Co-Designing with Science Centers

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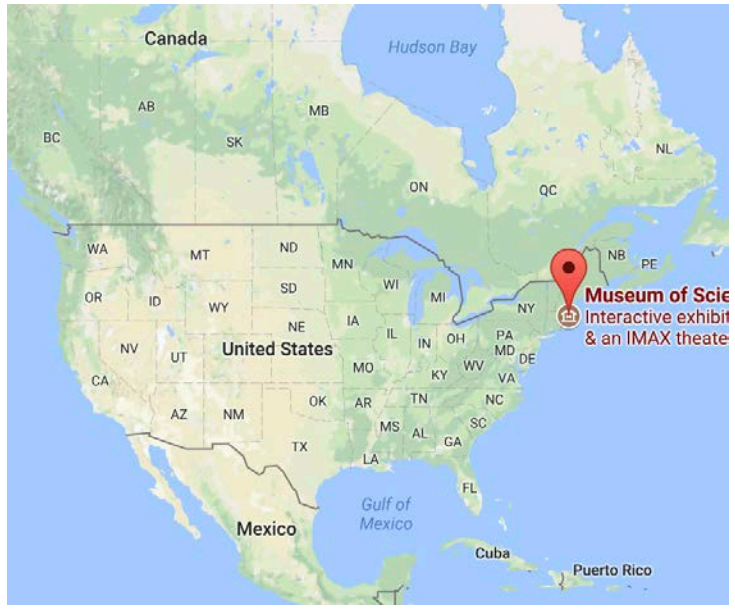
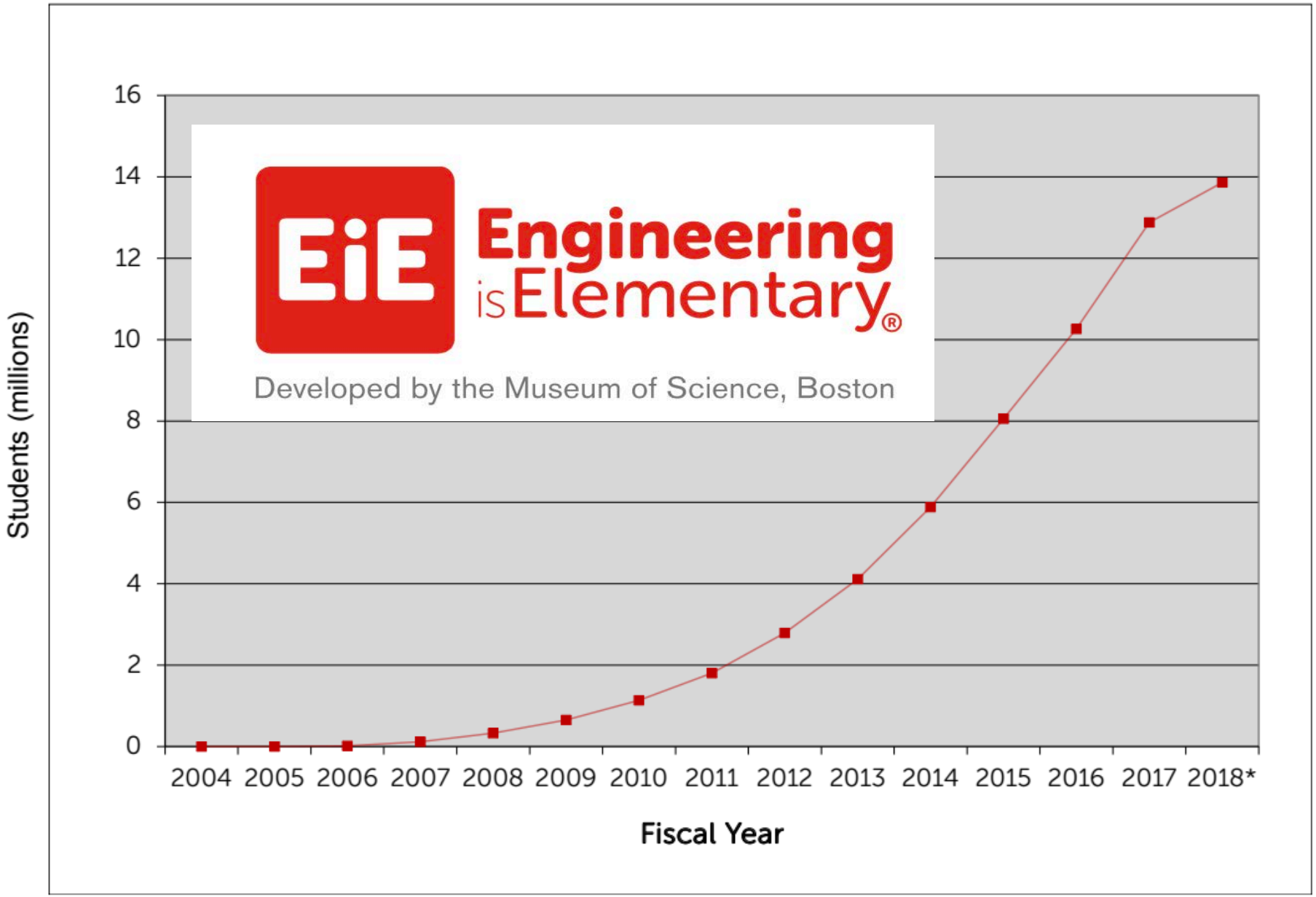


Museum of Science®
Boston

Introducing Big Ideas to the Public

- Making **Engineering** an equal to Science in museums and schools
- Comprehensive campaign - advocacy, curriculum, and professional development
- Co-designed with policy makers, researchers, and k-12 teachers
- K-12 Engineering - 14 million students reached in all 50 states
- STEM content in use in 24 countries—engineering curriculum, planetarium shows, programs, and exhibits

Number of Students Reached by EiE



Network of Science Centers

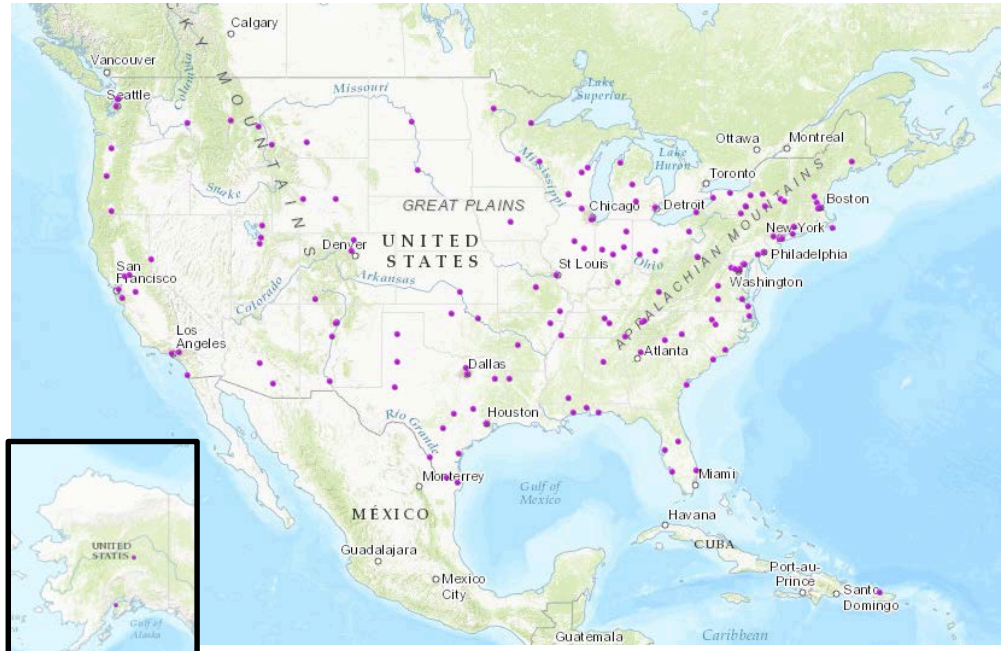
- Nanoscale Informal Science Education Network
  - National Science Foundation invested +$40M from 2005-17
  - Hundreds of science centers and research partners
  - Co-designed with government agency, STEM professionals, and visitors
  - New program format called **FORUM** (similar to RRI in Europe)
- National Informal STEM Education Network
  - Expand to other areas: Chemistry, Space, and Biology

NISE network™
NANOSCALE INFORMAL SCIENCE EDUCATION

NISE
NATIONAL INFORMAL STEM EDUCATION NETWORK

Building with Biology

Activities and Conversations about Synthetic Biology



- 2 pilot forums:
- Boston, MA; Phoenix, AZ
- 100 participants per site, reflecting demographic census diversity
- Lay-citizens - not hyper-enthusiasts or field professionals

Museum of Science.

NASA

ECAST
EXPERT AND CITIZEN ASSESSMENT OF SCIENCE AND TECHNOLOGY

Summary

- Science Centers have introduced big ideas and made big networks on different topics
- New topics and questions being co-designed with the public and other stakeholders.
- Industry 4.0 is one example where Science Centers can engager users in co-designing.