

PRESS RELEASE

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2nd Generation Seatooth improves offshore safety and reduces cost in North Sea debut

A new generation of subsea technology has been successfully used to improve safety and reduce cost in the North Sea oil and gas industry for the first time. Cutting-edge computing and subsea wireless IP camera technology deployed on a pipeline construction project enhanced diver safety and generated significant cost savings by avoiding the need for additional subsea vessels.

The work was undertaken for a new subsea pipeline which was recently installed and was necessary to bypass a platform being decommissioned. As part of the final cleaning and de-watering process prior to the pipeline going live, a gel cleaning device known as a pig is passed through the pipeline at high pressure. Once it reaches the termination point, the pig is ejected into the sea where it fragments.

However, one of the key challenges faced by the industry is how to monitor the pig passing through the pipeline and fragmenting in open water to verify pipeline cleanliness, without the need for a diver or remotely operated vehicle (ROV) in the immediate vicinity. The solution, engineered by wireless subsea device specialists WFS, came in the form of subsea HD cameras mounted on a standard subsea basket, wirelessly controlled and capturing the entire operation in stunning high definition.

Building on technology first developed in 2014 and used Australian oil company Woodside for subsea IMR, WFS Technologies developed the Seatooth Video Mark II. Although the technology has also been designed to be deployed by a ROV, a diver-operated tablet computer was instead used on the North Sea project to set up and control the video cameras with the WFS system wirelessly live-streaming images of the operation to the diver through seawater, while locally storing the raw footage for recovery to the surface.

WFS Chairman and founder, Brendan Hyland, said: "This is another example of how the Subsea Internet of Things (SIoT) can be used to change how our industry executes subsea projects for the better and much more effectively. Enabling divers to be positioned out of harm's way during this critical phase of the project, while also avoiding the charter of unnecessary additional vessels and ROVs, has a material

positive impact on the safety and cost of subsea projects as well as bringing considerable environmental benefits.”

With around 350 patents applied for, WFS's innovations are performing a crucial role towards helping clients to improve cost effectiveness and operational efficiencies by producing highly-sophisticated data which generate high-level intelligence and, in turn, allows more informed decisions.

Headquartered in Livingston, Scotland, WFS Technologies works with major oil & gas operators and offshore wind developers around the world as well as across the defence sector,

More information about WFS Technologies can be found at www.wfs-tech.com

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About WFS Technologies

The Internet of Things (IoT) wave is providing direct integration of the physical world into the digital world on a global scale. This is creating a disruptive step-change in the way mankind is organised, from work practices and leisure activities through to how industry is run. At the same time, we face many challenges relating to our environment and it is accepted that we cannot continue using the planet's resources in the way we have been doing since the previous industrial revolution.

While the IoT revolution is impressive, it has yet to consider 70% of the world's surface – the ocean. New technologies are required to bring IT infrastructure to the oceans and that's where the largest opportunities are for both industry and the environmental challenges we face.

WFS Technologies has developed the building blocks for Subsea Internet of Things (SIoT) enabling Smart Devices to extend wireless IoT networks through water and through ground, providing a low-cost alternative to cables, connectors and buoys. The industries served include Oil and Gas, Marine Equipment, Environmental and Defense. Key customer benefits include improved asset productivity, asset integrity management, safety and reducing costs for automation in the subsea environment.



Seatooth Video



Wireless Tablet



Outlet pipe location



Seatooth Video MkII Wireless Subsea cameras mounted on to Skid



Start of de-watering activity



PIG Expulsion during de-watering