Terra Azul

advancing sustainable maritime shipping

Dear Sir or Madam,

Humanity progress is made, almost, from ideas. The majority of technological advancements and inventions, started as just an idea: even the giant technological companies of today, are the result of the development that started as an idea in the mind of their creators - Google search algorithm, the Facebook, Uber, and so much others, the list is growing every day.

Our current times requires ideas that make important sustainable advancements, so we could have an habitable environment in the future, a thriving planet. Terra Azul Research is a holistic approach to a more sustainable maritime shipping future. Those are not conventional ships, and will revolutionize maritime shipping efficiency.

I'm a self-funded researcher, work on a sustainable advancement that could change how we use the oceans in some economic and environmental relevant ways. This research accomplished an important breakthrough, and this project have a considerable clean tech disruption potential. This is a relatively simple, straightforward solution to a complex infrastructure problem, using proven technologies on a smart way. I'm asking for an opportunity to present this research and related inventions to venture capital, with the intent to create a startup to advance the maritime shipping sector.

Maritime shipping is responsible for 90% of all international commerce cargo transportation, and one of the largest polluters, source of concern for both air and water contamination, greenhouse gases, and marine wildlife disruption with noise and ballast contamination.

There is growing concern about maritime shipping emissions, both at port and on the vessels. It's a trillion Dollar business with a huge potential environmental liability: the 15 largest shipping vessels produce as much pollution as all the cars on Earth. Around the World, governments are imposing restrictions and making available funding for solutions in this transportation field, including United Nations programs, China and EU.

This research focus key points are passage efficiency, terminal efficiency, and overall resiliency of both passage and terminal operations, to deal with rising costs of insurance from climate change. Ocean conservation and the preservation of marine wildlife and the health of terminal port cities populations are also of paramount importance in this research: those vessels will be completely silent, will have no emissions and no contamination from ballast.

Some recent technological developments on maritime shipping are still years from reasonably solve those issues. As demonstrated by the Lloyds Register and UMAS study (https://www.lr.org/en/latest-news/defining-decarbonisation-pathway-for-shipping-zero-emission-vessels-2030-study-released), fully electric ships are on the horizon. Further research, otherwise, proves that conventional ships using electric propulsion are not sufficiently efficient to transoceanic shipping, nor improves resiliency or port efficiency. For those new technologies to operate with efficiency and resiliency, they require a new operational platform.

Without a new vessel platform for electric ships, the transition to clean maritime transportation will be costly and will take several decades more, with a transition phase using LNG hybrid, low efficiency conventional ships. The consequences of a high emission operation for another half a century will be not small in any measure: not only from the shipping operation, but from the continuation of an industry that is a high carbon emitter in all phases of the LNG and other fossil fuels life cycle.

This proposed concept new class of vessels uses several advancements in fluid dynamics, electronics and materials technology, and operates on an entirely different way. They are more efficient and cheaper to construct and operate, and open broad possibilities for automation of both cruise and terminal operation.

The research have some sensitive information, and as this concept have several potential economic implications, I'm not able to disclose it publicly.

Thank you for your attention and support.

Sincerely,

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