



Press Announcement

24 April 2018

Unlocking the big prize in UK ‘small pools’

- ‘Plug and play’ projects are part of the Centre’s ‘Tieback of the Future’ initiative
 - Four projects selected from 29 ‘Call for Ideas’ submissions
 - New Small Pools call on smart communications subsea launches in April
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Following a successful ‘Call for Ideas’, the Oil & Gas Technology Centre is backing four subsea ‘plug and play’ projects to help unlock the 3.4 billion barrels of oil and gas in marginal fields, or ‘small pools’ on the UK Continental Shelf (UKCS).

Plug and play is a concept from the computing and space industries, where equipment is designed to be connected, operated and reused more simply and efficiently. Adopting this concept in oil and gas could significantly reduce the cost of developing small pools.

Carlo Procaccini, Head of Technology at the Oil and Gas Authority said:

“Small pools represent a significant opportunity to maximise economic recovery (MER) from the UKCS and it’s great to see promising technology initiatives being taken forward. Technology deployment is key to redefining our sector by reducing the costs of development wells, designing optimised subsea infrastructure, or developing efficient standalone concepts to capitalise on the potential of small pools.”

We’re supporting Flexlife, and its partners Proserv, Infinity, DeepOcean and Axis, to develop a standardised tie-back bundle, with integrated pipeline and umbilical, and a subsea manifold that can be reused between field developments. A standardised bundle could simplify the design and manufacture of small pool field developments, bringing them online quicker and reducing costs.

We’re working with Glasgow Caledonian University, Edinburgh University and industry to transform how electrical power is delivered subsea. The smart, modular power network will increase reliability, reduce maintenance requirements, and provide improved flexibility for installation, operation and reuse.

We’re working with Marine Direct Consultants to certify the company’s RapidPipe system, which provides a robust, reusable mechanical connection system for rigid flowlines. With the ability to recover and reuse flowlines, the system will help lower manufacturing costs and reduce installation time.

We’re supporting a research project at Robert Gordon University and Alliance Manchester Business School, which will identify the barriers to adopting a plug and play approach to field developments. The project will examine various aspects, such as industrial culture and organisational behaviour to help foster collaboration within the oil and gas industry.

Opening at the end of April 2018, next Small Pools Call for Ideas will focus on smart communications subsea. We will be looking for innovative technology ideas that can transform subsea developments, moving from hydraulics to an all-electric approach.



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We're looking for solutions to revolutionise subsea connectivity by developing a 'subsea internet of things', including sensors, software and wireless communications.

Chris Pearson, Small Pools Solution Centre Manager, said:

"The positive response to our first Small Pools Call for Ideas has generated four very innovative and diverse projects, delivering collaborative solutions with industry and academia.

"With upwards of \$175bn of value in UKCS small pools, we are confident that we have identified ideas that can help transform the subsea development life-cycle approach and lower costs to unlock these fields."

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Supporting quotes

Garry Millard, CEO of Flexlife, said:

"We're pleased to be working with our partners and the Oil & Gas Technology Centre to develop the plug and play concept. Developing small pools is vital to the life extension of current subsea infrastructure, while providing a cost-effective solution to the oil and gas operators for enhanced recovery."

Dr Ahmed Aboushady, Lecturer, School of Engineering and Built Environment, Glasgow Caledonian University, said:

"The smart modular power network is expected to introduce operational, environmental and cost benefits to the UK small pools arena, particularly with its potential to replace hydraulic actuation and make power umbilicals simpler. The project will substantiate the huge potential in linking the North Sea oil and gas network with the European Supergrid initiative, which increases power supply security to oil fields."

Stephen Vorley, Director at Marine Direct Consultants said:

"We are delighted to have been selected by the Oil & Gas Technology Centre. Together with our industry partners, we are looking forward to making a significant contribution to unlocking the potential of Small Pools while delivering more sustainable solutions as part of the Centre's 'Tie Back of the Future' initiative."

Co-Principal Investigators, Dr Ricardo Twumasi, Alliance Manchester Business School, and Dr Natascha Mueller-Hirth, Robert Gordon University, said:

"We are excited to apply social science techniques to what appears to be a technical challenge. In the end it is people that implement technological change".

Notes to Editors

About the Oil & Gas Technology Centre

- The Oil & Gas Technology Centre is a not-for-profit, industry-led, technology research and development organisation based in Aberdeen.
- The Oil & Gas Technology Centre was established in October 2016 with £180 million funding as part of the Aberdeen City Region Deal.



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- The Deal is a long-term improvement programme to enhance growth, competitiveness, connectivity, infrastructure, housing and employment into an already successful regional economy.
- The Deal is supported by the Scottish Government, UK Government, Aberdeen City Council, Aberdeenshire Council and Opportunity North East.
- An additional £174.1 million has to be generated in matched funding from industry, university or others as part of the Centre's long-term funding, which can be both cash and in-kind.