



INNOVATION FUNDING MADE EAS



2018 UK Best in Business

MAGAZINE





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INNOVATION & EXCELLENCE AWARDS 2020





"We are ecstatic with this outcome and all consortium partners are very excited to start the project. For an SME, securing this funding allows GeneFirst to further its R&D and to deliver these crucial diagnostics at scale and pace in time for the winter season. We have pulled together a great project team for the delivery.

We credit our €2.8m bid success to the RedKnight team; without their support, we would not have been able to achieve what we did in the short time needed to submit the application. We found RedKnight to be professional and diligent, and it has been a real pleasure working with them. This is our first collaborative opportunity and I am confident that our partnership will continue into the future."

Dr Winnie Wu, COO – GeneFirst

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Executive Summary

RedKnight was established in September 2015 with the aim of providing the much-needed expert support to organisations who are looking to apply for grants and funding. Our mission is to make this complex process as simple as possible!

Since launching, RedKnight has done just this, securing its clients over £8.5m of grant funding from European, National and Regional programmes. This funding has supported a range of activities, including, Research and Innovation, Business Development, Education and Training. We achieve our aim by offering a range of services which includes bid writing and development, application review, project management, pitch deck preparation, staff development training and support with R&D tax relief claims.

Underpinning RedKnight's success is the expertise its staff has in navigating the complex world of grants and funding, and our team of specialists have over 50 years' combined experience accessing more than £50m worth of funding, working with over 200 organisations worldwide.

On the 1st September 2020, RedKnight celebrated becoming 5 years old. We have been extremely fortunate to work with some incredible clients in that time, both in Wales and beyond. In fact, over 50% of our business is now generated from outside Wales. Having started from Peter's kitchen table in 2015, RedKnight has developed a client portfolio of over 150 clients, stretching from Bridgend to Bangkok, with many stops in between, including; Dublin, London, Porto, Kouvola, Luxembourg and Astana to name but a few.

After spending more than 3 successful years at Tŷ Menter in Abercynon, RedKnight relocated its Head Quarters in August 2019 to James William House on Museum Place in the heart of Cardiff's professional services district. This move has allowed RedKnight to grow at its own pace whilst continuing to achieve some important milestones and accolades. In 2019 RedKnight was made an area finalist for the Federation of Small Business (FSB) *"Micro Business of the Year"* award and was shortlisted for the NatWest Great British Entrepreneur Awards (GBEA) for the Wales region. In 2020 RedKnight was awarded "Best R&D Funding Consultancy" by the International Life Sciences Awards.

We look forward to continuing our success and hope you will share the journey with us.

Written by

Que Fil

Prof Peter Quantick Co-Founder & Director

D. Hodgson.

Mr Dayne Hodgson Co-Founder & Director



Services

RedKnight's motto is clear, "*If our clients' succeed, so do we!*", and our team of specialists take enormous pride in the support we provide. Our services encompass the full project lifecycle and are flexible enough so that you can access as much help as you require. This could range from developing and managing the project through to simply clicking the submit button!

Our key services include:

- Bid writing and development
- Application review
- Project management
- Staff development training
- Pitch deck development
- R&D tax relief

RedKnight's unique selling points (USPs) include:

- Extensive practical and strategic experience in developing research and innovation projects
- Expert knowledge of a wide range of European, National and Regional funding
- Involvement in large scale European Commission evaluations
- An international network of research and innovation stakeholders

RedKnight was instrumental in securing this grant (SME Instrument). The company fully understood our technology and the advantages it offers. They contributed extensive background research and insider know-how on the European Commission's expectations and selection process, took us by the hand and drove the application process to its successful completion.

Dr Peter Plassmann Chief Executive Officer, Thermetrix Ltd



Bid-Writing & Proposal Development

RedKnight's streamlined processes makes the complicated world of applying for grants and funding as simple as possible. Here is what you can expect from us:



Project Management & Administration

RedKnight has vast project management and dissemination experience covering Framework Programmes 5, 6, 7 and Horizon 2020, as well a range of Innovate UK, Erasmus and European Structural & Investment Fund (ESIF) projects.

Further, RedKnight have considerable experience of the innovation eco-system and the importance of innovation management at regional, national and international level. This is demonstrated through vast experience of supporting and implementing research and innovation projects, and commercialisation through spin-out and high-growth companies.

Our detailed approach and project management resources ensure innovation management is monitored continuously throughout your project, and our team will work closely with your organisation to ensure project milestones and objectives are achieved.

RedKnight's extensive experience will ensure your project remains on track, but additionally we can add value to your innovation by connecting you with our wide network of private investors, providing opportunities to leverage further finance required to continue your development post project.

"Our very first foray into European funding via the very competitive EUREKA-EUROSTARS programme was a great success (we were ranked in the top 20%!) thanks to RedKnight, who handled the process for us diligently, efficiently and very professionally. They were extremely responsive to our needs, advised and guided us through the maze of filling out a massive application form. Thank you RedKnight!"

Prof. Mohamed Missous Founder & CEO – Integrated Compound Semiconductors Ltd



OJECT MANAGEMENT

Staff Development Training

RedKnight's training courses are suitable for organisations of all types, sizes and sectors who are eager to enhance their understanding of available grant funding and the bid-writing process. This includes individuals who have a discrete bid-writing, fund-raising or project management role, but also for those who undertake these activities as part of a portfolio of other duties.

Organisations who will be interested in our training packages will include those who have an interest in the following areas:

- Research, Development and Innovation
- Technology and Knowledge Transfer
- Business Development
- Education and Training

Our courses are suitable for organisations across all sectors, from agriculture to astronomy, and can be tailored to meet your specific needs and requirements. Examples of the training we have recently delivered include:

- SME Instrument Masterclass
- Fast Track to Innovation Masterclass
- Bid-writing & Proposal Development
- Research & Innovation Management
- Small Business Funding Opportunities

"[It was our] best funding training so far. Clear, efficient and full of detailed information, as well as sharing experiences. [We are] hoping to collaborate with RedKnight soon!"

Ms Tiina Heinikainen, Project Coordinator - Kouvola Innovation Ltd



Project Evaluation & Review

A critical USP of RedKnight is having our very own in-house expert reviewers and evaluators, meaning we can offer to review your proposal and provide expert feedback prior to you submitting it for formal evaluation.

Peter has published over 50 refereed papers, book chapters and books; 4 external reports for external agencies; 8 refereed conference proceedings; and 35 other conference proceedings. His publications and presentations have been prepared for and delivered to a range of technical and non-technical audiences.

He has expertise in European Research Policy having been a participant in a range of European Commission (EC) funded projects from Framework Programme 5 to the present. He has been engaged as an EC Expert for over 25 years', being involved in evaluating and reviewing Directorate General Research and Innovation Projects, as well as undertaking roles such as, expert panellist, chair and rapporteur for a range of EC reviews, impact assessments and Ex Post Evaluations for EC Programmes.

He has acted as a reviewer and evaluator for other programmes in research and knowledge transfer proposals at regional, national and European level (e.g. for EC Structural Funds – East Midlands Development Agency; for UK Research – Department of Health; for French Research – Agence National de Recherche). He is a former Chair of the Wales Higher Education European Liaison Officers Group (2012-15) and ESF Steering Group (2013-15), and was also a Member of an Expert Group for the EC for an Impact Assessment of the Knowledge Based Bio- Economy (KBBE) Priorities of Framework Programmes 5, 6 and 7 (2011).

Dayne has experience of developing research and innovation projects through working with academic teams when he worked at Cardiff Metropolitan University and the University of Wales Trinity St David. More recently, as Director of RedKnight, Dayne has written and supported the development of over 100 research and innovation proposals with a range of teams across both the private and public sectors, including spinouts, start-ups, SMEs, large organisations, universities and research organisations. A major part of this is co-ordinating the development of projects which are collaborative in nature, therefore involving several teams across different organisations.



Research & Development Tax Relief

Since 2000, companies have been able to derive significant cash benefits from the Government's Research & Development (R&D) tax regime, which provides companies with actual cash benefits which are directly linked to the level of qualifying expenditure incurred.

For example, Small to Medium-sized Enterprises (SMEs) may now derive an additional cash benefit equivalent to £26k per £100k of spend; or if they are loss making, they may receive an actual cash receipt from HMRC of up to £33.35k per £100k of spend. The cash benefit for companies claiming under the large company scheme is £8.8k in both scenarios i.e. since April 2013 companies without a corporation tax liability may now receive actual cash from the Government.

Companies have two years from the end of their accounting period to make, or amend, an R&D claim so there is often scope for companies to derive significant immediate cash benefits.

R&D can generally be thought of as work undertaken to develop new, or improved, products or processes. For example, developing an automated process, or one that is quicker, more efficient or creates less waste etc. may potentially qualify.

There are a range of qualifying categories of expense, including staffing costs, contracted out activities, EPWs (for instance, agency workers), consumables, computer software, utilities and payments to the subjects of clinical trials. However, knowing that staffing costs qualify is the easy part. The complexity in preparing a claim involves, for example, identifying all employees involved within the R&D process and establishing the correct proportion of time they were engaged in qualifying activities.

Preparing a standard R&D claim is far from complicated, but unless a company takes proper, experienced advice they risk losing out on cash benefits to which they are entitled. The real added value lies in identifying all R&D projects undertaken (including work on processes), all qualifying activities, all employees involved, and all other qualifying expenditure incurred. The documentation submitted to HMRC in support of a claim is vital. This helps HMRC to determine whether a company's activities qualify and therefore a company needs to ensure that the R&D Report contains the required information.

"It has been a pleasure working with the RedKnight team. At a time of intense set-up in our SME, having reliable and proactive consultants who keep us on top of funding opportunities and who contribute substantially to the preparation and submission of applications has been invaluable."

Prof. Rob Field, Founder & CEO - Iceni Diagnostics



Meet the Team

The RedKnight team has over 50 years combined experience in bid-writing, proposal development and project management. You can find brief biographies for each of the team members below:

Professor Peter Quantick (Co-Founder & Director)



Peter has over 30 years of relevant experience in an academic and professional capacity and has been involved in the development and delivery of over 100 European projects. This includes the direct management of over 25 projects in the areas of research, development, innovation, training and inter-regional collaboration. He has generated c. £1 million of personal income and supported the development of projects to a value of c. £20 million from Framework Programmes 5,

6, 7 and Horizon 2020, Erasmus Plus (Lifelong Learning) Projects and Structural Funds Projects (ERDF; ESF; INTERREG and EAFRD).

Peter also has extensive experience in project evaluation and review, having performed these activities for c. 100 European projects funded by DG Research and Innovation. This includes Research and Innovation projects; Marie Curie Fellowships; SME projects and projects managed by the new agencies such as the Bio-Based Industries Joint Undertaking Unit. He has acted as an expert for the European Commission (EC) on a number of panels and been involved in Ex-Post Evaluations and Impact Assessment for Framework projects, including an Ex Post Evaluation of Framework Programme 7 in the Knowledge Based Bioeconomy (KBBE) area. He has expertise in European Research Policy and has also acted as an evaluator for structural funded programme projects.

Mr Dayne Hodgson (Co-Founder & Director)

Dayne is an expert in small business funding programmes, including Horizon 2020, Innovate UK and European Structural and Investment Funding (ESIF). In 2009, he obtained a First-Class Honours Degree in management studies from Cardiff Metropolitan University, where he then started his professional career working in the university's Research and Enterprise Services (RES). Here he started to develop his knowledge of both National and International funding streams, which allowed him to move forward and become the European Strategy Development Officer at the University of Wales Trinity St David (UWTSD) in 2014. As part of this role, he supported the initial discussions regarding the £13m ESF work-based learning project, 'GWLAD' and the successful development of two Erasmus+ Strategic Partnership projects worth in excess of €500k.

Dayne has always held a passion for starting his own business, so when the opportunity to Co-Found RedKnight with his good friend Peter came about in 2015, it was a simple decision. As a Director of RedKnight, Dayne has led the bid-writing and proposal development of over 100 applications, helping client's source over £5m of grant funding. In 2019, Dayne was shortlisted for the NatWest Great British Entrepreneur Award in the Service Industry category and was also named on the Wales Online 35 under 35 businessmen of the year.

"Peter was a fantastic business coach working with us on our EC SME Instrument Project. He provided advice and insights and shared his in-depth knowledge which benefitted us greatly. His advice in response to direct questions as well as insights shared of his own accord were also valuable. Also, he was wonderful to work with from а logistics perspective and his responsiveness made it easy to arrange coaching sessions as needed."

Ms Rachael Gan, CFO/Head of European Business Development, ImpactVision Ltd



Ms Ann Water (Associate Bid-Writer)



Ann has more than twenty years of experience working in economic development. She specialises in bid development, supporting project delivery and research and evaluation. Over the past eight years Ann has raised well in excess of £10 million for economic development projects. Ann completed a geography degree at St David's University College, Lampeter followed by a Masters (MSocSc) in Economic Development and Policy at the Centre for Urban and Regional Studies (CURS) at the University of Birmingham. Since then Ann has worked as a consultant supporting economic development activities of local authorities, regional development, agencies, universities and NGOs. She has detailed knowledge of the European Structural Funds, particularly ERDF. She has also gained experience with ERASMUS and Horizon

2020. Ann has a wealth of experience not only in developing funding bids but also developing supporting material for funding bids including research reports detailing the need and demand for projects and economic impact assessments highlighting the economic and social benefits of proposed developments.

Dr Diana Branzea (Associate Bid-Writer)



Diana is a highly trained multilingual scientist with broad expertise in different areas of chemistry (Coordination and organic chemistry – PhD and post-doctoral studies; material chemistry – MSc; and inorganic chemistry – BSc). While working as a researcher in France, she has conducted research on the development of novel compounds for various applications. Thanks to the successful involvement as manager and/or team member on eighteen different cross-disciplinary projects, Diana gained extensive experience in research proposal writing as well as in European programmes (e.g. FP6, INTAS), French

and Romanian national programmes (e.g. ANR; Brancusi – French-Romanian bilateral collaboration projects; CEEX; CERES; Young Researchers; Young PhD). Her main concerns are for the clients' wellbeing and doing everything efficiently.

Ms Hannah Clargo (Marketing and Business Development Intern)



Hannah joined RedKnight while completing an MA in International Public Relations and Global Communications Management at Cardiff University, for which she was awarded a Distinction. She previously graduated from the University of Exeter with a degree in English Literature. Throughout her education, Hannah has gained experience in both public relations and marketing roles. Her experience, combined with a natural ability for written communication, make Hannah a skilled communicator. She enjoys creating effective and engaging social media content to promote the latest innovation funding opportunities.

Case Studies

Since launching in September 2015, RedKnight has secured over £8.5 million of grant funding to support our clients' innovative products, processes and services, with an average success rate of 40%-45% encompassing all funding programmes. Helping our clients achieve their requirements is at the core of everything we do, and below is a selection of recent case studies demonstrating the true impact collaborating with RedKnight can have.

Project Details:Project Title: Robust Automation and Point of CareIDentification of COVIDAcronym: RAPID-COVIDCall: Horizon 2020 Innovative Medicines InitiativeStart Date: 1 st August 2020Duration: 24 monthsGrant Amount: €2.8m	The RAPID-COVID project aims to clinically validate its innovative multiplex technology in both point of care and high throughput (HTP) settings. This is in response to the need for faster and better detection of multiple respiratory pathogens. Their prototype will simultaneously detect and differentiate SARS- CoV-2 as well as 30 other common respiratory bacteria and viruses. GeneFirst's assay will allow for accurate, cost-effective, and comprehensive diagnoses during the current outbreak, as well as future routine diagnosis. The strategy provides maximum flexibility for screening and triage, allowing better and faster care and alleviating pressures on healthcare systems.
Project Details Project Title: REsonant cavity DEtectors for Environmental Monitoring Applications Acronym: REDEEMA	Funded through the Eureka Eurostars programme, the REDEEMA project will design and develop an inexpensive manufacturable (III-V semiconductor material based) resonant cavity enhanced photodiode (RCE-PD) infrared (IR) sensing array for monitoring greenhouse gases (GHGs), such as carbon dioxide, methane and nitrous oxide. A paradigm in high sensitivity mid-IR GHG sensing, the REDEEMA sensor will aid existing analytical instrumentation in the intelligent field

Call: Eureka Eurostars Start Date: 1st September 2020 Duration: 24 months

Grant Amount: €345,566

instrumentation in the intelligent field deployment of the quantitative analysers and/or in the determination of gas sources. It will improve performance and open many new opportunities with environment applications.

medi2data

Project Details

Project Title: eMR Health Passport – a patientcentric mobile application to securely hold and transmit medical data' Acronym: eMR Health Passport Call: Innovate UK Smart Grant Start Date: 1st August 2020 Duration: 12 months Grant Amount: £259,100

Using the company's flagship proprietary software, eMR, Medi2Data develops highly secure applications that make it simple for GP practices and patients to exchange data. The healthcare software company will use its Innovate UK Smart Grant to further develop its interactive mobile application, 'eMR Health Passport.' The application securely holds a copy of the patient's medical record in an easy-tonavigate format. The eMR passport will reduce the costs that primary care currently faces, simultaneously improving patient outcomes and the relationship between GP and patient.



Project Details Project Title: A next-generation compatibility and compliance testing software Acronym: ACTIV2.0 Call: Innovate UK (SMART Grant) Start Date: 01/09/2019 Duration: 18 months Grant Amount: £224,841 Software failure is a costly issue which can dramatically affect day-to-day business operations, amplified by the recent *NotPetya* and *Wannacry* cyberhacks. The latter, a 2016 hack on NHS systems resulted in total clear-up costs of ~£92m – paid for by the UK Government.

In response, RIMO3, a cutting-edge software company is developing its latest product line called 'ACTIV2.0' - a next (2nd) generation product which aims at reducing future cyberhacks by limiting exposure of out-ofsupport software and outdated IT infrastructure. ACTIV2.0 builds upon the commercial success of the original version (ACTIV1.0) by integrating key improvements and new features based on feedback from users.

Thermetrix Limited®

Making Life Better

Project Details

Project Title: A home device and cloud-based software and algorithm for diabetic foot ulcer monitoring Acronym: PODIUM Call: Horizon 2020's SME Instrument (Phase 1) Start Date: 01/01/2019 Duration: 6 months Grant Amount: €50,000 Thermetrix's disruptive technology PODIUM uses a combination of thermochromic liquid crystal sheet and high-res cameras, to provide a stateof-the-art diabetic foot monitor that can provide accurate early warning on the formation of Diabetic Foot Ulcers (DFUs). The thermal patterns picked up by PODIUM will be transmitted to a cloud portal helping patients, family and medical staff to detect and immediately treat conditions before the onset of ulceration. In this way, stress and inflammation can be reduced, tissue damage limited, and the foot will return to normal. Critically, up to 80% of DFUs may be avoided.



Project Details

Project Title: Monolithically Integrated Detectors for Next Generation Communication Applications. Acronym: MISCA Call: Eureka-Eurostars Start Date: 01/11/2018 Duration: 24 months Grant Amount: €623,812 Global IP traffic will increase 3x over the next 5 years to 3.3ZB pa (CAGR 24%), having increased 127x from 2005, creating an enormous market for fibre optic communications components. The EU has built a significant proportion of GDP on digital activities. The datacentre infrastructure required to deliver such services must embrace step changes in data rate improvements to keep pace with demand, but require reliable, mass produced, high quality optical transceivers to achieve this aim.

MISCA aims to lever semiconductor material integration to deliver disruptive, scalable component platforms, addressing demands of next generation telecommunications and datacommunications optical infrastructure. Project partners will use intelligent monolithic integration of compound semiconductor materials platforms to deliver high-speed detector solutions with co-optimised RF and optical performance.



Project Details

Project Title: A Next-Generation Platform for Novel Drug Discovery Using Deep Learning of ADMET Properties.

Acronym: DeepADMET Call: Innovate UK Health & Life Sciences Start Date: 01/09/2018 Duration: 24 months Grant Amount: £819,988 DeepADMET aims to create a "next generation" platform providing novel methods for compound selection and design for drug discovery purposes, building on Optibrium's current software, StarDropTM.

Through expanding the range of ADMET properties that can be modelled and improving their reliability by applying modern 'deep learning' methods, Optibrium can improve the accuracy and applicability of these models.

Proof-of-concept work indicates their methods provide a unique advantage over 'off-the-shelf' deep learning methods when applied to sparse, uncertain data of the type found in drug discovery.



<u>Project Details:</u> Project Title: A rapid, non-invasive, cost-effective, analytical device for bacterial or viral infection diagnosis through ultra-high sensitivity breath analysis Acronym: BreathSpec[®] Call: Horizon 2020 (Fast Track to Innovation) Start Date: 01/05/2017 The BreathSpec project aims to develop a rapid, non-invasive device that can diagnose bacterial or viral infections through ultra-high sensitivity breath analysis. Once developed the BreathSpec device will help reduce the development of antibacterial resistance and alleviate the growing problem of antimicrobial resistance (AMR) through improved diagnosis of antibiotic treatment. The device will also reduce the scientific, clinical and financial challenges associated with the development of new antibiotics.



Duration: 24 Months Grant Amount: €2.37m

> Bwrdd Iechyd Prifysgol Caerdydd a'r Fro Cardiff and Vale University Health Board

Project Details

Project Title: International impact of TALK©: a simple and practical approach to multi-professional structured feedback and debriefing, to be used after unplanned learning events in clinical environments. Acronym: TALK Call: Horizon 2020 (Marie Sklodowska Curie Actions

Research & Innovation Staff Exchange)
Start Date: 01/06/2017
Duration: 36 months
Grant Amount: €274,500

The TALK project aims to guide multiprofessional clinical teams learning and improving quality of patient care and patient safety together. The first phase will contribute to parallel implementation processes in specified units across the 3 participating countries and will undertake research to better understand the of benefits structured debriefing and organisational culture. Secondly, using the data generated from the research study, further training materials will be developed and translated to support the wider deployment of the TALK tool. Thirdly, the tool will be implemented across all participating partners and its impact will be assessed.

"The RedKnight team supported our proposal by taking ownership of the specific requirements of the Eurostars application process, allowing our own staff to focus on the essence of the technical and commercial proposition. This accelerated the development of the bid and ultimately was a key factor in a successful outcome in a highly competitive process."

Dr Wyn Meredith Director, CSC.

Where to Find Us



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