



Press release

New technology collaboration lights the way for improved diver safety

A new on-demand wireless ribbon lighting system, designed to revolutionise diver safety and efficiency in remote subsea locations, has been launched following a collaboration between award-winning technology companies WFS Technologies Ltd and PhotoSynergy Ltd (PSL).

Seatooth LIGHTPATH™ is a combination of two advanced technologies – WFS's Seatooth, a subsea wireless communication system that can download and log information gathered on subsea installations remotely, and PSL's LIGHTPATH™, a side-emitting flexible fibre that projects a continuous line of light that carries no electrical power.

The new product works for both diver and ROV operators working either near surface or at depths of up to 3,000m. The light is engaged automatically when the diver or the ROV comes within 5m of a structure, and provides instant illumination of subsea architecture and delineating features such as control valves, docking bays and even the outline of the structure itself against the natural darkness of the underwater environment.

It switches off automatically when the diver or the ROV departs the scene, and has the ability to act as a proximity warning system when approaching installations, other divers, ROVs or danger areas.

The unit has been successfully tested in the lab, and will be trialled in subsea conditions in early 2017.

PSL Director Don Walker said the companies had joined forces in a bid to find a solution to an industry request for a remote switching system to remove the need for physical contact, which would save subsea operational companies time and money, increase productivity and avert potential damage to ROV and structures.

“Combining Seatooth technology with the LIGHTPATH™ product increases the capability of LIGHTPATH. This is most significant in terms of battery utilisation where LIGHTPATH is only illuminated as required operating either in a flashing or continuous operation.

“By integrating the two products, we have produced a much more convenient and efficient method for lighting a challenging environment with no physical contact required from a distance of five metres. The subsea environment is an intrinsically dangerous place where it is easy to become disoriented, so the Seatooth LIGHTPATH™ is a very significant development in safety.”

WFS Technologies is the world leader in Subsea Internet of Things (SIoT) – subsea wireless automation solutions to increase uptime and reduce asset management costs. With more than 90 patent applications filed in Europe and the US, WFS products deliver cost savings and new capabilities to the energy and environment, and homeland security and defence industries.

Chairman Brendan Hyland, Chairman said: “This is a further example of the ‘Subsea Internet of Things’, where intelligent devices automatically communicate with one another wirelessly, improving efficiency and safety.”

PSL has its origins in scientific research undertaken at the University of St Andrews’ Photonics Innovation Centre, and aims to turn LIGHTPATH™ into a global commercial product allowing it to become part of the broad and growing domestic upstream oil and gas supply chain. Its suite of patented products can be used for a wide range of applications from guide path illumination through to the extremes of challenging, hazardous and submerged environments.

Issued on behalf of PhotoSynergy Ltd (PSL) by The BIG Partnership. For more information, please contact Alison Ramsay on 01224 253817 or Alison.ramsay@bigpartnership.co.uk.

About– <http://www.photosynergy.co.uk/>

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Notes to Editors:

PhotoSynergy Ltd (PSL): has its origins in scientific research undertaken at the University of St Andrews’ Photonics Innovation Centre, aims to turn the LIGHTPATH concept into a global commercial product allowing it to become part of the broad and growing domestic upstream oil and gas supply chain.

Its suite of products can be used for a wide range of applications from guide path illumination through to the extremes of challenging, hazardous and submerged environments. They include:

- SLS2000 – PSL’s most recent product, developed following feedback from divers and their teams, providing the option to illuminate the dive umbilical from the diver end;
- SLS5000 - designed primarily to illuminate saturation excursion dive umbilicals, and has been in operation in the North Sea for more than three years. It has a range of applications for subsea and salvage divers, ROV pilots and marine archaeologists.
- SLS7000 - can operate in depths of up to 3,000m and was developed to address a variety of deep water applications brought to PSL’s attention by subsea industry operators, including supporting work-class ROVs
- SLS9000 – was developed by PhotoSynergy Ltd (PSL) as a subsea lighting system which provides multi-diver route identification. A three output channel version of the SLS5000, it was designed primarily to illuminate saturation excursion dive umbilicals for both divers and the bellmen.