

# Wavepiston Newsletter

January '24

## INTRODUCTION

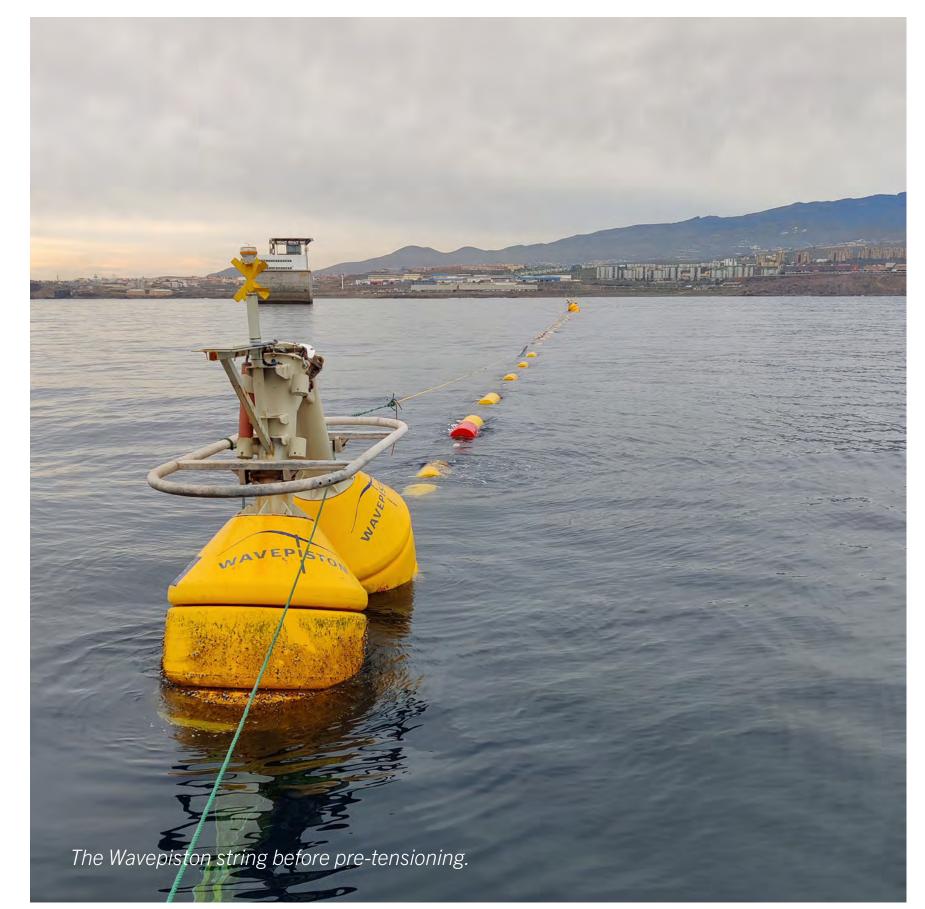
November to January has been another busy period for Wavepiston with a well-deserved Christmas break in between. The focus is still on the final steps of our full-scale installation. All parts except the energy collectors are ready. We are dependent on availability of vessels together with a good weather for our offshore operations. This has taken longer than planned, but we are progressing and are fully confident that we can soon commission our first full-scale system for power production and desalination.

In parallel we have people working on our next phase preparing for the commercialisation of Wavepiston, both on the technology and commercial development. Just before Christmas we were very happy to announce that our SHY project was selected for a large Horizon Europe grant of EUR 4m. On the commercial side we continue preparing for commercial pilot projects with key partners and have recently entered a close collaboration with Shell Technology — Marine Renewable Program.

Last, but not least, "money makes the world go around", we need to raise capital besides the public co-funding. Our official capital raise kicks off in February. With a continued support from our existing investor base and some new investors coming onboard we expect another successful round.

We hope you will enjoy reading the January newsletter. Feel free to share the news.

Michael Henriksen
Wavepiston CEO





# UPDATE ON THE FULL-SCALE INSTALLATION IN GRAN CANARIA



We have continued our installation work seizing the opportunities in the good weather windows combined with available vessels. The last quarter we have finalised the installation of the string, connecting it to the pressure pipe on the seabed leading pressurised water to the platform and concluded the pressure testing ensuring everything is tight and ready for commissioning as soon as the energy collectors are connected.

We have the energy collectors ready at the mobilisation site in the Port of Arinaga waiting for the vessel and next weather window.

#### **UPCOMING CAPITAL RAISE**

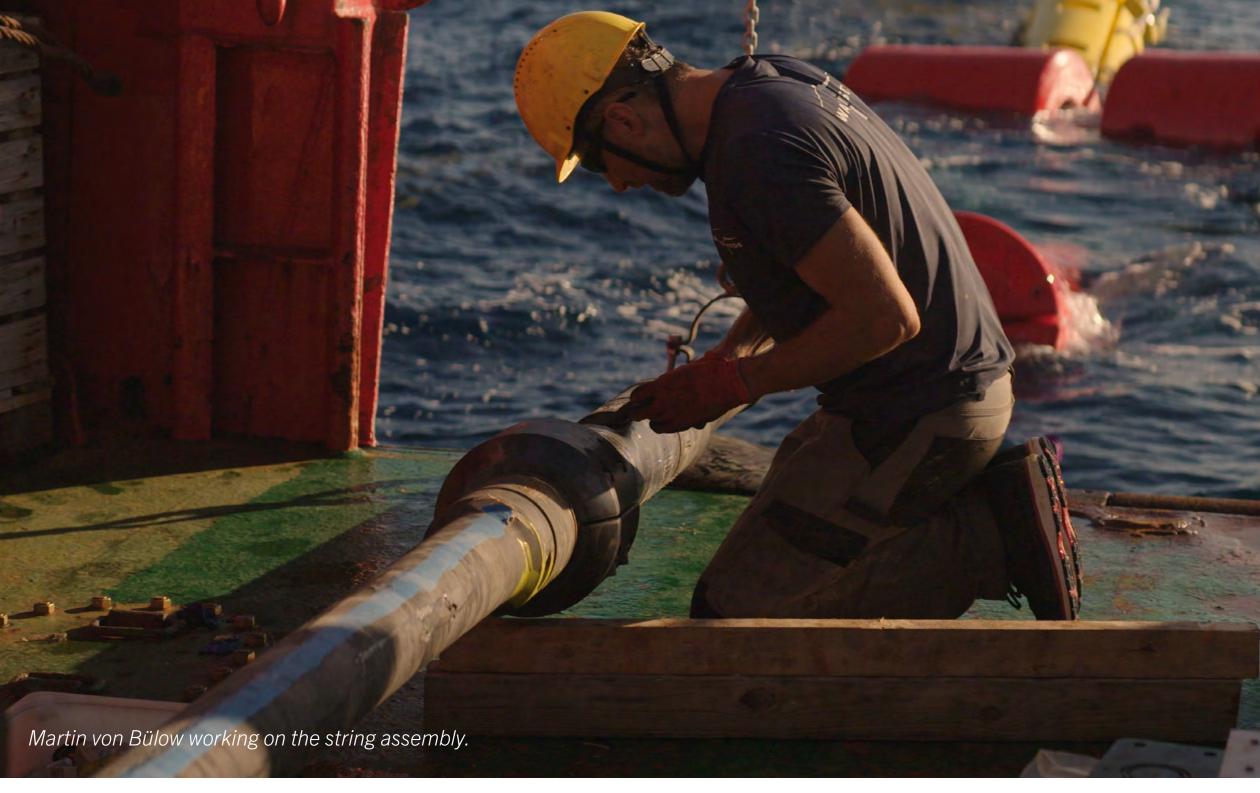
In February we will kick off the official raise of another round of capital. We are raising up to EUR 1.5m for the period Q1 2024 - Q1 2025. The funding is used for demonstrating results from our full-scale system in Gran Canaria during 2024, to mature the technology for commercialisation and to build out the organisation and commercial pipeline.

As we have successfully done before, we plan to start with a direct investment round in February followed by an equity crowdfunding campaign in March - April.

We already have commitments from existing and new investors, and we are confident that we can close the direct raise in February.

This raise is leading to the planned large raise of EUR 20m in equity from strategic investor(s) in tranches 2025 — 2028 to accelerate the commercialisation and technology development journey. We have international impact funds lined up that are interested in the next, large round.





#### SHY PROJECT

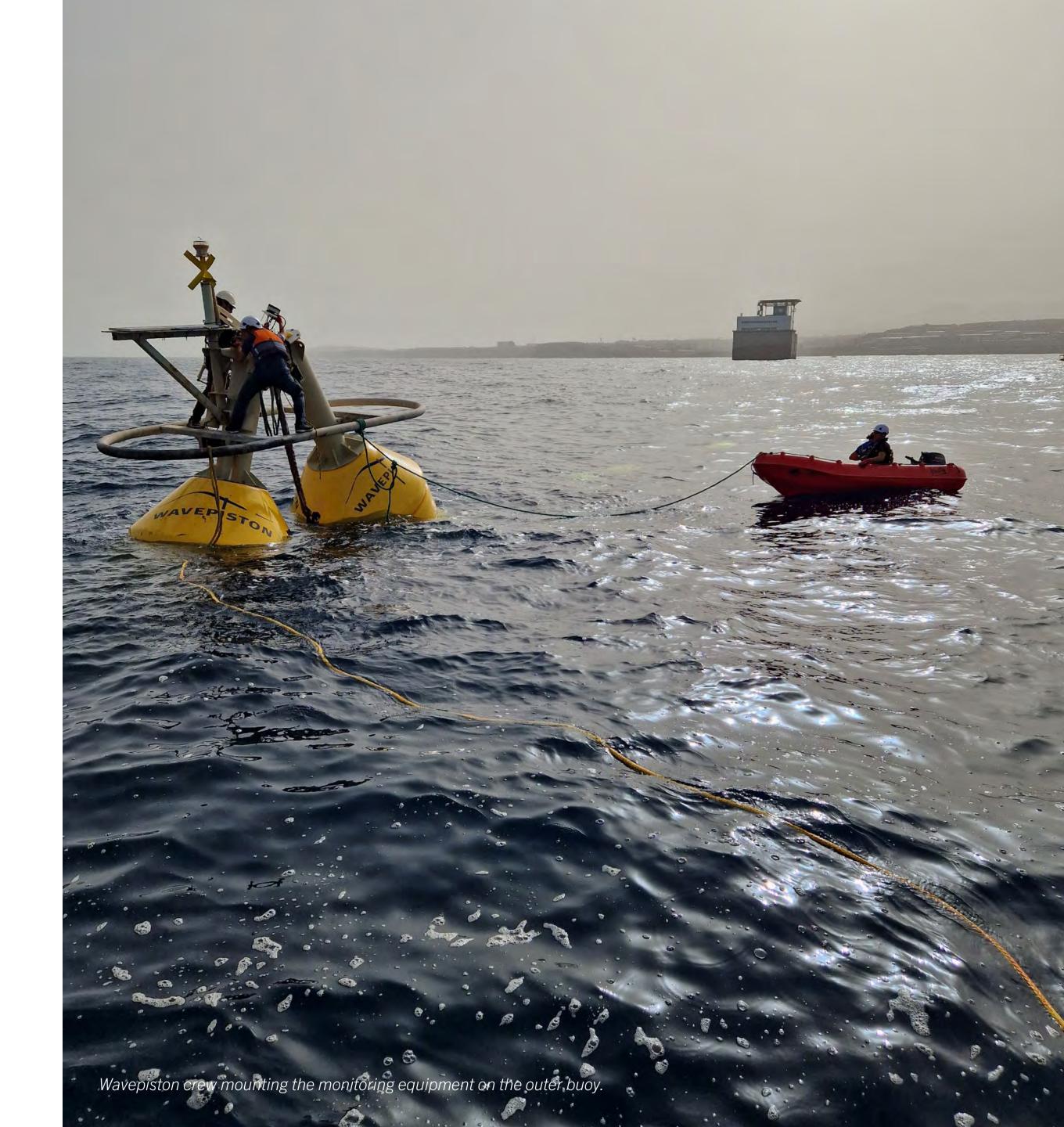
Christmas came early this year! Together with our consortium partners Wavepiston have secured a €4m Horizon Europe grant to launch our SHY project.

The SHY project is aimed at advancing wave energy by developing key components of a seawater hydraulic power-take-off (PTO) system, coupled with an advanced control strategy. This dual focus aims to reduce the levelised cost of energy (LCOE) while concurrently minimising the environmental impact.

We are excited to get started with this project in 2024, together with our partners:

- Maynooth University
- DTU Technical University of Denmark
- Fibron Pipe GesmbH
- LESER GmbH & Co. KG
- Julia Fernandez Chozas
- Matt Folley Applied Renewables Research
- Marine Systems Modelling
- Plataforma Oceánica de Canarias (PLOCAN)





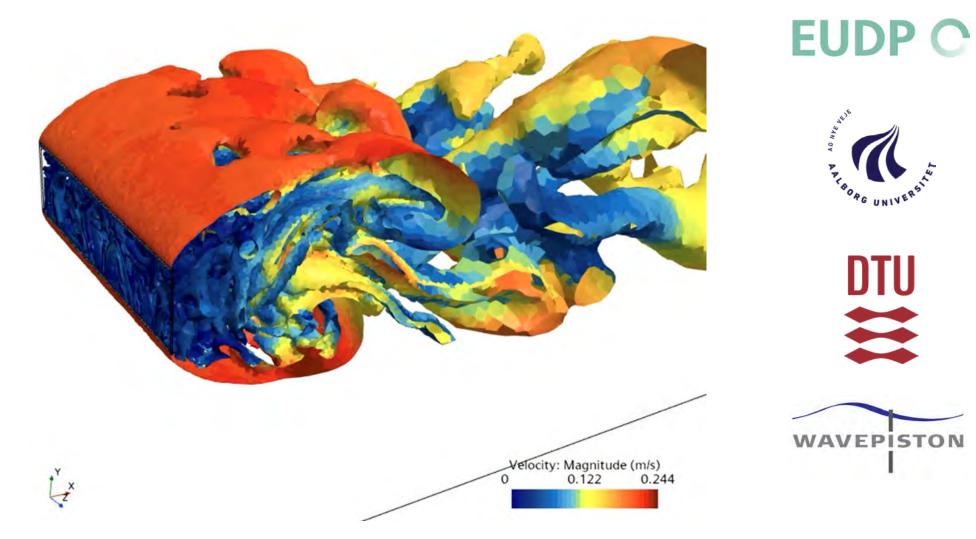
## **UPDATE ON THE COHSI-WEC PROJECT**

The COHSI-WEC project, with the purpose of developing a lighter, cheaper, and more robust version of the Wavepiston energy collector, has just completed its first 6 months of work.

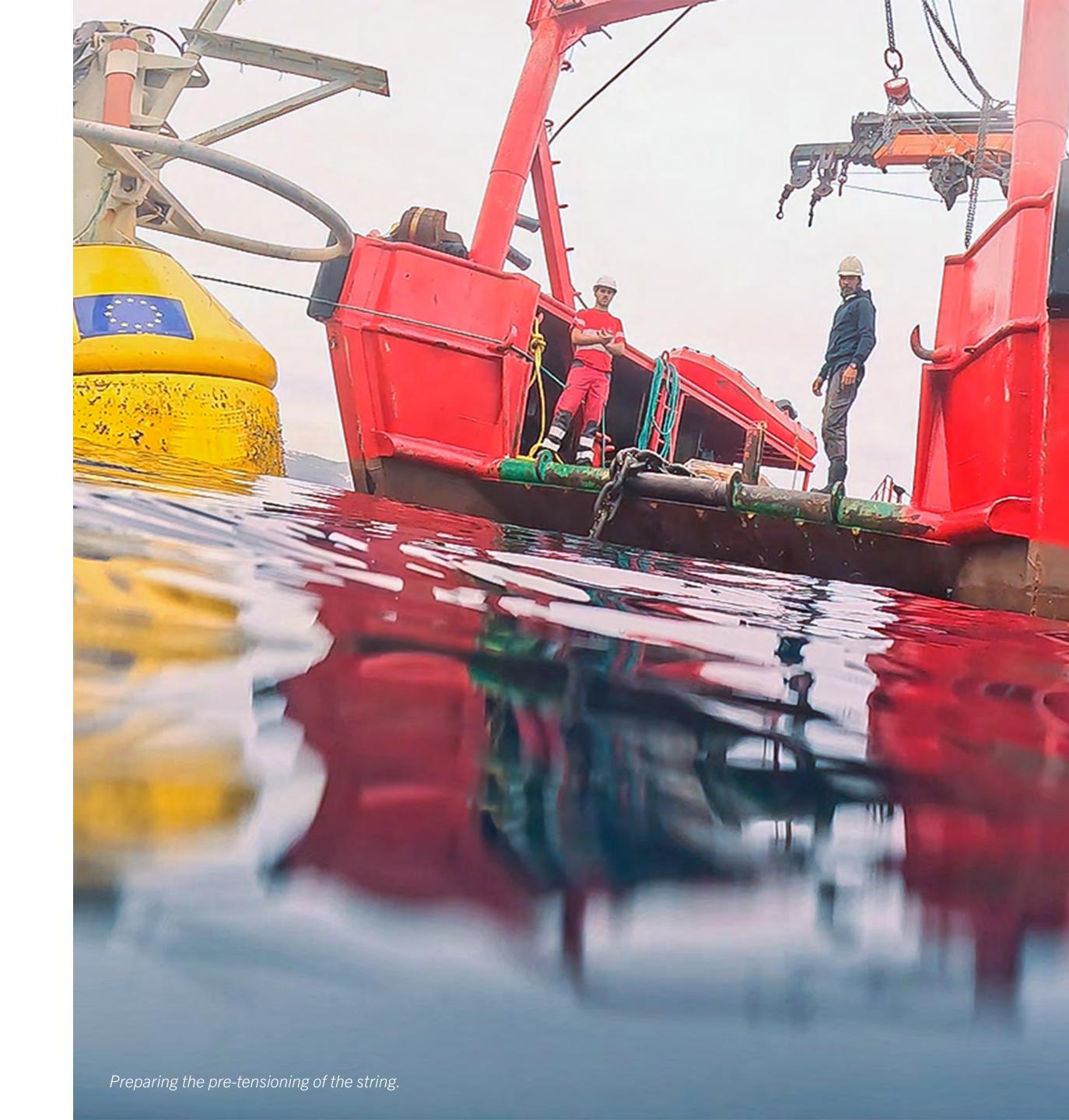
Significant progress is being made in the creation of the numerical models that will be used to support the design of the upgraded energy collector. Specifically, a state-space model capable of accurately reproducing the dynamics of the energy collector has been produced, together with a computational fluid dynamics (CFD) model of the sail (the element of the energy collector that interacts with the waves). Validation of these models using wave-tank experiments, allowing for their use with confidence in the design process, is planned as the next step in 2024.

This project has received funding from the EUDP programme.

#### **COHSI-WEC**



Complex flow pattern around the Wavepiston sail used to extract energy from the waves (Aalborg University, 2024).



# EVENTS, CONFERENCES AND MEDIA

Wavepiston has been present at several events during the last months, participating in meetings, pitch presentations and panel discussions, plus included in a broadcast on ocean energy.

Wavepiston was selected to pitch at the Tech Tour Blue Economy. Wavepiston did not win the pitch-prize but the pitch led to several follow-up meetings with potential investors in the weeks after. Tech Tour, one of Europe's largest investor-oriented communities, celebrated its 25th anniversary in March 2023.

In Copenhagen, the Spain — Denmark Summit took place. Besides The 'then' Crown Prince of Denmark and current King of Denmark Frederik X, the meeting was joined by

King Felipe VI of Spain. Under the presence of this highly decorated audience, our CCO Emiel Schut joined several meetings and panel discussions about the collaboration between Spain and Denmark.

At COP28 we were delighted with the opportunity to virtually attend during a panel discussion organized by Mr. Damien Prescod of Export Barbados. Our CEO Michael Henriksen had the pleasure to attend this event Sunday morning (6:30 am CET) and share his insight with the expert panel on The Blue Economy & Industrial Development Potential for Large Ocean States in the Caribbean. We are thankful for the opportunity to participate and look forward to a continued collaboration on the exploration of wave energy in Barbados.

In Gran Canaria Wavepiston was invited to present our experience on wave energy in the conference "Deployment of Marine Energies on the Island of Gran Canaria" arranged by the Insular Authority of Gran Canaria, through the Economic Promotion Society of Gran Canaria (SPEGC).

As a part of Euronews' Ocean TV series Wavepiston was chosen as one of the case studies in the wave and tidal energy episode. We had the pleasure of having the Euronews crew visiting and filming the Wavepiston site in Gran Canaria and interviewing our CEO Michael Henriksen. The broadcast can be seen on this <u>Euronews link</u>.









#### SHELL MRE

Wavepiston managed to secure its first commercial revenue with the delivery of a Technology Assessment Report to Shell Technology – Marine Renewable Program (Shell MRE).

Shell MRE is actively investigating the potential of marine technologies for harnessing energy from our oceans. As a crucial step in this journey, Shell MRE has partnered with Wavepiston to conduct a comprehensive desktop feasibility study to identify technological opportunities and potential avenues for collaboration.

Shell MRE is interested in learning from Wavepiston's pioneering projects such as: COHSI-WEC where we develop and test a lighter, cheaper, and more robust version of our energy collector and the full-scale system in Gran Canaria for power production and desalination. Shell MRE is supportive in developing Wavepiston's experience.

We are very happy with this partnership and look forward to keeping Shell MRE involved in future developments.



#### **CONTRACTS FOR DIFFERENCE UPDATE**

In our July 2022 Issue we shared a story about the United Kingdom's leap towards the front in providing support schemes for renewable energy. The UK included Tidal and Floating Offshore Wind to its 4th allocation round back in 2022. Since our update in July 2022 Wave Energy has been added to the scheme.

Although the 6th round is yet to start in March 2024, during November 2023 the Core Parameters for the sixth allocation round were published. In the 6th round Wave Energy has a strike price of £257 per MWh\* (resembling £353/ MWh in 2023), an increase of 5% compared to the previous round.

Although this jump in price is remarkable, it is still minor compared to the jumps seen at other types of technology: Tidal (+29%), Offshore Wind (+66%) and Floating Offshore Wind (+52%). Since the introduction of CfDs in 2015 the prices have been declining steadily but 2023 marks the end of this decline.

The raise in prices is an effort of the British government to attract renewable energy investments to the UK. Technology providers have been hit hard in recent years due to price increases in raw materials, higher interest rates and global supply chain constrains.

With the latest developments, the CfD programme becomes an interesting opportunity for Wavepiston. We will follow the developments closely and assess our opportunities in the UK, as they are a leading country in the support of ocean energy. To be continued...

Table 1: CfD Administrative Strike Prices (£/MWh, in 2012 prices).

Technology	Administrative Strike Price
Advanced Conversion Technologies (ACT)	210
Anaerobic Digestion (>5MW)	144
Dedicated Biomass with CHP	179
Energy from Waste with CHP	181
Floating Offshore Wind	176
Geothermal	157
Hydro (>5MW and <50MW)	102
Landfill Gas	69
Offshore Wind	73
Onshore Wind (>5MW)	64
Remote Island Wind (>5MW)	64
Sewage Gas	162
Solar PV (>5MW)	61
Tidal Stream	261
Wave	257



<sup>\*</sup> CfD Administrative Strike Prices (£/MWh, in 2012 prices)