

# Innovate UK

**Results of Competition: Smart Round 2 2015-16 - Proof of Market**

**Competition Code: 1505\_SmartRd2\_POM**

**Total available funding for this competition was £8.144M from Innovate UK**

**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
The Grid Network Ltd	Low cost, low power Digital Radio Mondiale (DRM) Receiver	£42,100	£23,750
<b>Project description - provided by applicants</b>			
<p>The Digital Radio Mondiale (DRM) standard was developed a number of years ago and has been used successfully in test transmissions all over the world. DRM has the advantages of Digital Audio Broadcasting (DAB), namely being more spectrally efficient than AM and FM, allowing more stations, at higher quality, into a given amount of bandwidth, but operating at a lower frequency, below 30 MHz (long wave, medium wave and short wave), which allows for very-long-distance signal propagation. The standard is of most use in rural areas or highly dispersed populations such as in India, Africa, China, Australia and Russia. To date, the adoption of the standard has been limited to test transmissions due to the lack of commercially available receiver products at an acceptable cost point. With the largest target consumer base living in areas of very low income, the receivers would need to compete with existing analogue radios but using digital technology. The Grid Network (TGN) has developed IP and technology for DAB radio receivers for a number of years and recently completed the world's lowest power and lowest cost module for use within commercial radio receivers. The module uses IP developed and owned by TGN running on Silicon available from one of the world's leading silicon chip suppliers. Using this technology as the basis for a new radio, we believe that we can design, develop and ultimately manufacture and sell a receiver that can operate from solar power or with very small, zero maintenance batteries at a cost compatible with adoption and use in developing economies, where the potential consumers exceeds 1 Billion.</p>			

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Oxford Heartbeat Ltd	Viva	£41,700	£25,000
<b>Project description - provided by applicants</b>			
This project aims to validate the requirements and market potential of a software tool for surgeons to assist their decision making process and enable improvements in quality of care, efficiency and treatment outcomes.			

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Blackstar Amplification Ltd	IoT Amp	£41,787	£25,000
<b>Project description - provided by applicants</b>			
<p>As an UK-based guitar amplifier manufacturer, Blackstar have an international reputation for innovation &amp; sound quality. We have previously used grant funding to challenge the state of the art through digital technology and offer entirely new product ranges. This has had a significant impact on amplifier sales with Blackstar rising to No.2 in the US in under 2 years. With this precedent, we are keen to again innovate in digital amplification and undertake a Proof of Market research project to justify investment in our IoT Amp concept. IoT Amp is an Internet of Things device that will allow multiple or individual musicians around the world to play together and achieve high quality audio using their broadband connection. This technology will facilitate remote rehearsals &amp; teaching, and allow users to collaborate via their amp in live sessions. We have already identified latency as the biggest technical issue in the delivery of this concept. We are proposing a dedicated hardware/software solution that performs sound processing faster than generic hardware such as PCs. With faster internet connections and through peer to peer technology, we believe it is possible to reduce the latency to an acceptable level utilising the technical experience of Blackstar's digital research team. However, this is far from proven. As a technically high risk project with an unknown market, a Proof of Market research project is essential for us to understand the market and customer needs, the technological challenges, and our commercialisation options. Should the results of the research prove positive, we will look to develop the project through Proof of Concept and Development of Prototype funding. As a result of R&amp;D, we intend to offer a range of Blackstar IoT amplifiers and an independent device that will allow any amplifier to connect remotely. Not just limited to guitarists, this technology will allow any amplified instrument to connect and recreate the live band experience online.</p>			

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Taylor Garfit Ltd	One-Joint: A Cost Effective Solution to Improve the Construction of Disaster Relief Shelters	£41,637	£24,982
<b>Project description - provided by applicants</b>			
According to UNHCR, ~42,000 men, women and children become refugees, asylum seeker or were displaced in their own countries every day in 2014. Consequently the need for temporary and transitional shelters is intensifying. However traditional shelter kits, provided by international relief agencies, are often unable to function and respond adequately to the economic, social and environmental requirements of refugees and other people in need. Taylor Garfit Ltd has designed a small, lightweight and cost effective joint system that can be incorporated into shelter kits and used as an alternative to distributing frame structures present in other disaster relief solutions.			

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Simitive Ltd	SMART PoM - intelligent Data-Driven People Management (iDPM)	£42,915	£25,000
<b>Project description - provided by applicants</b>			
<p>Simitive (www.simitive.com) is a specialist innovation and R&amp;D company providing leading edge technology solutions in 'People Performance Management'. Simitive is the leading provider of these solutions to the UK University sector, working with over 40 UK and International Universities, and is the technology provider for the International University Performance Initiative 'Performance for All (PFA)' (www.performanceforall.org). In response to Government efficiency saving requirements in the University Sector there is a critical need to optimise staff efficiency through the use of robust, algorithmic and data-driven analysis. Simitive have devised the intelligent Data-Driven People Management (iDPM) concept which will deliver a suite of ground breaking tools &amp; dashboards to guide day to day staff management and higher level staff planning using robust and reliable Data-Driven rationale. The key technical innovations required to deliver iDPM are the use of Big Data systems, self-evolving correlation algorithms, anonymisation techniques and self-improving machine learning. Simitive proposes Proof of Market Study (PoM) as the first step in developing this concept into a commercial product. If successful, iDPM will represent a step change in technology that can robustly and reliably use data-driven analysis to improve human performance in complex and changing organisations. This new technology could be used in many different ways in the technology industry and have wide spread commercial appeal</p>			

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Q-BOT Ltd	Spray Applied Permeable Wall Insulation (SAPWI)	£40,000	£24,000
<b>Project description - provided by applicants</b>			
<p>A lack of adequate thermal insulation is the single largest cause of energy loss in older buildings in Northern Europe. 44% of CO2 emissions are attributable to buildings with 24% coming from homes. In the UK, as 85% of the built environment present in 2050 have already been constructed, retrofitting of existing buildings is the largest part of the challenge for reducing thermal losses. Insulation of walls can reduce heat loss from historic buildings by up to 40%, and although improving the efficiency of our built environment using Solid Wall Insulation has been gaining momentum (stimulated by various incentive schemes), recent research by the BRE demonstrates that many installations fail within 5 years and can cause significant damage to both the building and its inhabitants. There are nearly 8 million solid wall homes in the UK, and while reducing their energy use is critical to reducing CO2 emissions, it appears that currently there is not a harmless way of doing so. Q-Bot is developing an innovative Solid Wall Insulation material that has the potential to improve the energy efficiency of millions of Europe's oldest and least energy efficient buildings by as much as 40% while reducing installation costs by 50 to 75% and, most importantly, a material that maintains the moisture transfer qualities of existing walls allowing them to dry out naturally to the outside of the dwelling. As part of this proposal we intend to assess the market for a new, smart material for Solid Wall Insulation, that can be spray-applied, expand on site and can be applied automatically using a novel robotic deposition and shaping process developed by Q-Bot. The material will have adaptive hydroscopic qualities that can maintain the moisture balance of existing UK homes post application. The robotic system is superior to other insulation deposition methods, as it reduces costs, can access uneven and intricate spaces, and is sympathetic to building features.</p>			

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ESROE Ltd	ESROE LIMITED - The use of radar ESM sensors for civil maritime surveillance	£40,910	£24,546
<b>Project description - provided by applicants</b>			
<p>This project will investigate the market for radar ESM sensor technology, developed for the military domain, in civil maritime surveillance. Any country with a coastline has a defined Exclusive Economic Zone (EEZ) which requires policing for the prevention of terrorism, smuggling, illegal immigration and illegal fishing. The core requirement is the monitoring of all vessels within this zone to locate and track vessels of interest and to identify suspicious vessels. Systems used at present to accurately identify vessels are cooperative in that they require the operator of the target vessel to provide identification information. Radar ESM is the only military sensor that can provide accurate non-cooperative identification information but is not used for civil maritime surveillance due to size and cost constraints.</p>			

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<b>The Solar Press UK Ltd</b>	Proof of market for novel power management Application Specific Integrated Circuits to enable optimal micro energy harvesting from low levels of indoor light.	£40,000	£24,000
<b>Project description - provided by applicants</b>			
Solar Press will perform a proof of market study to investigate intelligent, fully integrated, power management devices to enable optimal performance of micro energy harvesting modules ( $\mu$ EHM) using a range of photovoltaic technologies operating at low levels of indoor light.. The embodiment could of this could be as an Application Specific Integrated Circuit(ASIC).			

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Rotary EcoMachines Ltd	Exploring Market Opportunities for a Jumping Axes Rotary Internal Combustion Engine.	£40,259	£24,155
<b>Project description - provided by applicants</b>			
Rotary EcoMachines ( <a href="http://www.rotaryecomachines.co.uk">www.rotaryecomachines.co.uk</a> ) is conducting market research into potential opportunities for an innovative jumping axes rotary internal combustion engine it is developing. The REM engine has far greater efficiency and power to size ratio than traditional rotary and Wankel engines. The purpose of this study is to investigate opportunities for the engine within hybrid vehicle range extenders, UAVs/microlights, and distributed power generation applications.			

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Route Monkey Ltd	MaaS Optimiser	£45,950	£25,000
<b>Project description - provided by applicants</b>			
MaaS Optimiser: Our novel idea is for a smart-device based "Mobility Advisor" that will use a combination of cognitive computing, artificial intelligence, machine learning and optimisation algorithms, game-play mechanisms and social interaction to help (a) people move optimally from door to door (b) businesses to move freight optimally door to door, anywhere on the planet.			

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<b>Fernhay Partners Ltd</b>	Fernhay Distributed Power on Wheels (DP0W) and Bespoke My Ride (BMR) project	£52,700	£25,000
<b>Project description - provided by applicants</b>			
Our innovation is a battery powered bicycle trailer requiring no additional pedalling orbraking effort from the cyclist even with a heavy load. Within transport it sits between smallvans and the cargo bicycle transporting equipment or freight up to 100kg. In its operationalcapacity it enables the commercial use of electric power tools replacing petrol products suchas lawnmowers and circular saws at significantly lower running costs.			

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Sustainable Venture Development Partners Ltd	Flood & Coastal Erosion Risk Analysis & Intervention System (ERA) via UAVs	£41,782	£24,500

## Project description - provided by applicants

Sustainable Venture Development Partners (SVDP) works with investors, entrepreneurial managers, and corporates to originate, build and grow sustainable companies. Growth of these companies is de-risked through access to our extensive network, deep sector expertise, and venture development experience. SVDP has developed a prototype design for a Flood & Coastal Erosion Risk Analysis & Intervention System (ERA) via the use of Unmanned Aerial Vehicles (UAVs). The system will deliver real time analysis of flood and erosion risks, and offer 'next step' intervention measures, with the use of thermal sensors, HD imaging, Light Detection And Ranging (LiDAR), and GIS to interpret the changing characteristics of UK waterways. ERA improves upon the ROI of existing waterway monitoring by eliminating time consuming manual activity, whilst increasing the richness and consistency of data collected. The device leverages proprietary software, which uses thermal and visual data to identify sediment build up rates and geographical transformations. This in turn informs strategic intervention plans. ERA borrows techniques developed by the precision agriculture industry, tailoring system architecture to flood and erosion service requirements. With £3.2bn spent on flood and coastal defence last Parliament (Defra), ERA stretches public investment by (1) streamlining monitoring and (2) improving decision making. ERA takes advantage of decreasing UAV cost, and consists of four components: (1) a thermal/ HD imaging / LiDAR integrated UAV, (2) photogrammetry / GIS software, (3) a recommendation engine, and (4) a user interface presenting data and intervention options. Successful deployment requires coordination amongst many stakeholders and detailed market research. This study's objective is to prove our value proposition and produce a technology development plan prior to securing Proof of Concept funding

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Alchemy V Ltd	Artios	£48,511	£25,000
<b>Project description - provided by applicants</b>			
<p>Successful businesses rely on successful marketing to grow their sales and profits. In today's competitive and fast moving business environment digital marketing coupled with Search Engine Optimisation (SEO) and social media has become the industry standard. However, digital marketing doesn't necessarily mean more effective marketing. Much digital marketing relies on flooding the market with a quantity not quality approach and targeted campaigns are often based on historic data with limiting variables. Research shows that many start-ups and SMEs fail to invest in digital marketing, as they have no statistically robust models for predicting their Return on Investment (RoI). For those SMEs and LEs that do invest, the costs to hire data scientists, statisticians and software engineers to evaluate feedback, update variables and construct ever changing data science probabilistic graphical models can be excessively expensive and time consuming. Countless hours are wasted pursuing strategies that have no quantified evidence of succeeding. Much of the decision making is aided by tools which are run at a single point in time i.e. snapshot data. There is therefore a strong desire by the industry to make digital marketing more predictable but as yet there is no tool to provide a much needed industry solution. Alchemy V Ltd propose to develop a cloud based platform that applies machine learning across various sources of online marketing datasets to achieve intelligent 'live' digital marketing that is cost effective for companies and agencies, scalable from SME to corporate and provides accurate targeted marketing to key influencers and decision makers.</p>			

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Blagdon Actuation Research Ltd	Blagdon Actuation Research Continuously Variable Transmission Proof of Market	£39,750	£23,850
<b>Project description - provided by applicants</b>			
Blagdon Actuation Research (BAR) aim to prove the market of a hydraulic continuouslyvariable transmission. BAR intend to use novel design and manufacturing techniques to optimise weight, cost and efficiency of the continuously variable transmission.			

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<b>Base Materials Ltd</b>	MACE (MicrowAve Cured Epoxy)	£42,480	£25,000
<b>Project description - provided by applicants</b>			
<p>Base Materials is a significant manufacturer and supplier of tooling board widely used to create tools used in the composites industry for the manufacture of composite components. The construction of tools from tooling board results in high levels of waste (typically 50%) and because it is non-recyclable the majority of it ends up in landfill; furthermore tooling board which has a long curing cycle both at low and elevated temperatures which is energy intensive and inefficient. The reason for the long (up to 5 days) low temperature curing cycle is to avoid uncontrolled temperature excursions which can lead to overheating and fires. A potential solution is to use microwave energy to cure the resin as it has the potential to minimise thermal excursions and significantly reduce curing times. Whilst this may seem to be an attractive process from a technical point of view the economics of the technology has not been evaluated for tooling board and it is our proposal to review the logistics, economics, safety, IPR and potential end use markets as a desk research exercise.</p>			

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Modern Baker Ltd	Modern Baker – Innovative Functional Food Products	£41,527	£24,916
<b>Project description - provided by applicants</b>			
<p>Modern Baker Ltd is a rapidly growing UK manufacturer and retailer specialising in fermented, organic health foods. In the proposed project it is seeking to evaluate the feasibility of developing its own branded range of organic products using novel, scalable fermentation methodologies tailored to unique, UK sourced ingredients. The company believes that its new product range could be strongly differentiated by an innovative combination of novel manufacturing (including proprietary culture selection), exclusively UK sourced functional ingredients and unique packaging and product design. Whilst continuing to adhere to three core principles that match with prevailing consumer demands 'great taste, naturally nutritious and clear provenance (&gt;95% organic, fully traceable)' Modern Baker also intends that its products have international, mass-market potential. Existing products that have been developed specifically for the Free From market, such as gluten-free (GF) breads, have struggled to achieve scalability, in part because of inferior palatability in comparison with conventional wheat bread and their low baking performance (which leads to high cost of goods and restricted product availability). Modern Baker intends to capitalise on recent scientific evidence and consumer feedback that suggests that sourdough (&amp; a return to fermentation / cultured foods) could be the 'platform technology' for products with improved quality, nutritional properties and shelf life; sourdough baked products require substantially fewer ingredients than conventionally produced equivalents (which require additional yeast, gluten, fats, reducing agents, soya flour, emulsifiers, preservatives and other (often enzymatic) processing aids). In the proposed project, Modern Baker intends to evaluate the market potential for its pioneering product range via extensive market research and engagement with prospective customers, collaborators and suppliers.</p>			

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<b>Nanotherics Ltd</b>	Nanotherics Ltd - Studying the Heating Effects of Magnetic Nanoparticles	£41,588	£24,952
<b>Project description - provided by applicants</b>			
<p>There is significant interest in using heat to treat cancers; subjecting tumour cells to 43° heat causes them to die off. Magnetic fluid hyperthermia (MFH) has opened up numerous applications and is widely accepted to have a significant role in non-invasive treatment of cancer (Nanomedicine Roadmap, 2009). When magnetic nanoparticles are subjected to an AC magnetic field they show heating effects due to losses during magnetization reversal process: hysteresis loss; Néel relaxation loss; brown relaxation loss and losses due to friction in viscous suspensions. This research could also lead to drug-delivering magnetic nanoparticles which use a thermal release process, providing a synergistic effect. Nanotherics Ltd have recognised the need for off-the-shelf equipment which allows hyperthermia testing of magnetic nanoparticles at a range of frequencies and magnetic field strengths.</p>			

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<b>AutoRose Ltd</b>	A market investigation into alternate monetisation methods for a connected car network infrastructure and how to create a network structure which provides maximum value to all stakeholders.	£35,960	£21,576
<b>Project description - provided by applicants</b>			
AutoRose is a connected car company looking to investigate the potential market value of BigData within the automotive industry space. The project will focus upon a number of different data utilisation options and the related security and driver perceptions towards them.			

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The Sustainable Home Survey Company CIC	Hot Water Detective 'HWD' - Proof of Market Project	£41,881	£24,500
<b>Project description - provided by applicants</b>			
<p>The Sustainable Home Survey Company (SHS) is a leading community-focused energy management assessment company and social incubator. To date, SHS's management team has delivered over 15 low carbon ventures and actively supports team members in identifying and growing spin-out companies. As an adjunct to its core business, SHS has identified a need for an innovative, low cost solution to domestic hot water control 'The Hot Water Detective' (HWD). HWD is designed to save energy on hot water heating and mitigate the risk of Legionnaires' disease through providing i) a cloud-based system for monitoring real-time hot water temperatures, and ii) a UV light disinfection device for eradicating microbiological contamination. In the UK, 14.3m homes have hot water storage tanks that are exposed to unnecessary financial inefficiencies: a) Significant loss of the water tanks' thermal energy due to out-dated, non-digitized control systems; b) Maintaining higher than necessary water tank temperatures (~10°C higher) for mitigating the risk of legionella bacteria - the average domestic hot water tank is kept at 65-70 °C. c) Biennial water tank safety checks (average of £150/property) for rented properties 'protecting tenants from risk of legionella. From January 2015 Legionella risk mitigation is mandatory for any private or social landlords (ACOP L8, Health &amp; Safety at Work Act 1974) HWD remotely monitors water temperatures to save up to £100 per year on energy bills (through improved and more sensitive, real-time control), whilst mitigating the risk of legionella to remove the need for water tank health and safety checks. It is anticipated that successful deployment of this HWD system across the UK domestic market has the potential to reduce annual domestic heating costs by £970m amongst vulnerable tenants, save a further £650m/year for landlords through minimizing water tank health and safety audits in rented sector, and deliver lifetime carbon savings of 1.97 mt CO<sub>2</sub>e</p>			

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# Innovate UK

**Results of Competition: Smart Round 2 2015-16 - Proof of Market**  
**Competition Code: 1505\_SmartRd2\_POM**

**Total available funding for this competition was £8.144M from Innovate UK**

**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
Hanger19 Ltd	Electric Vehicle Supply Equipment (EVSE) Near Field Communication (NFC) Control Module	£34,800	£20,880
<b>Project description - provided by applicants</b>			
<p>This project seeks to identify alternative approaches to provide the user interface required between the users and electric vehicle charging infrastructure in order to identify the user and confirm they are authorised to use the facility. Specifically the project intends to explore the new Bluetooth v4.0 (Smart) Protocol and explore using new facilities in the v4.0 standard for the purpose of creating a secure encrypted data channel that could be established between a chargepoint and either vehicles (navigation, dashboard electronics) or handheld devices (smartphones, tablets) in order to exchange information and provide authorisation credentials to the chargepoint to validate that the driver has permission or financial funds to be allowed access to the chargepoint facilities. The Bluetooth protocol has traditionally been used for interfacing entertainment and user interface devices. It has facilities for device authentication (to identify and handshake) and until recently supported only relatively low levels of data encryption which was susceptible to denial-of-service attacks, eavesdropping, man-in-the-middle attacks, message modification, and resource misappropriation. However the recent v4.0 edition of the standard provided AES encryption as well as numerous security improvements which is why we seek to explore using it in this particular application. Furthermore the ability to create a 'local' wireless local area network (WLAN) between chargepoint and devices that contain further internet connecting and processing capabilities allows us to explore different and new solutions to making the chargepoint an 'online' device without the need of expensive GSM modems which are today typically added into the chargepoint in order to satisfy requirements for data collection and remote control.</p>			

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Integrated Compound Semiconductors Ltd	Optical Detectors for Fibre to Home (FTTH) Connectivity(ODFit)	£38,982	£23,389
<b>Project description - provided by applicants</b>			
<p>Integrated Compound Semiconductors (ICS) is a Manchester based SME specialising in the development of advanced component solutions for microwave and optical equipment markets. The company combines skills in opto-electronic materials and high speed RF circuit design, and has IP related to the monolithic integration of optoelectronic and RF components on a single semiconductor chip solution. The demand for high speed, high quality, broadband access to the home and office via fibre optic networks is driving market demand for high transmission rate optical components. ICS sees a huge opportunity in providing optical detectors for the next generation networks which require 10Gb/s performance at commodity pricing. This market study will investigate the cost versus performance trade-offs in the design and manufacturing of such components, with a particular focus on a mid term opportunity for components which enable the backhaul interface transceivers between 4G mobile and the local fibre optic network. The study will examine both technical requirements for emerging products and commercial considerations such as component pricing, barriers to entry and market introduction strategies.</p>			

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<b>Participant organisation names</b>	<b>Project title</b>	<b>Proposed project costs</b>	<b>Proposed project grant</b>
<b>Cresset Biomolecular Discovery Ltd</b>	Market research to validate the commercial potential for a novel application that connects a multi-platform GUI to cloud-based infrastructure, to enable the rational structure-based design of new compounds for pharmaceutical R&D	£42,516	£25,000

### **Project description - provided by applicants**

The availability of crystallographic information for protein targets of pharmaceutical interest has dramatically increased in the recent years, even for those targets, such as Trans-membrane Receptors and Ion Channels, which until recently were considered extremely hard to crystallise. The availability and cost of high-performing computing through cloud-based infrastructure has also dramatically improved in the recent years. This has made the application of complex drug design methods and algorithms to the study of complex target-ligand interactions accessible to pharmaceutical researchers. Cresset have an existing suite of software tools aimed at helping both computational and medicinal chemists with the design and synthesis of molecules, particularly helping with the understanding of the 3D properties of the molecules and their interactions with target proteins; however it is our belief that there is an increasing need for new tools to facilitate a rapid utilization of cloud-resources in platform-independent desktop applications. We intend to carry out market research in this area to validate our belief that a new software application, that integrates cloud resources with a traditional interactive GUI for structure-based design, will provide a paradigm shift in the speed of new molecule design and in the exploitation of available crystallographic information on protein targets of pharmaceutical interest. We believe there is a significant worldwide market opportunity for such a tool, but we strongly need to validate our concept with broader market data than we have been able to access from our current customer contacts.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
UK Innovation Forum Ltd	Open Innovation Self -learning algorithm	£41,624	£24,974
<b>Project description - provided by applicants</b>			
<p>Evidence suggests that the tradability of intellectual property (IP) has increased over the last few decades. The market for open innovation is getting mature and was estimated at ~2.7 billion globally. Europe accounts for 25% of the global market while the US accounts for 40.3%. At the same time, it is estimated that between 2009-2012 expenditure on technology inlicensingwas ~£6.9 billion a year in the UK. This equates to almost 40% of the total business enterprise spending on R&amp;D. Despite the general growth in licensing activity, only a limited share of patents is licensed out. In most countries less than 10% of patents are subject to licensing outside the company. The UK Innovation Forum (UKIF) ' a spin out from the Science and Technology Facilities Council) have identified an opportunity to build upon theirunique repository of IP and existing corporate members by developing a self-learning algorithm that can learn the technology requirements of businesses by analysing a wide range of data and then feed 'highly relevant' technologies from the UKIF existing technology database and wider into the open innovation funnel of the company.</p>			

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Cinema Audio Systems Ltd	Audio Photography	£20,000	£12,000
<b>Project description - provided by applicants</b>			
<p>Cinema Audio Systems' Audio Photography system automatically and completely matches audio recorded or used in the Film/TV Post Production process to the production audio it is intended to replace. This market disruptive technology does this by frame-accurately simulating the technical and acoustical conditions of the original production audio recording. Cinema Audio Systems, in collaboration with Milner Strategic Marketing, are going to profile the market opportunity. - Firstly research will be carried out into production and post-production research used by the TV and film industry. This will include identifying future trends in these sectors, key competitors in each sector, the size of companies in each sector and other important areas that emerge. - Secondly, the target regions will be profiled looking at key market drivers and barriers to entry. These profiles will include country demographics and regional factors affecting adoption of Audio Photography. - Thirdly competing technologies will be profiled with a comparative summary of functionality, and the key competitors within each technology will be identified. Competitor pricing for similar products and services will be collected where possible. - Fourthly, primary research with key industry stakeholders will be carried out to validate the opportunity and identify potential barriers to uptake. This background research will feed into a bespoke Excel-based market model to quantify the opportunity in each sector over the next 5 years. A final proof of market report will be written summarising the market opportunity in volume and value terms and split by sector, by technology, by company size and by region. This will be used to develop strategic options and recommendations covering suggested routes to market and brand positioning.</p>			

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<b>Participant organisation names</b>	<b>Project title</b>	<b>Proposed project costs</b>	<b>Proposed project grant</b>
CTEX NTX Ltd	Market Study of New Applications for a novel colour monitoring technology platform	£42,677	£25,000
<b>Project description - provided by applicants</b>			
<p>These have to be unrolled and re-rolled by machines to give the correct stretch prior to automatic cutting. This presents an ideal opportunity for automatic scanning to detect colour variation before machines cut pieces that workers sew into a finished garment. We have demonstrated added value to both garment manufacturers and fabric dyers and printers. We sell slightly different versions of our technology to these two groups of customers. Our current system has been adapted to swimwear and lingerie and we now want to diversify into other fabric types. We have identified several different fabric types, for which C-tex colour could improve manufacturing processes. Each will need specific adjustments to hardware and software of the core technology. The purpose of this study is to identify: Which sectors will benefit most from colour variation monitoring? How large each of those sectors are; i.e. are they worth us developing variants for? What technical adjustments do we need to make, and how much will it cost to develop a prototype for these? Ours is a market worth £120Bn worldwide, growing at a CAGR of 14.02%. We export 90% of our products, adding to the £5bn of exports that textiles contributes to UK exports and £37Bn to the UK economy overall.</p>			

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