

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
G2O Water Technologies Limited	Low Cost Printed Graphene-Oxide Membranes for Water Purification	£295,606	£206,924
Unilever UK Central Resources Limited		£220,006	£110,003
William Blythe Limited		£217,011	£108,506
Centre for Process Innovation Limited		£299,894	£299,894
Project description - provided by applicants			
<p>Despite the UN's declared Human Right to Water Policy, almost 30% of the world's population does not have access to safe drinking water. Membrane-based water purification systems are a critical technology solution to address the global challenges of poor water quality, pollution of aquatic surface water sources, and water scarcity. Overcoming the inherent limitations of conventional membrane materials to purify contaminated water at low cost while retaining high water flux is necessary to provide the next generation of point-of-use water purification systems. G2O has developed a graphene oxide based coating technology that has shown excellent separation of organic contaminants along with increased water flux through the membranes. The combination of high throughput and low pressure makes the technology suitable for point-of-use water purification systems. The project aims to develop an industrially scalable process for manufacturing of these membranes via development of a robust formulation for printing the GO-based coating onto the membrane substrate. Development of prototype modules using these membranes will allow the consortium to validate its performance and benchmark it against incumbent systems during the project.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Kromek Limited	Digital Single Photon Sensors to	£560,980	£336,588
University of Edinburgh	Enable a Step change in Civil Radiation Detection	£240,344	£240,344
Project description - provided by applicants			
There is a growing concern over the risk of detonation of a radiological device, such as a "dirty bomb" in a major western city. Kromek supplies handheld radiation detectors to the US Government as part of their programme to build a capability to find such threats. In order to develop its devices to meet emerging requirements for this application, Kromek will work with the University of Edinburgh to develop and assess their recently emerged single-photon avalanche diode (SPAD) devices to enable a step change in size, weight power and performance of the handheld detectors. This project will assess a current embodiment of a SPAD against the application requirements, allowing a redesign and fabrication of the new chip, which will be comprehensively characterised for radiation detection.			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Loop Technology Limited	Digitally enabled ultrasonic assisted robotic machining demonstrator – RoboMade	£411,788	£288,252
Insphere Limited		£224,380	£157,066
BAE Systems (Operations) Limited		£117,338	£58,669
Far-UK Ltd		£97,839	£68,487
The Manufacturing Technology Centre		£266,997	£266,997
Loughborough University		£98,094	£98,094
Sandvik Coromant		£60,000	£0
Project description - provided by applicants			
<p>Many of the current manufacturing techniques used in industries were developed for standard and conventional materials, some of which are now being challenged by novel and more advanced counterparts which can be difficult to process by standard means. A next-generation, advanced manufacturing technique is required to fully exploit the potential of these innovative materials, which include examples such as CFRP-metal stacks. The aim of the RoboMade project is to exploit a decade of advanced R&D activities in robotics, advanced machining and automation to develop a novel hybrid ultrasonic assisted robotic machining system for. RoboMade will offer a low-cost and accessible solution, delivering high-value, to meet the ever-increasing demand from customers for precision machining of exotic materials, associated with significant capital and operational cost savings. The digital infrastructure underpinning the system will provide users major benefits related to flexibility, configurability and autonomous operations</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
British Broadcasting Corporation (BBC)	EIST - Enabling Interactive StoryTelling	£403,610	£201,805
The Foundry Visionmongers Limited		£507,986	£304,792
Project description - provided by applicants			
<p>Public description of project Please describe your project. This description will be published only if your project is subsequently funded by Innovate UK to comply with government requirements. Providing this summary is mandatory but the text will not be assessed. Please ensure it is suitable for public disclosure. Funding will not be provided to successful projects without this.</p> <p>EIST - Enabling Interactive StoryTelling - will develop a framework and tools to allow users to easily design immersive (AR/VR) media that encompass multiple paths via a branching narrative or story. VR material without branching narrative, where the view is passive has limited appeal to most people. We will develop an easy-to-use UI so that users can edit different scenes of a story as well as the overall structure. EIST will allow mixing of both 360 and CG footage as well as lightfield capture and handle specific media types such as event triggers. We will develop an open-format node-based framework to describe such branching stories as well as handling the export to various game engines to allow delivery of the immersive story to a range of target platforms along with WebVR. The product will be designed around the needs of various sectors (such as automotive, education, energy, cultural, design, construction) as well as the creative media sector. Thus it will also provide a much-needed toolset and framework for all sectors currently wanting to use AR or VR to improve productivity or generate new business models. This proposal will reduce the barrier to entry for content creators to enable easy use of this technology for a wealth of interactive scenarios from staff training to totally new user experiences.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Apexx Fintech Limited	Cloud base multi acquirer payment solution	£545,779	£245,601
Xcordis Fintech Limited		£465,259	£209,367
Project description - provided by applicants			
The connected companies XCORDIS FINTECH LIMITED (XCORDIS) and APEXX FINTECH LIMITED (APEXX) will collaborate to develop a disruptive cloud base payment solution which will be the first one: 1/ allowing merchants to increase reliability and optimise merchant return through an intelligent transaction routing technology 2/ reducing transaction fees by offering an agnostic platform to access various banks and financials acquirers and increase competition 3/ Providing better insight and management of their cash flow payment automatically facilitating fee settlement. Both companies will develop and demonstrate a pre-production prototype across 5 key pilot industries to validate its performance.			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
5D Health Protection Group Limited	Responsive polymers combined with antibiofilm complexes for the treatment of wounds	£381,585	£267,110
University of Bradford		£98,118	£98,118
Project description - provided by applicants			
<p>This project is a collaboration between the 5D Health Protection Group Ltd and the University of Bradford. The research and development collaboration will enable the development of state-of-the-art bioresponsive polymeric nanotherapeutic molecules which respond to changes in the wound environment, linked to elevated matrix metalloproteinases (MMPs) levels. Increased level of MMPs correlate to biofilm infections. The controlled release of antibiofilm compounds can be applied to wound dressing platforms for enhancing clinical wound management. Elevated MMPs and biofilms are a concern in non-healing wounds and increase the risk of infection. Furthermore, presently used interventions are not responsive to wound changes and do not have antibiofilm ability. There is thus a major customer and commercial need, which this project will address. This project will involve the development of a responsive polymer which reacts to levels of MMPs leading to the release of antibiofilm complexes for maximum impact and reduced hospital costs by enhancing NHS turnaround. Presently such technologies do not exist in the market so this innovation will create a smart detection and responsive polymer combined innovative antibiofilm complexes for the treatment of biofilms in non-healing wounds.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> **Use the Competition Code given above to search for this competition's results**

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
BMT Ship & Coastal Dynamics Ltd	SWANS	£550,000	£275,000
Autonomous Surface Vehicle Ltd.		£422,045	£295,432
Deimos Space UK Ltd		£250,644	£125,322
Project description - provided by applicants			
<p>This project will develop and implement new solutions enabling the improved utilisation of shared waterspace by traditionally manned, partially automated and fully autonomous surface vessels. Our focus is the interaction in potentially hazardous situations between mariners in conventional manned craft as they perceive and respond to ASVs operating both over the horizon (beyond line of sight) and in proximity to other vessels using newly fused visual and satellite data. There is a pressing need to guide and train pilots and other mariners and marine insurers in how to react to this evolving ASV technology as it enters a rapidly growing marketplace. Our main objectives are fourfold; to exploit satellite sensing technology to enable a higher fidelity world model to be provided to vessel operators and /or supervisors; to simulate new scenarios for ASV operations; to combine, for the first time, ASV control simulators and ship hydrodynamic simulators into a single suite capable of visualising different datasets in 3-D; and to evaluate new multi-vessel conflict scenarios in the real-world.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Rolls-Royce PLC	INSPECT (In-situ optical inspection of engine components)	£777,946	£388,973
Roke Manor Research Limited		£461,558	£230,779
Oxsensis Limited		£252,678	£176,875
B.J.R. Systems Limited		£180,865	£126,606
University of Nottingham		£300,633	£300,633
Project description - provided by applicants			
<p>With the civil aviation sector continuing to grow year-on-year, an ever increasing number of routine in-situ gas turbine inspections are undertaken by both gas turbine providers and their customers. Whilst these are critical for ensuring a high-level of aeroengine safety, they are time intensive, vary between inspectors, and offer limited data capture and assessment possibilities. Through the INSPECT consortium, an optical inspection system will be developed that can be permanently and retrofittably embedded into the gas turbine borescope ports. Upon engine shutdown, probes are automatically inserted into the engine gas path, providing an fast, frequent, and standardised compressor inspection after every operation. INSPECT is a state-of-the-art inspection technology, enabling future Big Data Analytics, data mining, and trending. This will ultimately make Rolls-Royce and its customers data rich and able to optimise flight paths, maintenance schedules, and possibly even OEM design.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Braendler Engineering Ltd	Palantir - Real time inspection and assessment of wind turbine blade health	£607,953	£273,579
University of Bristol		£174,726	£174,726
Offshore Renewable Energy Catapult		£87,085	£87,085
Project description - provided by applicants			
The Palantir project will address the cost, environmental and health risks associated with carrying out inspections of wind turbine blades. The Palantir project will develop a remote sensing electronic package consisting of visual and acoustic sensors and will utilize advanced machine vision and machine learning analytics to continuously and automatically monitor the state of wind turbine blades. The main beneficiary of the project will be Braendler Engineering, a leading UK headquartered provider of inspection systems and data analytics which are based on advanced machine vision and machine learning technology. The University of Bristol will develop key aspects of the machine vision systems for this project, and ORE Catapult will test and demonstrate the Palantir product at its world class test facilities.			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Innovative Technology and Science Limited	Amphibious robot for inspection and predictive maintenance of offshore wind assets-IFROG	£768,421	£537,895
Brunel University London		£166,306	£166,306
TWI Limited		£189,302	£189,302
The Underwater Centre (Fort William) Limited		£224,514	£134,708
Project description - provided by applicants			
<p>UK and EU governments have committed to ensuring 20% of total energy consumption is sourced from renewables by 2020. Diminishing fossil fuel resources and adverse environmental impacts of other sources of energy is driving growth of wind farms, especially offshore wind farms as they deliver better performance per turbine due to better wind conditions and do not compete with agricultural land use. Reducing operation & maintenance (O&M) costs remains a key priority for offshore wind industry. Foundation maintenance alone accounts for ~65% of O&M costs. InnoTecUK (robotic and automation solution provider) is partnering with two renowned research & technology organizations (TWI Ltd and Brunel Innovation Centre -BIC) and end-user (The Underwater Centre -TUC) to develop and demonstrate an automated system (iFROG) for inspecting and streamlining maintenance of offshore wind assets. The new system will reduce maintenance costs by 50%, saving £150k p.a. per turbine. This will improve the cost-effectiveness and sustainability of offshore wind; encouraging future investment and benefiting energy security and the environment.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
HEROTECH8 LTD	Infrastructure for Drone Operations	£94,663	£66,264
Project description - provided by applicants			
HEROTECH8 is a UK-based robotics company and CWEIC Commonwealth First Export Champion, with a vision to create wide-scale, clean and sustainable infrastructure hardware for drones. Recipient of the InFocus Women In Innovation Prize in 2016, the team seeks to complete an industrial research project in robotics and autonomous systems. This will allow development of the core technology, demonstrate the core functionality of the HEROTECH8 Skystation and its potential value, in a highly controlled environment. With our integrated technology, the Skystation will enable rapid growth in drone adoption, and provide the necessary safety assurances without a requirement for a human operator.			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Monition Limited	Bathyscaphic Robotic Floor Thickness Monitoring of Hazardous Liquid Storage Tanks (NautilUS)	£452,256	£316,579
Innovative Technology and Science Limited		£328,626	£230,038
Diagnostic Sonar Limited		£298,400	£208,880
TWI LTD		£219,212	£219,212
London South Bank University		£217,524	£217,524
Project description - provided by applicants			
<p>The NautilUS bathyscaphic robot will reduce the costs, danger and environmental and health and safety risks involved in inspections required by the American Petroleum Institute (API) industry standard for petrochemical storage tank periodic inspections and in particular for corrosion thinning of the tank floor. At the same time, the shortcomings of existing robotic solutions will be overcome due to unique motion characteristics of the robotic NautilUS platform. The output of the project will lead to a product that will increase the turnover and profitability of the 3 UK SMEs - Monition Ltd, InnotecUK Ltd and Diagnostic Sonar Ltd (DSL) through the creation of an opportunity worth £17M in turnover over the five years following commercialisation. The overall objective of negating the current need for removing the tank to be inspected from service will be achieved through developments in low power explosion-proof robot design, the development of in-tank robot localisation and ultrasonics hardware and software developments, which will be integrated into a product to provide a cost-effective, continuously deployed statistical inspection solution.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 2 - 25-36 Months

Competition Code: 1703_EE_R2_36M

Total available funding is up to £15M

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Witt Limited	Dynamic Vessel Design Feasibility Study for subsea WITT Energy Harvester	£97,266	£68,086
Project description - provided by applicants			
<p>This feasibility project looks to determine whether the WITT energy harvester, which converts chaotic motional energy from all 6 degrees of freedom into electrical energy, could be deployed tethered to the sea floor in remote locations, and housed within a protective casing, to convert sub-sea currents into electrical energy to power sensor instrumentation subsea. Witt Limited will be working with The Offshore Renewable Energy Catapult (OREC), the UK's flagship technology, innovation and research centre for offshore wind, wave and tidal energy, as a subcontractor to draw on their expertise and knowledge to devise an optimum embodiment to convert such subsea currents into electricity with the WITT housed inside. Witt Limited has been approached by oil and gas entities interested in the capability for the WITT to power sensors subsea, defence entities for sensors, and others for environmental and other applications. The benefit of the WITT is that it would be able to provide continuous power where otherwise battery solutions would be required which batteries are very costly to replace in remote sea locations.</p>			

Note: you can see all Innovate UK-funded projects here

<https://www.gov.uk/government/publications/innovate-uk-funded-projects> Use the Competition Code given above to search for this competition's results