

# PhD Progression: Leveraging Badges for Career Readiness in Graduate Education

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Boston University Graduate Affairs

Boston University Professional Development & Postdoctoral Affairs



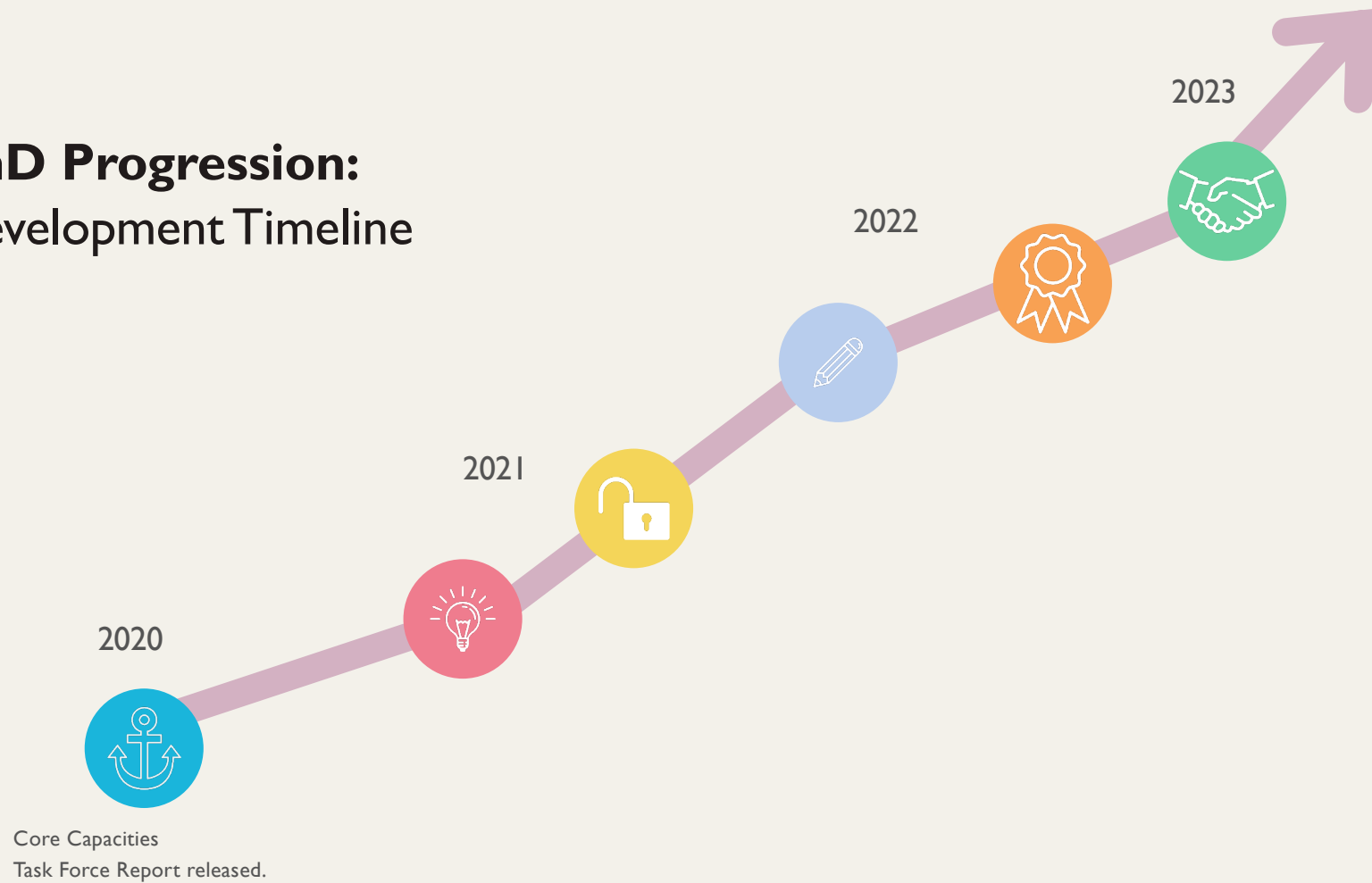
What is a micro-credential?



# What is a micro-credential?

- Verifiable, **competency-based** learning content
- Credential is an “umbrella term” to denote many types of credentials such as degrees, licenses, certificates, and **digital badges**. (Workcred, 2020)
- Designed to be fast, accessible, and specialized

## PhD Progression: Development Timeline



# PhD Core Competencies Task Force

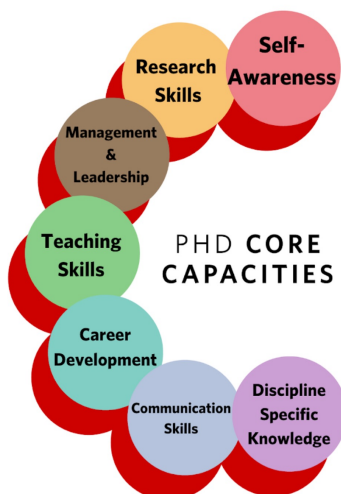
## Select Recommendations

- Attaining a PhD degree at Boston University should require our doctoral students to attain a core set of professional competencies
  - Research Skills
  - Discipline-Specific Knowledge
  - Communication Skills
  - Management & Leadership
  - Teaching Skills
  - Self Awareness
  - + Career Development
- A supplemental curriculum should be developed to support PhD students to explore a broad range of careers.

# Framing Questions

- How do we get students across the disciplines and degree stages the professional development **content** and **resources** they need?
- How do we incentivize them to work on **skill building** and **career planning** when they are already overloaded with degree requirements?
- How do we help students and mentors **track and monitor** their progress?
- How do we support PhD students in their non-academic **career exploration**?

# PhD Core Capacities



## Level 1 - Skill Exploration

- Explore the skill and reflect on next steps

## Level 2 - Skill Development

- Build skills in each area aligned with career goals

## Level 3 - Skill Application

- Put the skill to use in professional contexts

## Communication Skills - Example

**Level 1** focuses on building awareness, creating focused knowledge, and self-reflection related to skill development needs.

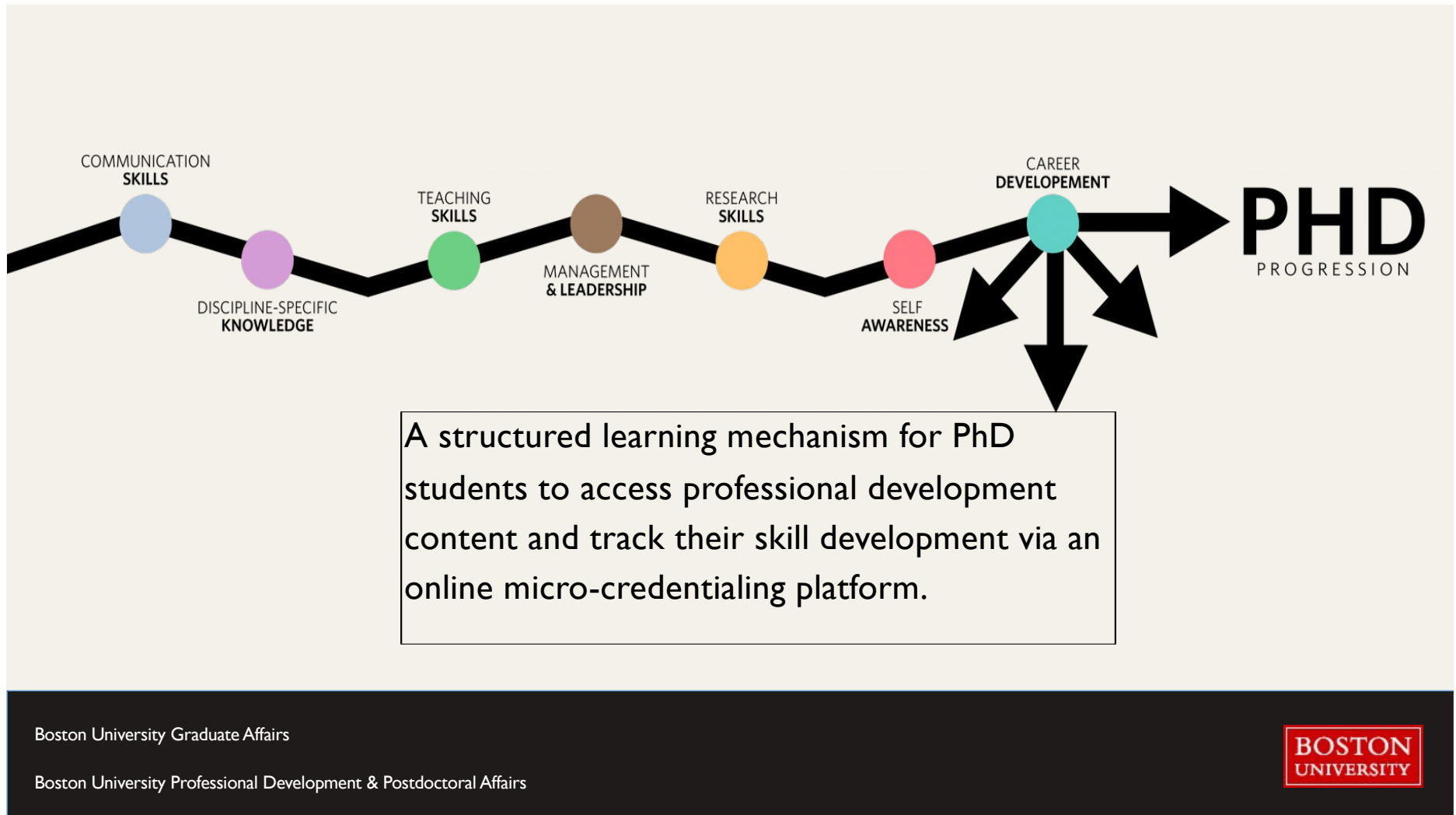
- Common Communication Challenges
- Conventions of Academic Writing
- Cultural Awareness

**Level 2** supports actual skill building through interactive activities, content creation, and experiential learning.

- Writing a Literature Review
- Receiving & Incorporating Feedback
- Editing for Others: Peer Review

**Level 3** describes skill application through career development and experiential learning opportunities.

- Delivering a Conference Presentation
- Writing an article for publication
- Serving as a Manuscript reviewer

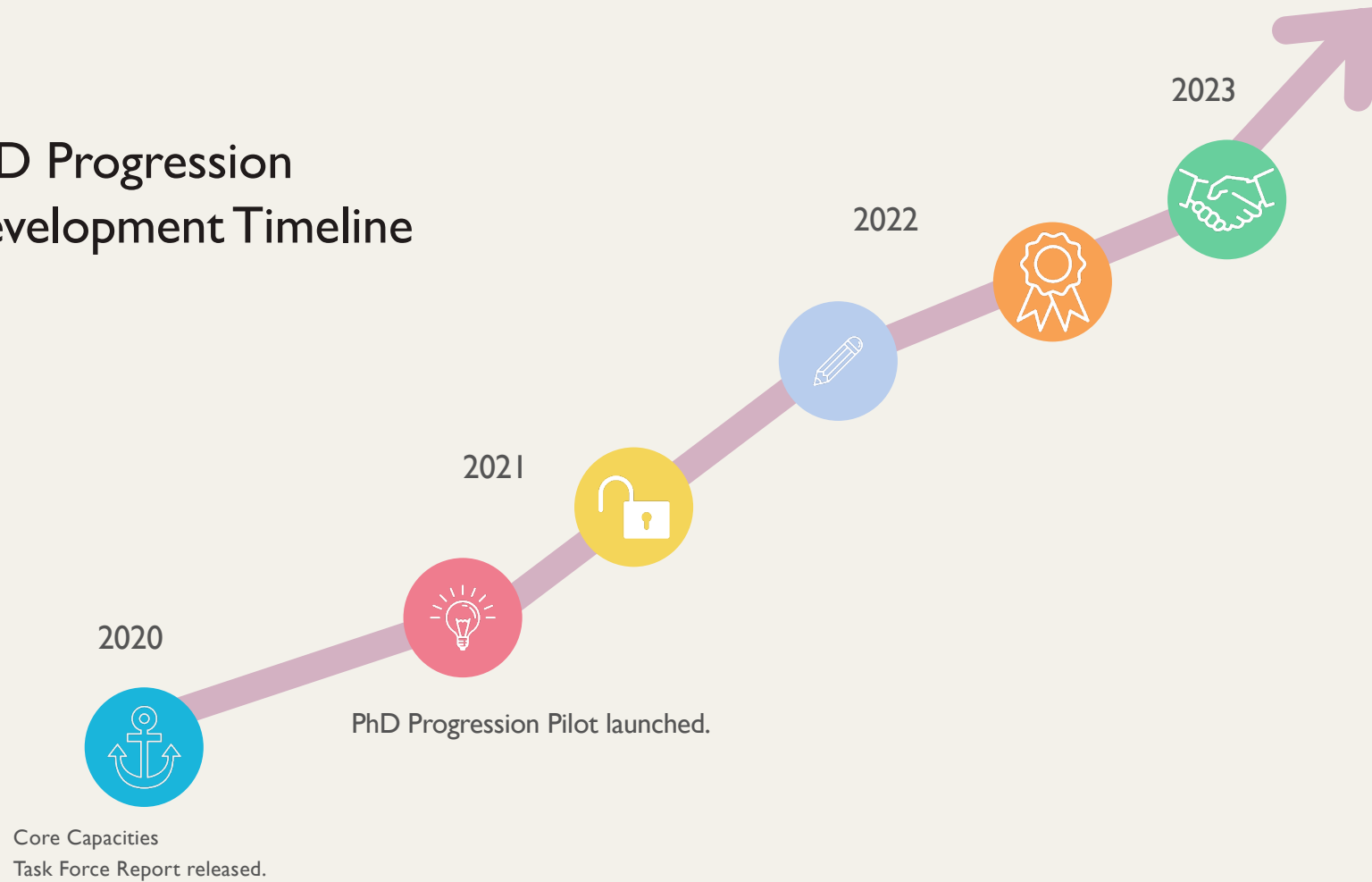




# Why micro-credentials?

- Customizable way to provide learners with the opportunity for skill development tailored for individual career goals
- Value of competency-based education alongside micro-credentialing for skill building, especially for SDL/adult learners (Pitt et al., 2019; Singer, 2019; Ambramovich, 2016)
- Badges can be especially effective for motivating students when the content is tailored to the population, and when badges are linked to career preparation and employment (Foli et. al., 2016, Gamrat et al., 2014)
- Digital badges can be especially valuable in doctoral degree programs for capturing learning and skill building that often goes unrecognized through formal coursework or degree requirements and milestones (Devedzic and Jovanovic, 2015)
- Answering the demand more more accessible, inclusive skill building resources
- An increasing number of employers are using digital badges in their own training and workforce development (Wong & Sixl-Daniell, 2015).

## PhD Progression Development Timeline



# PhD Progression Pilot (May-September 2021)

- Pilot funded by the Digital Education Incubator at Boston University
- Badgr Pro Pathways software
- Pilot ran from May - September 2021
  - 7 Level I (Skills Exploration) Pathways
  - 67 Badges available
- Two PhD student Cohorts: 51 Completed
  - **Cohort A:** 50 students from 22 interdisciplinary depts., varying years
    - Paid \$500 as Summer PD Fellows
    - Required to complete 2 Pathways, participate in 2 Learning Communities, post-pilot focus group + survey
  - **Cohort B:** 15 Voluntary participants
- Bi-weekly Learning Communities (open to both cohorts)
  - Average attendance 15-20 students

## From May 17- Sept 15:

- 86 subscribers
- 1040 Badges awarded
- 101 Pathways completed



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159 Badges 15 Pathways

### Badges

Badges tell a story. Each is embedded with data that verifies a learner's skills and achievements — and they are meant to be shared!

Search badges



Edit Badge Visibility

Badge Name A - Z 

<https://bu.badgr.com/public/issuers/rlnNNJmUTyKC9E7Ve7IVSQ/pathways>

## Post-Pilot Survey Data (n=46)

- **92%** of participants said they gained new knowledge and skills from PhD Progression
- **87%** of participants said they gained skills useful for their current program and future job
- **78%** of participants said getting badges gave them a feeling of satisfaction and accomplishment

# Pilot Data Highlights:

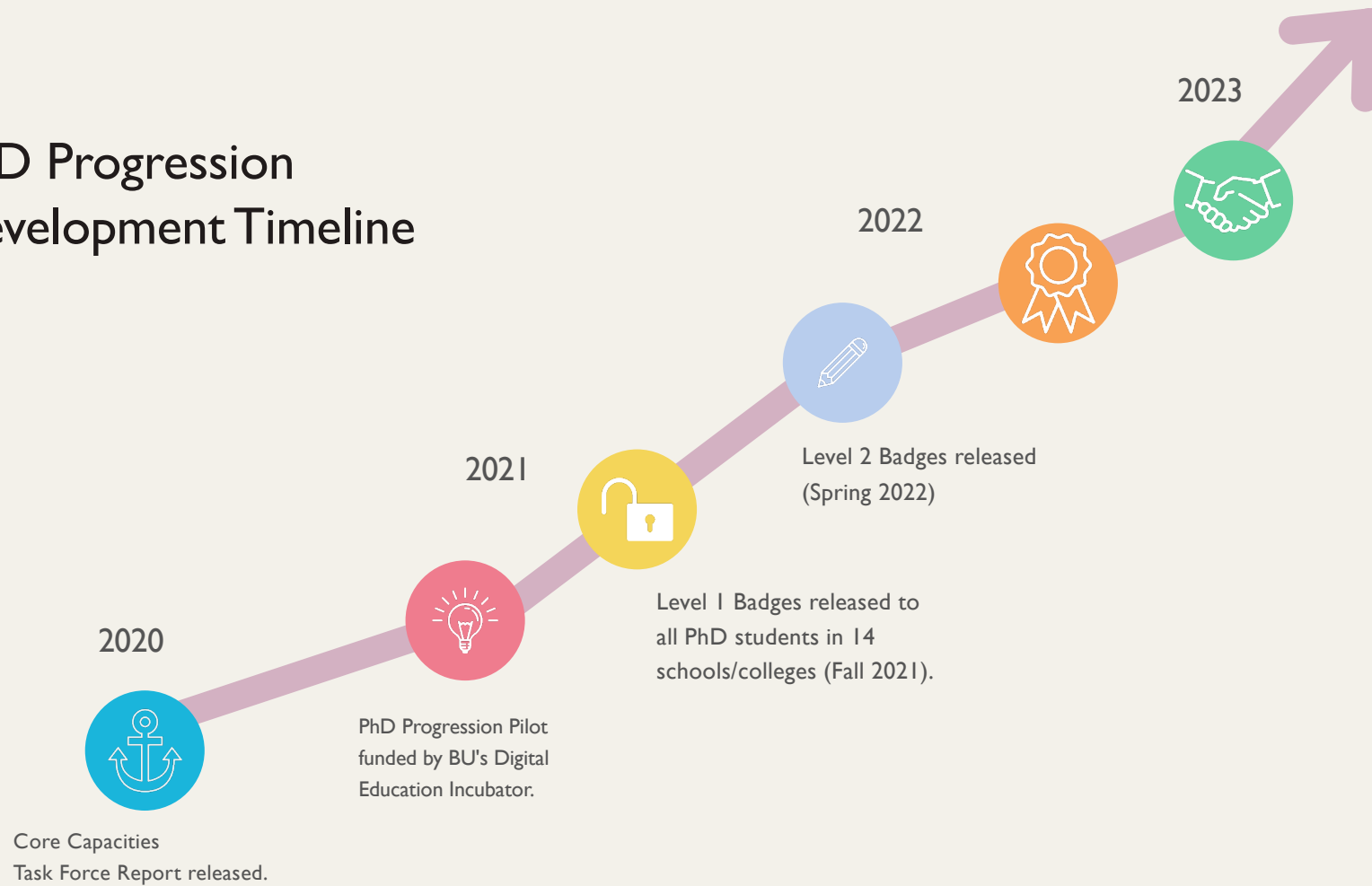
## Completing Badges helped students to:

- Gain a better understanding of their current and desired career-related skill-sets
- Become more familiar with resources available to them
- Map out their goals and action plans
- Identify careers of interest outside the ones they originally wanted to pursue
- Utilize networking resources that they did not know exist
- Prepare for assignments as a teaching fellow and understand the role of a TF
- Evaluate their abilities and skills to teach diverse students
- Engage with hands-on activities that greatly helped them in paying attention to their personal life and wellbeing

## Post-Pilot Changes

- Added rubrics for each badge completion survey using answers from pilot participants to demonstrate acceptable answers.
- Include average time for each badge.
- Built learning content for new (Level 2) badges into Articulate360 software rather than linking out.
- Captioned all videos internally and switched out external videos for those with captions. Evaluated all resources for accessibility.
- In the process of adding an International Student Pathway.

# PhD Progression Development Timeline







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ORGANIZATION

## Boston University

PhD Progression is a digital-badge tracking platform and dashboard that allows BU doctoral students to track development of skills and achievement of learning goals connected to the seven core capacities... [View More](#)

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2 Issuers 161 Badges 15 Pathways

## Badges

Each of these Badges was created by an Issuer at **Boston University** to recognize an achievement. Each is embedded with data to verify its authenticity and explain what it represents.

Search Badges

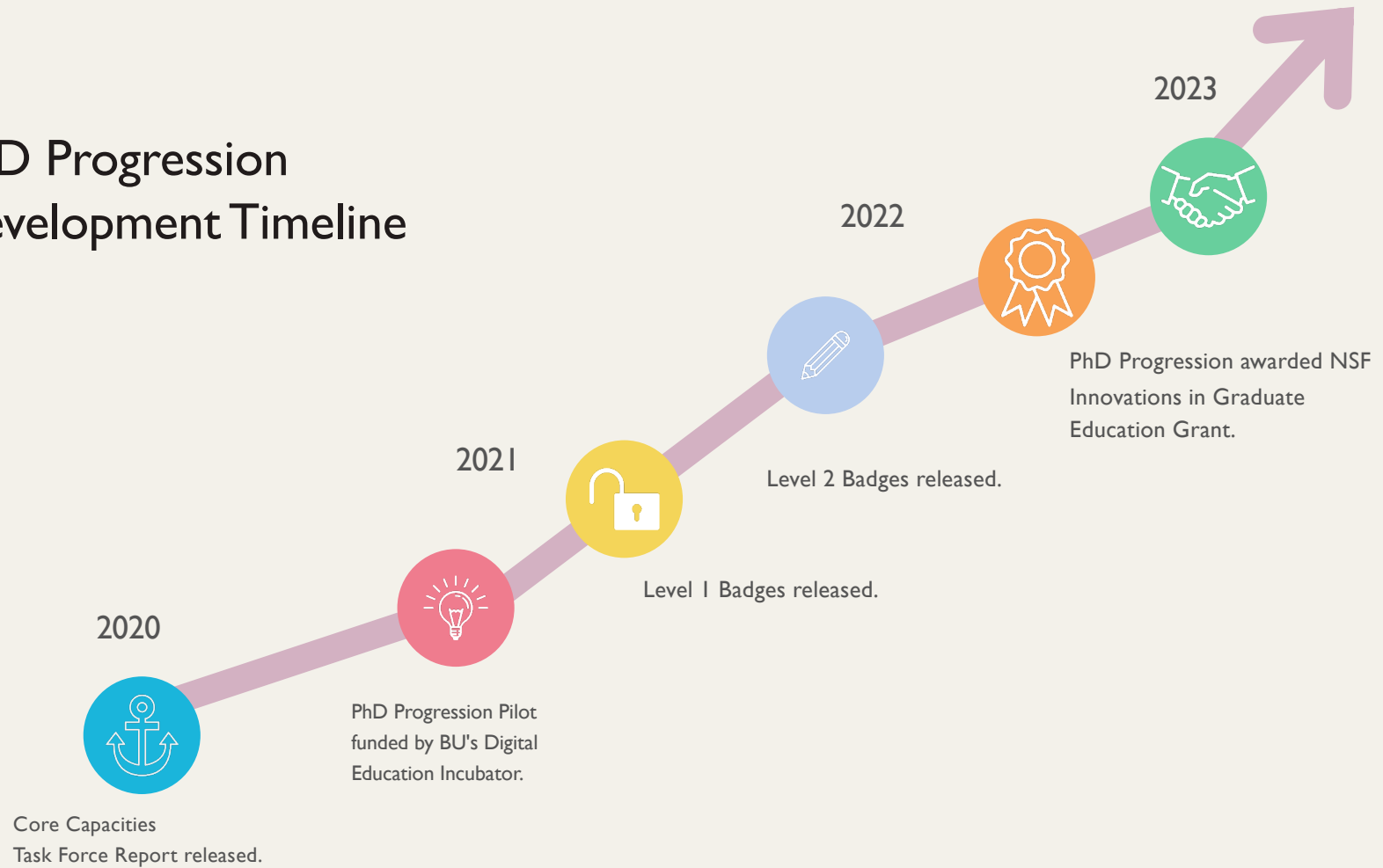
Edit Badge Visibility

Badge Name A - Z

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# PhD Progression Development Timeline



# NSF Innovations in Graduate Education Grant

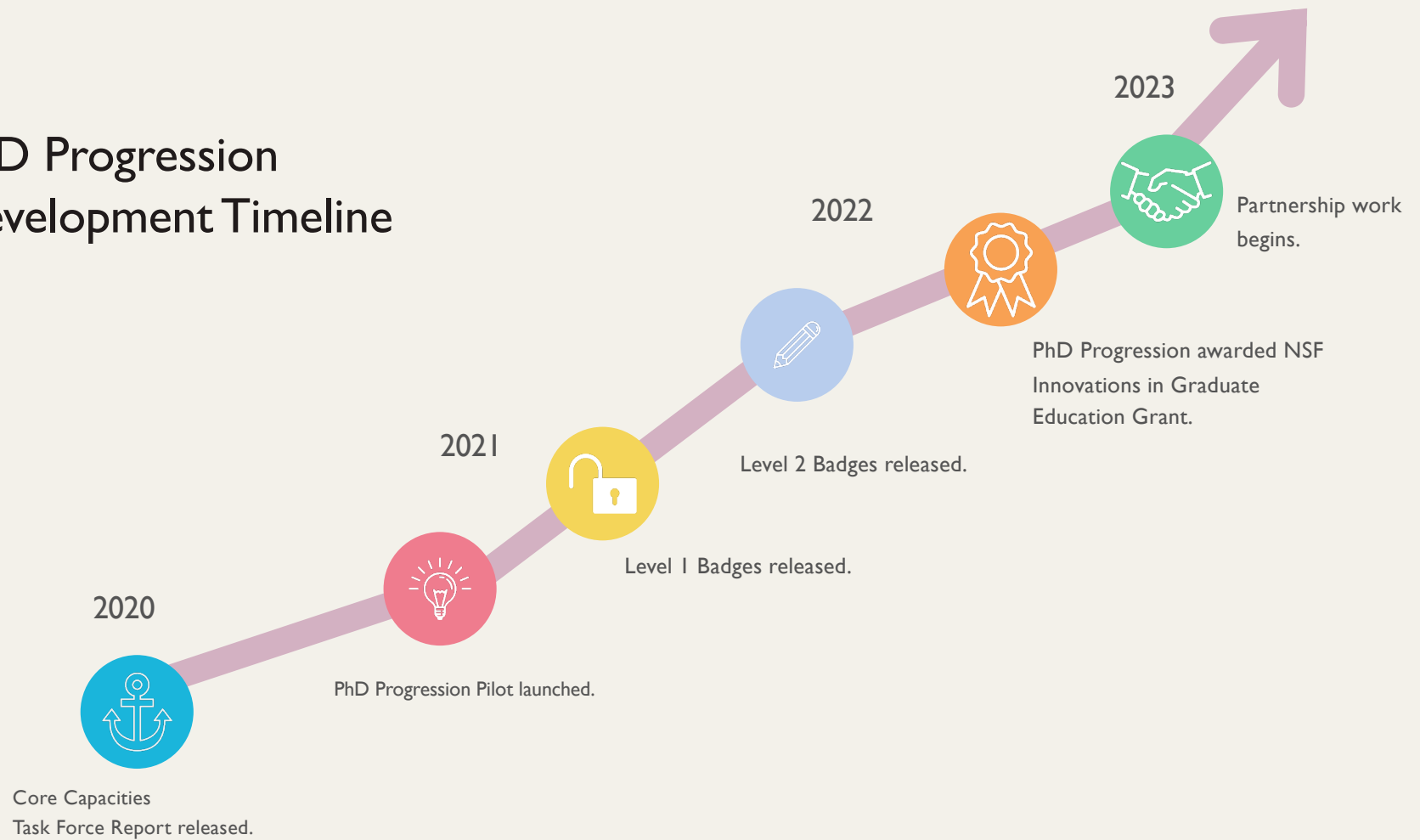
- Creating additional badges **with** institutional and industry partners that integrate workforce perspectives, content, and assessments into the platform directly, and test its applied value through **funded internships** in industry

- *Objectives:*

- Provide workforce training to students directly, prior to degree completion
- Create an opportunity for students to apply their knowledge to industry experience via internships
- Increase the value of micro-credentials - for both students and industry partners
- Study a model for collaborative workforce development that can be scaled



# PhD Progression Development Timeline





## Current stats

← Most awarded badges

- 209 Badges
- 23 Pathways
- 2450 Badges Awarded
- 1,005 Subscribers

# Faculty Use Cases



Dr. Andrea Berlin  
Archaeology Undergraduates



Dr. Sarah T. Phillips  
History PhD Students



Dr. Zeba Wunderlich  
Biology PhD Students

# Questions?



Explore PhD Progression



Connect with me!  
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