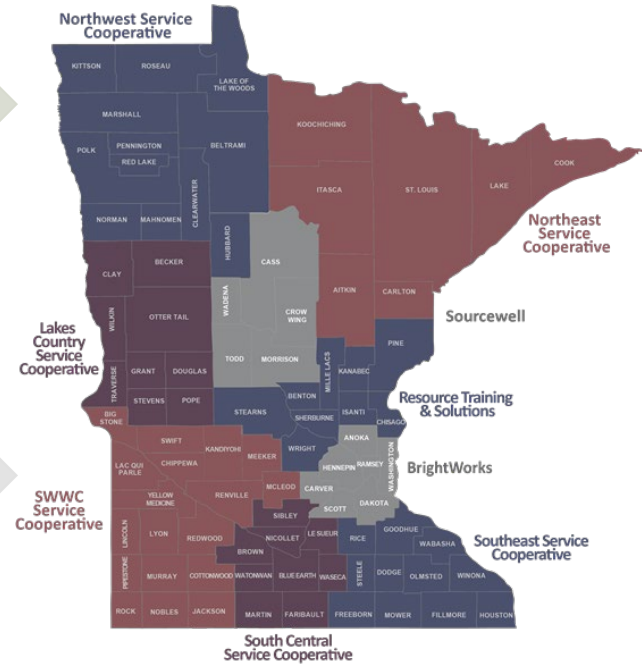
Identifying assets and gaps in STEM learning and workforce needs.

Build Structure

Proposing place-based strategies for enhancing STEM education aligned with workforce needs.

Create Strategies

Integrating cross-sector programming designed to bridge learning and the workforce.



Our Learning Partners

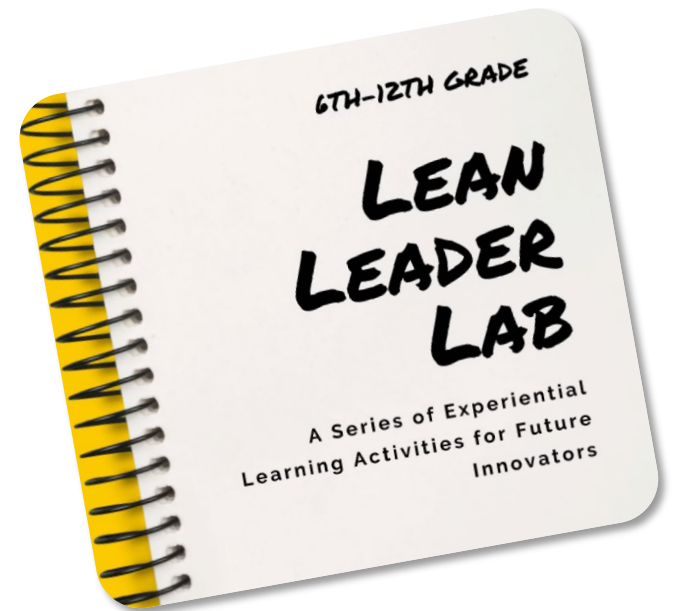


MINNESOTA STEM ECOSYSTEM



What We're Doing: Building Shared Resources

- ▶ By working together we are able to identify needs and **develop shared resources that benefit learners across Minnesota!**
- ▶ One Example is the Lean Leader Lab! Dynamic, student-centered activities that teach foundational concepts of Lean practices. This **shared resource is available FREE to classrooms and learning partners** across Minnesota and beyond!



MINNESOTA STATE
Engineering Center of Excellence

What We're Doing: STEM Internships



Did you know more than 81% of students believe experiential, industry-based learning experiences are important! ⁽¹⁾



What We're Doing: AI Pedagogy



Bringing cutting edge national programming to Minnesota for both educators and students including hosting an AI Summit with aiEDU, in cooperation with the Mn State Centers of Excellence.

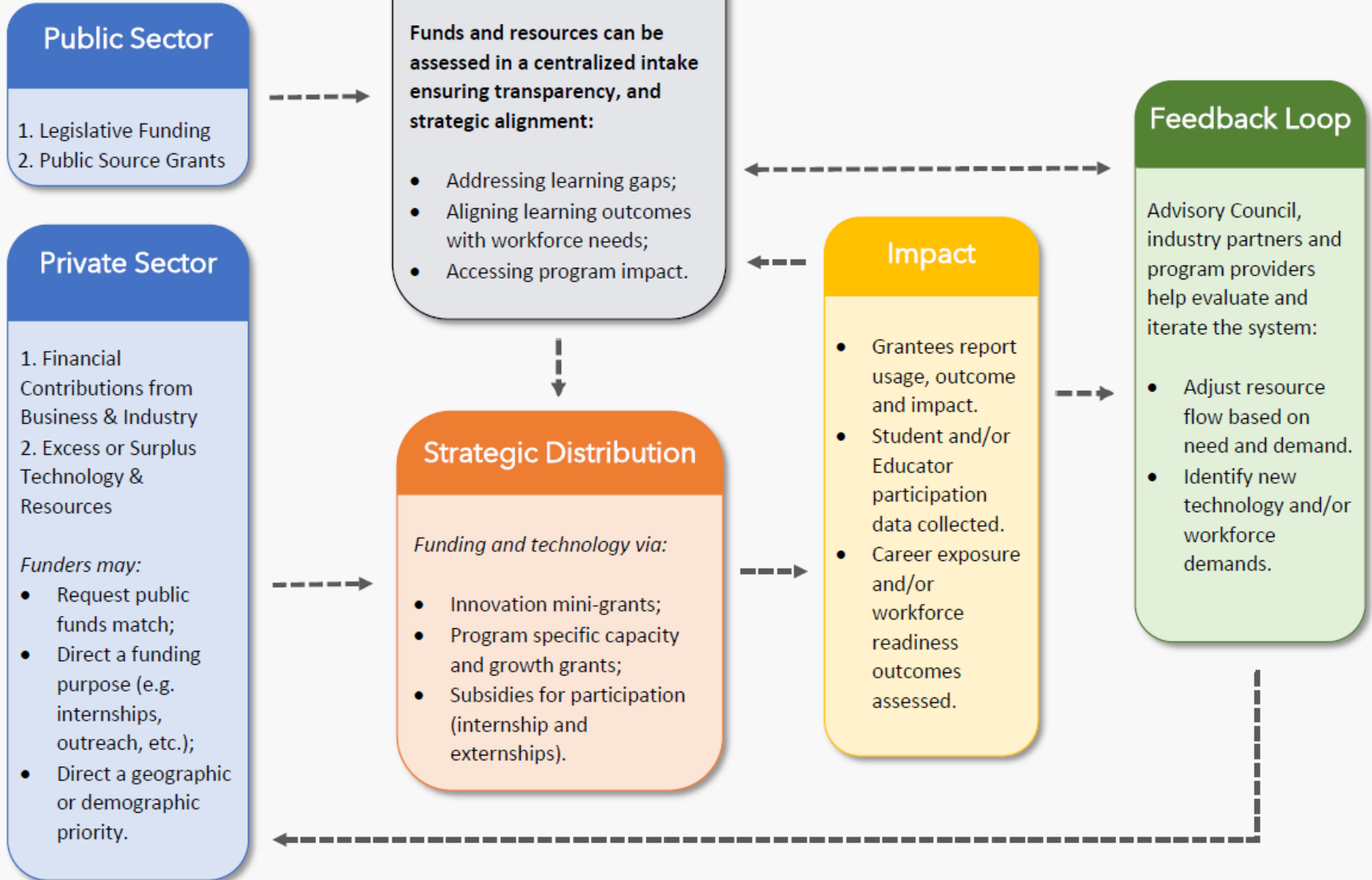


What We're Doing: Educator Externships

- ▶ **Innovation in Education:** Educator externships play a critical role in bridging the gap between classroom learning and the rapidly evolving demands of today's workforce.
- ▶ **Career Pathway Expertise:** The Minnesota State Centers of Excellence regularly offer professional development for educators that includes hands-on, industry-connected professional learning focused on connecting classroom learning to real world careers and Minnesota workforce needs.
- ▶ **Industry in Every Classroom:** We will be working with the Centers of Excellence sponsoring a Trades in the Classroom Externship Cohort and the Microelectronics Mini-Externship & Curriculum Training program.

What We're Doing: Creating Public-Private Partnerships

- ▶ **Align Learning with Workforce Needs:** Industry input helps educators tailor STEM curricula to reflect current technologies, tools, and skills that are in demand.
- ▶ **Provide Access to Resources:** Businesses often contribute equipment, software, or funding that schools may not otherwise afford.
- ▶ **Support Work-Based Learning Opportunities:** Internships, apprenticeships, job shadowing, and micro-internships offer students hands-on experience in professional environments. **These experiences build employability skills, career awareness, and confidence.**



Our Industry Partners



What We're Doing: Building Awareness and Community



On October 14, 2024 at Dean Lakes Education Center, MN STEM Ecosystem hosted the 2024 STEM Convening.

Sponsored by Medtronic; on August 27, 2025 the MN STEM Ecosystem hosted the 2025 STEM Convening at the Wilder Center.

These events bring together a strong cross-sector of business and industry, education, government, afterschool programs, museums, non-profit and community organizations to learn, collaborate and share STEM strategies!

STEM Day at the Capitol



SciMathMN **MINNESOTA STEM ECOSYSTEM**

Minnesota STEM Day at the Capitol

Sponsored by  Xcel Energy

On April 15th, the Minnesota Capitol will be a buzz with STEM!

Wednesday, April 15, 2026
12:00 PM – 4:00 PM

SciMathMN and the Minnesota STEM Ecosystem 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 after-school STEM learning, and workforce development. This is an opportunity to come together and discuss the future of STEM learning in our state.

To learn more, go to stemmn.org or scan the qr code



Showcasing Minnesota STEM



- ▶ The Minnesota STEM Ecosystem was honored to host two international delegations in 2025 as part of the U.S. Department of State’s International Visitor Leadership Program (IVLP)—highlighting **Minnesota’s leadership in public-private partnerships, STEM education, and workforce development.**
- ▶ The MN STEM Ecosystem hosted two additional international visits in 2024.

What We're Doing: Cultivating Sustainable Funding

Understanding the
Importance of
Financial Support

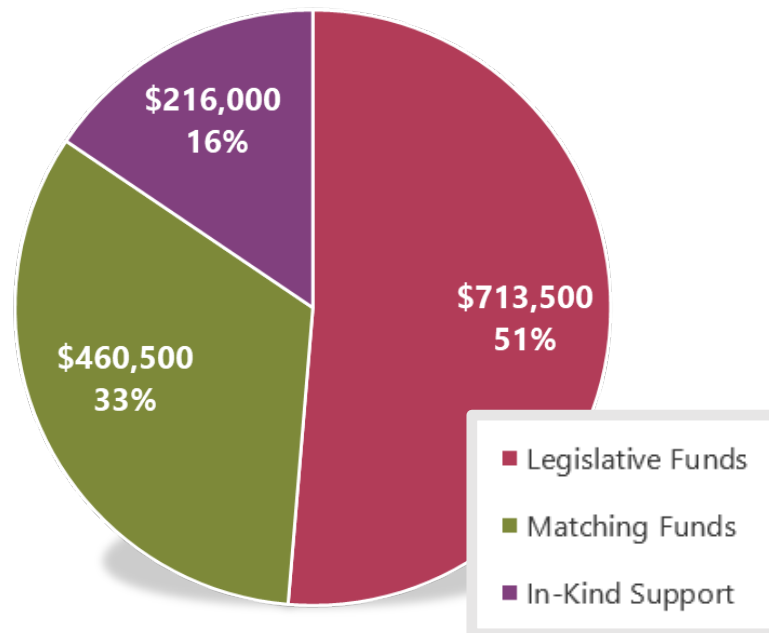
Building Braided
Funding Models

Shared Resources
Through
Collaboration

Evaluating Impact
and Adjusting
Strategies

Over the next two years, the Minnesota STEM Ecosystem will invest in the skills, experiences, and pathways young people need to thrive in Minnesota's innovation economy.

The braided funding model ensures that public investment is leveraged, providing **the stability needed for partners to commit matching funds and in-kind contributions.**

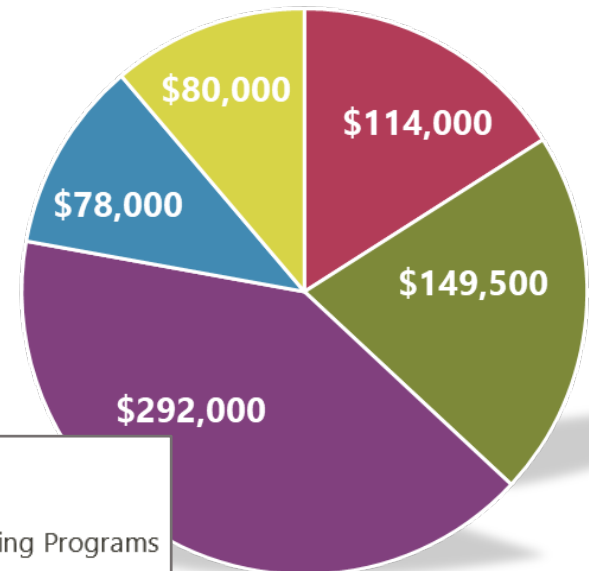


Investing in Minnesota's Future

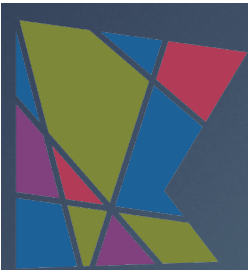
Public investment doesn't stand alone—it unlocks collective action.

2026 STEM Partnership Grants

As part of the **historic investment from the Minnesota Legislature**, the Minnesota STEM Ecosystem awarded more than **\$700,000.00 in legislative funding in partnership grants supporting STEM education and workforce development** across Minnesota.



- STEM Career Exploration
- STEM Internships (Youth)
- Robotics, Drones, VR and Skilled Learning Programs
- AI Pedagogy (Educators K-16)
- Educator Industry Externships in STEM



STEM Partnership Grants

OST STEM Learning

Experiential STEM career exploration for youth in out-of-schooltime learning programs, especially in under resourced and rural communities.

Workforce Development

Internships for high school and community/technical college students in STEM-based, in-demand and emerging technology career fields.

Robotics and Drones

Creation and expansion of robotics and drone programs, including integration into classrooms.

VR and Emerging Technology Skilled Learning Programs

Development and expansion of VR (virtual reality) and other emerging technology learning programs aligned with in-demand career pathways.

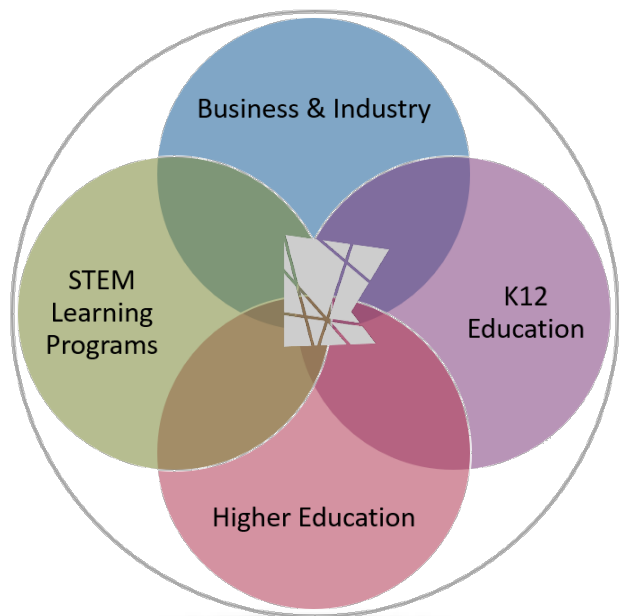
AI and Emerging Technology Pedagogy

High quality professional development for educators related to AI use and classroom integration.

Educator Externships

Short-term, paid placements for educators in industry within STEM-based and emerging technology career fields.

What We're Doing: The Advisory Council on STEM Learning and Workforce Development



The Council provides a platform for developing a unified vision and strategic approach to STEM education and workforce development across the state.

The Council aims to increase access to STEM learning and workforce opportunities across Minnesota, particularly in under resourced and rural communities.

The Council is more than just a collaborative body—it is a catalyst for change. Its work will ensure that Minnesota leads in STEM innovation and excellence.



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