Michael Henriksen at IDRA Reykjavik, Iceland

WAVEPISTON NEWS

October 2025

Introduction

Not a day goes by without a strong reminder of the large geopolitical shift taking place. Among other things, a shift from a focus on “cost, cost, cost” to resilience, security of supply, independence and local content. This is supporting our message on adding wave energy to the future renewable energy mix. On top of this, water security will be on top of the geopolitical list, both due to the increased water scarcity and the fast-growing energy and water needs by the large data centres.

An important chapter has been finalised in relation to our full-scale prototype testing at PLOCAN, Gran Canaria. Now the full focus is on the development of our Minimum Viable Product including the ongoing onshore testing and preparing for the offshore test campaign in 2026-27. The results so far from the MVP work are very positive, both on the modelling and experimental side, which again confirms the great potential of the Wavepiston system.

The last months another two engineers, Surendra and Christoffer, were welcomed in our team. This means that we this year have had the pleasure of four bright engineers joining Wavepiston. This is important both for adding extra competences and for new, critical eyes and perspectives, which also give a boost of energy to the whole team.

Lastly, the Wavepiston board of directors have recently decided to initiate the next equity raise that we have been preparing for quite some time. The next months will be busy with investor meetings and negotiations on the raise.

Michael Henriksen
Wavepiston CEO

Gran Canaria update

As reported in the July newsletter we have been working on the prototype string and energy collectors the last months. The system has been in the water for 2 years now, which was the design-lifetime. As we have sufficient experience and data for our Minimum Viable Product (MVP), i.e. our ongoing development and test work, we have concluded that it is not worthwhile to continue the operations of the prototype system. Hence, we are taking the system back to our workshop in the Port of Arinaga for analysis of the components and decommissioning. We are in parallel preparing for the next offshore test campaign of the MVP planned for 2026-27, starting with the ongoing onshore test as explained under COHSI-WEC and SHY projects.

New employees

This time we welcome Surendra Reddy Thallapureddy and Christoffer Fyllgraf Christensen as Development Engineers to our team in Denmark. Surendra has a master's in energy engineering from Aalborg University (AAU) and experience from Mercedes-Benz, Tata Motors and Blue Power Partners. Christoffer has a PhD in structural optimisation from the Technical University of Denmark (DTU). Please join us in welcoming them into the Wavepiston family.

Christoffer Fyllgraf Christensen

Surendra Reddy Thallapureddy

Wavepiston prototype at PLOCAN, Gran Canaria

Technology development

COHSI-WEC

In September Jacob Andersen (AAU) presented at SEMC2025, the large international CFD conference held in Cape Town, South Africa, exiting results of two years of wave tank testing and numerical modelling of Wavepiston's flexible sails. The results demonstrate and verify Wavepiston's patented design of using flexible sails as "Storm protection".

Leveraging Flexibility In The Design Of A Wave Energy Converter

A critical aspect of offshore operations is the weather conditions required to perform different type of operations. By adapting our design to allow for worse weather conditions during installation and maintenance activities, we reduce the dependency on good weather windows. This allows us – depending on specific site conditions – to act quicker and in shorter timeframes, eventually reducing costs and lowering the LCOE. One of our design requirements is that the wave energy converter (WEC) can be towed and installed in normal weather conditions (significant wave height (Hs) up to 1.5m).

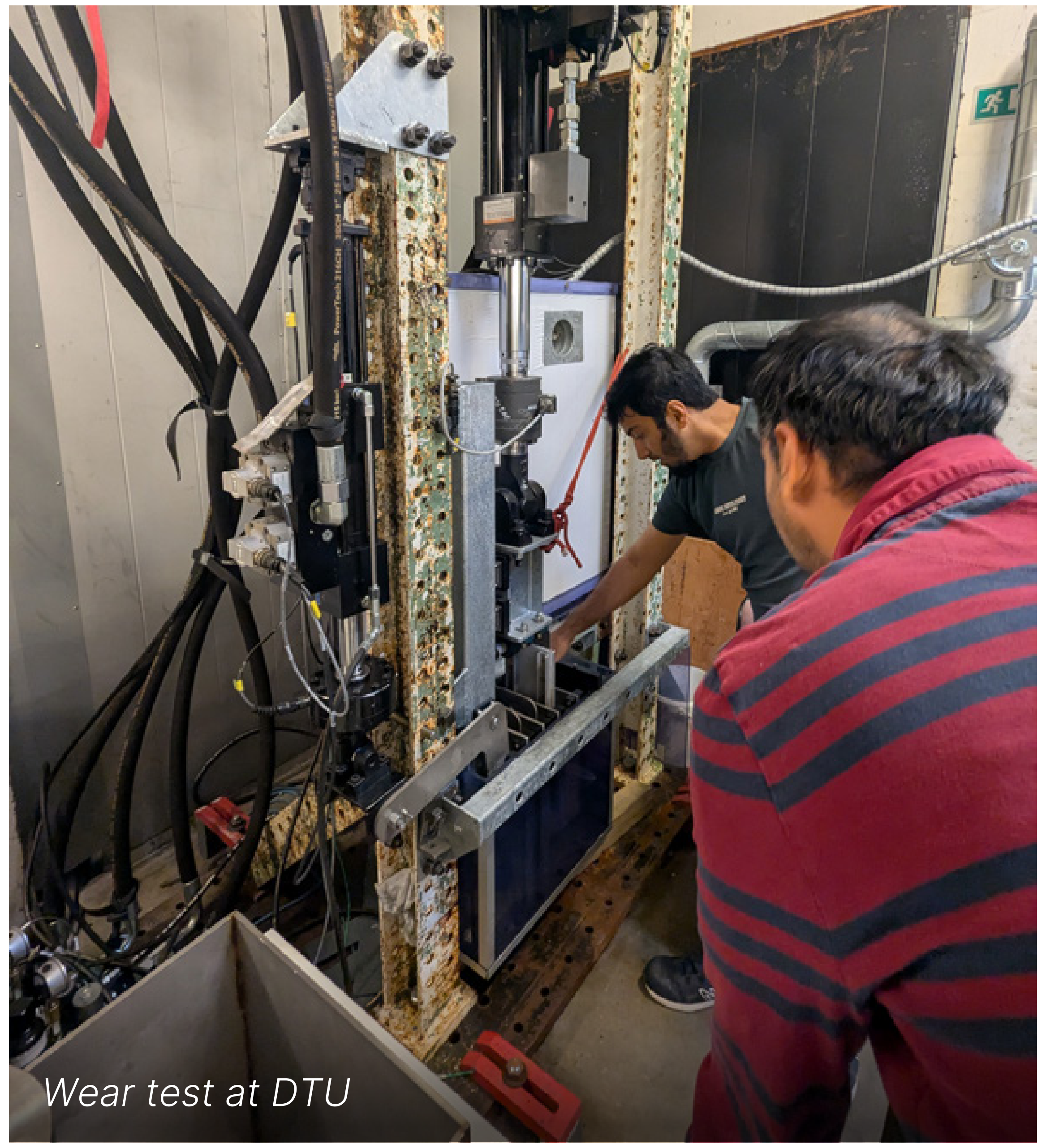
In October, we have successfully tested towing procedures (scale 1:30) in Northern Ireland. The preliminary results show that a towing speed of 4 knots in Hs<1,5m is achievable.

SHY

This years EWTEC conference in Madeira, Portugal was a great success for the SHY project. SHY team members contributed with four presentations and two publications directly linked to learnings from the project.

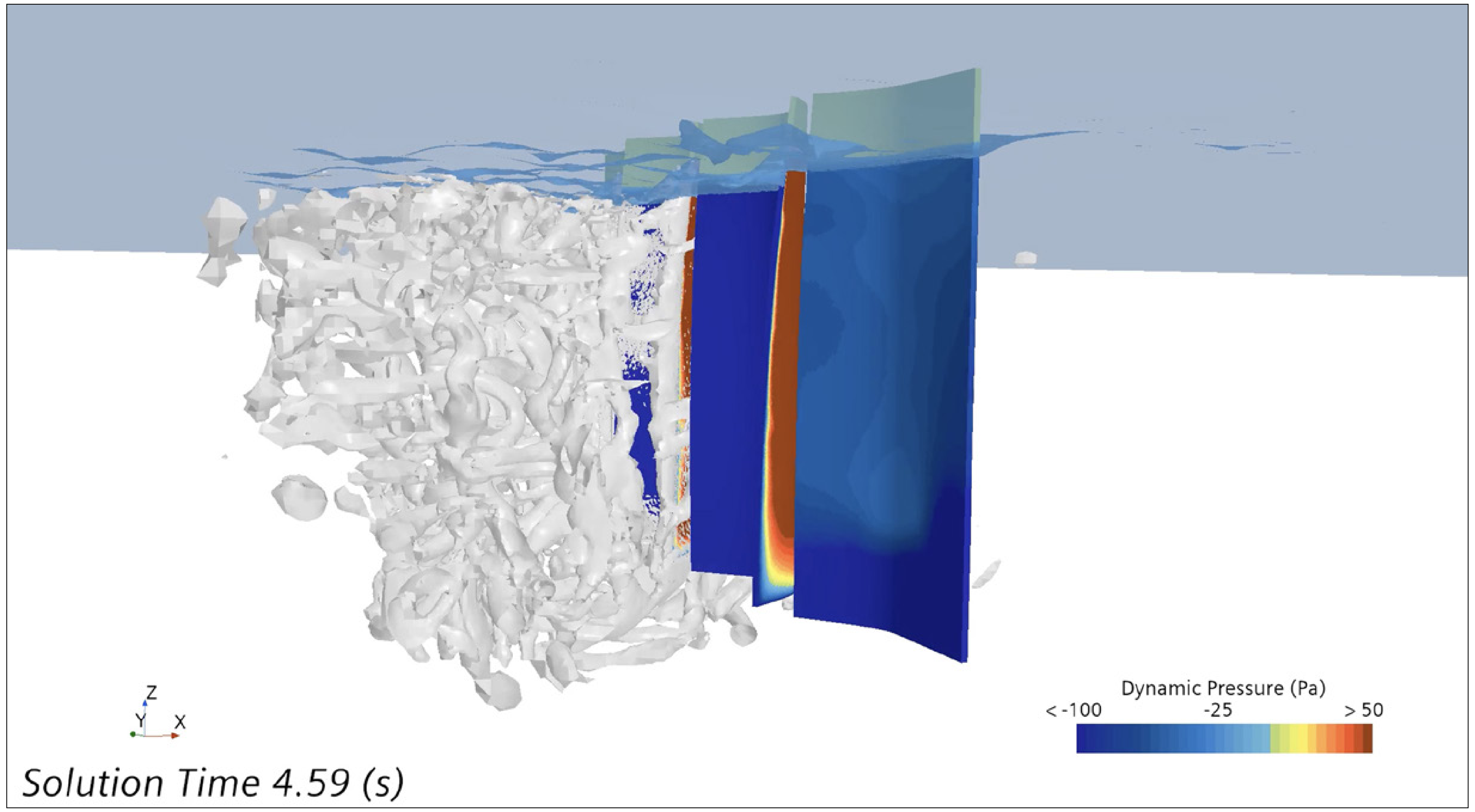
1. Influence of restoring force absence and passive power take-off on Wavepiston performance: View Publication
2. Analysis of weather windows and impacts of time to repair on device availability at two Wavepiston deployment sites: View Publication

In the meantime, the team is preparing for the short-stroke test of the pump through the assembly of the test-rig at the DTU. More on that in our next newsletter.



Wear test at DTU

SHY test-rig under construction at DTU



COHSI-WEC Simulation

COHSI-WEC
DTU
EUDP
This project is co-funded by EUDP
SHY
Funded by the European Union

Commercial development

Martinique project

We have successfully applied for a grant from Ademe to execute our wave data campaign in Martinique. Our project development partner YS-EMD ceased operations last summer but they have been very helpful in the handover of contacts and material to allow Wavepiston to continue the work with the existing partners in Martinique. CreOcean will be responsible for the execution of the wave data campaign which is starting in the beginning of 2026.

Gran Canaria project

The first steps have been taken in securing the permits for our Gran Canaria pilot farm. Documents are being drafted, appointments being made and procedures being investigated and followed. Having an experienced partner in Bluenewables helps tremendously in the world of permitting.

There are still challenges around the world on clear and fast permitting procedures for offshore renewables, including fast-track permitting for innovative technologies. A point we often address when talking to policy makers.

Witteveen+Bos

Over the last couple of months, we have worked together with Witteveen+Bos, a Dutch-based engineering and consultancy firm founded in 1946, with extensive expertise in a.o. the water and energy sector. Together with them we have further analysed high-pressure pre-filtration options for Wavepiston's reverse osmosis desalination and business cases in the Caribbean region. The different business cases show clear potential for Wavepiston solutions, either in combination with existing desalination plants or as stand-alone off-grid desalination plants 100% supplied by the wave energy farm.


Martinique

Events and conferences

Since three years Wavepiston has been participating in Copenhagen's DHL Stafetten, an event that gets the pulse up, from running and from having fun as a team. And what a team it was this year, full house, new employees and broken records on carbon-plated shoes and sandals(!).

Wavepiston is strengthening its focus on desalination potential and as part of this effort, was honoured to present its solution at this year's IDRA conference in Reykjavik.

On behalf of Ocean Energy Europe, Michael spoke in the Danish Parliament during EUFORES "Inter-Parliamentary Meeting on Renewable Energy and Energy Efficiency". Under the name 'new kid on the block' he represented ocean energy and Wavepiston in a field of heavy weights in offshore renewables such as Green Power Denmark, Ørsted, Siemens Energy, Wind Europe and Jan de Nul.

To close an already busy October, Michael travelled – as representative for the Danish sector – to the Ocean Energy Systems Executive Meeting in Hangzhou, China. During this physical event, delegates from all over the world came together to share updates on latest developments and set the Ocean Energy agenda for the years to come. It was very inspiring to experience the "all in" approach in China. As we are seeing in solar, wind, EVs etc., China is also investing in being frontrunners in the Ocean Energy sector. We need to learn from this in Europe, and we need to take up the battle.

Michael Henriksen presenting in the Danish Parliament


Michael Henriksen presenting at IDRA Reykjavik, Iceland


Wavepiston participating at DHL Stafetten in Copenhagen, Denmark


Michael Henriksen at the OES Executive Meeting in Hangzhou, China