

# Oil and Gas

## Call for Robotics Automation Solutions



### CONTEXT

Robotic solutions are helping to improve safety within the oil and gas industry. Simple tasks that could pose risks, are expensive or difficult, are currently done by human operators.

Over the next few years, many of the routine inspection tasks undertaken by humans in harsh or remote frontier areas could be conducted by robots.



### WHAT WE ARE LOOKING FOR

We seek novel robotic solutions that focus on automation of corrosion inspection in order to improve asset integrity strategy.

The proposals should address specific oil and gas industry issues and include a clear description of the business case. The basic science must be well understood, but the concept would still need to be proven through modeling or testing in a simulated operation environment.

### IN SCOPE

- Technologies that minimize the cost of robotic solutions to reduce capital and operating expenditure.
- Proposals to improve the effectiveness of collaboration between oil and gas operators and the robotic manufacturers and suppliers.
- A platform that can perform non-destructive testing (NDT) based inspection of overhead infrastructure such as pipe racks (which could include visual inspection for external wall loss or coating degradation; measuring external wall loss under corrosion scale; screening for internal uniform or local wall loss damage). The geometries, spacing and obstacle of this infrastructure varies greatly so potential solutions must indicate the desired operation envelope. A single solution does not need to be universal, but it must be practical.
- Platform must be able to operate in potentially explosive atmospheres through design to Ex standards or process barriers

## **OUT OF SCOPE**

Robotics solutions beyond proof of concept

## **HOW TO SUBMIT YOUR PROPOSAL**

- Visit the [GameChanger submission form](#).
- In the "One-line description (max 100 characters)" field, label your proposal as "Robotics Automation Solutions".
- Submit your proposal by: November 2<sup>nd</sup>, 2018
- For questions contact [GameChanger-Solutions@shell.com](mailto:GameChanger-Solutions@shell.com)

## **WE APPLY THE FOLLOWING CRITERIA FOR CONSIDERATION:**

1. Novel – Is the idea fundamentally different and unproven?
2. Valuable – Could the idea create substantial new value if it works?
3. Doable – Is there a plan to prove the concept quickly and affordably?
4. Relevant – Is the idea relevant to the future of energy?

Any information submitted as part of the process will be considered by Shell as NON-CONFIDENTIAL data and information at this stage and will be treated as such. The funding opportunity will be in the range USD 200,000 – 400,000 to progress a "proof of concept" in a phased approach over a period of no more than 12 months. There is a possibility of further support by Shell depending on the overall outcome of the initial award.