

NH CREATES the Future: The New Hampshire Collaborative for Regenerative Medicine Education and Training for Engineers and Scientists of the Future

Teacher Impact in 2022

- 9 teacher participants across nine NH school districts - 5 middle school, 4 high school
- Classroom projects developed in foundational topics areas: model organisms for regeneration, cellular and molecular biology, and molecular structure and function
- Numerous interactions between teachers, industry, and higher education partners

Teacher Confidence around RM&B BEFORE and AFTER NH CREATES Summer Institute

	BEFORE NH CREATES Summer Institute	AFTER NH CREATES Summer Institute
My content knowledge/understanding of RM&B	2.22	4.22
My ability to explain RM&B to my students	1.89	4.00
My interest in RM&B	2.89	4.33
My interest in biotechnology in general	2.56	4.11
My ability to incorporate RM&B into my lesson plans	1.33	3.78
My ability to incorporate hands-on activities/labs about RM&B in the classroom	1.56	3.89
My ability to teach my students about future jobs in RM&B	1.89	4.44
My ability to get students engaged with RM&B content and methods	1.78	4.00
My awareness of RM&B partners and resources within NH	1.11	4.56

5-point Likert Scale: 1=None, 2=A little, 3=Moderate, 4=Quite a bit, 5=A lot

Teachers eager to participate in STEM ecosystem



Timeline of Ecosystem Development



Student Impact in 2022

- Over 500 students, across 9 NH school districts impacted by NH CREATES programs
- 2 high school internships with an RM&B industry partner
- 60 students in summer youth programs

Student Perspectives

“The chance to work with real scientific equipment, getting to learn about things they don't teach in school and spending a week on a college campus.”

“I like that UNH Tech camp was interactive, and I got to do real field work with computers that translates over to what I plan to study in the future.”



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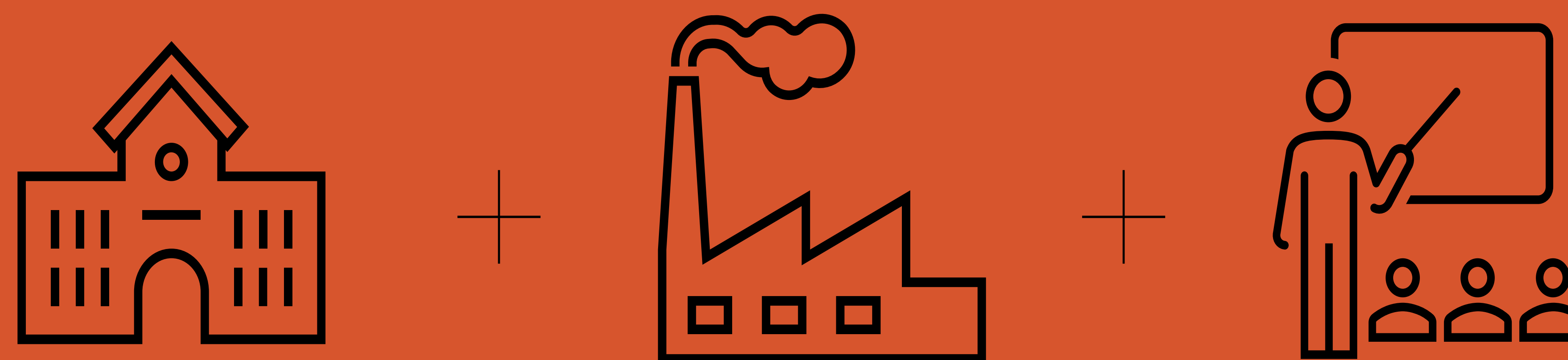
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= STEM Ecosystem ---> Workforce

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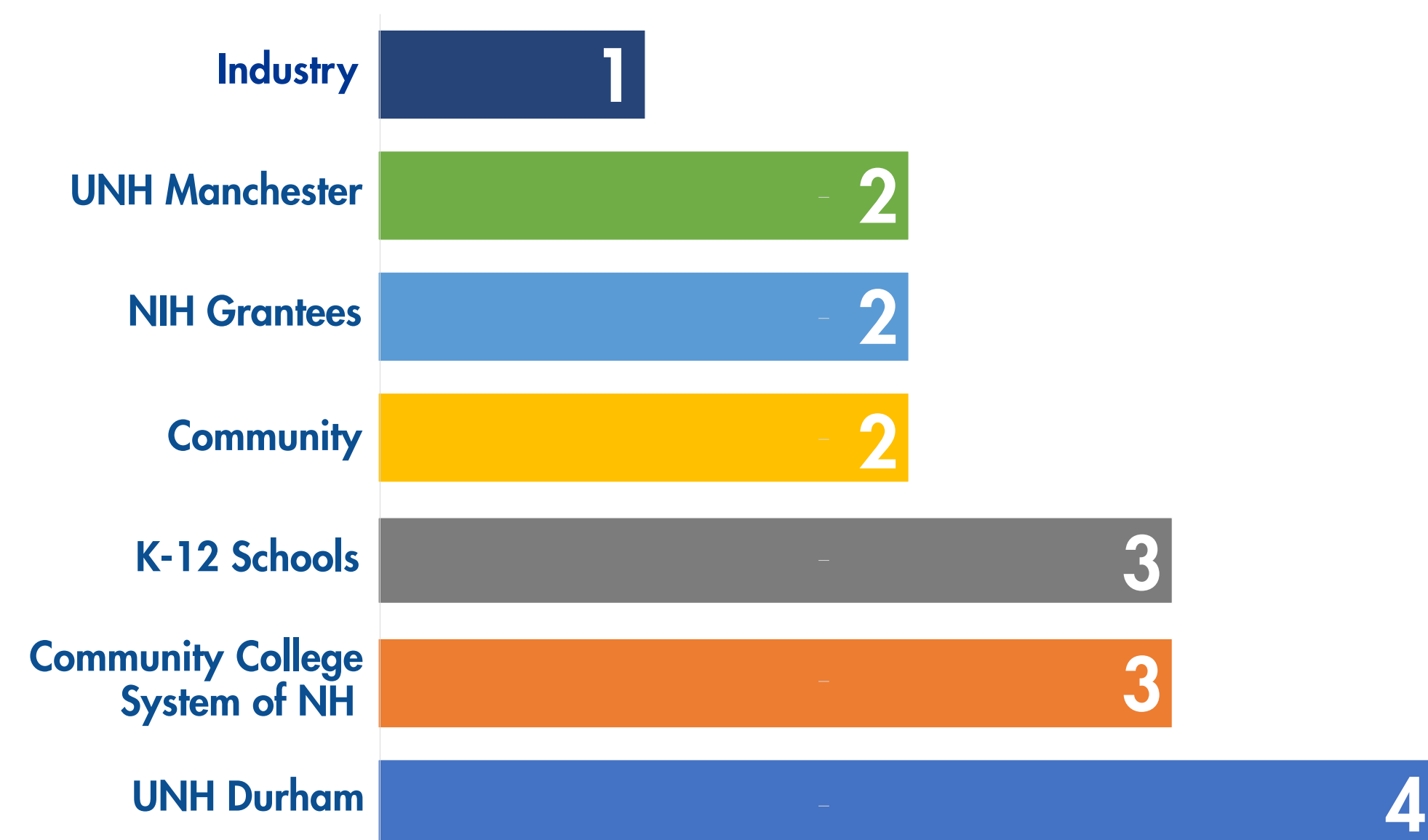
A regenerative manufacturing ecosystem is emerging



Teacher designed projects for the classroom
 Vascular vexation, Antifreeze for living cells, Learning to regrow lost body parts, and Innovating cells to tissues to organs

The Baseline Ecosystem

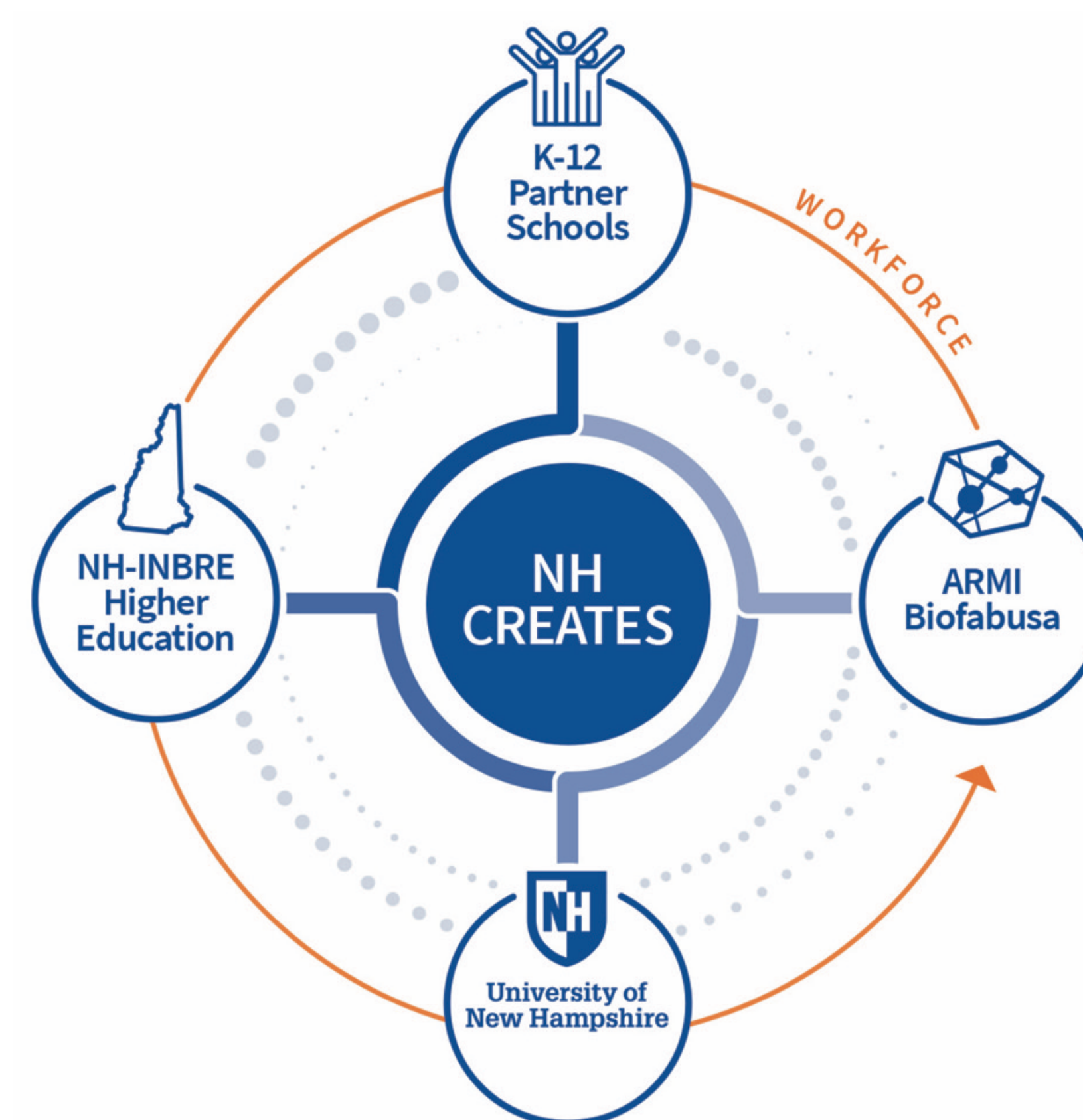
17 stakeholders interviewed



Foundational Topics Covered

- Model Organisms for Regeneration
- Cellular and Molecular Biology
- Structure and Function
- Computational Biology
- Biofabrication

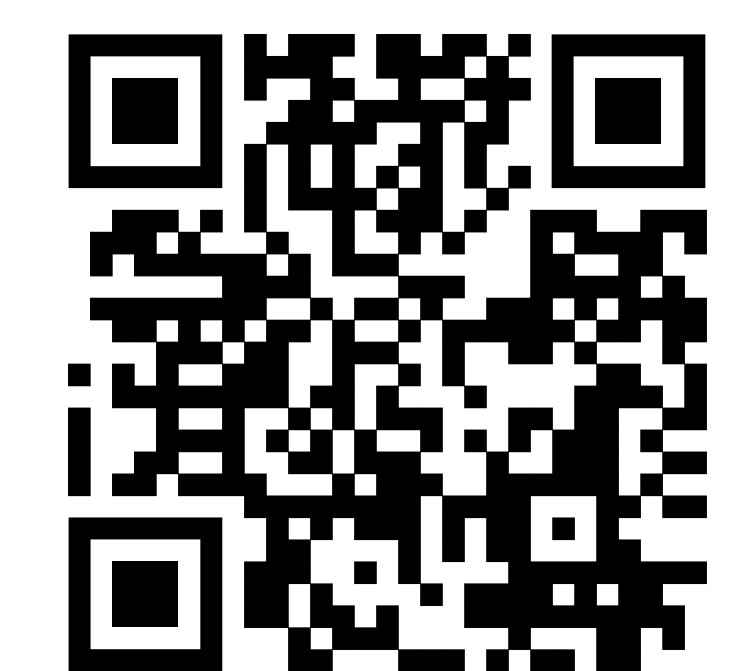
NH CREATES Provides a Virtuous Cycle



“My eyes have been opened to some technologies and practices that I didn’t even know were in their beginning stages, let alone being used right now! I try to keep up with technology and science innovations and these practices are definitively cutting edge and beyond.”

–Year 1, Teacher Participant

Contact Us



NH CREATES

The **NH** Collaborative for **R**egenerative **M**anufacturing **E**ducation and **T**raining for **E**ngineers and **S**cientists of the future