Innovate UK

Results of Competition: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
CAV Advanced Technologies Ltd Opus Materials Technologies Ltd Promethean Particles Ltd PPG Industries (UK) Ltd GKN Aerospace Services Ltd BAE Systems (Operations) Ltd TWI Ltd London South Bank University	Durable ice-repellant coating process for aerospace and energy industries (ICEMART)	£1,138,654	£817,451

Project description - provided by applicants

Ice formation on aircraft, wind turbines and power lines is a major cost to industry and an ongoing cause of fatal air crashes and accidents from ice-shedding. Current ice-mitigation technologies rely on mechanical breaking of the ice, electrical heating or application of de-icing chemicals. These are expensive, inefficient, unreliable, and damaging to the environment. The aim of the ICEMART project is to develop a novel passive ice-repellent coating that will prevent ice formation and adhesion without the need for active ice-management. This development will have far-reaching impact across a wide range of sectors, including aviation and energy where it could save hundreds of lives, eliminate the discharge of over 100 million litres of aircraft de-icing fluid, contribute to annual savings of £7bn in fuel and 80Mtonnes of CO2 from aviation and improve wind generation efficiency by 17%. ICEMART technology is based on a novel patented technique for obtaining multi-functional additives that can be incorporated into coating resins making them highly repellent to water and ice, whilst providing a tough and durable coating.

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Impression Technologies Ltd Phoenix Calibration & Services Ltd Innoval Technology Ltd Imperial College London	Rapid Aluminium Solutionising Technology (RASTEC)	£1,152,086	£850,450

Project description - provided by applicants

A major current problem for the automobile industry is to reduce the negative environmental impact of its products. One way to do this is to reduce car weight and thus reduce exhaust pollution. Around 40% weight saving is achieved if aluminium alloy is used to replace steel. A barrier to using aluminium more widely, and not only in premium grade cars, is its low room temperature formability in cold pressing operations. A novel patented process, HFQ®, invented in the UK, enables heated aluminium alloy sheet to be formed into complex shapes whilst retaining the full strength of the material. Simple hot pressing does not allow this. The HFQ® process is being increasingly adopted by industry with notable success. However, relatively long cycle times are required to preheat sheet metal blanks using electric ovens. Because of this, costly multiple ovens have to be used, otherwise productivity will be low therefore increasing piece price. RASTec aims to eliminate the bottleneck, at no added cost, by increasing heating rate by up to 10 times that of conventional ovens. RASTec achieves this through induction heating adapted to sheet metal. Small closely spaced heating elements, the number of which can be activated to match with a blank shape for high efficiency, feedback controlled from temperature sensors will enable either uniform temperature or predetermined temperature profiles to be achieved. By reducing production costs, reducing production energy usage, whilst increasing accuracy and increasing productivity, the RASTec technology suite will enable faster take up of high strength Al alloys in mass-produced cars, trains, aeroplanes.

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Olympus Automation Ltd University of Lincoln Baxters Food Group Ltd Natures Way Foods Ltd New Ivory Ltd	Robotic Flexible Food Manufacturing System (RFFMS)	£897,470	£627,839

Project description - provided by applicants
Traditional soup, sauces and other liquid based product manufacturing often depends on electronic and / or paper based control systems whilst using large stationary cooking kettles (500 to 3000Kg) requiring pipe and manual handling transfer systems for moving ingredients and finished product from process to process. Consequently, this leads to variable product quality and results in considerable waste and high energy usage. Olympus Automation Ltd (OAL) intends to address these costly issues through developing a robotic flexible food manufacturing system with fully integrated digitised process control. With the help of an Innovate UK grant OAL and its project partners, will design and develop the technically difficult and innovative software and hardware systems required to achieve the project's overall objective. The food manufacturing will incorporate the development of OAL's highly innovative APRIL (Automated Processing Robotic Ingredient Loading) system that combines state of the art cooking and materials handling technologies with automated robotic ingredient loading, utilising smaller 750Kg vessels. The integrated system will produce higher quality food with unprecedented flexibility, more consistently and faster with greatly reduced ingredient wastage and energy costs, whilst taking up to 50% less factory space. The system and testing will be located in a dedicated food processing hall at the University of Lincoln's National Centre for Food Manufacturing at Holbeach.

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
IS-Instruments Ltd Visionmetric Ltd Genzyme Ltd Lancaster University Biosynergy (Europe) Ltd	Optimisation of high value biopharmaceuticals Manufacture using Resonant Raman Observations	£828,858	£500,057
Project description - provided by applicants			
Small yield losses (<1%) during production of high value biopharmaceuticals such as enzymes and monoclonal antibodies have considerable commercial impact for producers. There is a need to develop real-time analytical tools to optimise yield, minimise in-process losses, increase product consistency and reduce cost during down-stream processing (DSP). The project aims to design and implement new spectral analysis tool for quantitative analysis and control of DSP. The project will apply the technology to help optimise DSP where high sensitivity and selectivity are required to improve chromatographic separation (the principal tool for DSP purification). Software will be developed to monitor real time data feeds from the UVRRS and output the optimal parameters for current and future fraction collection, delivering at least 2 % - 5% higher yield			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Sharp Laboratories of Europe Ltd Thomas Swan & Co Ltd AceOn Battery Solar Technology Ltd University College London	Project title: Materials manufacture for scale of sodium ion technology	£1,481,246	£875,214
Project description - provided by applicants			
Energy storage is one of DECC's top priority areas for development, with the potential to massively cut the cost of decarbonising the electricity supply if a grid-scale electricity storage system to balance the variable output of renewables can be created. The challenge for residential energy storage (RES) systems is in providing safe, low-cost, long-life energy storage which can be coupled with renewable energy sources or 'economy' tariffs. This project proposes a scale-up of sodium-ion battery technology through industrial research. Sodium-ion batteries are analogous in many ways to the lithium-ion batteries that are in common use today; they are both rechargeable batteries. The use of cheaper and more abundant sodium in place of lithium addresses concerns of cost and sustainability of lithium ion technology as a residential energy storage solution. This project would innovate the scale-up of the cathode material manufacture from a few hundred grams to tens of kilograms, the surrounding sodium ion technology will be scaled up from single cells of a few Ah to 250Wh modules suitable for 4kWh residential energy storage at lower cost than current offerings. The project would include studies to understand the best design and operation of the cells and also the battery management system for both safety and longevity. This would be the first commercial residential energy storage sodium ion module and opens up the possibility of significant technology exploitation for all the commercial partners from intellectual property, materials manufacture, cell manufacture and battery assembly and distribution.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Seagate Technology (Ireland) Ilika Technologies Ltd	Photonic Material Process for Data Storage	£943,019	£575,995
Project description - provided by applicants			
Demand for data storage continues to grow at a rate up to 40% in part a result of the movement to cloud storage. Most of the world's digital information is and will continue to be stored on hard drives. Innovation in the read-write transducer, from which information is recorded and read, is critical to increased hard drive data capacity. Today, 25% of the world's transducers are manufactured in the UK giving us a unique opportunity to grow as demand for this complex nano-engineered component increases. This project will deliver a process for photonic material development with improved data capacity using engineered materials to enable Heat Assisted Magnetic Recording (HAMR). Photonic materials, engineered with new process methods, will boost performance and reliablity for HAMR hard drives, decreasing time to market. Seagate is a leader in developing HAMR technology and we will demonstrate the feasibility read-write transducers with these new engineered materials. Ilika is a leader in the area of material development and will provide the implementation path to demonstrate these materials at the required pilot line scale for the first time.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Ansell (UK) Ltd Sefton Technologies Ltd Laser Micromachining Ltd University of Liverpool	Innovative Manufacture of Novel Antimicrobial Medical Devices. (IMNAD)	£689,713	£521,328
Project description - provided by applicants			
The project is a collaboration between a global market leader, two innovative UK SMEs and a leading University to develop an advanced manufacturing process to produce a medical device with antimicrobial properties in order to address the challenge of Hospital Acquired Infections, which cost the NHS £2bn per annum. The project uses the 'Design for Excellence' principles to create a novel combination of advanced fabrication techniques and to develop an efficient mass production process for novel antimicrobial materials.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Simpact Engineering Ltd University of Warwick	COMPPRESS - An Innovative Step in the Compression Moulding of Composites	£228,746	£176,805
Project description - provided by applicants			
COMPPRESS is an exciting 18month feasibility study carried out by Simpact Engineering Ltd in collaboration with WMG at the University of Warwick and will investigate a completely new and highly disruptive innovation in the compression moulding of composites. Designed to open up the market for structural composites, improve productivity and market lead of the UK, the project will design and build a prototype composite moulding machine. On successful completion of the project, we will demonstate the new technology with a processed composite part which will compete with the quality and strength of a traditional compression moulding but at a fraction of the price.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
NetComposites Ltd Rosti Automotive Pickering Ltd Orangebox Ltd Bangor University	Natural Fibre Reinforced Thermoplastics for Injection Moulding (NATIM)	£814,870	£605,792

Project description - provided by applicants

The injection moulding of long-fibre-reinforced thermoplastics (LFTs) is one of the few polymer composite material technologies that is genuinely capable of realising the high production volumes required by the mainstream automotive and consumer goods sectors. However, the glass fibre reinforcements that are currently used in LFTs are heavy, brittle and energy intensive, thereby compromising the lightweighting potential, processability and sustainability of LFTs.

As a superior alternative to glass, NetComposites has developed an LFT material based on natural fibres such as flax, jute or hemp. These are 40% lighter than glass fibres whilst having a similar stiffness. They are also much less brittle and much more sustainable.

To date NetComposites has developed a pilot line for producing the natural fibre LFT materials. Their technical performance has been proven through successful trials at an automotive component manufacturer. However, a barrier to their commercialisation remains - the current manufacturing process is both too costly and lacks scale.

The aim of this project, therefore, is to develop a modified manufacturing process to allow the natural fibre LFT materials to be supplied at a similar cost and in similar volumes to the incumbent glass-LFTs.

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Maher Ltd Replicast Ltd The Manufacturing Technology Centre Ltd Granta Design Ltd	A Net-Shape, High-Productivity Fabrication Route that Utilises Low-Cost Tools to Produce High-Complexity Parts (NIFTY)	£991,103	£683,832
Project description - provided by applicants			
A novel process route will be developed to enable net-shape, high integrity components to be produced from high performance materials. An innovative manufacturing route will produce high-precision, low cost tools allowing the process to produce complex shape parts at lower cost and higher throughput. The process is supported by a digital process selection tool to assess the viability of the process for a selected component against competing technologies.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Ilika Technologies Ltd Sharp Laboratories of Europe Ltd McLaren Applied Technologies Ltd	Materials integration and manufacturing of battery and EH power source for automotive and asset tracking	£828,071	£507,649
Project description - provided by applicants			
This project will address the needs of the fast growing Internet of Things (IoT) market by developing materials for challenging environments and a manufacturing process to create the world's first fully integrated thin film power source. The market needs robust, low maintenance sensor nodes for demanding environments. The power source is a major challenge: it must be robust, work at 100 °C and be maintenance-free. The footprint must be small with high aesthetics for easy integration into the sensor and its operating environment. It should have dimensions comparable to the sensor and other electronics elements but deliver power to fully operate the sensor. This project will build upon Ilika's thin film solid state battery technology and Sharps light energy harvesting technology, with significant performance improvements expected when combining the two technologies to produce the fully integrated system. We will initially address motorsport/automotive and asset tracking applications but given the strong cross sector applicability of the technology, we anticipate being able to meet the needs of the growing healthcare, transport and industrial markets.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Machine Tool Technologies Ltd Newburgh Precision Ltd University of Huddersfield University of Sheffield (AMRC) Cranfield University	Metrology and digital manufacturing for Servitisation of manufacturing machines	£1,028,911	£783,551
Project description - provided by applicants			
Servitisation of machine tools is a proposed business model where a manufacturer purchases productive time available on a machine, rather than the capital asset. Servitisation has been implemented successfully in areas such as production lines, tooling supply and most notably Rolls-Royce aero engines who supply engines almost exclusively to their clients based on a servitisation model. This approach will improve productivity, raise technology levels and improve sustainability of manufacturing throughout the UK's supply chain. SMEs will gain access to cutting edge CNC machines while the onerous responsibility for maintaining machine quality, performance and availability would reside with the experts in maintenance. The challenge is to mitigate service supplier's considerable risk since the machine is being operated by their customer. This project will develop advanced monitoring technology and analytics for both the machine and manufacturing process, with metrology (the science of measurement) and digital manufacturing being the heart of the solution.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Medical Wireless Sensing Ltd King's College London	Metamaterial manufacturing: A MetaSurface for medical applications	£748,294	£579,763

Project description - provided by applicants

Magnetic resonance imaging (MRI) is considered the optimal technique for diagnosing health problems related to complex internal systems such as the central nervous system, cardio vascular system, and the brain. However MRI scanners are expensive, averaging about £700-800k (1.5 T) and £1.2M (3T). The demand for higher quality images and the volume of MRI scans is steadily increasing over time, putting huge pressure on the NHS who is trying to reduce waiting lists within the existing facility and budget constraints.
MediWise Ltd. is developing MetaSurfaceTM, a flat array of thin non-ferrous metal wires embedded in a special metal-dielectric matrix (metamaterial), with high epsilon and (er>100) and low loss (tanD<0.005) ceramics. The device would be conformal to various body parts such as head, knee, hand, or whole body to improve the scan quality both locally and collectively inside the MRI machine. A switch matrix will be used to tune the wire grid during receiving mode (64 MHz for 1.5T), to enhance the electromagnetic field significantly higher without exceeding the safety limit. For an existing 1.5T MRI machine and certain scan setup, MetaSurfaceTM is able to improve the image quality more than five times, while enable up to twenty times faster scans for an equivalent image quality. MetaSurfaceTM improvements will offer health providers, such as the NHS, savings of up to £6m per year whilst increasing access to services. The proposed technology eliminates heat issues associated with high intensity MRI scanners (3T and 7T), offering a new tool for clinical research in the UK and 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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Spectrum Technologies PLC Rockford Components Ltd Gwent Cables Ltd Bombardier Aerospace Europe Ltd	Automated processing system for aerospace electrical wire harness production	£845,898	£283,353
Project description - provided by applicants			
The aim of this project is to fully automate a range of initial processes undertaken in the manufacture of complex aerospace electrical wiring interconnect systems (EWIS). Current EWIS production methods are highly labour intensive. This project will deliver a fully automated state-of-the-art system that will undertake all stages of wire processing up to the point of connector insertion. The project outcome will provide an innovative product that will facilitate wire harness production by utilising automation to increase productivity, reduce lead times and costs, whilst maintaining a zero defect quality standard. Manufacturing efficiency requires precise scheduling and a reliable process that can consistently meet production demand variations currently found in industry. The automated wire preparation and management system will enhance harness production facilities and allow companies to meet world class manufacturing standards of excellence.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Matrix Moulding Systems Ltd Barkley Plastics Ltd Luxus Ltd Polybridge Training Ltd	Development of a new polymer leak free ultrasonic flow enhancement in injection moulding that can provide a 20% reduction in cycle time, 60% longer flow paths, 10% savings in material – Soniplas	£693,028	£445,784

Project description - provided by applicants

The UK and EU polymer processing industry continues to contract, with companies struggling to maintain market share against competition from low cost economies. Whilst energy cost reductions would be welcomed, cycle time and component thickness are key drivers of financial performance, with parts costed as a function of cycle time & machine hourly rate.
The Soniplas system will apply ultrasonic energy into the molten polymer just before it enters the cavity. This can yield as much as 90% temporary reduction in melt viscosity, enabling a significant reduction in melt temperature, saving both heating & cooling energy.
The benefits of this are numerous. Melt temperatures could be maintained and the lower viscosity used to enable easier filling of existing parts or design of thinner-walled parts with corresponding reductions in cooling times. Alternatively, the melt temperature could be reduced significantly, while still being able to fill the same mould (due to the reduced viscosity).
This technology could enable UK moulders to increase productivity and competitiveness, regain market share and capitalise on new business opportunities.

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Horizon Discovery Ltd Solentim Ltd	Development of an automated manufacturing pipeline for genome-edited mammalian cells	£1,216,380	£764,309

Project description - provided by applicants

The aim of this project is to establish new and innovative approaches for the manufacture of high-value, genome-edited cell lines used in bio-medical research. Genome editing is rapidly becoming an essential tool in all segments of life sciences R&D, from basic research to drug discovery and diagnostics, therapeutics (incl. regenerative medicine), synthetic biology, bio-manufacturing, environmental sciences, AgriTech and food manufacturing. Like DNA sequencing, it is widely expected that genome editing will lead to major changes in multiple industry sectors and result in disruption of global supply chains at multiple levels. This project aims to catalyse this process.
The project will harness innovative gene editing technology and automation in cell handling, together with highly parallel, high capacity and data-dense analytical approaches to create a manufacturing platform that enables greater throughput cell creation with integrated cell analysis and characterization capability. This will provide Horizon not only the ability to offer more products at a market-disrupting price, but also at a quality level that comprehensively drives the market towards buying Horizon's products and away from 'DIY'. These elements will also combine to establish Horizon as the 'go-to' partner for strategic relationships with biopharma companies for the provision of larger scale solutions.

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Fibre Technology Ltd University of Manchester	Process Control System for Steel Fibre Production Using Melt OverFlow	£676,110	£533,164
Project description - provided by applicants			
Fibre Technology Limited has developed a unique process - Melt Overflow with Rapid Solidification Casting - to produce metallic fibres which mesh to form a non woven material - Microtex. It can be produced in a range of alloys and fibre diameters that are either technically or economically non-viable using all existing mineral fibre manufacturing processes (steel rod shaving, melt extraction or spin casting). Microtex is valued by exhaust component manufacturers as a baffle material for its superior heat and noise attenuation properties. The project will enable Fibre Technolology Ltd to fully investigate the parameters affecting fibre density and to implement a digital control system for a step change in output consistency to enable Microtex to be manufactured in volume meeting the fibre density requirements of the initial target market and opening new sector possibilities . Project partner Manchester Univerity's Materials Department will provide fibre technology and process modelling expertise and material testing will be carried out by specialist exhaust system manufacturer Vortex Limited.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
iChrome Ltd Wilson Benesch Ltd University of Bristol	FastRTM	£418,341	£327,245
Project description - provided by applicants			
The goal of Fast RTM is to provide a tool for fast and reliable Resin Transfer Molding (RTM) manufacturing simulations. Resin Transfer Molding is a composite plastics manufacturing process that uses fiberglass, carbon, or other dry fiber reinforcements. It is used in many industries among which aerospace, automotive, marine, medical, building and construction as well as consumer products ranging from exterior panels, wind deflectors, wing farm blades, interiors of automotive, aircraft, and watercraft to chemical resistant testing chambers fire safety doors, mobile caddies and stations. One of the main disadvantages of RTM is the need of trial and error attempts to achieve the quality and the shape of the part to be manufactured. With FastRTM, we intends to innovate the way small and medium Resin Transfer Molding (RTM) manufacturers will design molded parts via faster and more accurate prediction of the manufacturing process (injection and curing) so to increase their competitiveness on the international market and to drastically reduce material waste and environment footprint. The idea is to release FastRTM within its own CAE products as well as a plug-in to be used within the most-common CAD software solutions to provide benefits and to reach a broad set of engineers and designers.			

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: Materials and Manufacturing 12 - 24 Month Projects
Competition Code: 1605_LO_MM_R1

Total available funding for this competition is £11.3M 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
Compound Semiconductor Technologies Global Ltd Compound Semiconductor Centre Ltd Swansea University Cardiff University	DiLaN: Diode Laser manufacturing process using Nano-imprint lithography	£1,088,373	£821,840

Project description - provided by applicants

The inexorable growth in broadband communications has created an enormous market (>100M units pa) for low cost, single-mode semiconductor lasers emitting around 1.3-1.55um as sources in fibre optic communicationsto the Premises (FTTP). Current technologies deployed (such as Passive Optical Networking, PON) operate at line rates of 1.25-2.5 Gb/s. However, satisfying the massively expanding bandwidth demand will require implementation of new PON standards that require higher performance, lower cost laser sources. The UK industrial partners in this project are already significant materials and chip scale suppliers to this market.

Our project addresses the replacement of a high cost nm-scale lithography step in the laser manufacturing process with a low cost, high throughput nano-imprint process to realise a cost saving of 20-30% in the Cost of Manufacture of the laser chip.However, to our knowledge, the nano-imprint lithography technique has not been implemented in volume semiconductor laser manufacturing, and so there is significant de-risking activity required to establish, qualify and yield engineer a new process to unlock the productivity gains.

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