

Zulu Associates releases latest designs for first zero emission short sea vessel featuring wind blade developments

The Club kicked off its [Technology in Shipping](#) series at the start of 2023 with an article by Robert Merrylees (Policy Manager at the UK Chamber of Shipping). This initial piece looked at the role of evolving technologies in today's shipping sector and focused amongst other topics on autonomy and decarbonisation. It seems apt therefore to end 2023 with an exciting press release from our good friends Zulu Associates and Anglo Belgian Shipping Company which brings together these two concepts. Drivers of technology are varied. The green agenda is a particularly powerful positive driver as our sector must quickly rise to the dual challenge of improving fuel efficiency and reaching ever lower emission targets. Negative drivers of course include Covid and the current geopolitical tensions and conflicts with their significant and obvious risks to seafarers, the environment and property. These drivers have and continue to intensify.



Image credit: Zulu Associates

This new concept design for a groundbreaking 200 TEU short sea container vessel which is not only fully autonomous but also fully electric and featuring an auxiliary wind assistance system is truly innovative. It is this combination of aligned technologies which really does evidence the sector responding in dramatic fashion to these drivers. Zulu Associates CEO Antoon Van Coillie puts it well when he says, *"we are challenging ourselves to build the most advanced and*

innovative vessel we can”.

Zulu Associates CEO Antoon Van Coillie said the latest design of the Zulu Mass is produced by Dutch ship naval architects Conoship International.

“We’re delighted to be working with Conoship International who share our passion for innovation,” he said. “As a result, apart of being fully electric and autonomous, we’re adding wind blades and examining wave foil propulsion. This is a very exciting time for short sea ship building where traditional concepts are being challenged, driving change and enabling new zero emission possibilities.”

Mr Van Coillie confirmed the designers are looking for the vessel to operate with modular energy containers using batteries and/or hydrogen-based power systems to provide the prime energy sources. Discussions with providers of energy on a use basis are on-going in parallel with the design as this is an integral part of the vessel's operation.

“Autonomy is still in its infancy but we want to show what is possible and support the process of regulation keeping pace with innovation,” he said. “As a result, the Zulu MASS is designed from the outset to be unmanned as a part of a Maritime Autonomy System, which will allow it to compete with fossil fueled or hybrid vessels.”

Mr Van Coillie said Zulu Associates are fully supporting the Belgian and UK Government's desires to see marine innovation put into action.

“Belgium is at the forefront of marine innovation and has had a legal framework for pilot projects featuring unmanned vessels in the North Sea since July 2021,” he said. “That has given us the confidence to embrace and invest in the Zulu MASS where some in the industry were being much more cautious. Now, Belgium, the UK, Denmark and the Netherlands have signed a Memorandum of Understanding aiming to harmonise the procedures to obtain certification for an unmanned ship to sail between the four countries. This should result in a single request replacing the need of having to apply for two to more permits. We aim to seize the initiative of this opportunity and get the Zulu Mass in the water as a world first and industry trailblazer in 2025.”