

## METS 2019 POSTER ABSTRACT

### A New Type of Hydrokinetic Turbine

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Our company is a developer of hydrokinetic turbines for use in any kind of flowing water, ocean currents, tidal currents or run-of-river currents.

This new and unique hydrokinetic turbine is a true innovation. It accelerates the ambient flow velocity of water up to three-fold and, in some cases, even more. This has not been achieved by any other turbine design previously and, therefore, we are convinced that this concept has enormous potential to transform the industry and advance technology, creating turbines that are more efficient than any previous designs.

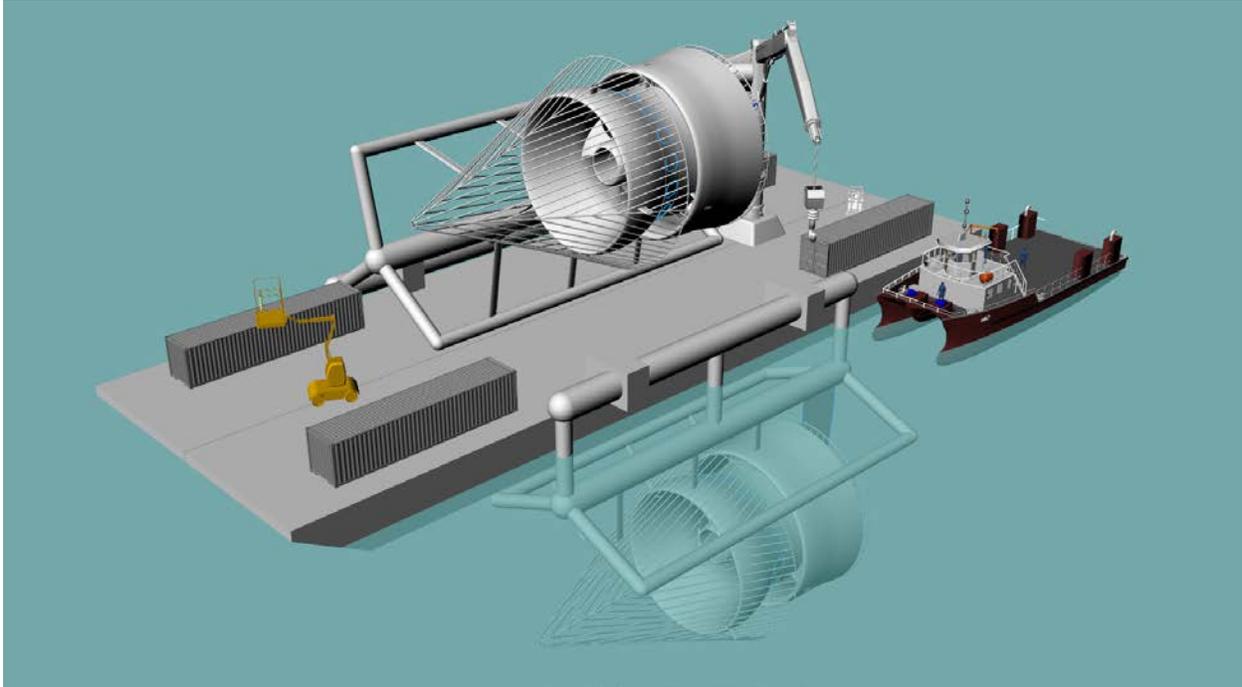
Our new Flow Acceleration Technology is based on the hydrodynamic effects created by the hydrofoil shaped rotors blades and multiple hydrofoil shaped accelerator shrouds which increase the flow-through velocity, allowing augmented extraction of torque and energy from any ambient flow speed.

We filed a patent application with the USPTO in 2015 and for international protection via PCT. November 2018 we filed a second patent application for an additional performance enhancing device related to protect our latest revolutionary wildlife and debris excluder modification.

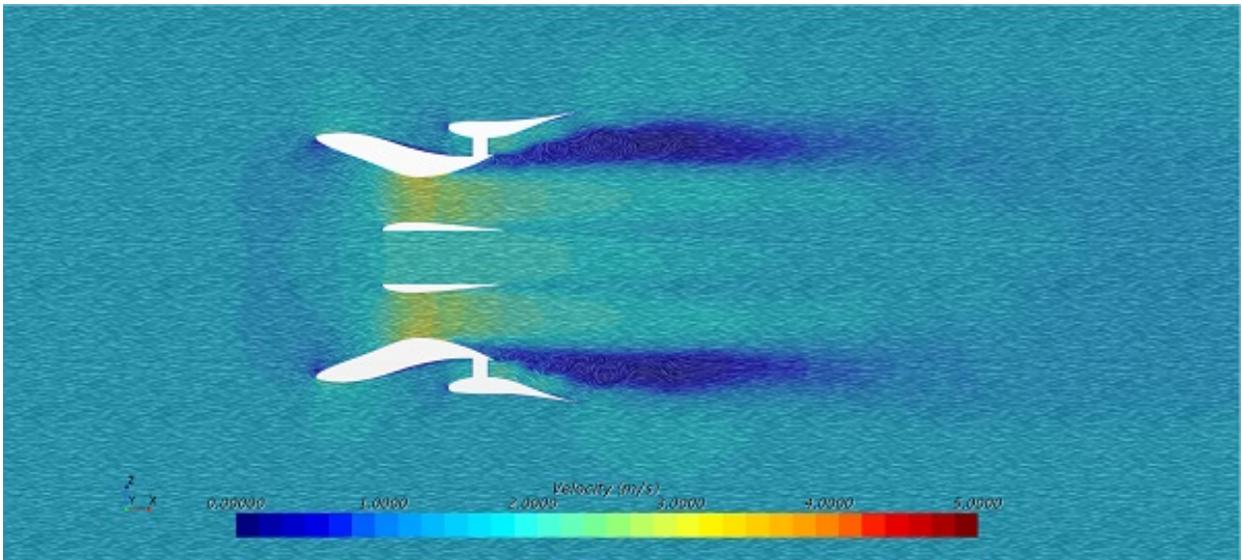
After extensive Computational Fluid Dynamics or CFD simulations and analysis, evolving and optimizing the design to an advanced stage, we have built and tested prototype #1. Applying the insights of this work we built and tested prototype #2. Now we have completed prototype #3 with testing scheduled in the first quarter of 2019.

Our turbines are uni-directional with the water always flowing and the turbine always rotating in the same direction. This feature has proven to be more efficient than bi-directional turbines that rotate in opposite direction at the change of each tide. Therefore, our installation methods are self-orienting to allow them to point exactly in the direction of the water current. This captures optimal water flow.

**FIGURE 1. THIS IS A FLOATING INSTALLATION**



**FIGURE 2. THIS IS A CFD CAPTION**



### **ACKNOWLEDGEMENTS**

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