CREATING CONNECTIONS THAT POWER INNOVATION

401 TECH BRIDGE

ERIC GOETZ IS NO STRANGER TO INNOVATION and pushing the limits of technology. He began his career in 1975 building boats at his own company, Goetz Custom Sailboats. From the start, he was constantly experimenting with new ways to build stronger, lighter and faster boats—including 10 America's Cup challengers and defenders. Most notable among these was the 1992 champion *America*[3].

However, as was the case for many companies, the economic downturn of 2008 posed difficult challenges for Goetz Custom Sailboats, and it eventually ceased operations. But its story of innovation was far from over. Eric Goetz emerged from the recession to launch the rapidly growing Composite Energy Technologies business in 2010.

Composite Energy Technologies is now a world leader in developing and supplying turnkey solutions for high-tech, dynamic composite structures. Its team comprises experts in fabricating complex carbon fiber structures and integrating the control and actuation systems that make those structures come to life.

Eric Goetz
Chief Technology Officer
Composite Energy Technologies

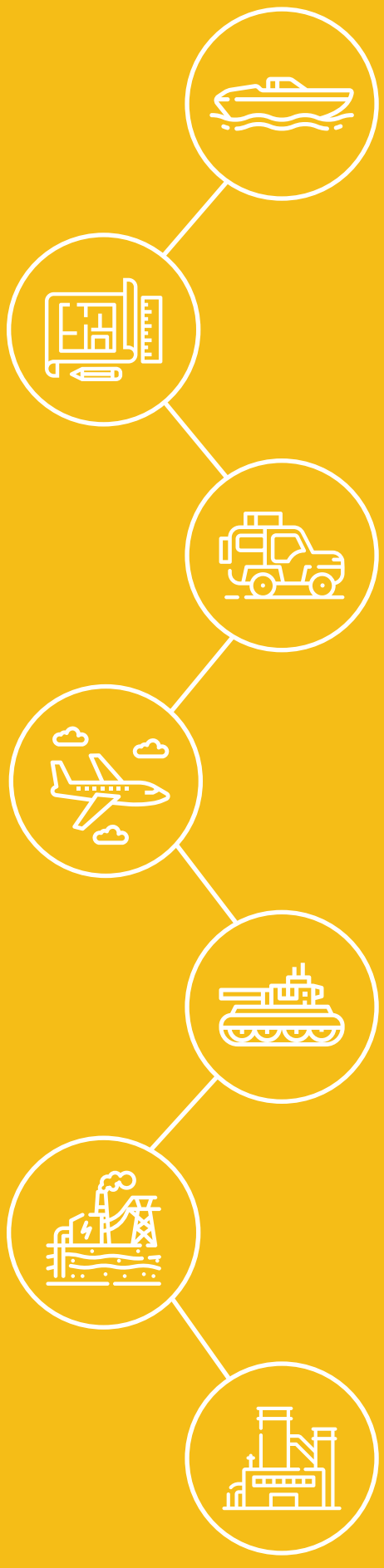
CET

THE JOURNEY TO SUCCESS

At its inception, the Composite Energy Technologies team, including Eric, Chase Hogoboom and Mike Santos, knew they had to diversify beyond the retail boat industry and apply their unique skills to expand into new markets. The company's vision thus became to transform ideas from the marine industry into high-tech, dynamic composite structures across a broad range of sectors.

The company leveraged its extensive experience and expertise in composites to create new applications in industries including architectural furnishings and accessories, automotive, aeronautical and entertainment. Composite Energy Technologies also now works with defense contractors, energy generation companies and industrial businesses to engineer and build structural parts and prototypes.

As Composite Energy Technologies was working to grow the business, it received support from the Rhode Island Marine Trades Association (RIMTA), Composites Alliance of Rhode Island, the URI Business Engagement Center, Polaris MEP, and the Rhode Island Commerce Corporation. These organizations and their members, who were responsible for regularly connecting businesses like Composite Energy Technologies with the resources available to assist them, joined forces in 2019 to create 401 Tech Bridge, an economic development organization that brings manufacturers, small businesses, research and development entities, trade organizations and state and defense agencies together to collaborate in the development of new advanced materials and technologies. As a collective team, 401 Tech Bridge is able to amplify these activities and ensure that more companies have access to important resources.



THE BENEFITS OF A "SUPER CONNECTOR"

The first item on the 401 Tech Bridge agenda was to show the world that Rhode Island means business. In March of 2019, it collaborated with the Office of Naval Research (ONR) and Naval Undersea Warfare Center (NUWC) Division Newport to reach out to industry to solve Naval Sea Systems Command's (NAVSEA) first-ever Prize Challenge. One of the challenges focused on researching a pressure vessel that can withstand 6,000 meters under water – which is essentially considered the depth of the ocean as it represents about 90% of its floor.

This type of pressure vessel is traditionally made out of titanium (which is very rare, expensive and hard to find in the sizes needed to make a pressure vessel). Due to experience testing composite structures at 6,000m, Composite Energy Technologies was selected as one of the prize challenge winners from more than 30 total submissions and awarded a $250,000 grant to develop a commercially viable product.

At the 401 Tech Bridge presentation of the ONR grant, Goetz met a high-level representative from a large Department of Defense (DoD) prime who was intrigued by the company's work and scheduled a meeting with several engineers to continue the discussion. Following that, the prime contact made Goetz aware of an upcoming Small Business Innovation Research (SBIR) grant that would be well suited to the company's area of expertise. While the first submission was not a success, it led to a subsequent introduction to the Rhode Island Procurement Technical Assistance Center (RI PTAC), a partner program of Rhode Island Commerce. PTAC Program Manager Melody Weeks helped Goetz identify further SBIR grant opportunities, learn how to write an SBIR proposal, and more. Its next attempt was successful and the firm will be engaging with URI faculty Drs. Shukla, Matos and Das on further research supported by the new SBIR award.

401 Tech Bridge continues to provide value to Composite Energy Technologies, introducing the company to an expanding ecosystem of partners to collaborate with on new grants, research and next-generation composites applications. Goetz sees the value of the 401 Tech Bridge as facilitating connection and collaboration to accelerate the journey from concept to prototype to commercialization and create new business opportunities. Long term, these connections will help to increase the advancement of new materials and technologies.

CONNECTING THE DOTS: MAKING INNOVATIVE IDEAS A REALITY

The power of 401 Tech Bridge is its unparalleled ability to create connections to different organizations that have specific insight/expertise, unearth potential funding opportunities and help companies connect all the dots to make innovative ideas a reality.

"401 Tech Bridge gives smaller companies that might not have the visibility into how to work with a large government organization, for example, a fighting chance," said Eric Goetz. "There are many businesses in the region that are incredibly skilled but wouldn't be able to get into large projects on their own. 401 Tech Bridge can help them make the connections needed to overcome potential obstacles such as approved supplier lists, optimal manufacturing requirements and more."

Beyond facilitating introductions that connect innovators into the DoD and prime contractors, 401 Tech Bridge can also help companies find dual use or commercial markets for the technology they have created, enabling them to become more diversified.

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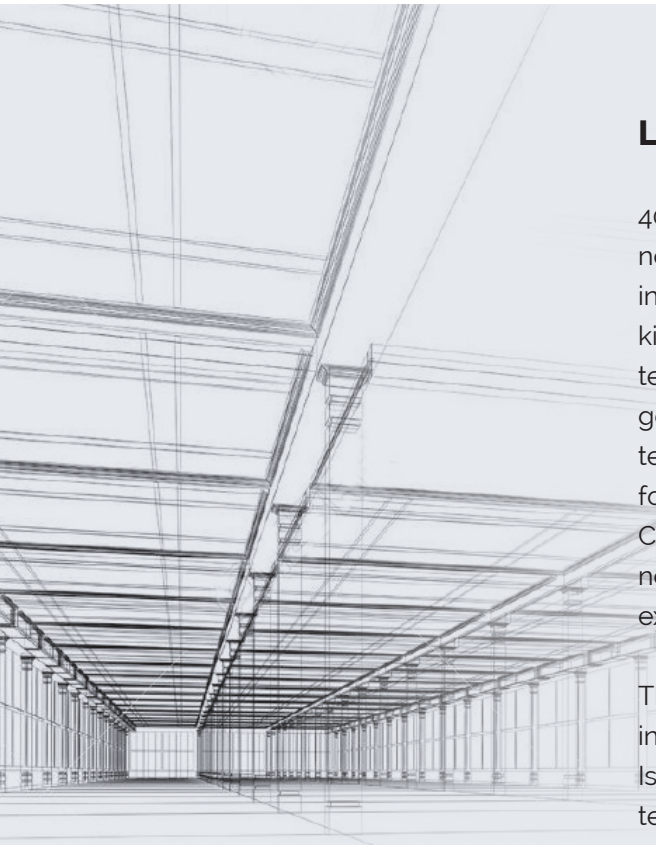

LOOKING AHEAD

401 Tech Bridge is transforming a former manufacturing facility into a new 17,000-square-foot Advanced Materials and Technology Center in Portsmouth, RI, expected to open in 2021. As the first center of its kind in Rhode Island, the facility will include lab space for prototyping, testing and proof-of-concept builds; collaborative space for industry, government and academia to work with partners on design, modeling, testing and digital verification; a convertible open meeting space for presentations, training seminars, and events; and office space. Companies will be able to work with cross-functional teams to develop new ideas, and large entities can sponsor projects that leverage the expertise of small companies, universities and others.

This facility will support 401 Tech Bridge's ongoing work to accelerate innovation and the growth of three key industries in the state of Rhode Island and its surrounding region—composites, textiles and undersea technology.

ABOUT COMPOSITE ENERGY TECHNOLOGIES

Composite Energy Technologies (CET) is an industry-leading innovator in the research, design, engineering, and manufacturing of large and complex carbon composite vehicles, underwater pressure vessels, structures, integrated systems, and show-action equipment. Our maritime-focused work has performed in all operational environments including Surface, Aerial, and Undersea (Full Ocean Depth). CET's work has demonstrated performance from static applications to the extremes of the hypersonic regime. We are proud to have deployed solutions which have performed on all 7 continents.

Since 1975, Chief Technology Officer Eric Goetz has sought-out and developed bleeding edge technologies that have been the secret sauce for numerous Grand Prix racing sailboats, including successful America's Cup, Volvo Ocean Race, and Maxi campaigns. The CET team continually builds upon this legacy, breadth of knowledge, and experience to produce systems that can reliably execute diverse mission sets in austere and complex operational environments.

CET's research and development of materials, advancements in engineering, and manufacturing techniques have enabled CET to produce solutions that enable the end user to operate with confidence and assurance.

ABOUT 401 TECH BRIDGE

401 Tech Bridge accelerates the journey from concept to prototype to commercial scale while creating business opportunities. It 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. 401 Tech Bridge offers meeting, training, lab and equipment space for industry, government, and academic partners to collaboratively problem-solve, develop concepts, build and test prototypes, and present solutions. It also connects companies into research divisions at the University of Rhode Island and other universities and institutions across the region, offering facilities for research, prototyping, testing and validation of concepts alongside faculty researchers and students.

The 401 Tech Bridge is a business unit of The University of Rhode Island Research Foundation, and serves as a partner intermediary organization for the Naval Undersea Warfare Center Division Newport, supporting the Naval X Northeast Tech Bridge. It receives support from the U.S. Economic Development Administration, the National Institute of Standards and Technology's Manufacturing Extension Partnership (NIST MEP), the Office of Naval Research, the Rhode Island Commerce Corporation, The Rhode Island Foundation, and the Van Beuren Charitable Foundation.