ExLENT Solicitation (NSF 23-507)

Experiential Learning for Emerging and Novel Technologies (ExLENT)

Directorate for Technology, Innovation and Partnerships (TIP)

Directorate for STEM Education (EDU)

Webinar Outline

- Goals of ExLENT
- The three tracks
- Who should apply
- Review criteria
- ExLENT team members
- Q&A

Why ExLENT?

The Chips and Science Act, signed into law in August 2022, authorizes significant funding towards efforts to build a diverse STEM workforce ready to tackle the challenges related to technologies critical to US security.

ExLENT goals

1. Expand access to career-enhancing experiential learning opportunities for a broad diverse population including those who are entering or re-entering the workforce and those who are interested in re-skilling/upskilling;

2. Promote cross-sector partnerships between organizations with expertise in emerging technology fields and those with expertise in workforce development;

3. Develop a workforce aligned with regional economies based on emerging technologies.

Funding information

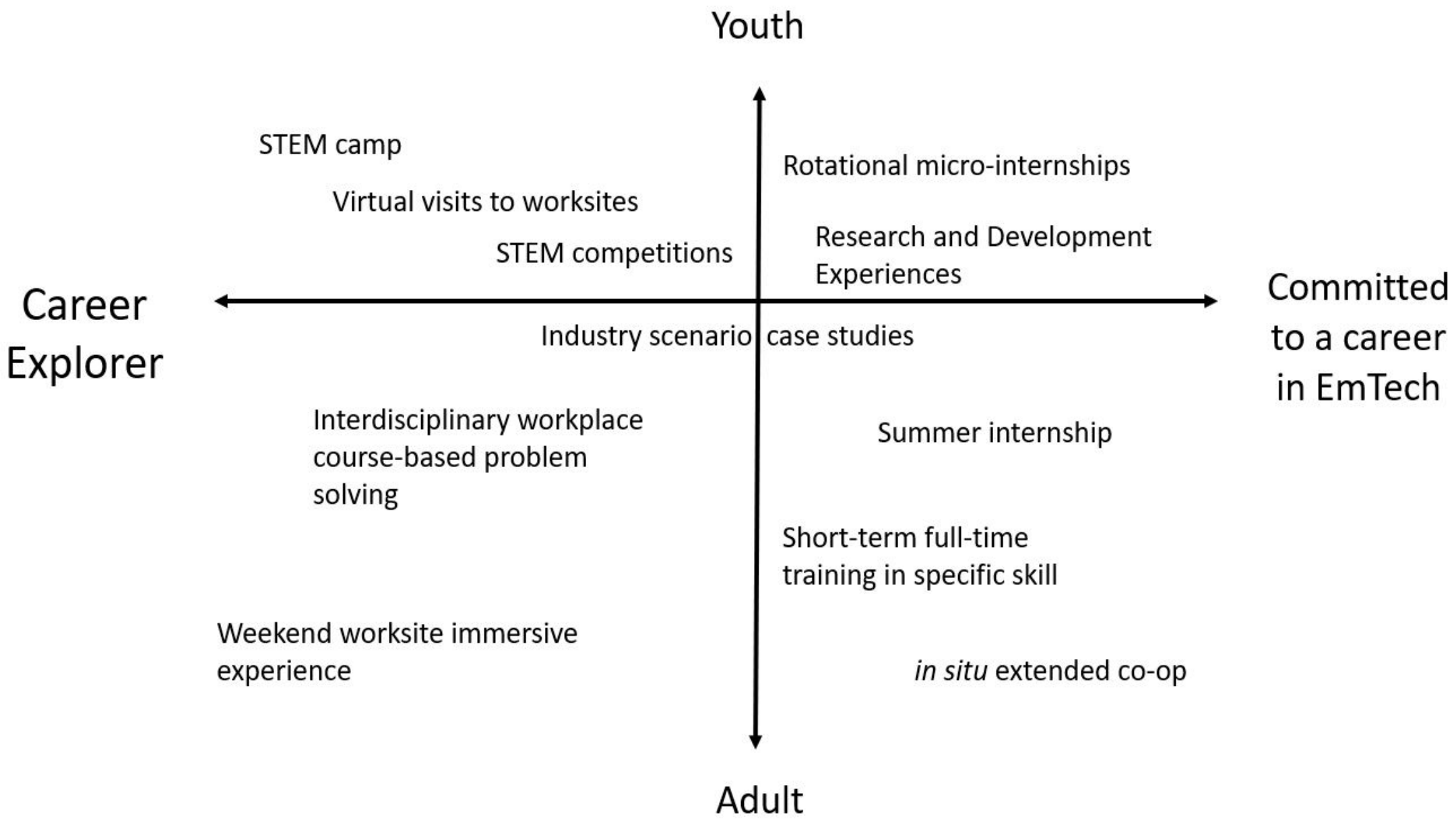
NSF ExLENT Funding Amount: Up to $1 million total per award for up to 3 years ($30M available)

Funding Eligibility: For-profit institutions of all sizes; state and local government offices; non-profits and non-academic institutions; schools; professional organizations; and institutions of higher education (including two-year and minority serving institutions [MSIs]) are eligible to apply for funding as lead organizations or partners on an application.

What does ExLENT fund?

ExLENT funds career exploration and experiential learning activities such as internships, co-operative programs, service-based learning and research opportunities that:

- help individuals who historically have not had equal access to STEM careers, including individuals from racially and ethnically diverse backgrounds, persons with disabilities, veterans, and members of the LGBTQIA+ community.
- create nontraditional educational pathways into emerging technology fields.
- serve a broad range of learners including secondary school youth, military, veterans, and adults at any stage of career development.


Youth
STEM camp
Virtual visits to worksites
STEM competitions
Rotational micro-internships
Research and Development Experiences
Career Explorer
Committed to a career in EmTech
Industry scenario case studies
Interdisciplinary workplace course-based problem solving
Summer internship
Short-term full-time training in specific skill
Weekend worksite immersive experience
in situ extended co-op
Adult

Key features of ExLENT projects

- Provides Pathways
- Includes individuals from diverse backgrounds/experiences
- *In situ* experiences
- Attends to issues of safety and privacy
- Multiple stakeholders in an integrated, collaborative partnership to support participants
- Builds community via a cohort model
- Multifaceted mentoring
- DEIA instruction for different stakeholders
- Sustainability Plan to continue pathways
- Evaluation Plan

Key dates

Deadline to apply is March 2, 2023

Upcoming events:

Q&A Webinar – December 12, 2022 from 3:00-4:00 PM ET

Technical Webinar – January 10, 2023 from 12:00-1:00 PM ET

Next deadline for funding September 14, 2023

What is an emerging technology field?

- Emerging technology fields include, but are not limited to:
  - advanced manufacturing,
  - advanced wireless,
  - artificial intelligence,
  - biotechnology,
  - quantum information science,
  - semiconductors and
  - microelectronics

Three Proposal Tracks

Pivots

Beginnings

Explorations

Track: Pivots

- Focus on participants *not* currently enrolled in post-secondary educational programs and those who have
  - Already developed essential skills (e.g., time management, communication, teaming) in non-emerging technology careers and /or
  - Require reskilling or upskilling to work in emerging technology fields.
- Participants in this track may think of their “pivot” into an emerging technology field as impossible.
  - Proposals should describe how they will address barriers (e.g., economic, social, behavioral, occupational licensing) that may prevent these potential participants from fully contributing to and benefiting from the economy of the future.

Track: Beginnings

- Focus on participants who have traditional STEM training (those with earned stackable certificates or those who are enrolled in associate's degree programs, etc.)
- Proposals should describe how they will provide these participants with opportunities that result in resume-building experiences in emerging technology fields.

Track: Explorations*

- Proposals submitted to this track focus on those enrolled in traditional education pathways (secondary school, college, and/or military) who have limited knowledge of emerging technology.
- Proposals should describe how they will provide experiential learning opportunities that build participants' interest in, and identify pathways to, careers in emerging technology fields.

- Participants should have interest in exploring potential career paths in emerging technology fields but may have limited or no specialized STEM education.

**Not supported in the March 2023 competition; can apply for the September 2023 competition*

Why Should Industry Submit a Proposal to ExLENT?

- Train new workers in the emerging tech skills your industry needs
- Create professional development opportunities for current professionals who want to pivot into new high-tech fields
- Access to new talent through partnerships with community colleges, minority serving institutions, technical schools, non-profits and state or local governments

Why Should Two-year Institutions, Technical Colleges, Tribal Colleges and Minority Serving Institutions Submit a Proposal to ExLENT?

- Co-create learning programs with industry, local government, and non-profit organizations
- Increase the participation of underrepresented and non-traditional learners in STEM disciplines that lead to emerging tech careers
- Contribute to new best practice models for effective learning programs and experiences

Why Should Non-Profit Organizations and Associations Submit a Proposal to ExLENT?

- Innovate and implement new ways to help diverse learners enter careers in emerging tech fields
- Co-create learning programs with industry, local government, and academic institutions
- Increase access to emerging tech careers by providing participants with financial, social, educational, and professional support

Why Should National Laboratories Submit a Proposal to ExLENT?

- Provide immersive training experiences to develop high demand skills and competencies in lab scientists and technicians who want to pivot to emerging tech fields.
- Access to new talent by offering experiential learning opportunities.
- Increase the participation of underrepresented and non-traditional learners in STEM disciplines and emerging tech careers.

NSF Merit Review Criteria

Two criteria are given full consideration during the review and decision-making processes: Each criterion is necessary, but neither, by itself, is sufficient.

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge.
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

Additional Solicitation Specific Review Criteria

1. To what extent does the project create on-ramps for diverse individuals into emerging technology careers and to what extent does the project provide participants with career paths beyond the ExLENT program?

2. To what extent does the project reduce barriers so that members of groups historically underrepresented and/or underserved in STEM can acquire the training needed for careers in emerging technology?

3. To what extent does the project develop the interests, motivations, skills, knowledge and/or proficiencies of workers in emerging technology?

Resources and Program Officers are Available to Help

- Be sure to fully read the solicitation 23-507
- Be sure to fully read the PAPPG
  - PAPPG Part 1-Chapter 2 – Proposal preparation guide
  - PAPPG Exhibit II-1: Proposal Checklist

Resources and Program Officers are Available to Help (2)

- Talk with your Advancement, Business, Sponsored Research, Development Office or equivalent about your idea(s).
- Develop a presentation (1-2 slides) that captures the essence of your project and how it matches the elements of ExLENT
- Email ExLENT@nsf.gov
- ExLENT staff will follow up with you

Program Contacts ExLENT@nsf.gov

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Directorate for Technology, Innovation and Partnerships (TIP) AAAS Fellow

Stay in touch

- General inbox: ExLENT@nsf.gov
- Join the ExLENT listserv for all related news and announcements
- Our Website

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Thank you for your attention.

If you have questions, please post them in the Q&A.


NSF