

Transcript

ASTUTE 2020's collaboration with Marine Power Systems

Time	Audio	Video
00:00:00	<p>ASTUTE 2020 (Advanced Sustainable Manufacturing Technologies) is a multi-university partnership of five Welsh Higher Education Institutions, part-funded by the European Regional Development Fund through the Welsh Government.</p> <p>ASTUTE 2020 is designed to stimulate growth in the manufacturing sector across Wales, by applying advanced engineering technologies to manufacturing challenges, driving cutting-edge research, development and innovation.</p>	<p>Instrumental music in the background.</p> <p>ASTUTE 2020 (Advanced Sustainable Manufacturing Technologies) logo.</p> <p>Drone footage of Swansea University Bay Campus.</p> <p>ASTUTE 2020 Higher Education Institution Partner logos - Aberystwyth University, Cardiff University, Swansea University, University of South Wales and University of Wales Trinity Saint David.</p> <p>European Regional Development Fund logo.</p> <p>Footage of the buildings at the Swansea University Bay Campus with a view looking over to the Port Talbot</p>

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00:00:31	<p>Hi I'm Gareth Stockman, I'm the CEO of Marine Power Systems. We're developing devices that are capable of producing clean, affordable, reliable power. MPS is based in South West Wales and ASTUTE is on our doorstep so it is an excellent location and the obvious choice for an academic partner to engage with.</p>	<p>Introduction of Gareth Stockman, CEO of Marine Power Systems in front of ASTUTE 2020 banner and ASTUTE 2020 case studies and brochures on the desk before moving onto footage of the float and staff.</p> <p>Shot of MPS logo.</p>
00:00:52	<p>Marine Power Systems have worked with ASTUTE for a number of years on several research projects. We engage with them as part of ASTUTE 2020 as we wanted to use a known manufacturing process which involved glass reinforced plastics, we wanted to use that for our main float on our wave energy converter.</p> <p>We felt it was critical to therefore model and simulate the device and the float in a new scenario to ensure that when we actually deployed it in sea, it could deal with the harsh environment.</p>	<p>Images of CFD analysis. Footage of Gareth Stockman describing research challenge and the assistance required.</p> <p>Footage of the glass reinforced plastic float being manufactured with the caption 'WaveSub float collaboratively designed between MPS, Camplas and ASTUTE 2020 and the float manufactured by Camplas Technology Ltd'.</p> <p>Image of the WaveSub float.</p> <p>Simulation footage of the device and float in water.</p>

00:01:23	The collaboration with ASTUTE 2020 was very successful. Engaging with a team of academics who already had key skills in finite element analysis undoubtedly expedited our time to developing the WaveSub.	Exterior footage of the WaveSub and staff on a barge alongside it.
00:01:39	ASTUTE 2020 offered a huge amount of assistance throughout the project. They have access to state-of-the-art equipment which allows us to do computational fluid dynamic analysis, optimise the device, make sure we could truly understand how it would operate and from them informing us, we could make sure that we could make the strongest structure with the smallest amount of material which would ultimately lead to a lower cost manufacturing.	Barge transporting the WaveSub across the sea. Footage of Gareth Stockman describing what ASTUTE 2020 can offer and how they assisted. Footage of equipment being lowered onto barge and staff setting up with Gareth Stockman also assisting.
00:02:06	We feel absolutely confident in ASTUTE 2020's computational analysis that they have done on our float which is a key part of the manufacturing. They've de-	Footage of construction machinery and Gareth Stockman on a boat travelling towards the barge. Footage of the WaveSub being transported across the

	risked it and we are confident going forward that our floats can be built at large scale for the commercialisation of our devices.	sea. Footage of Gareth Stockman discussing confidence in the work of ASTUTE 2020.
00:02:28	<p>The partnership between MPS and ASTUTE 2020 has worked incredibly well. It was recognised by the Insiders Business award for a research and development award for the successful collaboration.</p> <p>MPS has been really pleased with the results of the project and it's down to ASTUTE's hard work and the MPS team, they have lead us to a position where we were confident in the manufacture of a large scale float.</p>	<p>Footage of MPS staff on a boat and staff gathered together for an informal meeting on the boat, moving onto footage of motorboat on the sea going towards the WaveSub.</p> <p>Shot of award being presented.</p> <p>Gareth Stockman describing results of the collaboration.</p> <p>MPS staff travelling towards the WaveSub by boat. Footage of staff securing equipment on the WaveSub. Staff returning to the boat after having successfully set up.</p>
00:02:59	The ASTUTE 2020 team was very supportive and had	Staff travelling away from the float and back to the

	<p>a diverse and unique skill set which added huge value to the MPS team. I thoroughly recommend anyone with a manufacturing related project to engage with ASTUTE 2020.</p>	<p>barge. Gareth Stockman recommending others to engage with ASTUTE 2020.</p>
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