

The Relationship, Collaboration and Differences Between 401 Tech Bridge and the NavalX Northeast Tech Bridge

The **NavalX Tech Bridges** are a connected network under the operational guidance of the Assistance Secretary of the Navy for Research, Development and Acquisition. NavalX Tech Bridges enhance collaboration among Naval Labs, industry, academia and other military branches. Each Tech Bridge is centered around a distinct geographic area, and specializes in specific technology focus areas. One of these national tech bridge entities is the Northeast Tech Bridge whose focus areas are Ocean Sciences: Maritime Composites and Textiles, Undersea Vehicles, Undersea Sensors, and Undersea Technologies. The Northeast Tech Bridge is based out of the Naval Undersea Warfare Center Division Newport and serves the New England States, New York, New Jersey and Puerto Rico.



The **401 Tech Bridge**, a non-profit organization based in Rhode Island, is the partnership intermediary organization for the Northeast Tech Bridge, establishing best practices for public/private partnerships that support and focus on the businesses and economies of the region. The 401 Tech Bridge functions as the nucleus of the NavalX Northeast Tech Bridge. They focus on technologies that are prevalent in our region, most of which are common with the Northeast Tech Bridge focus areas. Additionally they support the production and manufacturing associated with these technologies.

The 401 Tech Bridge's mission is to support companies in their journey to accelerate technology from concept to prototype to scale by connecting them to commercial and defense opportunities. As an organization focused on economic development for Rhode Island and the region, 401 Tech Bridge facilitates collaboration across industry, government and academia and leverages the resources and expertise of its vibrant advanced materials and technology ecosystem, which spans industries and activities ranging from infrastructure development and naval research to oceanographic and offshore wind enterprises. The 401 Tech Bridge Center for Advanced Materials and Technology, due to open in early 2022, offers meeting, training, lab and equipment space for industry, government and academic partners to collaboratively problem-solve, develop concepts, and build, test and present solutions.

401 Tech Bridge and the Northeast Tech Bridge are both intensely focused on collaboration, knowledge sharing and innovation with technology companies and partners to accelerate development and transition of solutions. Both initiatives are focused on technologies coming out of small businesses, entrepreneurs and startups that have potential to address mission critical needs with novel technologies and solutions. While the Northeast Tech Bridge has a keen eye on solutions that benefit our warfighters, 401 Tech Bridge has a broader interest in solutions that grow the economy, nurture our regional business community, generate jobs and opportunities, evolve our STEM workforce as well as those solutions that benefit national defense needs.

What are the operational models of each?

401 Tech Bridge is an independent, non-profit (501c3) economic development organization and is a super-connector for companies developing leading-edge advanced materials, technologies and products, enabling business growth. As a team, they help connect industry, government and academia to accelerate the development of technology. 401 Tech Bridge create bridges between innovators and major corporations, governmental and defense organizations with funded projects and into research divisions at the University of Rhode Island and other universities and institutions across the region that offer facilities for research, prototyping, testing and validation of concepts alongside faculty researchers and students.

The Northeast Tech Bridge is one of 16 NavalX Tech Bridge entities around the globe, part of a connected network where each Tech Bridge is led by local area Navy Laboratories with collaborative partners made up of industry, academia and other military branches.

Where does each organization get its funding?

The director of the Northeast Tech Bridge is an experienced engineer of Naval Undersea Warfare Center Division Newport (NUWCNPT). The Technology Partnership Officer and Office of Research and Technology Applications (ORTA) manager is also a member of NUWCNPT and serves as the Northeast Tech Bridge deputy director.

401 Tech Bridge is designated an Innovation Campus by the State of Rhode Island, and is additionally funded by a combination of federal, state and private foundation grant funding from sources including NIST, the EDA, Rhode Island Commerce, the Rhode Island Foundation and the van Beuren Charitable Trust, as well as project-based funding through the Office of Naval Research (ONR) and NUWC/NPT. The Small Business Innovation Research (SBIR) coordinator at 401 Tech Bridge is funded by the Department of Navy SBIR office at ONR.

Is there any formal relationship between 401 Tech Bridge and the Northeast Tech Bridge?

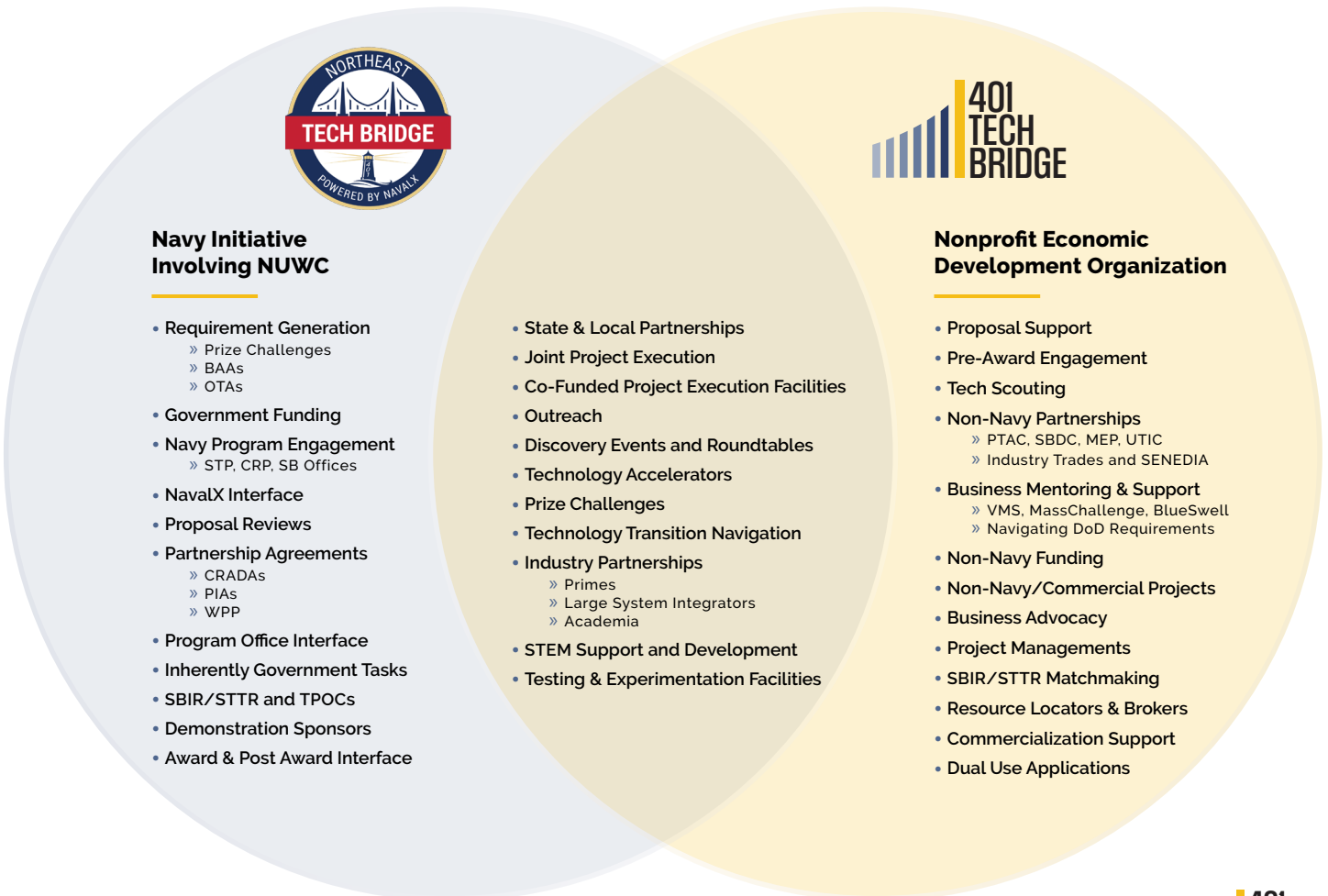
The formal relationship is through a Partnership Intermediary Agreement (PIA) that NUWC/NPT has with the University of Rhode Island Research Foundation. 401 Tech Bridge is a business unit within this organization. 401 Tech Bridge and the Northeast Tech Bridge personnel collaborate closely to address each business opportunity and mission need to assess what part of the collective team should appropriately and effectively address each need. By working together, 401 Tech Bridge and the Northeast Tech Bridge allow for a comprehensive continuum of support for our technology innovation ecosystem.

What functions does each organization perform?

As a non-profit, 401 Tech Bridge works with companies, sometimes directly, to gain awareness of development and growth opportunities, and to effectively compete for opportunities that will be good for our ecosystem. Through the PIA, 401 Tech Bridge provides oversight, program management and targeted outreach for prize challenges and STEM outreach programming.

The Northeast Tech Bridge is involved in outreach to the business community on behalf of the Navy and enabling technology transfer and transition through competitive award processes. They leverage programs and associate funding like the SBIR/STTR Program, Other Transaction Authorities and many other funded programs (DoD and non-DoD) to support development of technologies and technical solutions of interest to the Navy.

The Venn diagram below depicts each entity's types of engagements along with the areas of overlap that represents those things the two entities perform together.



Do the entities fund companies to develop and produce their technologies?

Neither 401 Tech Bridge or the Northeast Tech Bridge fund companies directly to develop, mature or produce their technologies, nor do they provide cash awards for start-up accelerators. Neither provide funding for companies to obtain patents.

401 Tech Bridge works with companies to identify funding sources that might be available from the private sector as well as from state and federal government sources. The funding sources might support R&D, for instance State of Rhode Island Innovation Vouchers or SBIR topics across the DoD and federal government, or and it might support broader company priorities, such as workforce development and R&D tax credits.

The Northeast Tech Bridge connects companies to funding opportunities from ONR and Navy Program Offices that require innovative solutions in response to specific Navy needs. It uses vehicles such as prize challenges, OTAs and SBIRs to fund small and nontraditional companies, and coordinates joint research with the Navy using CRADAs.

How does 401 Tech Bridge and the Northeast Tech Bridge formally engage with companies that have desired technologies and services?

401 Tech Bridge does not contract with companies to develop or provide technologies or services. The 401 Tech Bridge has provided funding (non-DoD funding) to the post-secondary academic institutions, including the University of Rhode Island, to provide technical assistance and access to equipment for projects that help a company advance their technology.

The Northeast Tech Bridge engages with companies through CRADAs, SBIRs/STTRs and Program Contracts. Any exchange of funding involves a formally executed competitive process with no advantage extended to a particular company or region. No funds are provided to the partner under a CRADA.

Are the technology focus areas of 401 Tech Bridge and the Northeast Tech Bridge the same?

The Northeast Tech Bridge is interested in promoting, supporting and transitioning technologies emerging in the Navy's ecosystem. The Northeast Tech Bridge is interested in any technology that has the potential to serve an unmet need across the Navy or defense, in support of national defense. Specifically, they are focused on Navy missions, and in particular, have a keen eye toward technologies that contribute to the undersea missions found at the NUWCNPT.

The 401 Tech Bridge team is more broadly focuses on technology sectors that bring economic growth the the state and region, including Blue/Ocean Technology, defense, and offshore energy. 401 Tech Bridge leverages their knowledge of the significant regional expertise in the design engineering and manufacturing of composites, advanced manufacturing, boat building and advanced textiles, as well as the rich and complex community involved in undersea technologies. With the affiliation with sibling business unit Polaris MEP—Rhode Island's Manufacturing Extension Partnership—401 Tech Bridge can reach into the MEP National network to connect with manufacturers across the country to find solutions and supply chain partners.

Both the Northeast Tech Bridge and 401 Tech Bridge encourage and support dual use applications for technology that can bring value to the commercial domain and applications supporting National Defense.

Who is responsible for the lab space that's being created in Portsmouth, RI?

The 401 Tech Bridge Advanced Materials and Technology Center that is being developed in Portsmouth, RI is a project of 401 Tech Bridge, which has received support from the US Economic Development Administration, the state of Rhode Island and private foundations to renovate the former manufacturing facility. The goal is to create a training and collaboration space with lab and testing equipment that enables tech transfer and commercialization. The State of Rhode Island provided funding for equipment to enable the growth of graphene research and commercialization. Two private startups have signed MOUs to utilize the equipment in the space.

The Northeast Tech Bridge will have a presence, using the lab as a space to collaborate and conduct experiential projects with industry, academia and other partners under appropriate partnership agreements.

Are there examples of activities that 401 Tech Bridge supports that the Northeast Tech Bridge does not?

The Northeast Tech Bridge does not aid or promote any particular company or do anything that gives a company an unfair advantage. For example, the Undersea Technology Innovation Consortium (UTIC) is a membership organization with a fee structure that supports undersea projects sponsored by Defense. The Northeast Tech Bridge may discuss UTIC as a partner, but as a government entity, they cannot promote

UTIC, discuss fees or recommend a company join. 401 Tech Bridge can engage in these discussions. The Northeast Tech Bridge is also prohibited from helping a company write a proposal or representing a company before the government. The 401 Tech Bridge can engage in these activities.

Are there examples of activities that the Northeast Tech Bridge supports that 401 Tech Bridge does not?

Certain functions are inherently governmental. 401 Tech Bridge does not review government proposals to determine who receives funding. 401 Tech Bridge also does not act for the government to set up partnerships or agreements. The Cooperative Research and Development Agreement (CRADA) is an essential tool for both organizations, but these agreements are executed by the Northeast Tech Bridge through the NUWCNPT Technology Partnership Office (TPO) without 401 Tech Bridge involvement other than the initial matchmaking as covered by the PIA.

Given that 401 Tech Bridge and the Northeast Tech Bridge are located in Rhode Island, do the organizations support a broader region?

A large portion of 401 Tech Bridge's funding and charter is focused on Rhode Island businesses and technical organizations. However, the relationships and collaboration with the surrounding regions, especially southeastern New England and the states that form the waterway corridor to the Atlantic ocean, are key to our success.

While the Navy leadership of the Northeast Tech Bridge is out of NUWCNPT, the Northeast Tech Bridge supports the entire Northeast region, which includes the six states of New England and surrounding states of New York and New Jersey. It also includes Puerto Rico, which is consistent with the Northeast region of the Federal Laboratory Consortium. All of the Navy Tech Bridges collaborate with each other. If one Tech Bridge does not have the expertise, it will direct companies to other Tech Bridges with the capabilities to support.