Northeast Florida Regional STEM2 Hub

Strategic Plan
Executive Summary
(with Action Plan)

June 29, 2017

Science.Technology.Engineering.Mathematics.Medicine

Two Design Studio Convenings were held with cross-sector stakeholders.

Design Studio One: Major Outcomes

- Reflected upon and assess the STEM assets In Northeast Florida to leverage strengths and further develop STEM 2 Hub

- Gained a deeper understanding of the rationale and lessons learned from the national STEM Learning Ecosystems initiative

- Discussed the value proposition of a STEM ecosystem for all involved, including your organization

- Designed draft aspirations and design principles for the STEM 2 Hub

Design Studio Two: Major Outcomes

- Revisited the core purpose of a STEM learning ecosystem and the design principles that represent the non-negotiables of the STEM 2 Hub

- Discussed the operational structure and approach to prioritize, accelerate and scale STEM activity in the region

- Established expectations for the lead council and initial priorities to create a few innovation rooms

# Needs Assessment Survey Administered Between Convenings
Key Findings:

- ***Commitment is Obvious*:** Over 70% of respondents believe the community and all partners are committed to STEM

- ***Student Mentoring is Valued***: 68% of respondents said that business and industry do a good job mentoring students, and 72% said they welcome even more from business and industry, including provisions for student internships; 68% of respondents welcome more mentoring from higher education partners

- ***Families are not at the Table***: 75% of respondents don't feel that families are involved in STEM decision-making

- ***Uncertain workforce preparation***: 72% of respondents believe that school districts are committed to STEM, but only 50% of respondents believe this results in a work-force ready culture

- ***Value of OST is Unknown***: Across the survey, OST scored lower and/or received highest % of "I don't know" responses

- ***Communication is Critical***: Multiple forms of media used to communicate STEM events; **no common portal for sharing information**
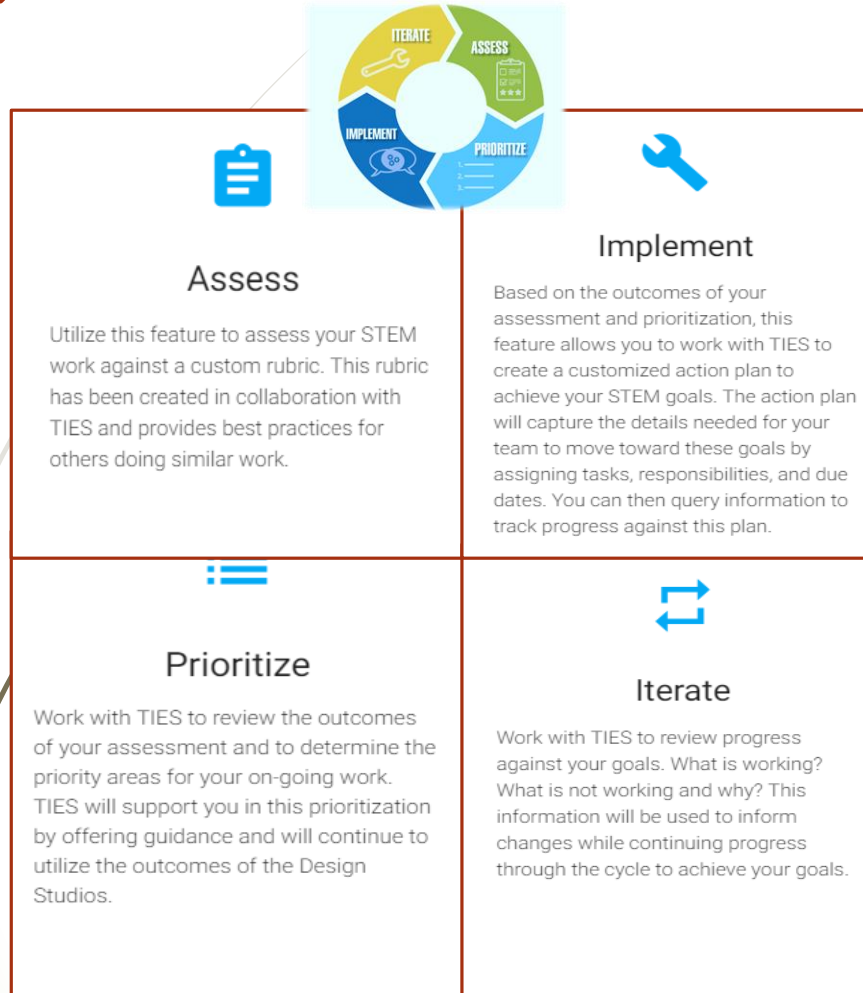
Ecosystem Structure Established

STEM2 Hub Administration

Ecosystem Lead Council

Innovation Room 1 | Innovation Room 2 | Innovation Room 3

Innovation Room Guiding Principles/
& Ecosystem Design Principles Developed
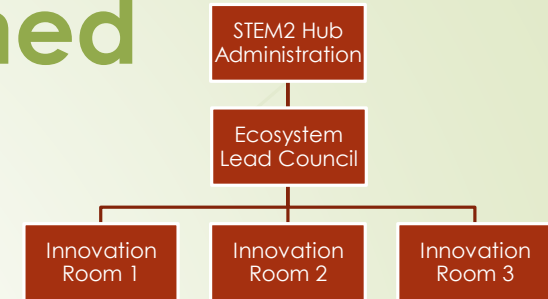
❖ View STEM as more than the four (4) named items of the acronym by maintaining a strong focus on the four while continually acknowledging the significant contributing roles played by Literacy, the Arts & Humanities, and other areas of study

❖ Commit to equity in our STEM Ecosystem and promote learning opportunities that advance STEM literacy "FOR ALL"

❖ Acknowledge inequities and shortcomings in our STEM Learning journey to-date and commit to placing appropriate emphasis on the under-represented and historically under-served

❖ Emphasize a learning culture that establishes a climate of high expectations for student problem solving and the synthesis of new solutions by developing students' abilities to create, design, and deliver innovative solutions to the problems of today and tomorrow

❖ Create developmental opportunities for students that increase their proficiency in the use of technology, but more importantly empowers all students to be thinkers and creators of application technology at their current and developing skill levels

❖ Consistently acknowledge and value the critically important impact that Parents can & should have on the learning outcomes of young people *(especially at the elementary and middle school ages)* by consciously detailing the specific roles of Parents in programs/initiatives and aggressively engaging Parents to execute those roles

❖ Strive to align In-School, After-School, and Out-of-School STEM learning opportunities with STEM workforce demands throughout the region to create job/career on-ramps and pathways for all students

❖ Design all programs/initiatives with the involvement of cross-sector partners and use collaboration across the sectors as a key tool to advance STEM Learning Outcomes in our region

❖ Promote distributed leadership and value stakeholder voice, participation, and contribution

Strategic Planning – Short & Long Term

Assess

Utilize this feature to assess your STEM work against a custom rubric. This rubric has been created in collaboration with TIES and provides best practices for others doing similar work.

Implement

Based on the outcomes of your assessment and prioritization, this feature allows you to work with TIES to create a customized action plan to achieve your STEM goals. The action plan will capture the details needed for your team to move toward these goals by assigning tasks, responsibilities, and due dates. You can then query information to track progress against this plan.

Prioritize

Work with TIES to review the outcomes of your assessment and to determine the priority areas for your on-going work. TIES will support you in this prioritization by offering guidance and will continue to utilize the outcomes of the Design Studios.

Iterate

Work with TIES to review progress against your goals. What is working? What is not working and why? This information will be used to inform changes while continuing progress through the cycle to achieve your goals.

5-Year Growth & Sustainability Map

Year 1: Networking	Year 2: Cooperation	Year 3: Coordination	Year 4: Collaboration	Year 5: Synergy
Coalesce partners	Grow network and partners	Increase number of effective STEM programs	Increase number of effective STEM programs	Communities of Practice operate independently
Exchange information	Coordinate Communities of Practice	Provide more opportunities for program support and professional development	Provide more opportunities for program support and professional development	Established linkages between formal and informal
Develop shared vision, mission, and goals	Build trust among partners	Develop capability of educators	Develop capability of educators	Established STEM network of afterschool and summer programs
Build network infrastructure	Develop capability of educators	Develop capacity of Communities of Practice	Develop capacity of Communities of Practice	Increased capability of educators (STEM teaching)
Identify resources	Facilitate linkages between formal and informal	Further build out network	Further build out network	Sustainable effective STEM programs in OST
	Provide opportunities for program support and professional development			

Overarching Strategic Goals

STEM2 Hub staff met with key stakeholders across the ecosystem to discuss self-assessment from the vantage point of each of the seven counties. Results of numerous conversations were considered and weighted for the consolidated ecosystem self-assessment.

Overarching Strategic Goals were developed to guide staff focus.

A survey of 36 indicators, developed by TIES, was administered. Each indicator was rated on a scale of zero to four. Indicators were prioritized by the STEM2 Hub Staff as low, medium, or high. 18 high priority indicators were identified by staff in collaboration with TIES.

Overarching strategic goals were aligned with Priority Indicators.

Operationalize	Operationalize Ecosystem
Build	Build Relationships/Communication Across the Ecosystem
Introduce & Scale	Introduce & Scale Programs & Experiences to Disrupt
Influence	Influence In-School Math, Science, and Coding/Computer Science
Construct	Construct Funding Pathways and Create Momentum

Action Plan

By Strategic Goal

Operationalize

- Operationalize the Ecosystem
  - Host Design Studios in Collaboration with TIES & Critical Stakeholders
  - Collaboratively Develop Design Principles
  - Establish Organizational Structure
  - Form Leadership Council from Cross Sector Partners
  - Develop Innovation Rooms

Build

- Build Relationships and Communication Across the Ecosystem
  - Develop relationships with board members from corporate and education sectors
  - Build relationships with identified ecosystem institutions and leaders
  - Develop and nurture relationships with potential philanthropic funders
  - Develop communication plan including traditional print and social medias
  - Develop strategic partnerships with media professionals for dissemination of ecosystem information.

Introduce & Scale

- Introduce & Scale Programs & Experiences to Disrupt
  - Continue to scale successful STEM programs such as robotics & math counts
  - Develop new STEM offerings in response to economic needs
  - Establish programs with high-impact youth serving organizations, such as Boys & Girls Clubs and Girl Scouts of Gateway Council
  - Plan and collaborate for regional events
  - Develop and advocate for policy change

Influence

- Influence In-School Math, Science, and Coding/Computer Science
  - Continue relationship with Code.org
  - Monitor implementation of K-5 coding initiative across region
  - Build teacher capacity in both preservice & in-service teachers
  - Monitor implementation of Computers Science Discoveries in middle schools
  - Monitor implementation of AP Computer Science (CSP) in high schools
  - Develop Intel Math funding model and capacity building model
  - Monitor school level data
  - Inform State and National Leaders towards policy change and reform

Construct

- Construct Funding Pathways & Create Momentum
  - Continue to develop university partnerships to pursue NSF funding
  - Continue to develop relationships with corporate & philanthropic funders
  - Pursue federal and state grants as appropriate
  - Recruit key board member organizations

Key Partners
Development of the Strategic Plan

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