

Ohio

STEM Learning Network



Ohio Mathematics and Science Coalition
February 15, 2008

Ohio Business Alliance for Higher Education and the Economy (BAHEE)

- Created in 2005, in response to the 1st recommendation of the Governor's Commission on Higher Education & the Economy (CHEE).
- Privately funded and operated, the Board is comprised 12 Chief Executive Officers from throughout Ohio:
 - Cleveland: Federal Reserve Bank of Cleveland, Jones Day, Team NEO
 - Columbus: Nationwide, Columbus Dispatch
 - Cincinnati: Cincinnati Bell, Fifth Third Bancorp
 - Canton: Diebold
 - Dayton: Soin International, LLC
 - Northwest Ohio (Findlay): Marathon Petroleum, LLC
 - Southeast Ohio (Summitville): Summitville Tiles, Inc.

BAHEE's Goals

- Overarching Goal: To double the number of **STEM** baccalaureate degrees in Ohio by 2015.
- Three supporting initiatives:
 1. Work with partners to establish STEM schools and STEM Programs of Excellence.
 2. Use quality data to help state policymakers understand the right investments that will work to increase the yield of BA and BS degrees in STEM.
 3. Pursue a professionally-run marketing campaign to increase college enrollment and degree attainment in Ohio.

Impacting Students

“Small Schools, Big Footprints”

STEM is student-centered. It must:

- Foster challenging, collaborative and relevant learning environments for students across the state.
- Engage students in diverse, rigorous STEM curricula, particularly from underrepresented populations.
- Prepare students who are innovators, inventors, collaborators, problem-solvers, critical thinkers and strong communicators.



Impacting Teachers

“Strong teachers, substantial support”

STEM must engage teachers through:

- User-driven tools and resources for meaningful instructional practices and professional development.
- Authentic peer-to-peer exchange.
- Reciprocal connections to cutting-edge STEM resources from regional centers of excellence and Third Frontier/STEM industry clusters.
- Knowledge-sharing across network.

Ohio STEM Learning Network

What will we create together?

- Connect set of existing talents and strengths in curriculum development, instruction, assessment, teacher quality, leadership quality, community engagement
 - strong base exists thanks to the work of the Ohio Resource Center, the OMSC and other key STEM leaders.
- Network participants are committed to dramatically changing the game for STEM education
- To work in Ohio, core rules of engagement
 - Respect all stakeholders
 - Build capacity
 - Draw on the best resources and thinking available across Ohio and beyond
 - Focus on the points of greatest leverage

What is the Ohio STEM Learning Network?

- A privately-funded non-profit program to provide funding, resources and human talent to advance the capacity for high quality STEM education for all students in Ohio
- Guided by objectives established by its investors, the network works in collaboration with national, state, regional, and local partners
- A growing and evolving network of partners

Managed by Battelle and a team of affiliates, OSLN promotes Ohio's growth in STEM education quality by building capacity for teaching/learning using a network-centric philosophy



advance STEM education, connect and drive sustainable initiatives, and foster innovation

OSLN Immediate Activities in 3 Areas

1. Engaging and supporting recipients of HB 119 STEM School Start-up Grants (TBA ~2/13/08)

- Identify priority needs to be filled by OSLN resources; deliver immediate technical assistance and mobilization of human capacity to advance regional school plans; connect resources across regions
- Develop/award subsequent STEM school grants to each region based on progress, reciprocal value to Ohio network objectives, and local partner committed involvement and value

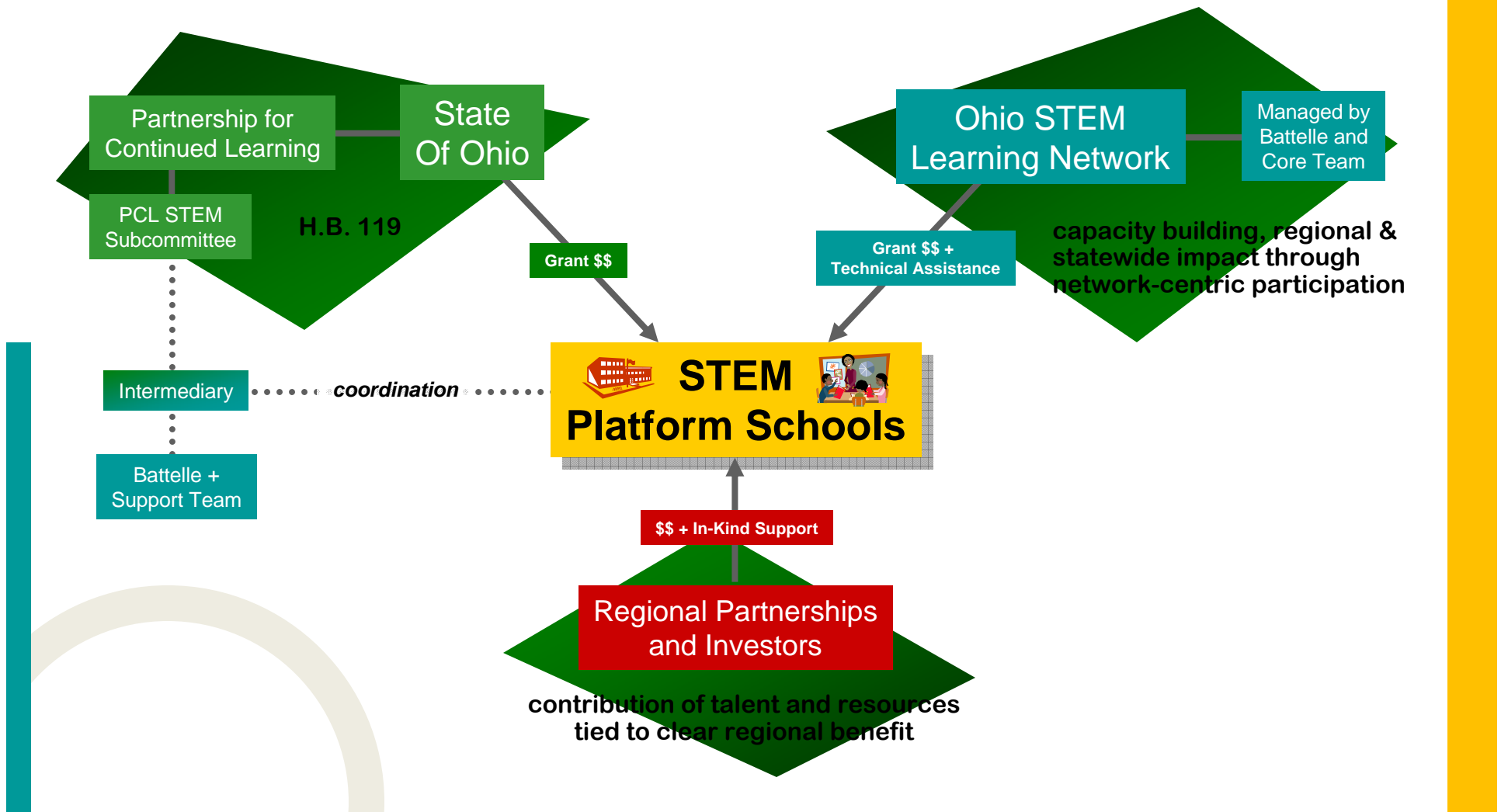
2. Targeted outreach and assistance

- Proactively directed mainly to areas in Ohio that require significant assistance to mobilize critical mass in STEM

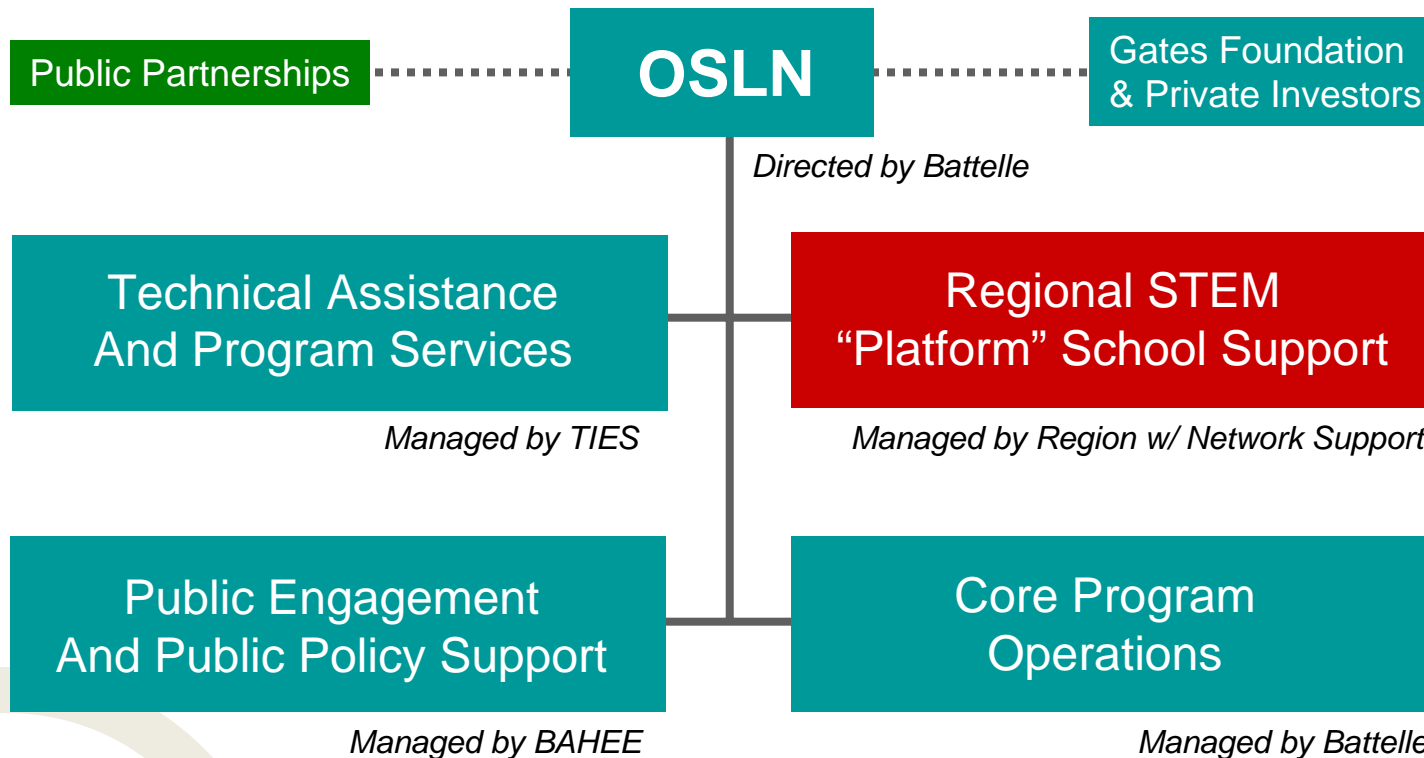
3. Developing base infrastructure

- System design practices; training; tools; knowledge capture and transfer; “worknets”

Teaching and Learning at Center of the Network



OSLN Organizational Functions



Functional Roles

- **Technical Assistance and Program Services**
 - Direct grants; mobilization of “in-residence” talent tailored to specific needs; program development; design assistance; training and capacity building
- **Public Engagement and Public Policy Support**
 - Advocacy; public research; large-scale convenings; regional outreach; key STEM messaging
- **Core Program Operations**
 - Program management; system and network operations; knowledge capture and management; program integrity and accountability
- **Regional STEM Platform School Support**
 - Design and implementation of STEM school start-up plans; Incorporate scale and sustainability design factors as a core requirement for OSLN activities throughout all elements of project management

Ideally, OSLN support helps accelerate progress towards 3 concurrent objectives...

1

Creating and sustaining STEM platform schools.

The school's design creates an incubator or "platform" that positively changes the region's STEM impact and trajectory of STEM quality and access as it relates to all schools and kids



Ideally, OSLN support helps accelerate progress towards 3 concurrent objectives...

2

Forming and implementing new business models for these new schools.

The school's design and partnerships shape new innovative ways for using school funding, broadening the impact and potentially repurposing the use of school funds for teaching and learning



Ideally, OSLN support helps accelerate progress towards 3 concurrent objectives...

3 *Forming and sustaining a powerful network that will redefine the relationship between education and economic development in Ohio.*

Regional players that receive OSLN funding have assembled a portfolio of committed leadership whose access, knowledge and sphere of influence can mobilize the collective will of the region for lasting change



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