



# **PATHWAYS TO COMPUTING CAREERS**

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**EDC**

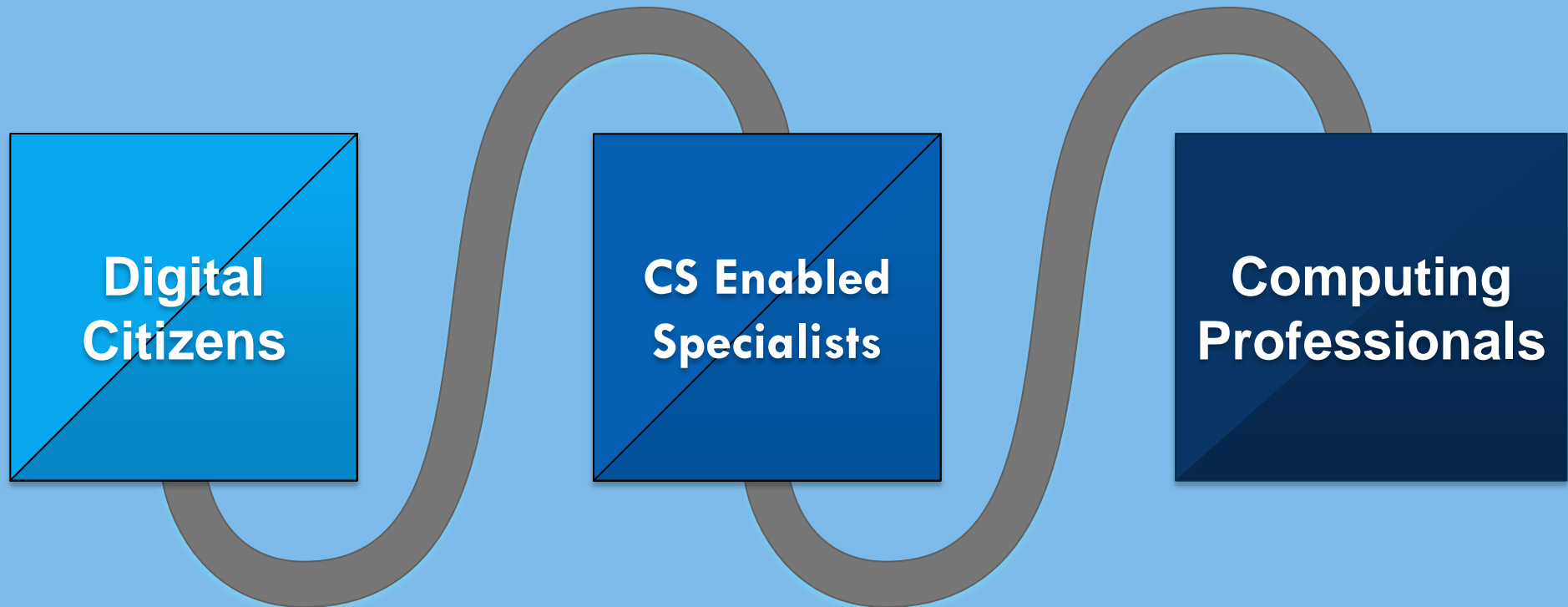
**ADVANCING STEM AND COMPUTING IN EDUCATION**

**NSF STEM FORUM**

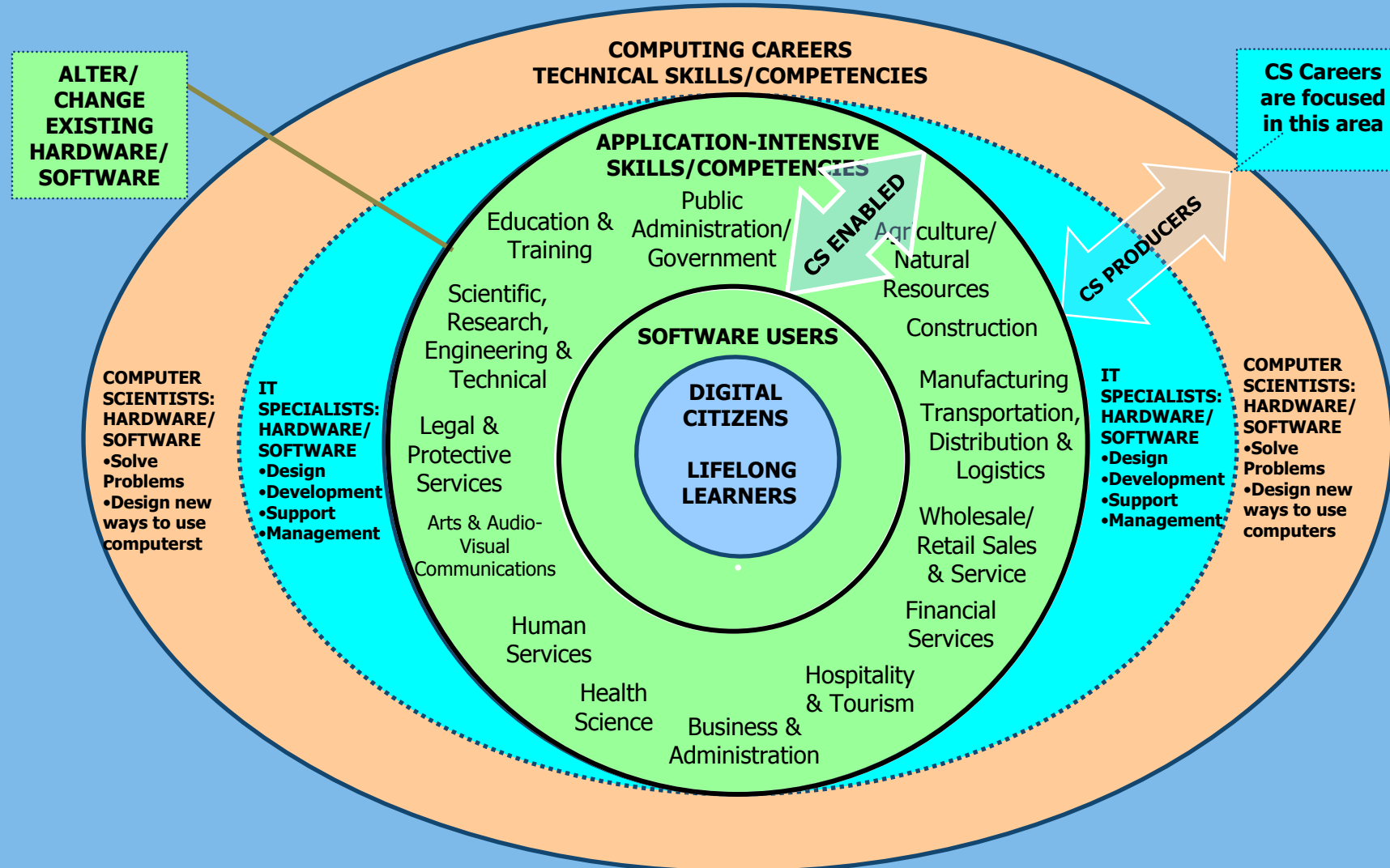
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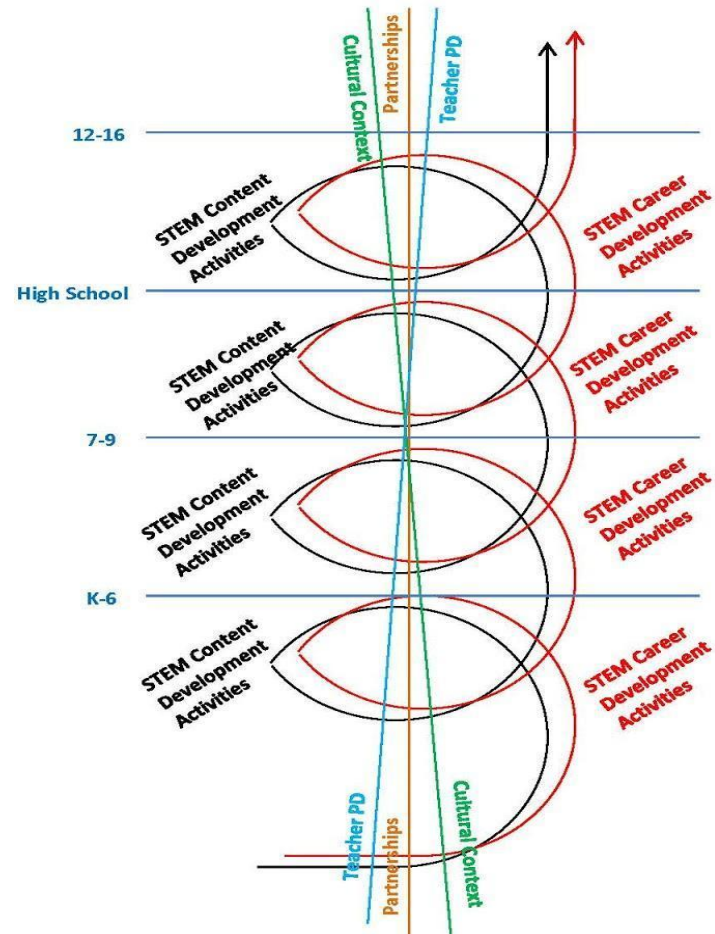
# PATHWAYS TO COMPUTING CAREERS



# Making Sense of Computing for Learning, Living, & Working



## ITEST STEM Workforce Education Helix



STEM Content Development Activities  
STEM Career Development Activities  
Teacher Professional Development  
Partnerships  
Cultural Context

# CS WORKFORCE DEVELOPMENT OUTCOMES

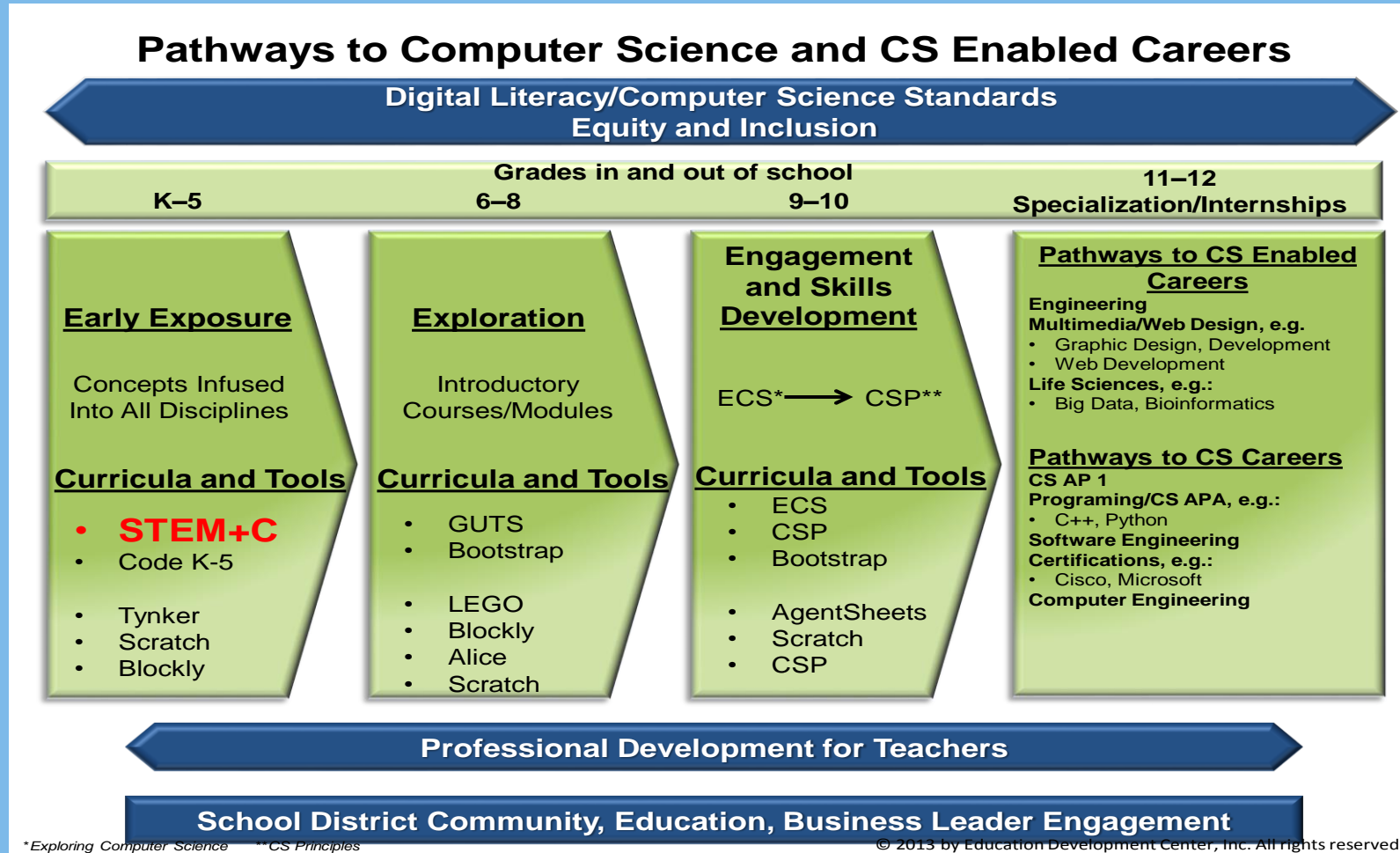
## DISPOSITIONS + KNOWLEDGE + SKILLS = ACTIONS

	Dispositions What I Think/believe	Knowledge What I know	Skills What I can do	Actions Steps I take
CS Content	I'm interested in computing and how computers work	I understand the basics of how programs drive computer actions	I am a computational thinker	I am taking an advanced placement course in computer science
Computing Careers	I belief that I can be a computing professional	I am familiar with how computing tools are used by scientists and engineers.	I am able to write a program to solving a real world problem	I seek and obtain a CS internship where I can use my computing skills.

# DATA NEEDED TO DEMONSTRATE PROGRESS IN CS WORKFORCE DEVELOPMENT

	<b>Dispositions</b> <i>What I feel or believe</i>	<b>Knowledge</b> <i>What I understand</i>	<b>Skills</b> <i>What I can do</i>	<b>Actions</b> <i>Substantial steps I take toward careers</i>
<b>STEM Content</b>	Data Needed	Data Available	Data Needed	Data Needed
<b>STEM Careers</b>	Data Available	Data Needed	Data Needed	Data Needed

# MASSACHUSETTS PATHWAYS TO COMPUTER SCIENCE AND CS ENABLED CAREERS



# LESSONS LEARNED IN DEVELOPING PATHWAYS TO COMPUTING CAREERS

- 1. Computer Science Education is important. Computing professionals shape the boundaries and limits of discovery and innovation.**
- 2. Computing Careers include Computer Science Enabled Specialists and Computing Professionals**
- 3. CS Career Development can be guided. Pathways to Computing Careers include developing skills, knowledge and abilities in BOTH STEM+CS Content AND CS Career Content. We need to collect data in all of these areas.**