

MA STEM Pipeline Fund & Regional STEM Networks

Administered by the Department of Higher Education

*Building the pipeline of STEM professionals to fuel
Massachusetts 21st century innovation economy*

February 28, 2014



MASSACHUSETTS
Department of
Higher Education

Original Goals

- 1. Increase the number of students pursuing STEM subjects and careers**
- 2. Increase the number of STEM qualified teachers.**
- 3. Improve the STEM educational offerings available in public and private schools.**

History of STEM Networks

STEM Pipeline Fund:

- **2003**
 - STEM Pipeline Trust Fund created by state legislature.
- **2004**
 - Regional STEM Networks identified through RFP (2M)
- **2007**
 - PreK-16 STEM Networks formalized/3-Yr Funding (1.9M)
 - Goddard Council created to oversee STEM Pipeline Fund

History of STEM Networks

- **2008**
 - Funded 10 Student Interest Projects (3.1M)
- **2009**
 - Governor's STEM Advisory Council
- **2010**
 - State STEM Plan released
 - Contract extension and additional funding
- **2011**
 - Funding for operational/admin functioning (annual)
- **2013**
 - STEM Plan 2.0 released at STEM Summit.

Governor's STEM Advisory Council

■ Membership

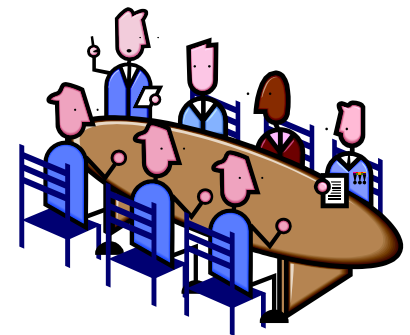
- Honorary Chair - U.S. Rep. Joseph Kennedy III
- 40 Member Body

■ Mission Statement

The Governor's STEM Advisory Council will advise and set the direction for the implementation of the State STEM Plan.

■ Key Roles

- Advising
- Mobilizing
- Collaboration
- Advocacy
- Monitoring



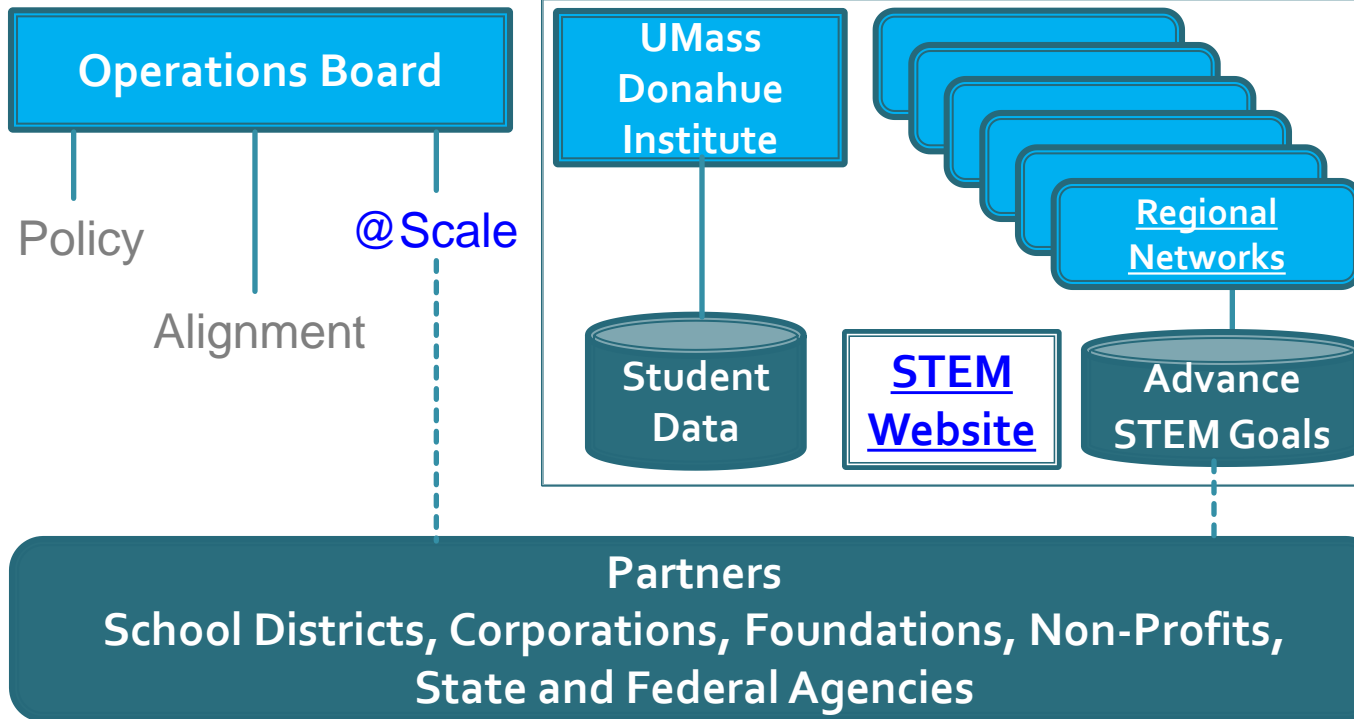
Governance Model

Governor's STEM Advisory Council

Executive Committee

Statewide STEM Plan

DHE - STEM Pipeline Fund



State STEM Goals

- 1.** Increase **student interest** in STEM areas.
- 2.** Increase STEM **achievement** among all PreK-12 students in order to prepare graduates to be civically and college/or career ready.
- 3.** Increase the percentage of **skilled educators** who teach PreK-16 STEM.
- 4.** Increase the percentage of students **completing post-secondary degrees or certificates** in STEM subjects.
- 5.** STEM degree & certificate attainment will be aligned with corresponding opportunity in STEM-related fields to match the state's **workforce** needs for a STEM talent pipeline.

Current Mission & Purpose

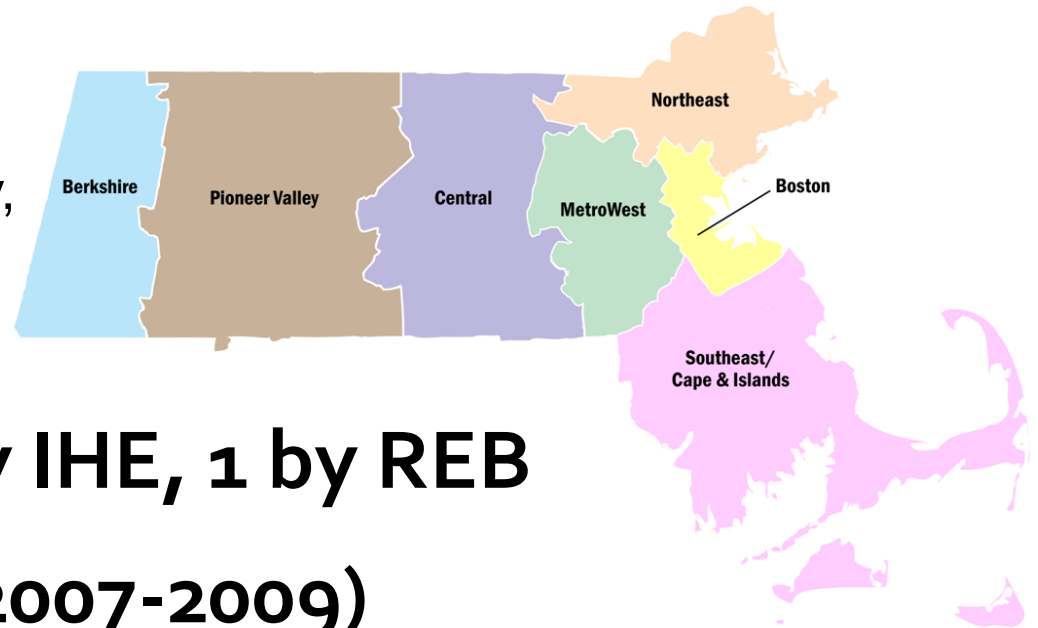
Purpose Statement: Each Regional STEM Network will

- **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 the STEM Plan by **coordinating** and **promoting** collaborations of STEM programs, projects, and partners across the Commonwealth.

PreK-16 Regional STEM Networks

■ 7 STEM Networks

- Berkshire, Pioneer Valley,
- Central, Metro West, NE,
- Boston, Southeast



■ 6 Networks led by IHE, 1 by REB

■ Funding: \$1.9M (2007-2009)

\$40K/Network/Year (2010-2012)

■ Incentive Funds: \$20K

PreK-16 Regional STEM Networks

Metro North STEM Network - Geographic Region

Arlington

Belmont

Brookline

Cambridge

Chelsea

Everett

Malden

Medford

Melrose

Revere

Saugus

Somerville

Stoneham

Wakefield

Watertown

Winchester

Winthrop

Woburn

PreK-16 Regional STEM Networks

Membership Composition

- 28% Higher Education
- 20% K-12
- 13% Business/Industry
- 39% Other (non-profit, government, WIB/REB etc.)



PreK-16 Regional STEM Networks

Network Activities Examples

- Career/Science Fairs
- Classroom visits by STEM Professionals
- Intern-, Externships
- Project Symposium
- Afterschool/Out-of-School (ASOST) Programs
- Implementation of @Scale Projects
- STEM Professional Development

Thank You

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