

Application Score Sheet

Proposed Project: City of Pensacola, The Center for Dynamic Ocean Technologies (#4)

Proposed Project/Program County: Escambia

Board of County Commission Support: Yes

Total Projected Project Cost: \$50,583,000.00

Match Provided: \$35,583,000

Triumph Funds Requested: \$15,000,000.00 (29.7%)

Triumph Funds Recommended by Staff: \$15,000,000.00

Score: A

Triumph Board Approval: Yes/No

Triumph Funds Approved by Board:

Date:

Economic Analysis and Score

The Center for Dynamic Ocean Technologies proposal describes a project with the City of Pensacola, the Florida Institute of Human and Machine Cognition, the University of West Florida and other partners. The Center would be a place for research concentrated on ocean technology and the commercialization of that research. The Triumph request of \$15 million represents 29.7 percent of the \$50.583 million total project cost.

The Center would be housed at the Port of Pensacola, which would provide a place for researchers to work, collaborate and teach. This site would also provide quick access to ongoing ocean technology research projects. The space for the new facility would be provided by the City of Pensacola. New construction of a facility to house the Center would be on the current site of Warehouse Number 4. That structure would be removed by the City of Pensacola and the security fence relocated to allow easy access for partners, students, and visitors. The use of the site for Warehouse Number 4 still leaves other available warehouse space for companies that may want to lease space at the Port. The new facility would be owned by the public and would not benefit any single company or organization.

The Center for Dynamic Ocean Technologies plans to conduct and facilitate research in fields including technology in artificial reefs, autonomous maritime vessels, and advanced manufacturing of maritime systems. Research planned in marine technology and aquaculture are also planned, as well as research on bay, shoreline, and estuary restoration – plus research on invasive species and harmful and pathogenic marine species. Breakthroughs in these areas would benefit not only Escambia County, but they would also benefit the entire Florida coast that was affected by the Deepwater Horizon oil spill.

The planned hiring of senior researchers and research scientists as well as post-doctoral and graduate students will advance the research and development capabilities of Escambia County and create the potential for substantial amounts of Federal research dollars to come to the area. Additional research and development money coming into the area has a high level of economic impact to the area and to the state of Florida. The commercialization of research invented at the Center, through tech transfer and potential spinoff companies, would add an additional amount of economic impact in terms of jobs and higher than average wages.

This project would provide a combination of assets that will help diversify the economy of Escambia County. It will provide high-wage jobs in highly-desired fields. Besides the direct jobs, there will be the normal indirect and induced jobs created by the increase in the direct jobs, plus the potential increases brought about by technology transfer and resultant spinoff companies.

For these reasons I rate this program "A" in terms of economic impact to Escambia County.

Project Summary (based on information provided by the applicant)

The City of Pensacola is requesting \$15,000,000.00 in Triumph Funds for the construction and development of The Center for Dynamic Ocean Technologies (Center) at Port of Pensacola. The proposed Center is a unique approach designed to synergize the specialized expertise and diverse resources of Northwest Florida's public agencies, defense industry, and academic and private sectors, in a state of the art physical structure that will provide the proximity, facilities, location and water access necessary for an unprecedented team approach to dynamic ocean technologies.

Housed in a single waterfront location with a berth, the Center proposes to establish a network of partners with a focused aim to catalyze regional water programs through ocean driven technology, engineering, research and invention, education and economic development. The Center will cross-thread existing assets, maximizing their potential by drawing on the combined advantages of the City, Florida Institute of Human & Machine Cognition, Inc. (IHMC), University of West Florida (UWF), the County Estuary Program, Florida Fish and Wildlife (FWC), the emerging public and private work in the aquaculture field, and Northwest Florida military installations.

Each partner will have a stake in the Center. The Center will capitalize on the partners' respective assets and resources, and grow new technology-based clean ocean businesses. The goal is to showcase Northwest Florida as a regional backbone in the growth of ocean research high wage jobs and innovative product technology developments.

In the next ten years, the Center proposes to create a new vibrant high wage workforce of ocean technology jobs in diverse advanced industries, research and development, and robotics. It will innovate and create products and services (vehicles, data, structures and manufacturing), and incubate ocean technology spin-off private enterprises. The Center will develop ocean technologies for the defense industry in partnership with Northwest Florida military installations and will advance the protection of natural resources through teaming smart automation technologies with humans for maximum effectiveness and benefit.

The location of the Center at the Port of Pensacola is expected to reshape the Port's business model, physical appearance, and public access, enhancing the Port's economic vitality while seeding the Port's own successful clean ocean business. The Center will enhance existing programs to offer experiential learning opportunities in ocean technologies and marine sciences including workforce career academies, high school and college internships, local school field trips, and a visitor kiosk staffed by Visit Florida to coordinate tourism.

Northwest Florida is home to a significant number of academic, research, and military undersea operational groups working in the Gulf of Mexico. IHMC has an established, successful business model of regularly securing significant large federal research grants to sustain its research operations, and a proven track record of partnering with the military and the private sector to license and commercialize technology. The UWF Environmental Diagnostics and Bioremediation program is actively engaged in ocean research and has received major federal and state awards.

Using the strengths, the research activities of the Center will be sustained through the funding of research grants and collaborations from involved agencies including National Oceanic and Atmospheric Administration (NOAA), Environmental Protection Agency (EPA), Office of Naval Research (ONR), National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), National Institute of Standards and Technology (NIST), Air Force Research Laboratory (AFRL), United States Army Research Laboratory (ARL), National Aeronautics and Space Administration (NASA), Naval Aerospace Medical Research Unit (NAMRU) and Machine Corps Warfighting Laboratory (MCWL).

The County Estuary Program has recently received \$2 million in funding from the EPA to collaborate on marine research and early restoration of natural resources in a saltwater environment and fund Estuary Program operations at the Center. The FWC will contribute an additional \$2.5 million in match funds, co-locating staff for joint program operations and joint grant proposal submissions and developing and testing oceanographic and environmental data technologies for cost-effective sampling programs.

Currently private money in excess of \$3 million has been committed to the Center from Cobalt Intelligence LLC and the Pensacola Bay Oyster Company to support Center technology transfer initiatives including capital for developing spin off companies, and new scientific innovation opportunities. The current timing is also an advantage as artificial intelligence, big data, and human-machine interfaces are rapidly advancing. The foray of these technological developments into the underwater environment is the next major development in managing water quality, fisheries research, transportation systems, environmental science, and tourism.

This project supplements and expands on successful efforts at IHMC, UWF, the County Estuary Program, and FWC, and expands these efforts into new areas of research and brings in private sector collaborators with funding for technology transfer, new company formation, and job creation.

Initial direct job creation in first two years of the Center is thirty-eight professional scientific, research and business related positions, high wage and benefitted. Average wage during this two

year period is approximately \$87,000. Long term high wage professional and permanent job creation at the Center over the ten year measurable period through the growth of funded research, technology transfer and new company spinoffs is expected to exceed one hundred jobs. The direct jobs include research scientists, engineers, technicians and product development specialists. Related jobs will include administrative, grant specialists and accounting jobs. Induced and indirect jobs include construction, repair, custodial, boat captains, marine repair and landscaping.

Future job creation sustainability will develop in the local private sector community currently situated with committed investment and venture capital funding to transfer ocean technologies into spin off commercial entities. The ability to create an ocean technology Center that co-locates the partners with private commercialization companies such as Cobalt Intelligence LLC and Pensacola Bay Oyster Company in a common goal of creating products, jobs and opportunities for growth of a new economic industry ecosystem is transformational. UWF, IHMC and other public sector partners will receive royalty income from these commercialization efforts that will be used to sustain and grow the Center.

Center proposes to measure deliverables through: new high wage job creation in the scientific and technical sector; sustainment of those jobs; federal research and funding; development of spin off technologies; companies and local business job creation; patents applied for and received; high school and college internships; and growth opportunities and partnerships with the military partners across the impacted counties.

The Center design includes office space, laboratory areas and workspace, large open areas designed for association and teamwork, class and lecture space, all amenities, and a berth for vessels vital to achieving goals. The IHMC has had success in developing structures that blend high tech use with traditional historical and waterfront uses, and recently built new headquarters in downtown Pensacola, receiving national recognition.

While the initial concept for this Center anticipated the renovation of the old Port warehouse, due diligence by the principals at the City, IHMC and Sam Marshall Architects determined that the costs of renovating were comparable to new construction costs. Realizing this and the significant benefits of hosting this Center in a newly designed and constructed facility, all parties agreed that to delay this submittal until the design of the new facility and construction proposal could be included in this proposal.

The Center partnership is well poised to deliver lasting and sustainable results to innovate and transform how we operate, measure, respond, produce, manage and travel across the coastal area of Northwest Florida.

Funding and Budget (as provided by the applicant)

5. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal.

Proposed Ten Year Project Costs		
Infrastructure Project Costs		
	New Construction	6,500,000
	Reconstruction Berth	1,000,000
	Design & Engineering	475,000
	Remediation	700,000
	Land Acquisition	1,000,000
	Land Improvement	525,000
	Insurance (10 years)*	665,000
	Equipment	2,000,000
	<u>Furnishings</u>	500,000
	Supplies	100,000
Work Force Development		
	Salaries (initial seed 38 jobs)	7,500,000
	Salary match years 1-10	
	UWF Marine Research	5,000,000
	IHMC Human Perf Team	2,000,000
	IHMC Human Machine/Robotics	2,950,000
	Center Administration	6,160,000
	Equipment	1,000,000
Other (e.g., grants, etc.)		
	Florida Fish and Wildlife	2,500,000
	County PPEBP Estuary Program	2,000,000
	<u>City 9 year in kind Occupancy</u>	4,860,000
	<u>36,000 sq ft @ \$15 sq ft.</u>	
Other-Venture Capital initial investment		
	Cobalt Intelligence	2,573,000
	Pensacola Bay Oyster Company	
	Aquaculture Jobs & Equipment	575,000
Total Project Costs		50,583,000
Total Amount Requested from Triumph		15,000,000
Match by Project Partners		35,583,000

*Estimate for a value of \$6,624,000 with deductibles of \$5,000 including other Perils and a 3% windstorm deductible (\$25,000 minimum), This equals \$66,459.95 including taxes/fees to include Flood Coverage.

Triumph Gulf Coast Funding will be utilized within the first thirty-six (36) months, equally split between the infrastructure costs of building the Center Facility and berth at the Port, and the initial seed money for the scientists, post-doctorates, and research technicians at IHMC and UWF.

The City of Pensacola is supplying the land at the Port and a 99 year ground lease to establish the Center. This lease for years 2-9 of the project is valued at \$ 4,860,000 (Estimated based \$15 sq ft at 36,000 sq feet).

Letters of Support

Greater Pensacola Chamber of Commerce

Escambia County Board of County Commissioners

The Port of Pensacola

The University of West Florida

Florida Fish and Wildlife Conservation Commission

Naval Diving and Salvage Training Center

Florida Sea Grant, and the University of Florida Extension in Escambia

Visit Pensacola

Pensacola Bay Oyster Hatchery

Marine Science Academy, B. T. Washington High School