

AEPLOG



Bridge to the Future

An unmanned, autonomous container that moves like an 18-wheel truck at sea and on land is one of TechPort's newest projects. Led by Dr. James Whang, co-founder, chairman and president of [AEPLOG \(Advanced Engineering, Planning, Logistics\)](#), **Sea Trucks** is a perfect fit for the entrepreneurial consultancy offered by TechPort.

Whang brought the invention to TechPort about a year ago, seeking the opportunities to connect this technology with those best suited to utilize it.

"We are way beyond the R&D stage," Whang says, referring to research and development, his company has already spent close to \$9 million and has conducted more than 1,000 sea trials of full-scale 20-foot electric and 40-foot diesel Sea Trucks on the Chesapeake Bay in Maryland. "TechPort will help us penetrate the Navy end-user communities."

The TechPort Entrepreneurs in Residence (EIRs) are thrilled to work with Sea Truck on this endeavor.

"TechPort, brings the expertise to target the right investor, the right way, and while we can't guarantee investment, we have the expertise to avoid the many pitfalls," Julie Lenzer, Acting Director and Chief Innovation Officer for the University of Maryland says. "Having the opportunity to work with AEPLOG on this exciting venture will help open doors for many future applications of this technology."

Sea Trucks can be marketed both commercially and for defense systems. The intermodal container boxes are approved and governed by the International Standard Organization (ISO) of

the United Nations, which makes them certified to move timely and efficiently by truck, railcar and air.

“And it’s cheap,” Whang says, citing the cost to move a 20-foot ISO container box full of payloads by a container ship from Los Angeles to Tokyo on Sea Trucks at about \$200. “Nobody can beat that price.”

Besides the apparent military applications, some other maritime-related industries where Sea Trucks could be cost-effectively used include the offshore petroleum, mining and energy production industries, marine pollution control, firefighting, search and rescue, humanitarian assistance and disaster relief.

“Firefighting ships can only get so close and must stay upwind of a fire at sea, but unmanned, autonomous Sea Trucks can get very close without putting anyone in harm’s way,” says Whang, adding that sonar-equipped Sea Trucks could help quickly and cheaply locate the underwater black box flight recorder after a plane crash at sea. “You don’t need many military ships to discover the [black box] ping.”

It uses wireless, remote, satellite communication systems, to achieve effective command, control, communication computation, intelligence, surveillance and reconnaissance (C4ISR), functions to simultaneously track, monitor, command, control and communicate with a single or fleet of Sea Trucks at sea.

“Our Sea Trucks can also be amphibious, if they are equipped with tracks or smart tires. You lower the tracks down and it will move through mud, sand and beaches like a tank,” Whang says. “When it goes in water the tracks are retracted into the belly of the container.”

Whang sees endless military uses for his technology. But most importantly, because the Sea Trucks are unmanned, it is life-saving technology.

“Sea Trucks are expendable,” Whang says of the containers. “Our soldiers and sailors are not expendable.”