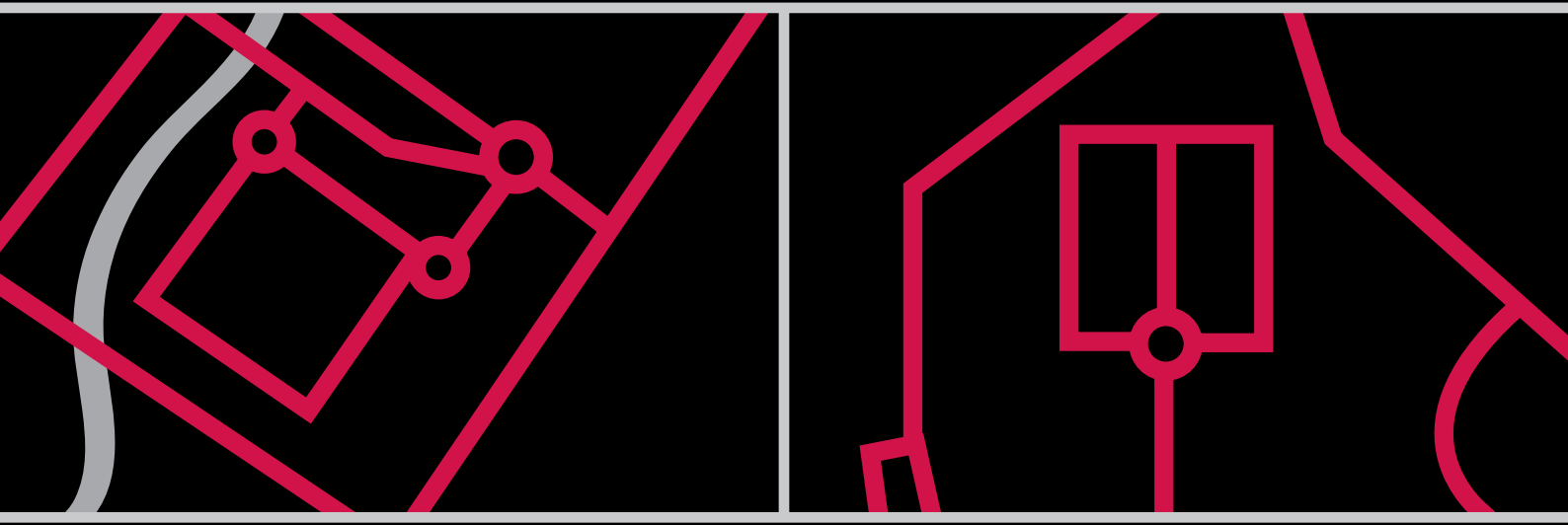
Technology Strategy Board

Driving Innovation



Materials and Manufacturing North West Launchpad Showcase

Directory of projects

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   - is, or had been in the previous two years, a director of a company with an annual turnover of at least £1m.

R&D funding of innovation projects in materials and manufacturing

This directory features 20 companies based in and around the Materials and Manufacturing North West cluster in Daresbury and Runcorn Heath. 17 of these companies have conditional offers of Technology Strategy Board grant funding for their R&D projects, and a further three were shortlisted in the competition. Many of these companies are seeking further private investment to take their projects forward.

Technology Strategy Board is investing up to £1.5m in innovative projects through the Materials and Manufacturing North West Launchpad competition, with the focus on the cluster of businesses in Daresbury and Runcorn Heath. The competition aims to accelerate innovative projects towards commercial success, and stimulate the development of the cluster by encouraging high-growth companies to engage with it. This competition not only provides SMEs with funding for R&D projects but, with the support of the Science and Technology Facilities Council (STFC) as cluster champions, supports the growth of their businesses through connections with expert advisors, as well as increasing access to the investor community.

Science and Technology Facilities Council (STFC)

LAUNCHPAD CLUSTER CHAMPION

As the 'cluster champion' for the Materials and Manufacturing North West Launchpad competition, STFC has worked closely with organisations in the North West and particularly around the Sci-Tech Daresbury campus and the Runcorn Heath Business and Technical Park – potential applicant SMEs, public and private sector service providers and sources of finance – to ensure the success of this Launchpad competition and to promote the successful development of the cluster.

As one of the largest multi-disciplinary science organisations world-wide, we keep the UK at the forefront of international science research and technology development, and use this knowledge and expertise to benefit industry and provide a wide range of specialist technical and business support services to accelerate the growth of high-tech SMEs.

We can provide access to world-class capabilities, technologies and scientists from STFC and our partners such as ESA and CERN, as well as access to our large facilities and award-winning incubation facilities, funding streams and networking opportunities – all tailored to individual company research challenges and business needs.

As the cluster champion, we have been supporting the development of companies involved in this Launchpad competition through bringing together a range of service providers from the cluster to offer a comprehensive package of business support, to ensure that these innovative SMEs are in the best position to access further investment for growth.

Science & Technology Facilities Council

For more information please contact innovations@stfc.ac.uk

2DHeat Limited

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

2DHeat Limited has patented, electric heating technology based on novel materials science.

What is the market opportunity that you have identified?

Our electric heating technology, applied by thermal spraying onto the surface or article to be heated, can deliver end-user benefits across many applications and industries. We have already established a variety of working prototypes. We are targeting major global industries that use 'ultra-high-vacuum' (UHV) technology, including particle accelerators, proton beam therapy for cancer treatments, and the production of high-purity semiconductors for cell phones, Wi-Fi & LED lighting. These industries must thoroughly de-gas their equipment, by heating to high temperatures, to achieve the essential UHV conditions. Compared with competing systems, our technology significantly improves the operating efficiency of equipment over its life-time.

What is your business model?

We will contract-coat vacuum vessels with our heating system for end-user installations, turn-key system suppliers or vacuum vessel 'catalogue' suppliers. The key raw material will be from our in-house production; we will provide quality control and assurance support. For major installations, like CERN, who have expressed interest in our technology, we will consider a technology licence model at the appropriate time.

Who is in your team?

Our small team has considerable business experience and depth, and is backed by strategic alliances with leading universities, including Liverpool (engineering, materials and electron microscopy) and Kings College London (materials).

Our MD, John Lewis, has 38 years' technical, commercial and senior general management experience in ICI/Zeneca. Non-executive chairman Chris Redfearn previously ran a family engineering business. Tony Knowles (part-time finance director) is a senior partner in a local accountancy practice.

What is your funding strategy for growth?

The selected industry sectors are characterised by being high-growth, high-value-added, and extremely capital-intensive. Avoiding down-time and increasing the operational efficiency of installations are the key drivers, so they can tolerate premium-priced items that help deliver these objectives. Discussions indicate the potential for high-gross-margin/high-operating-margin. Our funding strategy is to raise sufficient equity to achieve self-funding.

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Advanced Laser Technology Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Advanced Laser Technology Ltd develops processes using lasers to reduce manufacturing costs in the mechanical engineering industries.

What is the market opportunity that you have identified?

The hardest surfaces are those added to a substrate by a cladding process. But this changes dimensions, so in precision engineering there is extra machining to return a component to the required dimensions. Our opportunity is to use a laser and chemical reaction to create a hardened surface of a substrate, equivalent to a hard cladding layer, but without changing dimensions. Hardening without extra machining.

What is your business model?

We will develop the recipes, specific hardware and know-how in setting up the lasers and quality control in metallurgical testing. This will be packaged into a licensable service with an initial payment for hardware and know-how, but royalty payments for consumption of the chemicals.

Who is in your team?

We are a technical company, supported by Inventya, based at Daresbury, who will aid us in finding beta testers among engineering companies for the innovatory technology. Between us we will develop exploitation plans and market licences among engineering and manufacturing consultants.

What is your funding strategy for growth?

Growth will come from royalty and licence payments.

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AeroDNA Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

AeroDNA provides cloud-based supply chain software solutions to high value manufacturing sectors.

What is the market opportunity that you have identified?

AeroDNA improves the competitiveness of the UK manufacturing sector by enabling companies to focus on core competences and develop supply chain partnerships for non-core activities. We provide the technology platform for manufacturing companies to form extended enterprises whereby companies of all sizes and commodities can collaborate seamlessly and streamline inter-company business processes.

What is your business model?

We offer some software applications for free to develop the user base, and up-sell more advanced applications for a monthly licence fee. In addition, clients pay for training and any bespoke developments. The medium-term business model is to generate transaction-based revenues whereby collaborating network partners aggregate their purchasing demand and AeroDNA receives a percentage of their savings.

Who is in your team?

Tom Dawes (CEO) has established several start-ups and studied for a PhD in aerospace supply chain systems. Technical director Haifeng Guo has studied for a PhD in supply chain systems development. All software development is outsourced to a partner organisation owned by Haifeng Guo in Wuhan, China to keep costs to a minimum. Commercial director Jim Walters has 30 years' experience in high value manufacturing and is the founder of two engineering businesses.

What is your funding strategy for growth?

AeroDNA already generates cash from existing paying clients, and has funds available to supplement the Technology Strategy Board Launchpad funds and take the cloud-based applications to market. However, phase 2 venture capital funds are required to commercialise the collaborative platform globally and seize first-mover advantage, to create the Facebook of enterprise networking.

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Air Quality Research Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Air Quality Research Ltd designs and develops air ionisation systems for air and water sanitisation.

What is the market opportunity that you have identified?

Air Quality Research Ltd (AQR) is exploiting a clear market need for sanitised water in the food processing sector. Clean, pathogen-free water is essential for washing fresh vegetables and salads prior to packaging. The cost of pathogen spoilage in food in the UK alone is over £10m per year. AQR offers bespoke, low-energy air ionisation systems that are scalable using the same core components.

What is your business model?

AQR has engaged with key players in the food processing sector, to develop systems that are fit-for-purpose. By working closely with customers, AQR ensures that the systems are installed with minimal disruption to current processing operations. AQR is also developing relationships with established businesses in a wide range of industries in different markets, to gain maximum market penetration and exploitation.

Who is in your team?

Peter Kukla is the managing director, with responsibility for day-to-day management and product development. He has over 20 years' experience in ionisation R&D, and 35 years' experience in engineering, product development and commercial sales internationally. Rayne Longhurst is responsible for developing the investor-readiness proposition and financial strategy. She has 10 years' experience managing spin-out companies from the academic sector, with project management skills and a chemistry background.

What is your funding strategy for growth?

AQR intends to lever funding from public grants, private equity finance, industry and early sales revenue. R&D activities will be grant-funded and matched with industry funds and early sales revenue, to ensure that outcomes are focused and meet the needs of the end-user. Private equity finance is sought as seed funding to match our Technology Strategy Board Launchpad grant and fund early-stage R&D and business development activities.

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ArcisAltos

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

ArcisAltos is a research and development led company developing antimicrobial and associated technologies.

What is the market opportunity that you have identified?

Significant progress has been made in diagnostic testing which enables more accurate treatment decisions to be made faster. However, for any diagnostic test DNA in a usable format is required, and there have been limited developments in the extraction of DNA. ArcisAltos have developed a unique solution which can quickly and easily extract DNA from clinical and environmental samples.

What is your business model?

ArcisAltos is privately financed: the company will seek trade opportunities and co-development agreements with large diagnostic companies and other SMEs. The core technology is patented and initial revenue will be generated via supply agreements with research organisations. Further developments leading to simplification of diagnosis will undoubtedly be attractive to large diagnostic companies.

Who is in your team?

We have a strong management team complemented by an experienced team of non-execs. Our chief executive (CEO) is a chartered accountant and ex-SSL International Executive team member (prior to the sale to Reckitts of SSL for £2.54bn). Our chief scientific officer (CSO) is vastly experienced in medical devices and chemical formulations, having previously held senior positions with Convatec, London International Group and Molyncke. Our finance director has significant Alternative Investment Market initial public offering experience.

What is your funding strategy for growth?

We have two funds invested in the business and The CEO has personally invested a significant sum. We also have a series of high-net-worth angel investors, including a number who have had numerous biotech successes. Our funding strategy is to launch an IPO on the AIM market in 2014, as well as making the business cash-positive.

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Climostat Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Climostat is a small company developing a process to convert flue gas CO_2 to useful saleable products.

What is the market opportunity that you have identified?

Current technology for dealing with flue gas CO_2 emissions involves trapping and burying it, eg in undersea wells. Climostat believes that there is a market for a technology that converts CO_2 emissions into valuable products for sale on world markets, and which will be profitable in its own right. Climostat is developing a process that converts CO_2 into formic acid, a commodity chemical.

What is your business model?

Climostat will be a stand-alone business that would develop processes to convert CO_2 to valuable saleable products without interfering with the power plant function or depressing its profits. It will develop each process together with a strategic partner, such as an engineering contractor that builds emission control plant, or a power company (perhaps in a consortium) or a large chemical company, eg a formic acid producer.

Who is in your team?

The team consists of Michael Fothergill and consultant Tim Gibson. Climostat is being advised by two executives, one with a background in the chemical industry (a former chemical plant manager) and the other a former project manager in the power industry. Climostat also benefits from experienced technical gas engineering assistance provided via SOG Ltd, the site owner in Runcorn.

What is your funding strategy for growth?

Climostat is seeking funding from a large company such as an engineering contractor that builds chemical plants and power plants, a power company or a chemical company that manufactures formic acid to assist it in developing its process. It is also pursuing marketing opportunities for other uses of the gas phase enzyme technology it uses.

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Croft Additive Manufacturing Limited

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Croft uses additive manufacturing technology to produce innovative metal filters that decrease customer costs and their carbon footprint.

What is the market opportunity that you have identified?

Croft Additive Manufacturing Ltd aims to benefit all industries that employ filtration in their processes. Increased pumping energy is required when filters are present. Innovative additive manufacturing (AM) filters, designed and created by Croft, require less energy for pumping. Industrial sectors that employ AM filters will reduce the UK pumping industrial electrical energy usage (currently 44.8 MWh/ year, at a cost of £700m/year) and so reduce the UK's carbon footprint for pumping (30m tonnes/ year).

What is your business model?

Croft develops novel depth filters using versatile metal AM technology. Our business model is to target high-value industries such as automotive, nuclear and aerospace. AM design freedoms are exploited to produce bespoke AM filters, within a short lead time, that deliver energy, weight and strength benefits. The innovative designs are being patented. Development of quality assurance will encourage customer uptake and so increase revenue streams.

Who is in your team?

Croft's three directors, Neil Burns, Mark Burns and Darren Travis, are highly experienced engineers who have a strong record in bespoke filtration solutions. Their knowledge of where filtration efficiencies may be gained allows them to design filters than cannot be manufactured by conventional methods. They are supported by a highly competent team who are skilled in computer-aided design and project management. Croft have a successful track record in delivering projects.

What is your funding strategy for growth?

In the short term, Croft are looking for extended banking facilities and a factoring agreement to unlock matched funds from a Technology Strategy Board grant. We aim to support the uptake of our AM filters by delivering product specifications to our customers. This will increase customer adoption, and accelerate our entry into targeted markets. The revenue streams that are generated will allow company expansion and continued development of our product range.

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db brew and food Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

db brew and food are focused on developing applications for our magnetic-activated carbon in water treatment and marine remediation.

What is the market opportunity that you have identified?

This is a new product and we have identified significant interest in using it to enhanced waste water treatment and also drinking water treatment. We improve treated water quality at reduced capital spend. We are also applying this to marine sediment remediation as a cost-effective alternative to removal and landfill.

What is your business model?

Focus in two areas. Develop these with end adopters. Share IP with partner adopter and gain first take-up via this route. From that point develop the business globally via local agents on a regionally exclusive basis. We will manufacture the magnetic-activated carbon and sell proprietary equipment packages while the local agent provides standard equipment items. Sell to a major water treatment company in five years.

Who is in your team?

Tony Price, innovator and business manager. Background in developing new technology business sales for global blue chip companies. Senior research scientist by training with ICI, commercial experience in UK and Europe with Kemira and Orica. Paul Price, production engineer. Significant background in process development and installation.

What is your funding strategy for growth?

Secure Technology Strategy Board grant money via UK water company support. This will allow pilot production of magnetic-activated carbon to begin in Runcorn. We will then seek an investor to fund the business by £150 to £200K each year for the next five years. Development to take place via pilot work and process integration. Adoption will begin within two years for remediation and five years for water treatment.

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Fusion Implants

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Fusion Implants Ltd produces advanced implantable veterinary devices by using selective laser melting titanium powder.

What is the market opportunity that you have identified?

Rupture of the cruciate ligament (CCL) is the leading cause of lameness and affects nearly 20% of dogs. In the US it is estimated that 1.2 million dog undergo CCL repair each year. The total spend on CCL rupture (using a range of techniques) in the US was $1.3bn in 2003, and the total market for CCL implant devices is estimated at around £180m in the US.

What is your business model?

Fusion Implants, founded in March 2013, designs and manufactures advanced veterinary devices. Sales will comprise of instruments and TTA (tibial tuberosity advancement) wedges, initially via our online web shop through PayPal. All operations will be conducted from Liverpool. In year one we will develop the UK market and in the fourth quarter of year one we will establish distribution networks in the EU and US and expand into these markets in year two.

Who is in your team?

Our team is made up of engineers, material scientists and small-animal orthopaedic surgeons. We are world-leaders in additive layer manufacturing procedures, in particular selective laser melting, with extensive experience in the production of porous orthopaedic medical devices. Our veterinary surgeons are highly regarded in their field and have a vast array of world-wide contacts.

What is your funding strategy for growth?

We have recently secured venture capital finance and together with the Technology Strategy Board's Launchpad fund we will develop our flagship product, the Fusion TTA implant. We expect to generate revenue from UK sales for this implant towards the end of year one, before exporting into the EU and US in year two. We are also developing our product pipeline, with an exciting range of implants outlined for the near future.

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GEM Nutrition Limited

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

To reduce obesity we measure how many calories a person needs, providing a chargeable service for sustainable weight loss.

What is the market opportunity that you have identified?

Obesity is a global problem. Diets don't work because they treat all people equally. We measure how many calories an individual needs and so can advise for sustainable weight loss. The market is gyms, healthclubs and spas where the dieticians, nutritionists and personal trainers already see clients. We provide an instrument and an 'app' that measures and then explains, and so provides a complete service solution for weight loss advice.

What is your business model?

The end user wants to know how many calories they need. Our customer will be dieticians, nutritionists and personal trainers, who can then provide an added-value service to their clients. If a charge of £30 is made per measurement, and five measurements are made per day, then the professional can generate £30,000 per year. We can lease the instruments involved for £300 per month.

Who is in your team?

Austen Bradley has 20 years of experience selling indirect calorimeters for research and will lead the growth of the company. The key roles of sales, service and operations managers have been identified.

What is your funding strategy for growth?

The key funding is to create the core management team. Instruments cost £3,000 to manufacture and sell at £10,000, generating a good margin to fund cash flow and future growth.

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Hermetox Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Hermetox uses novel methods to produce semiconductor diodic devices with performance and cost advantages in a range of applications.

What is the market opportunity that you have identified?

We have a new, innovative technology for the production of low-cost, very robust, large-area diodic devices which can function as solar generators or radiation detectors. Radiation detectors have applications in the medical, nuclear, homeland security, polymerisation and environmental markets. Solar cells will operate effectively in the most hostile desert environments. The devices can be used effectively in harsh and high temperature environments where traditional devices cannot.

What is your business model?

The company will manufacture diodic devices and collaborate with existing organisations in the various sectors to incorporate these into products and bring them to market. An initial revenue stream will be generated from detector sales to operators in the homeland security and polymerisation markets, while in the longer terms there are opportunities for product sales and licence deals. The core technology is patented in the UK, EU, USA, China and Russia.

Who is in your team?

CEO Dr.Iain Borthwick has extensive industrial experience at a senior level, leading, starting and growing businesses. CTO Jeffery Boardman, the inventor of this unique technology, has developed and tested detector devices for the markets and applications identified for commercialisation. CTM Paul Moir-Riches has 20 years' industrial experience as a chemist, and has worked extensively on the development of the detectors.

What is your funding strategy for growth?

We seek funds to complete the commercialisation of detectors for homeland security and devices to improve the profitability of high energy beam rigs for polymerisation. Further funding will be used to capitalise on opportunities in the nuclear, medical and other markets, especially for solar cell applications. The company will participate as a core partner in the EU Horizon 2020 programme, whilst actively seeking collaboration, licensing and other commercial opportunities.

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LPW Technology Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

LPW is the market leader in the development and supply of optimised metal powders for additive manufacturing.

What is the market opportunity that you have identified?

Metal powders used in additive manufacturing (AM) are not optimised on two fronts; yield of useable powder from atomisation, and performance of powder used on multiple AM machine platforms. Understanding and characterising AM powder properties is poorly understood, but is critical to supply high-quality products to tight specifications with repeatability. An intelligent supply chain is critical for the advancement of AM for demanding applications.

What is your business model?

LPW provides supply chain solutions to users of additive manufacturing. The supply of metal powders is based on adding value for our customers; the full range of AM metal powders is available from one place which simplifies purchasing, standard materials are held in stock for fast delivery, and new, innovative products are developed through advanced powder handling and processing to meet the needs of more demanding applications.

Who is in your team?

Dr Phil Carroll (director) established LPW in 2007 and has 10 years' experience working with additive manufacturing and laser cladding on machine and material development. Dr Robert Deffley (R&D manager) joined LPW in 2010 and has worked on selective laser melting process and materials development for the past seven years. Dr Xiaodong Song (R&D engineer) joined LPW in 2013, and has four years' experience working in additive manufacturing for biomedical applications.

What is your funding strategy for growth?

LPW commits a minimum of 10% of profits to R&D in the form of internal projects and match funding for projects funded by bodies such as the Technology Strategy Board and the EU. Exploitation of IP generated through these programmes, along with increased market penetration, will ensure that this budget is maintained as the company grows.

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NanoFlex Limited

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

NanoFlex manufactures patented high-performance electrochemical electrodes for the research market and for specific monitoring applications.

What is the market opportunity that you have identified?

NanoFlex has identified the need for higher performance, manufacturable (and therefore scalable) electrochemical electrodes for a range of applications from in-vitro diagnostics to energy generation. The company already counts amongst its customers global diagnostics companies who have recognised the potential represented by the company's technology. The company has medium-term licensing opportunities and anticipates a longer-term company sale, predicated on the continued success enjoyed to date.

What is your business model?

The business model is to develop sales and recognition within the academic and blue chip research markets. This will access key opinion leaders – key to success in future business-to-business relationships. Early relationships have already been forged in the in-vitro diagnostics field. A mix of sales and licensing opportunities and an eventual trade sale have been targeted by the company.

Who is in your team?

Neville Freeman, CEO, is a successful entrepreneur. He has been active in the technology SME sector for the last 20 years, and took his previous company from founding to international sale. Amy Farrington, COO, has 15 years' experience of taking technology from development through to commercialisation in fields as diverse as electronics and healthcare. David Whitcombe, NED, has extensive experience of SME growth and value realisation.

What is your funding strategy for growth?

The strategy is a combination of organic growth through sales, licensing and project revenue and further fund-raising. Additional fund-raising will be based on specific application-based opportunities which the company identifies from time to time. The criteria will be the perceived value of the opportunity and the recognition that further input will be required in the short term to realise their full value.

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Nanomedpharma Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Nanomedpharma Ltd is a start-up R&D company that develops bespoke nanomaterials to be used in preventing, diagnosing, and treating diseases.

What is the market opportunity that you have identified?

Over the past five years there has been a sharp increase (~10.4%) in the size of the global nanomaterial industry, reaching a value of over $1.7bn in 2010. This trend is expected to continue, reaching just under $6bn by 2016. The healthcare industry has the highest potential application of nanomaterials, to prevent/ treat infections. Nanomedpharma (NMP) has developed novel nanomaterials in a safe and cost-effective manner, with markedly improved antibacterial properties compared to those compounds that are currently available.

What is your business model?

Our business model is based on innovation. NMP invests in time and capital to invent new compounds with improved specificity, efficacy, safety and cost-effectiveness. NMP has developed novel diagnostic kits (using copper and zinc) and an antibacterial agent (NPFMT) which could be utilised by a wide range of industries (eg in healthcare, diagnostics and water purification) widening the potential market share. NMP is continuously collaborating with academic centres of excellence to ensure steady innovations.

Who is in your team?

The core NMP team consists of highly skilled personnel. The four funding members of the company have specialised (undergraduate, PhD) training in biochemistry, medicine, chemistry and management, underpinning a multidisciplinary approach to provide best-in-class nanoscience. NMP members cumulatively have over 60 years of academic, research and project management experience. We enjoy mutual collaborations with academic centres in the UK, ensuring up-to-date knowledge and skill exchange.

What is your funding strategy for growth?

NMP is aiming to engage with investors for expansion with a view to securing substantial equity investment in 2014 and beyond. The company has successfully obtained around £90,000 from the Technology Strategy Board. However, we are seeking additional funds for successful completion of our pre-manufacturing research project (£60,000), as well as to commercialise (£235,000) our patented products. At present, support is sought to market our available antibacterial agents and diagnostic kits (£75,000).

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New Lighting Technology

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

New Lighting Technology is an LED technology company with patented and uniquely powerful energy-efficient LED technologies.

What is the market opportunity that you have identified?

New Lighting Technology offers unique technology in the market resulting in lower LED temperatures which improves light output whilst also reducing power consumption. An important by-product of this technology is the extension of LED lifespan. The market potential of NLT technology has now been proven by a first significant license arrangement to supply products and solutions to a 'blue chip' UK company.

What is your business model?

We offer a suite of eight switched mode power supply systems with varying power outputs covering the majority of output requirements for the commercial, industrial and construction lighting markets (representing ~10% of global lighting usage). Market entry will be through our existing customer base and licensing, with direct sales following investigation of in-house manufacturing and production options.

Who is in your team?

We have an experienced management team, comprising Tom Quirk (chief technical officer), Dave Foran (chief financial officer), Yash Khandhia (non-executive director), and Davlin Griffin (CEO).

What is your funding strategy for growth?

NLT, in addition to the recently won grant funding of £100k from the Technology Strategy Board to support NLT's development plans, is seeking £200k of development capital to expand its product range and build a share of this expanding and dynamic market, and re-investing any fees from existing licence agreements or direct sales.

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Spheritech Ltd

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Spheritech is an independent R&D based company focused on developing new polymeric materials for the biotechnology and healthcare industry.

What is the market opportunity that you have identified?

Spheritech has invented and patented a novel synthetic biopolymer which mimics the properties of natural collagen. This new polymer, marketed under the trade-name Proliferate, is proven to supports 3D cell culture, so it has applications in regenerative medicine. The properties of Proliferate suggests that it may be an ideal replacement for animal-based collagen wound dressings for chronic wounds. In addition to this, the polymer is inexpensive to manufacture.

What is your business model?

Spheritech is developing an extensive IP portfolio. All IP is created in-house and is funded by contract synthesis, contract R&D and consultancy. The company specialises in peptide synthesis, oligonucleotide synthesis and polymer synthesis. Grant funding is critical for the growth of SMEs, so support of this type is critical to the company strategy of IP development and licensing. Spheritech has already secured its first licence deal for peptide synthesis supports.

Who is in your team?

The team consists of four experienced scientists. The CEO and creator of the company's IP, Dr Donald Wellings, has 36 years' experience in the industry, gained within blue chip companies such as ICI, Zeneca and Avecia. The senior scientists within Spheritech have an accumulated experience in pharmaceutical and biotech industry totalling more than 60 years. This is all backed up by a strong scientific advisory board.

What is your funding strategy for growth?

The company is currently funded by contract work for large pharmaceutical and biotech firms. In the long term, Spheritech will support its activities through licence deals and royalty payments. Spheritech has already licensed a new polymer support, SpheriTide, to a large US-based company specialising in peptide synthesis. This will return $400k in licence payments, plus a 4% royalty on sales for the next 18 years.

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Teknisolar

OFFERED A GRANT IN THE LAUNCHPAD COMPETITION

Teknisolar's core business and mission is to build and sell the highest-performing photovoltaic manufacturing lines in the industry.

What is the market opportunity that you have identified?

Having gained a foothold in the photovoltaic industry, Teknisolar is determined to use its expertise to become a major-league player among the world's solar equipment manufacturers. The core of the proposed new technology is the ROBOSTAK, a multi-stack, membrane-less laminator for highly efficient and high-quality production of thin-film and crystalline solar panels, to be integrated in future in fully automated lines, currently under development by Teknisolar and other industrial partners.

What is your business model?

Teknisolar's objective is to gain a strong competitive advantage by being the first company in the world with such a radically new approach that will have full buy-in from the market. Teknisolar's existing commercial and R&D links in Europe, Asia and North America will contribute to position the company as a key player for fully automated, complete turn-key lines, manufacturing high-quality solar panels at competitive costs.

Who is in your team?

Vittore De Leonibus (chairman): over 34 years' experience in high-capacity processes for glass manufacturing. Ciro Paudice (glass and glazing specialist): senior professional with 34 years' experience leading R&D projects in the field of automotive glass and value-adding technologies. Paolo Boattini (lead scientist): 45+ years' experience in scientific applications for chemical and glass industries. Mariano Fabiani (chief designer): 35+ years' experience in the flat glass industry.

What is your funding strategy for growth?

Teknisolar's funding strategy is mainly based on private investors being willing to share business opportunities coming from the sale of high-value, fully automated manufacturing lines in the field of solar energy. At present, the core technologies have been all identified and are in a final development stage. Technology Strategy Board funding will help to complete a critical development phase of one of these core technologies.

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Advanced WaterSave Ltd

SHORTLISTED IN THE LAUNCHPAD COMPETITION

Advanced WaterSaver Ltd offers water savings through its innovative, patented, fully automatic return system. Opening a hot tap starts the system.

What is the market opportunity that you have identified?

The patented AquaSaver valve offers clear commercial potential across the industrial, commercial and domestic building sectors. A need for such a system has been identified in Australia, Brazil and the USA, as well as the UK. Full compliance with the water regulations in Australia and the UK have been obtained. A mass production capability is now required, followed by regulatory approval for the USA and European markets.

What is your business model?

The company is looking for a licensee/ investor to negotiate rights to assist us to commercialise AquaSaver and to continue to market AquaSaver in the market sectors indicated, so the inventor can gradually exit the business to concentrate on the R&D necessary to develop further water-related inventions, which could eventually be introduced into the company inventory to complement the AquaSaver valve system.

Who is in your team?

Derick Sinclair is a serial inventor who has commercialised previous products and sold the resultant businesses. He is working with Andrew Harrison, who has a background in logistics and significant strategic contract negotiating experience. Andrew is a qualified business coach with the SFEDI and the Growth Accelerator programme. In Australia the company works with master plumber Greg Hodges and Howard Pietsch, managing director of Pietsch Pty Ltd, which was established in 1987.

What is your funding strategy for growth?

Potential customers as diverse as Anglian Water and Sainsbury's Supermarkets Ltd in the UK, and Australian mining companies and plumbing supplies companies with a national customer base in both Australia and the US, have all expressed an interest in AquaSaver. Financing options include using the bank facilities of a partner manufacturer, attracting a private investor based on costed manufacturing and Letters of Intent, or selling licences to manufacture based on the patents.

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Heptron Power Transmission Limited

SHORTLISTED IN THE LAUNCHPAD COMPETITION

Heptron Power Transmission Limited manufacture equipment specifically designed for combined wind turbines and energy storage systems.

What is the market opportunity that you have identified?

The products are being sold on a global basis to fit in with new and existing combined wind turbine and energy storage systems. The market is growing exponentially by the day and includes private investors, councils and governments around the world.

What is your business model?

We manufacture all parts in the UK to be exported and assembled under licence in countries throughout the world. We are currently looking for partner companies who wish to buy a licence for a specific territory.

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Perceptive Engineering Ltd

SHORTLISTED IN THE LAUNCHPAD COMPETITION

Perceptive Engineering Ltd specialises in process control, optimisation and monitoring systems for the process industries.

What is the market opportunity that you have identified?

This project aims to improve the reproducibility of consumer products across global supply chains, in the face of varying feedstock, changing recipes, sustainability targets and the needs of consumers. The challenge is to attain both the correct chemical composition and exact physical properties to satisfy the consumer, with the same ingredients giving vastly different properties due purely to processing.

What is your business model?

Perceptive Engineering Ltd provides a mix of software, application development and support and training in the fields of process control, monitoring and optimisation for the manufacturing industries. The current customer base is spread across 21 countries and includes a mix of national, multinational and blue chip companies, predominantly in the pharmaceuticals, specialty chemicals, Food (Dairy), waste water and pulp and paper industries.

Who is in your team?

The Perceptive Engineering project team profile includes people with post-doctoral backgrounds in electrical engineering, chemical engineering, control systems, time series analysis and chemometrics, software development, statistics and mechatronics. The team consists of engineers with extensive manufacturing expertise in the process industries across cross functional disciplines.

What is your funding strategy for growth?

Our funding strategy involves a combination of sales driven internal growth investments and part-funded collaborative R&D projects for new innovative product development.

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Support providers from the North West Cluster

Clearly, Simply, Truly
marketing management

Cynara Livera of Clearly, Simply, Truly Marketing Management provides strategic marketing support to scientific and technical companies. Growth in profitability is the ultimate aim and this will come from a variety of outcomes, including:

- raised brand awareness
- increased and optimised customer base
- increased sales turnover
- successful new market and product launches
- strong customer relationships based on excellent customer service.

A variety of activities will focus your resources to get the best return on your marketing investment, including marketing research, strategy development, marketing, and communication planning and implementation. Monitoring progress and planning to succeed are important in the mix too.

www.releaseyourmarketpotential.com

Dow Schofield Watts
Specialist Knowledge Corporate Focus

Dow Schofield Watts are a seasoned, talented corporate finance team. We bring value to our clients by rolling up our sleeves to provide supportive, hands-on practical advice to help them achieve their objectives.

We are renowned for providing creative, fresh-thinking expertise to help companies grow from the exciting embryonic stage through to a mature commercial venture. Our experience ranges from raising development capital to introducing key industry partners, through to effecting a successful sale.

Beyond corporate finance advice, we can deliver a complete circle of tailor-made solutions to satisfy companies' individual requirements, including direct equity investment, financial due diligence, management and strategy and forensic accountancy.

We like to help; call us on 01928 715700 or see www.dswcf.com / www.daresburycs.com

enterprise europe network
Business Support on Your Doorstep

The Enterprise Europe Network offers a wealth of free advice and information on doing business, finding partners and tender opportunities, as well as a calendar of events to increase your competitive advantage and make the most of opportunities in the European Union and beyond.

With access to EEN offices in over 51 countries, the North West England office consists of a team of specialised advisers and personnel providing practical support for companies, universities and research centres. We will work closely with clients to help them maximise opportunities, become more competitive, and develop new technology and innovations.

GrowthAccelerator

GrowthAccelerator is a unique service, led by some of the country's most successful growth specialists. Through GrowthAccelerator you'll find new connections, new routes to investment and the new ideas and strategy you'll need for your business to achieve its full potential.

A partnership between leading private sector business growth experts (Grant Thornton, Pera, Oxford Innovation and Winning Pitch) and backed by Government, GrowthAccelerator will get to the heart of the barriers that are holding your business back; helping you identify the critical steps you need to take to achieve your next phase of growth, rapidly and sustainably.

www.growthaccelerator.com

INTELLECTUAL PROPERTY OFFICE

The Intellectual Property Office (IPO) can help you get the right type of protection for your creation or invention. Intellectual Property (IP) results from the expression of an idea. So IP might be a brand, an invention, a design, a song or another intellectual creation. IP can be owned, bought and sold.

www.ipo.gov.uk

Marks&Clerk m&c
Intellectual Property Services

Marks and Clerk has been protecting and enforcing the intellectual property rights of businesses across a variety of sectors for over 125 years.

As well as having a strong network of offices across the UK, we also have a presence in Europe, North America and Asia. This allows us to offer our clients a truly global service.

We are a full-service IP firm – our attorneys advise on securing protection for IP rights and handling the application process, whilst our associated solicitors handle litigation and advise on commercialisation.

Whether you are exploring ways to protect your new technology and brand or seeking advice on your clients' current IP portfolio and strategy, please contact Mike Shaw in our Manchester office: mshaw@marks-clerk.com, 0161 233 5800.

MRW Corporate Solutions

MRW Corporate Solutions provide Business Performance Coaching support to Technology Businesses based in the North West.

Our Principal, Alan Hyams, is a Business Performance Coach and Chartered Accountant, with over 30 years' experience of technology businesses, owner-managed business and professional service firms. He acts as a Facilitator and Coach, or in a Non-executive role.

The issues addressed are varied, some complex, some frustrating, and include Access to Finance, Commercialisation, Business Model Innovation, Business Strategy and Marketing and Sales.

For further information go to www.mrwcs.com, or contact Alan by email (alan@mrwcs.com) or by phone (07860 813444).

Nicholas Jones & Associates

Strategic Marketing

Nicholas specialises in Strategic Marketing, Independent Market Assessments and Business Strategy and Development for SMEs and Universities (spin-outs) within the high technology, engineering, electronics, manufacturing and services industries.

Nicholas also has a first-class understanding of all business disciplines from both a strategic and operational point of view, and is active in providing consultancy services which, where appropriate, are delivered in a workshop, mentoring and coaching style in order to develop skill transfer and ownership.

Nicholas is also a registered Business and Innovation Coach for the Government's Growth Accelerator programme.

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Quickminds

Quickminds is a team of highly skilled coaches and facilitators who specialise in the radical transformation of communication. More specifically, we help entrepreneurs and VCs improve their own performance through individual coaching and workshops in a number of key areas. Since 2005 we have helped clients raise over $2.5bn in funds. We work with several leading global organisations as well as advising early-stage ventures. In particular, we have extensive expertise in the Oil & Gas and Media Investment sectors.

Quickminds is located in Oslo and London. Rick Salmon and Tim Farish, who both have extensive experience as entrepreneurs and as investors, founded Quickminds in 2012.

The Leadership Team

Creating time for leaders

The Leadership Team is a unique chance for business leaders to take a couple of hours out of the business to reflect on best practice in leadership, develop their strategy and share ideas with a team of 15 other leaders. The Team meets for two hours a month for six months at Sci-Tech Daresbury. After the course, each delegate automatically becomes part of the Alumni Club of over 150 local business leaders which meets (free of charge) every two months. Full details can be found at www.theleadershipteam.co.uk

UK Trade & Investment

UK Trade & Investment is a global organisation to help you successfully trade in overseas markets, and provides practical assistance through all stages of international business planning.

Whether you're a seasoned exporter or just beginning to explore new markets, UKTI services include tailored support programmes, participation at trade fairs, outward missions, bespoke market intelligence and help with overseas regulations and business practice.

Our North West International Trade Team has a team of Advisers providing tailored support and access to our services, including financial subsidies, export documentation, contacts in overseas markets, overseas visits, e-commerce, export training and market research.

Weightmans

Weightmans is a Top 50 law firm across eight offices. We are growing rapidly because of our focus on two key aspects of our business: our clients and our people.

Structured along three business lines – insurance, commercial and public sector – our people are determined to achieve the best result for our clients. We measure and monitor results to ensure that our clients come back time and time again, and that we are the preferred choice of legal service providers. We also recognise the importance of our people enjoying what they do in a friendly and inspiring working environment.

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Launchpad Cluster Champion

Companies with conditional offers of R&D project grants in the Launchpad competition

Companies shortlisted in the Launchpad competition

Support Providers from the North West Cluster

The Technology Strategy Board is a business-led executive non-departmental public body, established by the Government. Its role is to promote and support research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve quality of life.

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