

Innovate UK

Results of Competition: Emerging and Enabling Technologies Round 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Cybula Ltd	REAM: Enabling remote built environment asset management using embedded intelligence	£198,827	£139,179
Skanska Technology Ltd		£123,763	£61,882
Building Research Establishment Ltd		£120,308	£120,308
Griffiths Associates Ltd		£54,775	£38,343
Reliability Maintenance Solutions Ltd		£40,541	£28,379
Project description - provided by applicants			
<p>Condition based maintenance (CBM) improves reliability and asset performance, releasing value via efficiency gains in operation, maintenance and optimised asset lifetimes. CBM has shown its effectiveness in high value market sectors. However, whilst the potential benefits are significant, adoption in the Built Environment (BE) has been limited. The BE sector is characterised by multiple, dispersed and relatively low value assets such as pumps, chillers and other mechanical & electrical (M&E) devices, rather than high value, individual assets and so needs a different approach. The project, led by Cybula (an SME specialising in data mining and condition monitoring) with Skanska and complementary partners, will use new enabling technologies to develop a proof of concept CBM solution for BE assets. 'Internet of Things' concepts, using low cost sensors and long range, low bandwidth data protocols (LoRa) will enable continuous data capture from dispersed M&E assets. Data will be used to create predictive algorithms linking changes in data pattern to asset performance. Such intelligence, embedded onto a data smart aggregator, will enable in-situ analysis, with only key information transmitted via LoRa to asset managers.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Avanti Communications Ltd	Phased Array Gateway	£180,011	£90,006
Global Invacom Ltd		£424,034	£212,017
Riverbeck Ltd		£354,494	£248,146
University College London		£169,363	£169,363
Project description - provided by applicants			
<p>There is a substantial and growing demand for ubiquitous high quality broadband. Satellite communications has a key role in delivering services to underserved and unserved areas, such as remote/rural regions or developing countries where the cost of laying terrestrial fibre or mobile networks is prohibitive. Service costs for future HTS systems will be heavily influenced by the ground gateway antennas used to connect to the spacecraft. This project aims to produce a genuinely novel and radically cheaper, lighter and technical more advanced product. The Phased Array Gateway will dramatically lower the cost of delivering future satellite data services, enabling and underpinning growth in fast developing telecoms markets such as sub-Saharan Africa. The project partners will develop a Proof of Concept demonstrator that will aim to develop advanced concepts from radio astronomy in the satellite communications domain. This Proof of Concept will leverage Global Invacom's specialist RF and satellite product knowledge, bespoke phase combining techniques developed by University College London and specialist Digital Signal Processing skills from Riverbeck. The PoC will be tested over Avanti's HYLAS satellite.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Accuric Ltd	Development of a new generation of high performance LED drivers for the Global General Lighting Market.	£937,882	£422,047
Marl International Ltd		£196,596	£68,809
LUX-TSI Ltd		£99,403	£69,582
ML Electronics Ltd		£44,064	£19,829
Project description - provided by applicants			
<p>AccurIC's new generation of high performance LED drivers will transform the quality and performance of LED lighting. All LED lighting needs 'drivers', another term for 'electronic-control-gear' or ballasts. So there is a very large global market opportunity. AccurIC has developed innovative, patented, proof-of-concept prototype LED drivers. It is seeking R&D funding from Innovate UK further to develop its prototypes and to accelerate exports and job creation. Lux TSI has lab tested AccurIC's prototypes and shown that Accuric's technology exceeds the most demanding flicker-eradication recommendations. The superior electrical efficiency and Power Factor of AccurIC's drivers also benefits the electricity Grid. AccurIC is combining its Intellectual Property (IP) with the production capabilities of Cumbria-based LED lighting specialist, Marl International. AccurIC's prototypes will showcase its IP and facilitate licensing agreements with global lighting companies. Markets&Markets (M&M) forecast that the constant current LED driver market will grow by 30% per annum to 2022. These trends will drive product sales and licensing agreements with lighting businesses around the 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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Glass Technology Services Ltd	ULTRAFast Glass-based lasers (ULTRA-Glass)	£291,283	£203,898
M Squared Lasers Ltd		£279,908	£195,936
VitriTech Ltd		£40,632	£28,442
University of Leeds		£89,786	£89,786
University of St Andrews		£160,912	£160,912
Project description - provided by applicants			
<p>Femtosecond lasers are seeing wide adoption across a growing number of applications due to their ability to deliver precise high peak intensity energy. For microscopy high-resolution images are achievable and in micromachining high fidelity material processing with reduced recast and microcracking is enabled. Ultrafast lasers are increasingly taking over roles from other laser types and enabling new levels of precision in emerging and high value industries. A key restriction in the adoption of this leading tool is its prohibitively high price for wide adoption and many yet unexplored applications. Recently Fibre lasers have witnessed high growth as they have supplied a lower cost offering than traditional crystal based systems. Fibre lasers however suffer high levels of dispersion and restricted output powers. The aim of the present project is to investigate novel glass based laser system that could present a lower cost offering than Fibre lasers and disrupt the market. The aim of this project is to deliver a prototype glass based ultrafast laser that is low cost and demonstrate it in microscopy, where MSL has strong links, and micromachining that represents a large market and impact. Additionally the project will result in the establishment of a UK based supply chain.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Process Instruments (UK) Ltd	Total Residual Oxidant Monitor (TROM)	£175,381	£122,767
University of Warwick		£62,500	£50,000
Project description - provided by applicants			
<p>A recently ratified international treaty, requires all the world's large ships to be fitted with ballast water treatment systems (BWTS). These systems kill invasive species transported and dumped in ports/coastal waters in order to protect the marine environment. This project enables Process Instruments (UK) Ltd., a SME that specialises in water quality measuring technology, and a world leading team of electrochemists at Warwick University, to form a partnership to produce an entirely new type of oxidant sensor based on synthetic boron doped diamond electrodes which can disrupt and capture this emerging market along with new, previously inaccessible markets. A previously developed all-diamond sensor, although showing great promise, proved too expensive to manufacture. This project will build on previous work which identified the sensor design but will explore cheaper manufacturing routes. This new sensor will deliver greater accuracy, stability and reliability, enabling BWTS to be more efficient and safer to the ecology. This project will deliver manufacturing jobs and a sustainable export business worth millions of pounds to the NW regions of the UK economy. It will also establish UK Plc as world leader in this new and exciting field of sensor technology.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
iProov Ltd	DELIGHTA - DEfence against LIGHTing Attacks on face biometrics	£259,194	£181,393
Media Research Partners Ltd (T/A The Media Institute)		£116,054	£81,238
Project description - provided by applicants			
Project DELIGHTA aims to develop innovative technology to extend the capabilities of online face verification systems. Building on iProov's world-leading, patented technology it introduces new variables and new analysis techniques to the task of detecting replica and replay attacks on individuals, using pioneering techniques that have not previously been used in a broad application context. The outcome will be greater security for citizens accessing online services, without compromising usability.			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
RowAnalytics Ltd	ASSIST (Array of Smart Sensors in Safety Tracking)	£149,750	£104,825
RedGear Solutions Ltd		£112,958	£79,071
Project description - provided by applicants			
ASSIST will build a new smart sensor platform that provides a step change in on-sensor analytical capability. The complex analytics needed to integrate multi-dimensional signal data from multiple sensors, accurately interpret them and provide a useful contextualized response will all be embedded in the sensor platform itself. This enables more personalized and informative responses to be delivered directly to the end user. The platform will drastically lower power usage and data transmission rates, enabling smaller, less intrusive devices, and increasing the user's security. ASSIST will integrate new sensor, security and analytics technologies to provide a disruptive IoT platform that has applications across a range of internationally important markets such as healthcare, food and security. The ASSIST project will demonstrate the use of the platform help aging consumers live safely at home in a way that preserves their health and independence and delivers peace of mind for their family members and caregivers. It will be significantly cheaper and simpler than existing systems, will be non-intrusive and secure in use and will provide better outcomes for its users.			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Green Biologics Ltd	Clostridia: An emerging anaerobic industrial platform for high value chemical production	£373,291	£186,646
BioExtractions (Wales) Ltd		£78,344	£54,841
Dynamic Extractions Ltd		£112,595	£78,817
Project description - provided by applicants			
<p>Green Biologics (GBL) is a renewable chemical company currently commissioning the first new Acetone-Butanol-Ethanol (ABE) plant to be built in the USA since 1938. GBLs technology is a bacterial fermentation, converting renewable or waste feedstocks to bio-acetone and bio-butanol. Currently butanol and acetone are derived from oil but the fermentation bio-products have superior characteristics, giving them an advantage in consumer markets. GBLs strain development programme aims to deploy the same robust microbes to produce a wider range of non-native, but natural, bio-chemicals through fermentation. Dynamic Extractions (DE) and BioExtractions Wales (BEW) provide innovative solutions for the purification of chemicals from complex mixtures. DE's chromatography method will be applied to the extraction of these example chemicals from fermentation broth and BEW will evaluate purification and (bio)chemical transformation to higher value products. A critical need in developing new technologies is ensuring that end-user views and current market dynamics are taken into account. A social science intern will explore stakeholder perspectives in order to gauge the social feasibility of this work.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Alice SI Ltd	Gateway for funding and Impact Validation using blockchain	£234,332	£164,032
Imperial College London	Ethereum (GIVE)	£59,503	£59,503
Project description - provided by applicants			
Ambiguity around how charities spend donations and the impact of their work is causing growing mistrust from public and institutional donors. Yet, impact measurement is complex and costly; precluding smaller charities and diverting resources from the primary work of large charities. If they could report impact and spending better, donors would give more. Blockchain technology could address these issues, so Alice has developed a MVP of a philanthropy platform called GIVE that helps charities to link donations to outcomes, and report on impact and spending much more easily and affordably than before. The result is greater transparency and trust in charities, which will increase donations; meaning more funds available to invest in the amazing work they do. For this project, Alice will collaborate with Imperial College to address and overcome the technical challenges that currently exist with blockchain, to increase transparency, trust and financial sustainability for valuable charities.			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Bodle Technologies Ltd	UltraSRD - Designing a proof of concept ultra-low power, solid-state reflective colour display using novel phase change materials	£296,492	£207,544
M-Solv Ltd		£60,503	£30,251
University of Southampton		£70,433	£70,433
University of Oxford		£69,994	£69,994
Project description - provided by applicants			
<p>The technological challenge of successfully implementing colour & video capability within a reflective (non-backlit) display has been challenging the display industry for years. Reflective E-reader displays are slow to refresh and only available in black and white, whilst backlit LCD and emissive OLED screens consume high rates of power: this limits the information display applications that these technologies can be applied to. Development of a feasible low power, multi-colour display technology could see many new avenues of opportunity open for new reflective information displays including in wearable devices and the internet of things. UltraSRD addresses this unsatisfactory compromise on colour, speed and energy consumption: based on research completed at the University of Oxford and with industry support, Bodle Technologies intends to investigate the feasibility of developing a commercially viable, high resolution, bistable, rapid refresh, colour reflective display by 2020 using novel phase change materials.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Advanced Blast & Ballistic Systems Ltd	GRAMPS – GRAPhene Modified PropellantS	£103,075	£72,153
The Falcon Project Ltd		£169,811	£118,868
University of Edinburgh		£118,943	£118,943
Project description - provided by applicants			
<p>The defence market is seeking active mine protection systems with a potential market value of £XXbn. ABBS has developed a widely patented linear rocket motor (LRM) and sensor system (AMPS$\hat{\phi}$) that responds rapidly and is proven to counter the global acceleration of a vehicle subject to a mine blast. The LRM propellant is based on the widely-used composite formulation and although satisfactory in terms of initiation and burn time it is desirable to improve the response of the LRM to the mine blast. Both Graphene and graphene oxide (GO) increase the initiation rate of propellants and in addition to their beneficial catalytic properties, GO decomposes, increasing the propellant initiation and burning rates. Edinburgh U has shown it is possible with graphene not only improve the propellant's initiation and combustion performance but also increase its service life and mechanical strength which is highly desirable from an operational point of view. If this project is successful ABBS can then gain wider acceptance for the technology, Falcon will have an improved propellant for its rocket developments and Edinburgh U will translate their basic research into demonstrable impact.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Numerion Software Ltd	DIGIHUMAN	£258,100	£180,670
Double Negative Ltd		£282,727	£141,364
Project description - provided by applicants			
DIGIHUMAN is a 24 month industrial research project to research, develop and demonstrate new ways for creative professionals to create realistic virtual animated humans at higher quality and more cost effectively, for the burgeoning VR/AR content market and also traditional uses in movies, TV, video games, education, fashion, social, architecture etc. The immersive nature of VR/AR and higher resolution displays is driving the demand for more believable virtual humans to support the suspension of disbelief. The partnership brings together Europe's largest Visual Effects company (Double Negative) and a world leading specialist in physics simulation for Character Effects and video games (Numerion Software). The research project will deliver a set of technical software solutions that address the need for higher quality, more efficient, virtual human production that can be used by Double Negative to be more competitive in their VFX and Animated film production and by Numerion for new products that it can market worldwide.			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Geomatic Ventures Ltd	EO-SCANS - Earth Observation for the Surveillance of Critical Assets for National Security	£145,893	£102,125
Telespazio VEGA UK Ltd		£44,853	£22,427
University of Nottingham		£61,626	£49,301
Project description - provided by applicants			
<p>Many national assets, such as reservoir embankments, flood defences and the rail network, are dispersed around the nation and require routine monitoring as failure can result in severe human, environmental and economic consequences. Although the structure of these assets are complex, small deformations such as a localised slip, slump or differential motion in an embankment, can provide clues that there are issues requiring immediate investigation. In this project, we propose a monitoring system that will help identify these changes and provide an early warning of potentially serious threats, enabling asset managers to more precisely focus maintenance resources on those locations at greater risk. The solution is based upon an innovative satellite remote sensing method capable of measuring local trends in land movement over all land cover classes to millimetric accuracy. The system will combine Earth Observation data with a novel data processing technique and will provide regional measurements of ground stability at regular temporal intervals which will enable asset managers to identify potential threats. We will show that cost-effective routine asset monitoring can be achieved at a national scale using readily available, non-invasive, satellite imagery.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Electro Mechanical Developments (EMD) Ltd	Underwater Energy Harvesting Enabled Smart Sensor Networks For Water Industry	£233,012	£163,108
Severn Trent Water Ltd		£120,000	£60,000
University of Exeter		£147,258	£147,258
Project description - provided by applicants			
<p>This project will develop, produce and test a viable, future-proofed battery replacement Energy Harvest (EH) system for potable water monitoring applications. Like all water providers, Severn Trent Water (STW) must be compliant with Ofwat's ever-reducing water leakage target. Regular monitoring of water flow and pressure identifies new leaks, STW used to transmit flow and pressure data twice per day. To maintain compliance STW has recently replaced 10,000+ battery powered loggers on their pipe system. The new loggers transmit 48 times per day. At this level, the batteries last 5 years. 80% of the drain on the battery is the GPRS transmission of data. The replacement cost of batteries every 5 years is £2 million for STW, £20 million for UK water as a whole*. There exists a very clear imperative for an EH system capable of sustaining the current level of data transmissions and higher levels too as leakage targets tighten. To achieve a sensible saving for water companies, the EH system must last a minimum of 15 years in service. Leak detection targets will fall twice in this period, so the system must be capable of supporting the greater system demand.</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 1 -
Stream 2 - 13-24 months**

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Select Research Ltd	ShapeGB	£257,487	£115,869
Arcadia Group Ltd		£50,149	£12,537
John Lewis PLC		£51,097	£12,774
Monsoon Accessorize Ltd		£51,035	£12,759
N Brown Group PLC		£50,379	£12,595
New Look Retail Group Ltd		£52,155	£13,039
Next PLC		£51,402	£12,851
Tesco PLC		£48,889	£12,222
Project description - provided by applicants			
Awaiting Public Project Summary			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Sweetgen Ltd	Electrochemical harvesting of energy from industrial wastewater	£102,450	£71,715
Imperial College London		£100,046	£100,046
Project description - provided by applicants			
<p>Wastewater represents a potent source of energy which currently is underutilised. Industries such as food and beverage production, breweries, wineries or biofuel producers currently expend around USD15 billion worldwide for wastewater treatment, where energy and toxic chemicals and/or slow biological processes need to be used. This wastewater contains biosourced contaminants which could be used as a fuel to generate renewable electricity at almost no cost. We have developed a technology that can harvest this energy and at the same time decrease the contamination. The benefit of this technology is both generation of affordable electricity and money savings from lower water treatment costs. Unlike biological processes our electrochemical system does not contain microbes, which are sensitive to the water conditions, need close process control and expert knowledge. It is basically a 'plug and play' process. Another benefit over current biological solutions is that it requires only 1% of the space of a biogas facility, so even companies with little space can implement it. The total renewable electricity produced and the energy saved for wastewater cleaning has the potential to save millions of tons of CO2, thus helping to mitigate climate change.</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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
AMS Sensors UK Ltd	BreathFit.	£213,526	£106,763
Flusso Ltd		£86,000	£60,200
Microsemi Semiconductor Ltd		£99,332	£49,666
University of Cambridge		£100,073	£100,073
Project description - provided by applicants			
<p>BreathFit will develop a breathanalyser for supporting individuals in setting personalized fat-burning diets and exercises. Fat rather than sugars is actually used by the body to support body energetic needs in individuals following a low-carb diet and/or doing prolonged aerobic exercises. Fat is converted into by-products during this process and one of these is a molecule called acetone. Acetone is present in blood in a very small amount, however, a part of it escapes from the body during the respiration process. Interestingly, it has been demonstrated that the acetone concentration in breath can help predicting weight losses in people following diets with a restricted intake of sugars. However, concentrations of acetone in breath are very low and only 1 molecule of acetone is found among a million of other gas molecules present in human breath. Thus, currently, acetone has to be measured by skilled personnel using large and expensive lab-equipment. BreathFit proposes to build an affordable breathanalyser which can be operated by any individual to accomplish the above measurement. The core of this instrument is the integration of gases, flow and temperature miniaturized sensors which are based on the same technology employed for producing camera and calculator processors.</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 1 -
Stream 2 - 13-24 months**

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Libralato Ltd	Libralato Engine Performance Validation	£100,763	£70,534
Advanced Innovative Engineering (UK) Ltd		£55,705	£38,994
Project description - provided by applicants			
Humanity needs to change its paradigm of how the average car is powered; we need to break the car's addiction to oil™. But pure electric vehicles will not be affordable or convenient for the majority of global drivers for the foreseeable future (current <1% market share). The internal combustion engine is here to stay for the 21st Century, but it needs a new role; working in partnership with an electric motor. The average car should be able to drive electric in our towns and cities, but use the engine for higher speeds and longer distances. This is the most cost-effective technical solution by far, the 'best of both worlds'. We call it "Town & Country Hybrid".The Libralato rotary hybrid engine is an eco-engine for the 21st century, an emerging and enabling technology for a global transition to electrified vehicles which do not require government subsidy and do not rely on a new recharging infrastructure. It is a completely new kind of rotary engine, solving the problems of the better known Wankel engine. It is as efficient as a diesel engine (using petrol) yet half the size and weight, making space for the other hybrid components in standard engine bays. The system pays for itself in <2 yrs from the fuel savings			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Surrey Satellite Technology Ltd	CONstellation Satellite Taking And Request (ConSTAR) for Enabling Applications	£240,359	£120,180
Satellite Applications Catapult Services Ltd		£50,950	£30,570
Project description - provided by applicants			
Over the next decade, hundreds of Earth observation satellites are expected to be launched as large constellations with the satellites operating in concert to provide intelligence for 100s of applications. In order to support these applications and achieve the maximum possible value from EO constellations SSTL is developing a CONstellation Satellite Tasking And Request (CONSTAR) system. SSTL is drawing on its constellation management experience combined with applications and design expertise from the Satellite Applications Catapult for an efficient, user friendly solution to constellation operations and tasking. CONSTAR is flexible and scalable for both small and large numbers of satellites operated as a constellation. CONSTAR will be the foundation for constellation operators of the future to efficiently manage their satellites; and, it will provide a user-centric interface for non-expert customers to directly task constellations. CONSTAR will be a revolutionary approach to responsive satellite tasking using the latest web technologies to enable a user-centred system with advanced functionality.			

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 1 - Stream 2 - 13-24 months

Competition Code: 1610_LO_EMEN_R1

Total available funding is up to £10m for Stream 2

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
Chronos Technology Ltd	GAUSS - GNSS Assurance Using Synthetic Signals	£382,248	£267,574
Spirent Communications PLC		£205,578	£102,789
Project description - provided by applicants			
<p>Broadcasters, telecoms, banks and many other industries rely on time, precise to billionths of a second, to synchronise their digital signals. This timing comes from GPS receivers like those that locate our satnavs and smart-phones. But the signals they pick up from the GPS satellites are exceptionally weak. They are occasionally disrupted by solar storms, radio interference, intentional jamming and denial of service, threatening the security of our critical national infrastructure. Alternative sources of precise timing now being developed include terrestrial eLoran transmissions, Global Navigation Satellite Systems like Europe's Galileo, and exotic Quantum Clocks. This research programme (GAUSS: GNSS Assurance Using Synthetic Signals) will deliver robust synthetic signals to replace the vulnerable GPS radio waves. It will let organisations that rely on GPS timing take advantage of these new backups without replacing their equipment. GAUSS is a joint venture by Chronos Technology Ltd and Spirent Communications plc. These are UK companies with world-wide sales and reputations: Chronos specialise in precise timing while Spirent supply the signal simulators used to develop satellite navigation receivers. Together they are proposing this world-first innovation.</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