

What is a GMCF Cyber Project?

Helping your business to innovate with cyber



Audience: General



Reading Time: 5 Mins



The Greater Manchester Cyber Foundry (GMCF) offers the opportunity for small to medium enterprises to explore the development of new digital products and services. The GMCF Cyber Innovation team provides a Research & Development service, enabling practical investigation of innovative applications of technology within a business, often leading to a software prototype.

Who is it for?

Any eligible* business or sector within Greater Manchester can apply. You do not have to be a technology-based company to access the support. Many types of business want to utilise technology more effectively in their trade. This might be to develop a new idea for a mobile application to sell, or it could be to launch a new technology-enabled service utilising expertise within your business. All that's needed is an interest in using technology to innovate in your business.

What is required?

A well-defined idea for a software application is not required; a deep understanding of digital technology is not needed. Most innovation grows from a business need of some kind. The GMCF Cyber Innovation

team's role is to understand the need and where possible identify and utilise cyber technologies to meet that need, incorporating a 'secure by design' approach. All that is required is a starting point to develop your business idea. In our experience these can be broadly grouped into the following areas:

Asset

You may be looking to develop a new revenue stream and have an underused asset. This could be a set of data that can be exploited, a physical asset such as a piece of equipment or even the knowledge and expertise of the staff within your company. Can any of those be unbundled and made accessible using cyber technology?

Example: A business providing a premium risk management consultancy was



European Union
European Regional
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The Cyber Foundry project is part funded by the European Regional Development Fund



How can this help?

interested in developing smaller revenue streams to balance large contract work. The company's knowledge of risk analysis was used to develop a digital tool that provided a subscription service to a risk self-assessment tool that could be used by a business regularly.



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Approach

You might have identified a business opportunity already – either an idea for a software application or a way to use a specific technology to deliver a service. Whatever it is, the GMCF team can offer some technical expertise to explore your idea, refine the concept and move closer to a product.

Example: An entrepreneur had an idea for a mobile application that supported athletes in training. The project team were able to help in developing the business model from a technical point of view, and create a prototype mobile application using secure by design principles, which could be used to attract investors and suppliers.

Aspiration

A goal for your business to achieve - you may want to move your business into a new market sector or wish to grow your client base. The project can offer some resource to explore how you might do that using digital technology

Example: A digital agency working for health clients wished to find a way to reduce missed appointments. The project team utilised cloud services and speech recognition software

using privacy by design principles to develop an 'intelligent agent' able to deal with some simple enquiries and arrange appointments out of hours.

If any of the above scenarios fit with your business ideas, then the GMCF digital team have a broad range of technical skills that may help achieve your goals. Each of the above examples has its own unique security challenges that needed to be addressed at a design stage. In some cases, the secure design can be a feature that offers a differentiator in the market.

What is the benefit?

Developing a new product or service is often a lengthy and costly process. Its rarely perfect first time and requires many steps and missteps to refine the idea and implement designs and prototypes. The GMCF service can take on some of that risk for a small company, by providing resource to develop a digital product to a prototype stage. A prototype** can be used to assess the feasibility of a novel idea and make a decision on further investment. Alternatively, a prototype can be used as a demonstrator for gaining external investment.

What can you get from the service?

A cyber project provides an opportunity for a small company to pursue an R&D project and get some way down the path to a new product. The expertise within the project team, provides a combination of industry best practice and academic specialism. In the main, projects are based around exploring a new software development idea, often leading to the implementation of a software prototype. For example, a mobile application. However, as experienced technologists and software developers, we may also provide other forms of analysis and consultancy. Examples of recent projects

Taking the first step

include development of a risk analysis plugin, a remote telemetry solution with secure communications, evaluation of an *Internet of Things* software application and a secure data storage design.

However, it's important to note that the project team are not a commercial software development team and cannot complete a market ready product. This project provides a valuable *first step* and businesses will have to take over development of a product in order to take it to market.

Where is the Cyber Security?

Cyber Security is integrated into everything we do to ensure products that are *Secure by Design*. Security should be an embedded part of any product, rather than an afterthought. Our processes support identifying potential risks at an early stage and wherever possible, security solutions are built into prototypes. Cyber Security then becomes a feature of a product and potentially opens new markets.

What is the first step?

Talk to one of our technical teams. It's just a chat, your ideas will be confidential, and we can advise if there is a cyber project we can help with. If not, we might be able to direct you to other teams that can.

About the Author

Stewart Kember is a Software Engineer with a number of years' experience working in research & development for small businesses. Stewart leads the Greater Manchester Cyber Foundry technical team at Lancaster University.

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DEFINITIONS

*Eligible business sectors

European Regional Development funding is not available to businesses in the following sectors: Fisheries and aquaculture, Processing and marketing of agricultural products, Shipbuilding, Schools/school age educational establishments, Insurance companies, Primary production, Coal or steel, Synthetic Fibres, Banking.

**Prototype or proof of concept

The meaning of these terms can vary. In general, this article is referring to an early version of a piece of software which defines the broad functions and demonstrates the principle features of a system or component. It is not intended as a market ready product and will likely need further refinement.

However, a prototype or proof of concept allows a business to make an informed decision about whether to proceed with an idea and invest further time and resources.



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