

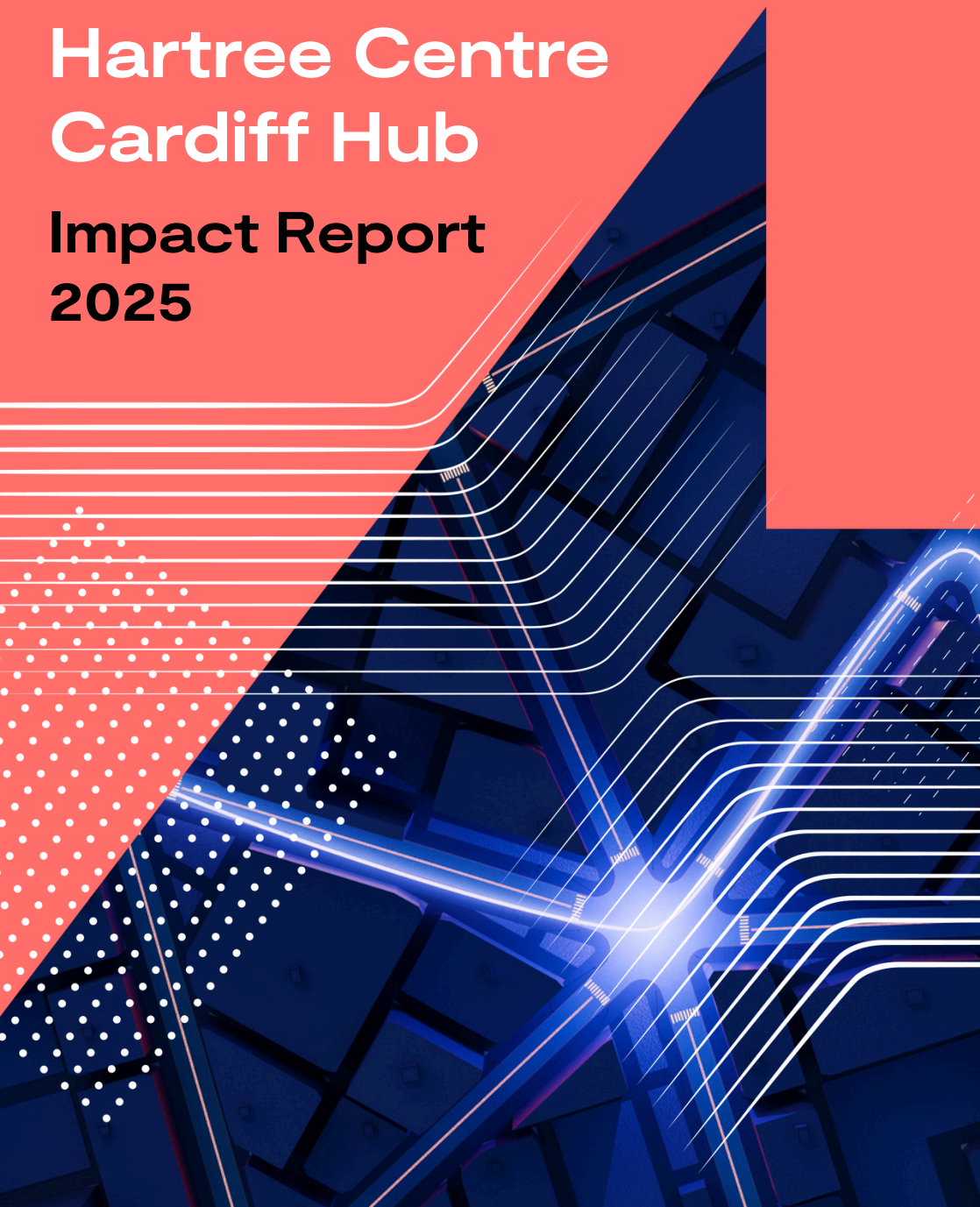


Science and
Technology
Facilities Council

Hartree Centre | Canolfan Hartree
Cardiff Hub | Hwb Caerdydd

Hartree Centre Cardiff Hub

Impact Report 2025



What we offer



Engagement - SME attendance at in-person or hybrid briefing and networking events.



Assists - 12-hour (approx) support from the Hub team to the SME.



Projects - 1-3 month collaboration between the SME and the Hub team, focused on developing and testing a specific idea.

Get in touch

Hartree Centre Cardiff Hub

sbarc | spark, Maindy Road, Cardiff, CF24 4HQ

hartree@cardiff.ac.uk

cardiff.ac.uk/hartree



Hartree Centre
Cardiff Hub

Canolfan Hartree
Hwb Caerdydd

Directors' Note

2025 has been a landmark year in the development and adoption of AI. The year began with the surprise release of the DeepSeek model from China, and continued at an amazing pace with new models appearing monthly and even weekly. The year has also seen significant developments within the UK, from the launch of the UK Government's AI Opportunities Action Plan in January, to the First Minister's summer announcement of two AI Growth Zones for Wales.

In our first two full years of operation, the Hartree Centre Cardiff Hub has now supported over 80 SMEs, mostly in the Cardiff Capital Region and The Western Gateway, plus some further afield in Wales and the UK. All our programmes – Assists, Projects, and 'Demystifying AI' engagement events – are driven by the inspiration and energy of the innovators we connect with. Every SME is at a unique place in their AI journey and we strive to offer bespoke, tailored advice to point them in the right direction for their businesses.

Fundamentally, our work is about collaboration: as part of the UK national network of three Hubs established by the Hartree Centre, we aim to operate as part of an ecosystem including national and local government agencies, academia, the third sector, and industry.

This report aims to capture a few snapshots of our work and partnerships throughout the year, illustrating the ways we're continuing to offer accessible support to firms in our region and beyond, and hopefully encouraging others to reach out to us in 2026!

Dr Yulia Cherdantseva, Dr Kathryn Jones,
and Professor Alun Preece
Hartree Centre Cardiff Hub Directors



In the past two years we have...



Engaged with 155 SMEs



Provided 5,400 hours of AI assistance

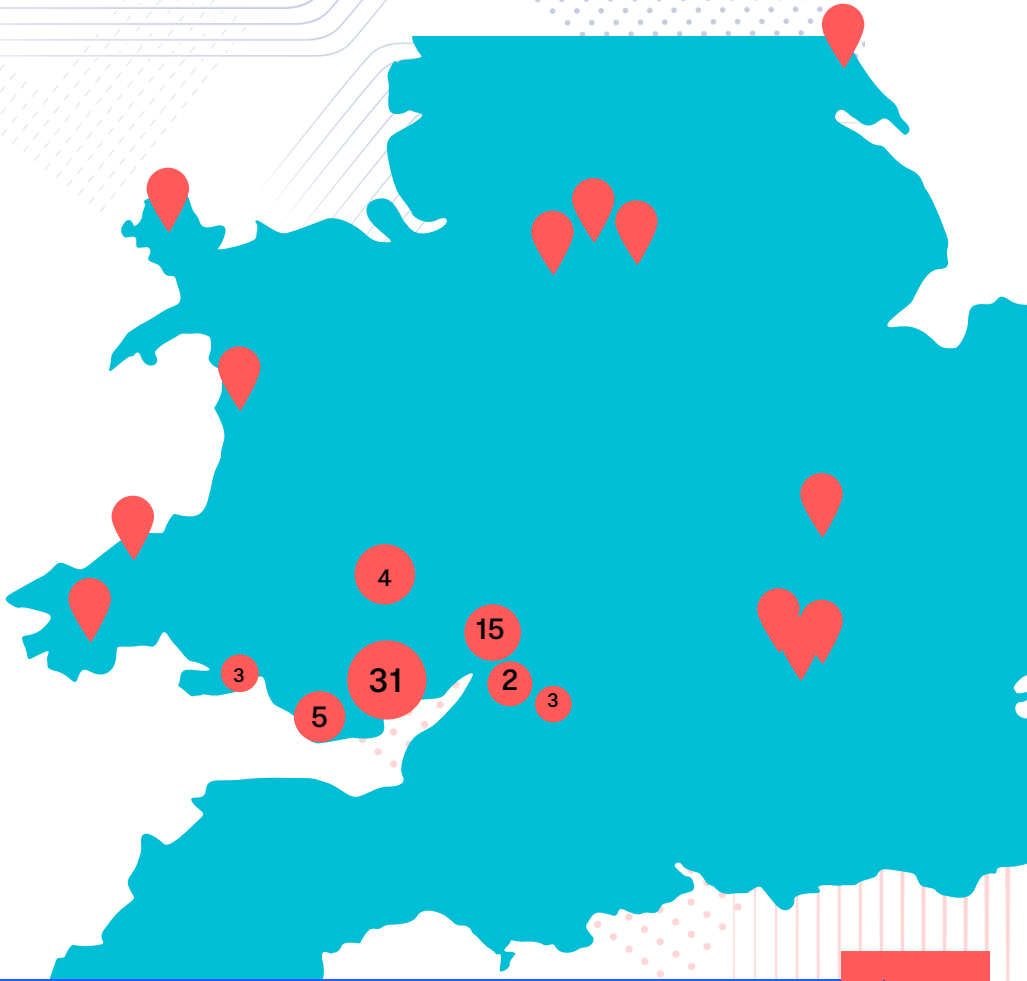


Committed £485,000 of AI support



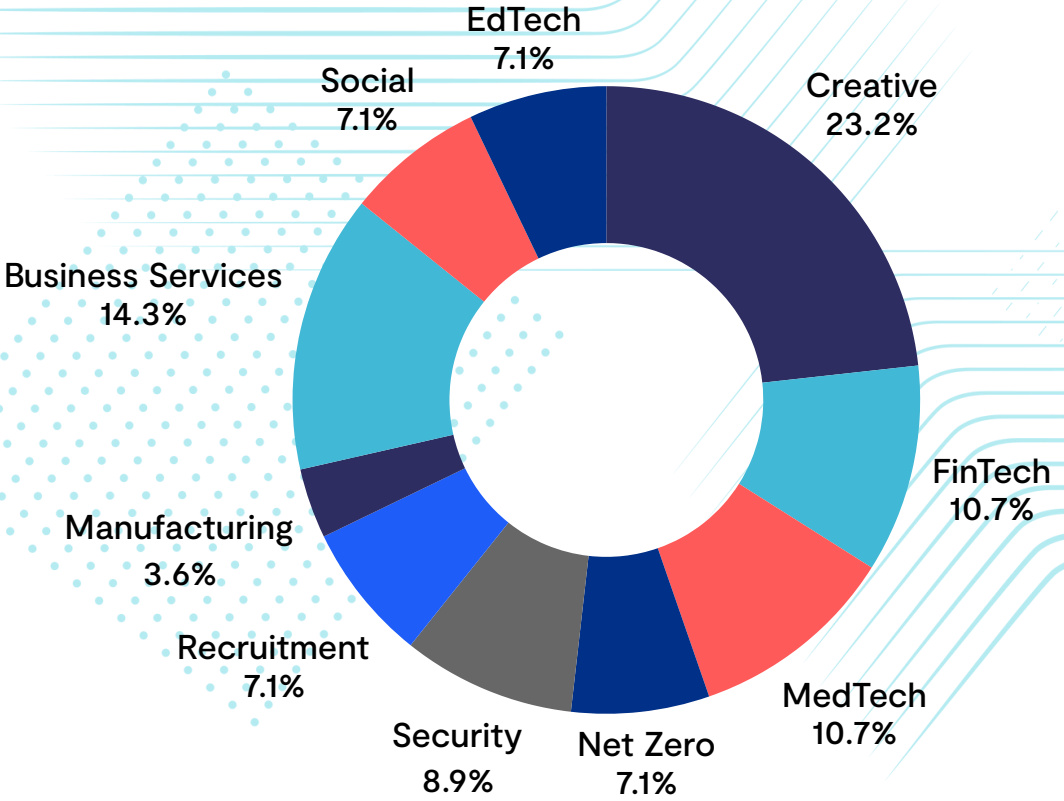
Hartree Centre Cardiff Hub is one of three regional hubs across the UK founded by the Hartree National Centre for Digital Innovation programme. The Hubs help UK businesses and organisations to explore and adopt supercomputing, data analytics and artificial intelligence (AI) technologies for enhanced productivity, smarter innovation and economic growth.

Where are our SMEs?



We provide SMEs with access to the large base of AI and data science research and innovation expertise at Cardiff University, at no financial cost to the companies.

Sectors our SMEs operate in



Technology Focus – Generative AI

Rusty Design

Rusty Design develops scalable technologies that reduce landfill waste and promote circularity in media production. Their work includes virtual production, 3D printing, and AI-driven design tools that support eco-friendly practices.

Rusty Design collaborated with Hartree Centre Cardiff Hub through an Assist and subsequent funded projects. Hartree Centre Cardiff Hub provided technical expertise in generative AI, 3D modelling, and computer vision, helping Rusty Design develop new tools for sustainable production. The partnership also supported successful funding applications, including to Innovate UK and Media Cymru.

The collaboration led to the development of commercial technologies, including image-embedded climbing holds and scalable prop-making solutions. Rusty Design is now licensing its innovations and expanding into adjacent industries. Hartree Centre Cardiff Hub's support enabled efficient project management and access to cutting-edge AI capabilities.



“The team at Hartree Centre Cardiff Hub are closer to the cutting edge in terms of AI...know what's possible. They have a deep understanding of what's coming next.”

Bleddyn Williams, Rusty Design

Innovator Spotlight – Food Trends AI



“I'm hoping [the service] will improve the quality of the innovation that these brands are launching. That's the aim. I want other people to innovate better.”

Lucy Thomas, Food Trends AI

Lucy Thomas has spent over two decades shaping the UK food and drink industry. Her career began at Unilever and she joined Innocent Drinks during its start-up phase, where she helped drive innovation that transformed the sector. Lucy launched Tastemakers, a consultancy supporting food start-ups with recipe development and commercial production scaling. Her work gained recognition in *The Grocer* and appearances on *The Apprentice* and *Gordon Ramsay's Future Food Stars*.

When COVID-19 caused Lucy to lose her sense of taste, she pivoted. Combining her passion for food trends with emerging AI technology, Lucy set out to create an accessible, data-driven solution for start-ups seeking insight into global food trends. Lucy's business offers bespoke food trend intelligence reports powered by AI. Designed for start-ups and SMEs, these reports provide qualitative insights into emerging trends, such as global innovations in cultured meat or precision fermentation, at an affordable investment. Her experience and knowledge strengthen these insights, combining AI and human intelligence.

Innovator Spotlight – Food Trends AI

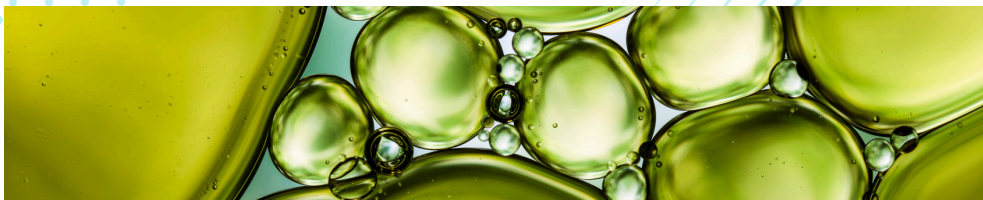
Recognising the need for a robust AI model, Lucy partnered with the Hartree Centre Cardiff Hub. The team, led by David Tuxworth with support from Alun Preece and Cai Davies, developed a bespoke solution tailored for a sole trader without in-house technical resources. This end-to-end model gives Lucy credibility and efficiency, allowing her to launch her service confidently.

The collaboration has enabled Lucy to:

- Launch a market-ready AI-driven service.
- Offer affordable, high-quality trend reports to food businesses.
- Position herself as a pioneer in combining AI and food innovation.

Looking ahead, Lucy plans to test market appetite, scale her offering, and potentially automate further to meet growing demand. Her work with Hartree Centre Cardiff Hub demonstrates how AI can empower entrepreneurs to innovate and thrive with the right support, even after life-changing challenges.

www.foodtrendsai.com



Innovator Spotlight – Green Wing



I'd definitely recommend working with Hartree Centre Cardiff Hub. Their support helped us turn a focused idea into a working solution that's already making a difference in the industry."

Louise Bray, Green Wing

Louise Bray is the co-founder of Little Bird Films, a Cardiff-based production company creating factual content for major broadcasters. With greater pressure on the screen industry to lower their carbon emissions and work towards Net Zero goals, Louise identified a critical gap: the lack of robust, auditable tools for tracking carbon emissions during production.

To address this, Louise launched Green Wing, a digital platform designed to accurately capture and monitor emissions data across TV productions. Green Wing not only improves sustainability reporting but also streamlines production workflows through an integrated call sheet feature, a vital document used to coordinate film shoots.

Following a recommendation from her Innovate UK advisor, Louise connected with the Hartree Centre Cardiff Hub to explore how AI could enhance Green Wing's functionality.

Innovator Spotlight – Green Wing

Through an Assist, Hartree Centre Cardiff Hub supported the development of an AI tool capable of significantly reducing the time and manual effort required by production managers in creating call sheets, while simultaneously improving the accuracy of emissions tracking. The Hartree Centre Cardiff Hub team delivered the solution swiftly, enabling Green Wing to integrate the feature and begin a trial with a major broadcaster.

The collaboration with Hartree Centre Cardiff Hub has accelerated Green Wing's development and deployment. The AI-powered tool is now embedded in the platform and actively used in pilot projects. Louise praised the team's responsiveness and expertise, noting that the university affiliation and personal recommendations were key to building trust. Green Wing continues to evolve, with a new project proposal submitted to Hartree Centre Cardiff Hub to further enhance the tool, ensuring accessibility for all production teams, regardless of their digital readiness.

www.littlebirdfilms.co.uk



Technology Focus – Large Language Models

Gwent Wildlife Trust

Liz Stokes is Programme Manager at Gwent Wildlife Trust, bringing over 15 years of experience in project and digital management from her time in the police force. At Gwent, she leads a major All-Wales digital initiative aimed at modernising operations across five Welsh Wildlife Trusts.

Recognising the growing importance of AI, Liz spearheaded a pilot project to explore Microsoft Copilot’s potential within the organisation. With limited prior experience in AI, Gwent Wildlife Trust chose Copilot for its integration within their existing Microsoft environment, ensuring a secure and accessible starting point for experimentation.



Technology Focus – Large Language Models

Gwent Wildlife Trust

Through a referral from consultant Mark Davies at Cwmpas, Liz connected with Cai Davis at Hartree Centre Cardiff Hub. The team provided hands-on support, helping staff understand prompting techniques and explore AI tools like OCR and agent creation. This enabled Gwent to digitise policy documents and streamline internal communications, including summarising lengthy policies and CEO updates using Copilot.

The pilot has improved staff awareness and engagement with AI, fostering a culture of experimentation and digital confidence. Hartree Centre Cardiff Hub's guidance has helped Gwent explore broader applications, including digitising historical ecological records and automating policy updates. These learnings will now be shared across the UK Wildlife Trust network.

www.gwentwildlifetrust.org



We'd never thought about digitising all of the documentation, but it was only through a conversation with the Hartree Centre Cardiff Hub team about what else we could do that it came up. It's left us with a real taste for pushing the boundaries a bit further.

Liz Stokes, Gwent Wildlife Trust

Innovator Spotlight – Darogan



“Having somebody who can really walk you through what the actual possibilities are and what's feasible has been invaluable.”

Owain James, Darogan

Darogan exists to connect employers in Wales with degree-educated talent, an early careers service for employers in Wales. The idea for Darogan began while Owain was still studying at university, with the seeds planted in 2018. It wasn't until much later, in 2022, that Owain left his job and started working on it full-time.

In common with many businesses, Owain is digitally literate, but inexperienced in terms of AI and data science and the wider Darogan team had no expertise in this area either. Through a Business Wales opportunity, they connected with Hartree Centre Hub Cardiff.

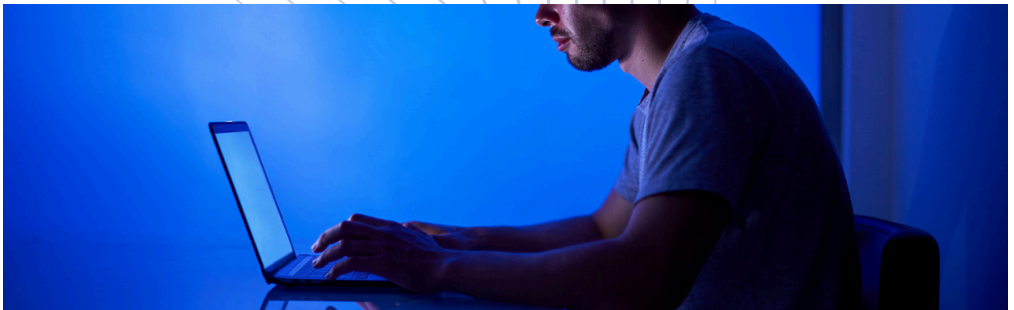
Working with Hartree Centre Cardiff Hub, Darogan has been exploring several initiatives. As a recruitment platform, one of its main tasks is uploading jobs for candidates to consider. This process can be onerous, involving copying and pasting and creating adverts in Welsh so they can be viewed side by side with English versions. To address this, Darogan is developing a tool to automate scraping, translating, and posting job listings.

Innovator Spotlight – Darogan

Secondly, the team is investigating how to use data points from job adverts, CVs, and maps, beyond basic job criteria, to highlight factors that attract graduates to roles and to Wales, which is central to Darogan’s mission. For example, lifestyle elements might include wanting a job that allows finishing at 5 p.m. and going surfing afterward. The goal is to leverage AI to build these capabilities into Darogan, enabling better matching based on lifestyle factors, which can lead to greater satisfaction and stability.

When Darogan first approached Hartree Centre Cardiff Hub, discussions focused solely on job uploading and the Welsh language component of the project. However, working through the Assist program helped the idea evolve organically and incorporate new elements. Many companies acknowledge the need to use AI, but it can be difficult to define what that means in practice. Darogan had some initial ideas, but having guidance from someone who could explain the possibilities and feasibility proved invaluable.

darogan.wales



Our team



Ahmed Abdellah
Data Scientist



Dr Yulia Cherdantseva
Co-Director



Cai Davies
Data Scientist



Samuel Jackson
Impact & Engagement
Officer



Dr Asad Javied
Senior Data Scientist



Dr Kathryn Jones
Co-Director



Maureen Nthiga
Impact & Engagement
Intern



Luiza Patorski
Business Liaison Officer



Professor Alun Preece
Director



Dr Marc Roig Villamala
Data Scientist



David Tuxworth
Data Scientist



Dr Angharad Watson
Manager

What our projects say

“Best example of university collaboration with business I have ever been involved in.”

“They’ve helped us build a fresh roadmap showing where to keep focusing our innovation.”

“Such a great, friendly, and helpful team... they understood our problem space and shared insights far beyond what we expected.”

“The Hub took a great interest in what we were trying to achieve and really understood the problem before starting the work.”

Get in touch

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