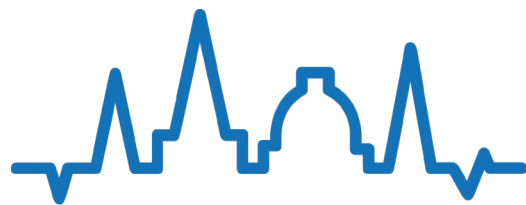


IMPACT REPORT

2023/24



THE HILL



Empowering Digital Innovation in Health and Care



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With thanks

Thanks to our partners and sponsors for their continued support and to those we've collaborated and worked with from our ecosystem and beyond over the past year.

With thanks to TheHill team who have worked to put this annual report together and for their ongoing work to empower digital innovation in health and care.

This report is interactive

Use the contents navigation to skip to sections within this report. Then click the blue arrow on each page to return to the main contents.



Our Sponsors



Our Partners



Foreword

Megan Morys-Carter
Director, TheHill



I am delighted to present TheHill's first Impact Report, highlighting some of the excellent work done by the digital innovation team over the last year.

TheHill's processes and programmes have developed to the point where we are starting to see real impact on frontline services. I'm particularly excited to see the efficiency savings and improved patient experience promised by the roll out of the digital consent solution Concentric (which we have been working with since 2021), and the early results of the MyMynd pilot which suggest significant impacts on staff wellbeing. Our pipeline of innovations is strong, with 148 companies triaged over the last year and 51 of those entering the pipeline. We have also improved our ability to identify those that meet Trust needs, and have started the process of needs prioritisation to be able to call for innovations in key areas, as well as working closely with the wider digital team and our existing suppliers to identify potential in-house solutions.

The needs-led approach to innovation has enabled us to be more selective about our Accelerator participants, with the nine companies supported last year

all currently being considered as part of the pipeline process as potential partners for clinical teams. Our new needs prioritisation process continues to be developed and, along with careful alignment to the clinical strategy, should allow us to select and support the most relevant innovations to solve issues of importance to frontline staff and the organisation as a whole.

We have always maintained the need to develop the organisation's capacity and capability for innovation alongside progressing specific projects. Our Ambassadors continue to be an important part of developing a culture of innovation, and our existing Ambassadors have been helping us to reshape the programme for a future expansion. We're also pleased to have successfully funded our first Innovation Fellow, proving the concept, and our early-stage programmes this year have been geared towards engaging more nurses, midwives and allied health professionals in order to diversify our innovation community. One of the needs we have identified from our community is digital skills training, so this year we've piloted a basic digital skills in order to test the appetite and business case for future work in this area, with very positive feedback from staff.

Our innovator community is also an important part of our work, and our 89 alumni companies continue to grow, raise investment, launch products and engage with many customers across the NHS and beyond. We are pleased to have supported them and others from our wider ecosystem with procurement training, grant writing support and a range of events. These digital health companies form an important part of the future of health and care, and through their engagement with us they are able to better support the needs of our frontline staff.

This report highlights some of the achievements of the last year and gives an overview of the broad sweep of our operations. We look forward to continuing this journey with increasing impact on frontline operations and the digital health ecosystem.

Upcoming projects include the launch of our grant writing training, an expansion of our Ambassadors programme, development of needs prioritisation, more work with our acute trust Innovation Exchange and of course the direct support of many more projects into the frontline of health and care.



Discovering needs on the frontline

Understanding the most urgent frontline needs in health and care, identified by staff, that could be resolved through digital innovation is key to the survival of the NHS. The implementation of our needs-led approach means that we work with colleagues to identify their challenges and needs on the frontline and match them to an existing digital solution or help to develop a new one to solve the problem.

In our 2023/24 reporting period we developed a strategic approach to find out what these frontline needs are and launched our needs-led innovation prioritisation process across the trust to identify and understand the benefits and requirements to address these in the workplace. This allows us to prioritise trust resources to the needs which would make the biggest difference to patients and staff alike when addressed with digital innovation.

To kickstart this process, we ran drop-in sessions and visited wards across the four main hospital sites, which attracted substantial interest from colleagues. Additionally, every member of staff can submit their frontline needs via an online form, 24/7, which enables us to join up previous work done by colleagues working on similar issues within the trust that may not already be linked.

To further support colleagues, we have worked collaboratively with clinical informatic leads, divisional leadership teams and other key stakeholder groups and colleagues across the trust, aiming to speed up the triage and signposting to the most relevant pathway. This could include Quality Improvement (QI) projects or IM&T/Digital Team projects. Our needs-led approach aims to improve information sharing and collaboration with different teams to ensure alignment with divisional and trust priorities.

The most common needs identified include data management, patient self-management, communications & logistics, process automation and urgent care, while more broadly, ten key thematic areas have been identified as needs on the frontline. These range from patient flow optimisation and process automation to medicines management and decision-making support, to name but a few.

To date, seven needs have been presented and scored from the following thematic areas:



Digitisation of paper-based process (i.e. trial master file, radiology paper forms and patient's questionnaires)



Data tracking dashboards to empower service planning and improvement within the lung cancer pathway



Task management solutions to streamline follow-up for benign tumours. Automating the next follow-up step based on the test results, improving the clinic efficiency and automating repetitive tasks,



Optimisation and safety of medicines storage and delivery to patient homes to save time spent in traffic going back and forth from the hospital to community; and



Scaling the capacity for coaching and mentoring to support clinical workforce development and embedding training into clinical practice through remote/distant tools.

At TheHill, needs-led innovation is the cornerstone of our work.



Our needs-led innovation approach

1 SUBMISSION

Any member of staff within OUH can submit a digital need through an on-line form, which captures details of the problem, context and potential benefits of solving it. This is followed by a follow up meeting to deep dive into the problem.

5 SOLUTION EXPLORATION

Exploring viable options to address the need, user/service requirements, costings and resources needed, and potential solution for addressing the need. The solution can be either an in-house development or external procurement.

4 PRIORITISATION

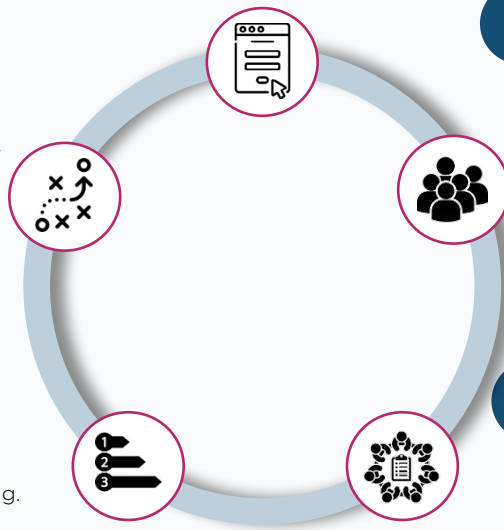
The Clinical Champion presents the need, alongside with the context and key challenges to a Trust prioritisation group meeting. The group will score the benefit of the need (if addressed), based on 11 impact dimensions around operational efficiency, strategic fit, clinical outcomes, cost savings, amongst others.

2 NEEDS RADAR

Needs exploration, checking existing/past/planned initiatives, and gathering collective knowledge through collaborative documents, and conversations to join up knowledge and intel across teams, services and people who are involved with that need.

3 PRE-SCREENING

Clinical Informatics Leads and Divisional Digital Teams are actively involved in the pre-screening and pre-scoring of the need, to ensure early buy-in from the Division and alignment with commitment on the ongoing divisional priorities.





Our Innovation Pipeline

Companies who wish to work with TheHill outside of joining a programme are placed in our Digital Innovation Pipeline, which supports OUH's [Digital by Default strategy](#) by ensuring the most promising digital ideas are championed to grow and scale within the Trust.

We triaged 148 companies during this reporting period, from all over the world with specialities ranging from virtual reality to medicines management to artificial intelligence, and digital consent, plus an array of other specialities which aim to benefit both staff and patients.

The pipeline process contributes to the overarching objective to identify ground-breaking solutions which meet the needs of staff of all levels within the Trust, with the potential to lead to adoption of digital innovation into Oxford University Hospitals NHS Foundation Trust, and aims to:



Identify start-ups, companies and internal NHS innovations which have the potential for adoption into OUH and other NHS Trusts and healthcare settings.



Identify companies who are working on forward-thinking innovations that could revolutionise the NHS and the care it delivers in the future.



Pilot innovations through the pipeline stages (outlined below) and present routinely to the OUH Innovation Panel, which is made up of key teams from across the organisation, who recommend the next steps for each innovation.



Ensure these digital innovations meet the needs identified within OUH and NHS with sufficient data to demonstrate that they do.



Facilitate the establishment of pilots and research collaborations as approved by the Technology Advisory Group (TAG), Research & Development (R&D) and procurement at OUH.

148

COMPANIES TRIAGED

with specialities ranging from virtual reality, artificial intelligence & digital consent.

51

COMPANIES

engaged with our Innovation Pipeline Process in 2023/24.

10

BUSINESS DAYS (ON AVERAGE)

from filling in our triage form to having an initial meeting with a member of the

Once a company [has filled our triage form](#), they are invited to meet with us to discuss their solution(s) in more detail and allows us to get a better understanding of the team, product, business, and roadmap of the company. The information that we receive from both the meeting and triage form are then reviewed to see where the company best fits in terms of services that TheHill can provide. If the company is suitable for a pilot and there is sufficient interest from the Trust to pursue one, the company will enter the innovation pipeline and will then go through the stages as described on the next page.

Innovation Pipeline Stages



Stage Zero - Initial Triage

This is the stage where companies enter the innovation pipeline. It gives us an opportunity to really understand the product/service and work with the company to identify the areas of the trust that would be best suited to evaluate it. At this stage, our project facilitators will begin engagement with clinical colleagues to find an innovation champion.



Stage One - Exploration and Review

Once a champion has been identified and agrees to participate in the project, it moves to stage one. This is the first opportunity we take to introduce the product, the problem it solves and the solutions it employs to stakeholders from across the trust. It's an opportunity to learn about other products already in use, other areas that may benefit from this technology or lessons learnt from previous attempts at solving the same problem. It's at this stage a decision is taken to either proceed or reject the proposal for a pilot evaluation based on any high-level issues that may have arisen.



Stage Two - Project Scope

Companies, innovators, and the pipeline team work together at this stage to produce a project plan that encompasses the human, technical and operational requirements of the project. It's at this stage where we agree the best pathway for the project. This could be a service evaluation, clinical trial or a direct purchase via procurement. This ensures alignment across stakeholders and an agreed set of inputs and outputs will be expected. Once agreed, the project progresses to the next stage of the pipeline.



Stage Three - Project Approval

Stage three is where the detailed project plan is created, detailing work packages, start and end dates and responsible parties. Alongside this, approvals and funding for the project are also gained (where relevant). The approvals vary based on the type of technology being used and how it is applied to the clinical setting and funding sources including grants, venture capital and charity funding as well as direct funding from the trust. There are various approval committees within OUH, including information governance, cybersecurity & clinical informatics, and the Technologies Advisory Group, to name a few. As every project is unique, the approvals required vary, with some projects requiring one to two approvals, with others requiring more. Once approvals have been gained and if required, funding secured, the project moves onto the next stage.



Stage Four - Project Delivery

This is when the project delivery takes place in accordance with the project plans created in the previous stages. Initial findings on the project are also collated and shared that provide early insight into how the project progressed.



Stage Five - Evaluation

Once the project delivery has been completed, a detailed evaluation will be produced to evaluate the key benefits experienced by patients and staff, the challenges faced during the project and could these be mitigated in the future, any potential cost savings; which could take into account the time saved by staff, logistical costs, reduction in wasted resources both in terms of staff and clinic space.

This evaluation is undertaken holistically and can be used to evidence the benefits of the technology during a procurement exercise within the NHS, either directly with OUH or with another trust. It can also highlight reasons why the technology is not suited to an acute trust but may be suited to alternative health and social care settings.



Stage Six - Best Practice

The final stage is used to understand how technology can be incorporated to become best practice, and this stage gives us the opportunity to produce meaningful case studies. Through these, we can lead the way in demonstrating the positive impact these innovations can have on patient outcomes and experience, adding to the evidence other NHS organisations need to be able to benefit from these innovations.

Glossary: Innovation Champion

An innovation champion can be an individual or teams within a department who volunteer to work alongside TheHill and the company, sharing valuable insights from the frontline, helping the company gain an understanding of how their product/service would be used in the real world. We believe having an innovation champion is vital to this process as this joint approach gives the company access to vital insights into clinical pathways, first hand user experiences in clinical environments and feedback from staff and patients alike.

PHOTO:
A beach setting within the Healthy Mind VR Headset

A world of virtual reality

Dr. Tim Harison, Consultant at Sobell House Hospice for OUH Palliative Care, was an innovation champion for [Healthy Mind](#), a therapeutic virtual reality (VR) medical device that helps reduce pain and anxiety. Dr. Harrison was interested in exploring how VR can provide respite for patients who are unable to leave the hospice due to the care they require. A small-scale service evaluation was used to assess the benefits and accessibility for patients and families, while developing clinical experience in its use in palliative care.

Healthy Mind's technology offers patients an opportunity to wear a VR headset and experience sights and sounds from around the world as a distraction from the medical setting. The patients were able to choose from 5 different immersive simulation environments from a Japanese zen garden to a sunny beach to the top of snowy mountains.

Knowing that Healthy Mind's solution offers clinical standard medical hypnosis designed to alleviate pain and anxiety, a patient who was also under the care of the renal service was identified as someone who may benefit from using this technology during their frequent dressing changes. During these appointments, they would cry out due to the severe pain being experienced, and unfortunately there was nothing the staff could do at the time to ease the pain. At one appointment, the patient was offered the opportunity to trial the Healthy Mind VR headset, allowing them to become immersed in a world of virtual reality. Whilst using this technology, the patient felt relaxed and fell asleep while their wound dressing was changed

and subsequently looked forward to trying out all the different scenarios at future appointments.

Following the pilot in Palliative Care, Dr. Harison produced a powerful case study report and a further pilot is currently being designed which will evaluate the use of Healthy Mind's VR technology by the Tissue Viability Team. The Tissue Viability Team is a small nurse led team of clinical experts who are responsible for the management of acute and chronic wounds across OUH. The purpose of this further pilot will be to understand if using immersive simulations and medical hypnosis can reduce pain and anxiety for patients undergoing dressing change for complex wounds, and if it can decrease the time required by the nurses to complete the procedure and reduce the amount of pharmacological pain relief required to be prescribed for the procedures.

On her experiences of working with TheHill, Julie Brown, Senior Tissue Viability Nurse Specialist said:

“OUH service engagement with innovation will provide an opportunity for continuous improvement to enhance patient care outcomes. Having a team like TheHill has been helpful. As a clinician my time and skills are somewhat limited to engaging directly with innovators. TheHill have been excellent with facilitating discussions, coordinating meetings, and helping to foster partnerships with industry. They are able to bridge the gap by understanding the needs and constraints of both parties and facilitating effective collaboration”.



PHOTO:
The Project MOVE blood bus

move

Mobile Clinical Bays



All aboard for blood testing!

Project MOVE is a series of self-contained clinical bays that have been designed to fit into an existing single-decker bus. Each bus can typically accommodate three clinical bays and an administration area, along with storage and refrigeration facilities. Coupled with WiFi connection to hospital systems, these single-decker buses act as a flexible, mobile means of delivering effective and efficient care directly to local communities.

Identified in 2021 the need Project MOVE addressed was the ability to allow patients to have routine blood tests closer to home.

Following a series of workshops between hospital staff and GPs, it was clear this project needed to be brought into fruition. Having engaged with a broad range of stakeholders internally and externally, we collaborated with Oxfordshire Clinical Commissioning Group to evaluate and implement this mobile solution to the urgent short-term need within the phlebotomy service at OUH to provide a remote alternative to in-hospital blood testing. With a potential capacity for the bus to serve 400 patients a week and reduce on-site visits by 20%. Working closely with the Quality Improvement (QI) team within OUH, we worked to support this project together.

With a population of over 725,000 people*, Project MOVE was designed to help bring patient care closer to home.

The initial plan was for the bus to travel around the county, however due to a delay in funding and additional logistical challenges, the bus is now being used to increase capacity at the Horton General Hospital.

Since May 2023, the bus has been offering routine blood test appointments for patients over the age of 18, patients who have been referred urgently by their GP and those who have had a virtual appointment and require a blood test.

As a result of the bus being based at the Horton General Hospital, an increased number of blood tests are now available to patients in North Oxfordshire and surrounding areas.

At the time of the launch, David Walliker, Chief Digital Partnerships Officer commented:

“This is great news for our phlebotomy patients. The bus is fully equipped with all the equipment needed for the appointments and will help us reduce waiting times for this type of treatment.”



PHOTO:
The Blood Bus at the Horton General Hospital

725,000

POPULATION IN OXFORDSHIRE

*data from 2021 census results.

400

PATIENTS A WEEK

expected capacity for the bus





Pre-Seed Programme

Our Pre-Seed Programme launched in 2023 aimed at early-stage companies, entrepreneurs, and digital innovators, supporting them to get their healthcare focused digital innovations off the ground. The programme was developed after we recognised a pattern of submissions coming through to our triage process from companies who did not understand clinical or operational processes within the UK healthcare system. We take companies or teams onto the programme who are at concept or ideation stage and have a promising value proposition for the NHS.

Our Pre-seed programme offers the type of idea development support offered by many incubators, accelerators and venture creation initiatives, with an additional focus on the specific requirements of developing innovations in healthcare. The Pre-seed programme works through a portfolio of support to validate the companies' concepts and ideas, as well as giving the necessary insight into the workings of the NHS, in order to identify any major barriers to their successful future commercialisation.

Without sufficient support, digital health start-ups, trying to integrate novel technologies into clinical practice find it difficult to bring their solutions to market, due to barriers such as lack of knowledge; challenges to raising awareness; understanding of regulatory requirements, technology evaluation requirements and a lack of understanding of the realities of frontline care.

The 12-week course was delivered through a combination of online and in-person sessions and helped to prepare early-stage companies and entrepreneurs to take their innovations and ideas to the next level. Areas of focus from the cohort included dermatology skincare, men's mental health and wellbeing, gynaecological devices, COVID recovery and telemedicine.



PHOTO:
Pre-Seed Graduates, July 2023



Pre-Seed Success: Jack Fertility

One team from the inaugural cohort have used the teachings and connections formed from the programme to make huge progress. [Jack Fertility](#), the company behind “the UK’s first mail-in sperm test kit”, joined the Pre-Seed programme last year and haven’t stepped off the throttle since, racking up investment and awards a plenty in the last year.

With one in six couples having issues with fertility, which are equally likely to be due to male or female factors, globally sperm quality is rapidly decreasing. The World Health Organisation (WHO) has declared it a public health crisis. Current male fertility testing options are uncomfortable, inconvenient, and often deter individuals from seeking them out. Jack Fertility’s mission is to remove the barriers to men’s reproductive health in the UK and make it as easy as possible to assess male fertility.

Whilst studying for her MBA, Lily explored entrepreneurship via the Creative Destruction Lab, which pairs MBA and D.Phil students with local early-stage, science based companies. Through this programme, Lily was able to observe interactions that would have otherwise been hidden, between founders, mentors and investors, providing new perspectives which were different from her board room experience in law and banking.

It was on this programme where co-founder of Jack Fertility Nick Shipley approached Lily to work on an idea they developed after Nick’s experience of becoming a farther in lockdown.

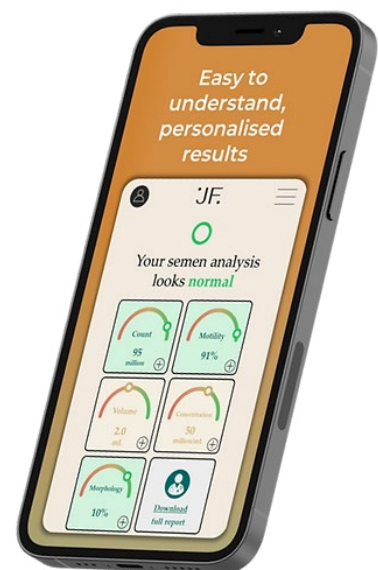
Lily and Nick first discovered TheHill through attending our Social Mixers in 2022. They then completed our triage form. At this stage, they were undertaking initial steps to create a prototype of their product, with founder Lily Elsner receiving a start-up visa from the University of Oxford to help grow the Jack Fertility business.

They joined the Pre-Seed programme as an opportunity to meet other companies at their stage in Oxford and further afield while being able to learn from the best in the ecosystem. As their technology will be used directly by patients and lab personnel alike, they wanted to make sure they had a holistic understanding of the system and patient journey, which was facilitated by expert mentors on the programme.

From winning the Medtech and Healthtech StartUp of the Year at the Southeast Start-up Awards 2023, to securing investment from Reckitt and Founders Factory, they went onto win ‘Most Innovative Sperm Testing Solutions Company’ at the 2024 SME Business Elite Awards, and further investment from Moonstone Venture Capital and the Oxford Seed Fund. Even on a

cultural front Jack Fertility have been thriving, with coverage in the Guardian and podcast appearances by founder Lily Elsner.

BELOW: Mock-up of Jack Fertility’s results report. (Taken from [jackfertility.co.uk](#))



HEADER PHOTO:

L-R: Megan Morys-Carter (TheHill Director), Nick Shipley (CCO and Co-Founder, Jack Fertility), Lily Elsner (CEO and Co-Founder, Jack Fertility)



NHS Market Access Accelerator



The NHS Market Access Accelerator offers a unique blend of education, mentorship, networking, and practical support aimed at helping digital health businesses navigate the complexities of the healthcare landscape and accelerate their path to market success. The 2023 participants received over 1,400 hours of support from the programme and mentors.

As our flagship programme, running over 7-months; the programme is designed to accelerate the growth of digital health businesses and offers participants a combination of business and investment support, coupled with specialised knowledge and access to resources specifically tailored to navigate the complexities of the healthcare sector, particularly the NHS.

Through a structured curriculum of in-person and online workshops, seminars, and one-to-one mentoring sessions, participants gain insights into various facets critical for successful deployment into the UK healthcare market, including technology assessment, market validation, business development, team development, and systems integration. Key topics covered include NHS structures, product viability assessment for NHS adoption, regulatory compliance, market validation, IP protection, financial modelling, and grant writing.

In addition to the formal training sessions, participants benefit from a range of support services such as opportunities to pitch to NHS procurement specialists, investment pitch development, access to 13 expert mentors as well as TheHill's wider network/ecosystem and community engagement activities. This robust package of support is complemented by TheHill's clinical engagement team, who work with companies on the programme to identify opportunities for potential pilots and/or clinical trials within OUH and partner institutions. Securing a pilot and/or trial is often a critical first step in successfully commercialising healthcare innovations and the work that the clinical engagement team do alongside the workshops, seminars, and mentoring offered on the MAA is a key differentiator for the programme.

The programme selects companies through a rigorous process, emphasising the alignment of their innovations to with the frontline needs identified and alignment to [OUH's clinical strategy](#).

More recently, we have started taking equity in Accelerator companies. This helps the Trust directly benefit from their success, building up an equity portfolio which will ultimately help to fund capital improvements for patient care.

Success Story: MyMynd

[MyMynd](#), co-founded by a former NHS neuroscientist, were a participant on the 2023 programme, and they have successfully implemented a pilot of their workplace mental health and wellbeing platform within OUH, supporting over 1050 Trust employees. Founder Henry Majed said "The MAA experience has been brilliant for us, really transformative. It's really helped us to better understand how to navigate complex organisations like the NHS. It's a fantastic community, it feels like we've been in this together. They've really given us the encouragement and have helped shape what we do." The implementation of the MyMynd pilot has been part funded by [Oxford Hospitals Charity](#), thanks to a successful funding application provided by TheHill.

Find out more at thehilloxford.org.



PHOTO:

Henry Majed, Co-Founder and CEO of MyMynd receiving his MAA Certificate from David Walliker, Chief Digital and Partnership Officer, Oxford University Hospitals NHS Foundation Trust (2023).

Lee Massie, Head of IT at OUH commented:

"I have had the privilege of witnessing firsthand the remarkable impact the MyMynd pilot has had on our staff's wellbeing. The focused approach of MyMynd, in delivering high-quality wellbeing outcomes, is not just commendable but a testament to the potential of technology in enhancing our daily lives. The platform's ability to provide targeted mental health support and its proactive, data-driven approach have set a new standards and really supports our wellbeing strategy. It has been invaluable in helping us create a psychological environment that not only supports but also enhances the wellbeing of our team. I am proud to support and praise a technology that is so dedicated to the betterment of our staff's mental health and overall wellbeing"

Our Alumni



For the companies we work with, graduating from a programme is not the end of their journey with TheHill. Our Alumni programme enables us to continue to support companies long after they complete a programme. From one-to-one check-ins to collaboration on case studies, to celebrating their achievements, we make sure that our 89 alumni companies feel fully supported in their journeys to further success. This is in addition to the open events and fee-for-service support that we offer the wider ecosystem of companies we have engaged with.

A great example of the success of our alumni support is that of [Goggleminds](#), who graduated the MAA in 2022, and have gone on to be featured on BBC and ITV with their ground-breaking VR sepsis simulation. training, which enables healthcare professionals and students to learn and practice clinical skills. Goggleminds won the Revenue Generating category at the 2023 Digital Health Rewired Conference Pitchfest, a real indicator of the massive growth they've achieved since graduating from TheHill.

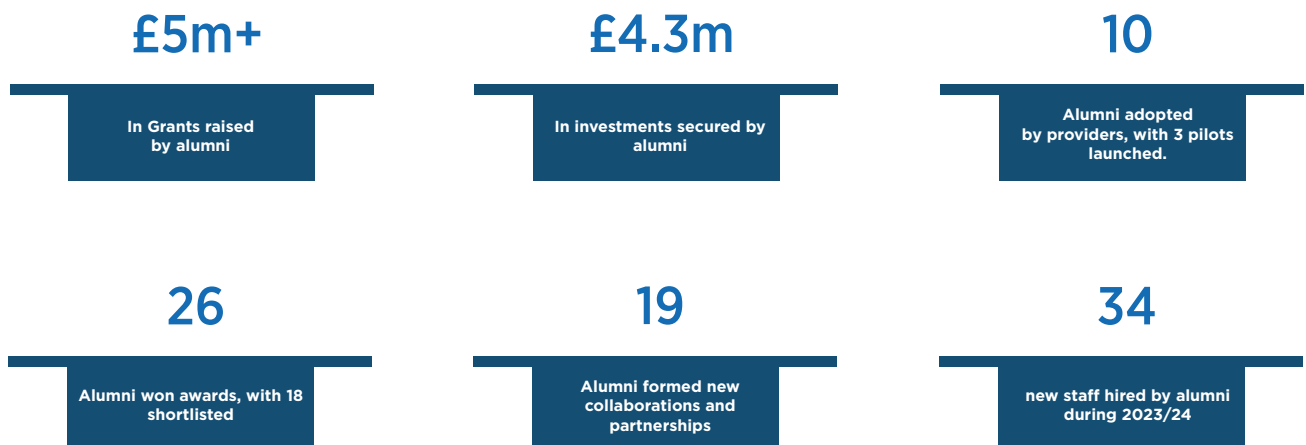
There have been further recent successes for our alumni, particularly in terms of their funding. A few highlights include: [Occuity](#), who have developed non-invasive handheld devices to enable non-contact optical disease screening and monitoring secured £1.3million in investment at the end of 2023; [Better Medicine](#), who have developed AI tools to help equip doctors to diagnose and fight cancer in more efficient and accurate ways, received a €2.5 million grant from the EIC accelerator, and [BeneTalk](#), a habit building app to support adults and children who stutter to improve speech fluency and build their confidence, reached their funding goal less than a week after going live.



Outside of funding, our Alumni have also had success, with 2021 MAA graduate [Concentric](#) passing the milestone of their digital consent forms being used by 1000 patients in a day last summer, and 2023 graduate [ZiO Health](#) seeing a clinical study published in effectiveness of their therapeutic drug monitoring solution.

Helping these companies become successful has positive impact on Oxford University Hospitals and the wider NHS ecosystem, by developing digital health tools tailored to frontline needs, which can then be used to make our services more efficient and effective. An example of this is Concentric, which was recently successful in OUH's procurement of a digital consent solution. Their technology is currently being rolled out across OUH and the business case projects real world benefits including a reduction of 30% less time required to obtain patient consent for cataract surgery, which over twelve months equates to a week and a half of clinician time made available*

Success in numbers 2023/24:



*Figure based on 5,000 consents completed in one year.



Our Network

Our worldwide ecosystem and networks encompass:



1,742 Businesses



73 NHS Providers



71 Universities

Among the support we offer to the companies in our ecosystem are grant writing services. We are grant application specialists, with over 15 years' experience across the team successfully securing UK, European and other international grant funding. Last year we assisted several companies with grant writing, with one securing £50,000 through the Innovate UK Women in Innovation Programme.

Companies approach us to write grants for the technical development of their innovative solutions, conduct small or large studies to obtain clinical evidence, conduct pre-commercial activities such as market intelligence, IP assessment, regulatory landscape definition.

We have partnered with the [European Institute of Technology \(EIT Health\)](#) to support their delivery of the Bridgehead Programme, which brings together health entrepreneurs who want to grow their business in the European market. As one of the UK's top health and care incubators, we are able to support Bridgehead companies who want to enter the UK market by providing them with comprehensive knowledge on procurement, reimbursement, barriers to adoption, and enablers.

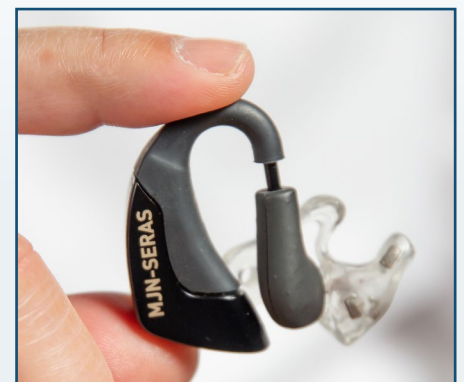
We work with these companies, offering support tailored to their individual needs, such as opportunities to gain in-depth knowledge about clinical pathways, invaluable insights into the core functions of the NHS, to gain feedback from potential adopters of their technology and to create a value proposition aligned to the UK health and care system.

One of the companies we initially supported through the partnership with EIT Health was [MJN Neruo](#); following successful collaborations during the programme, we submitted a joint funding application of €2.7M to EIT Health to enable mjn neuro to conduct a multiregional clinical trial for their innovation MJN-SERAS.

MJN-SERAS is an earpiece, shaped like a hearing aid, which continuously records the electrical brain activity like a medical EEG, utilising mjn neuro's proprietary artificial intelligence algorithm, the device can assesses the risk of epileptic seizures in the wearer and then sends out a warning signal when the risk of epileptic seizures is high, alerting both the affected person and their trusted contacts. Drug-resistant epilepsy-affected people can comfortably wear MJN-SERAS on a daily basis. Between 1 to 3 minutes before seizures, an alarm warns patients via their mobile phone which is connected via Bluetooth to the earpiece. Within this time patients can autonomously reach a safe place or position to avoid accidents and injuries, helping them become independent from caregivers.

MJN-SERAS worked closely with consultants in the Neurology department at OUH to design the clinical trial, which is being undertaken with 60 patients between the ages of 12 and 65 years old being enrolled over 9 months. The results of this trial could revolutionise the patients ability to manage their condition and enable them to prevent significant harm in the future, whilst living a fulfilling life.

RIGHT PHOTO:
MJN-SERAS earpiece





Our Reach

While we're based in Oxfordshire, we have a worldwide reach. With a vast ecosystem of entrepreneurs, start-ups, digital innovators, and healthcare staff, we communicate with a wide variety of audiences through our website, social media, and events we attend or run every year. For this reason, training programmes such as our Procurement Training are held online, to reach the widest possible audience.

We support our local ecosystem, aligning with OUH as an anchor institution, with in-person events and regional activities. In the 2023/24 reporting period, we held bi-monthly Social Mixers. These are networking events that allow our ecosystem to come together in person to network with each other and hear from a panel of experts on a particular topic. These have included Piloting in the NHS, Artificial Intelligence in Healthcare, Integrated Care Boards and How Digital Innovation is Advancing the NHS. The average sign-ups to our social mixers, is **87 people**.



Digital Innovation Ambassadors

Being embedded within Oxford University Hospitals as the Digital Innovation team gives us a unique opportunity to connect with staff at the trust, either through direct communication, offering training opportunities, or visiting hospital wards and departments in person to engage and connect on a more personal level with those who are interested in digital innovation.

Through our Digital Innovation Ambassadors programme, we have built an inclusive community of individuals interested in spearheading digital innovation across OUH. They have an opportunity to participate in two special interest which focus on Artificial Intelligence and Remote Monitoring. These groups met throughout the year to discuss developments in those areas.

Keynote speakers at the AI special interest group have included Sarim Ather, Radiologist and Alex Novak, Consultant and RCEM Associate Professor in Emergency Medicine who discussed the potential uses and deployment opportunities of artificial intelligence in an acute hospital setting, while other topics have included the Ethics of AI and AI Machine Learning development.

Digital Innovation Ambassadors on the programme are encouraged to give feedback on companies that are at Stage Zero of our Innovation Pipeline and have an opportunity to become an Innovation Champion, should they find, the technology could be of benefit in their area of work.

Following feedback from the Digital Innovation Ambassadors, we organised a morning breakfast meeting with senior management from the trusts Digital Team. This meeting provided the opportunity for the ambassadors to hear what the latest digital projects and priorities are across the organisation, while sharing their own thoughts and feedback on systems and integration that have both been successful and still ongoing.

Many of our Digital Ambassadors are innovators in their own right, including Simon Knight, who was nominated for a Health Heroes Award in the 'NHS Improvement through Digital Innovation' category. Simon developed the TOM (transplant offer management) web app which provides full offer management from organ offer to outcome, and easy reporting and audit of decisions as well as integrating with other systems for ease of use.

Dr Emily Lord, Sexual Health Consultant and Clinical Lead of the Oxfordshire Sexual Health Service (OSHS) appeared on our podcast to discuss the role of digital innovation in the NHS and how Emily procured and supported her team to adopt a new electronic patient record system for use at OSHS, that enables patient records to be confidential and not shared with anybody outside of the service.

PHOTO:
Panellists discuss virtual reality at a Lunchtime Symposium



Showcasing a world of VR & AR

We recognise what's important to the health and care community, and also have a finger on the pulse of the latest technology developments. These two areas of knowledge come together in our showcase events. Virtual reality has been a prominent discussion point amongst staff in health and care settings, and as highlighted earlier in this report, has proven to be beneficial to patient care.

In May 2023, we held our virtual and augmented reality showcase event, providing staff an opportunity to get 'hands-on' with VR technologies and consider how this technology could be used within their departments and services.

The event was attended by OUH employees and executives, partners from local authorities, industry-leading technology firms, university academics and people from other healthcare providers from across the country, with 14 companies represented. The day included a lunchtime symposium and a panel discussion attempting to answer the question *'Is VR in healthcare the latest fad or the future?'*

Panellists included:

- Devi Kolli from i3 Simulations who spoke about her experiences with the OUH Obstetrics and Gynaecology team on co-developing a training solution for the speciality,
- Dr Marion Waite, principal lecturer at Oxford Brookes' School of Nursing and Midwifery and Dr Clare Martin, Principle Lecturer at Oxford Brookes' School of Engineering, Computing and Maths, who spoke about their CAVE-based patient education tool project, looking into the potential of immersive AI-powered education for patients with type one and type two diabetes, focused on hypoglycaemia, and
- Dr Chandrasekar Rathinam, a Children's Specialist Physiotherapist from Birmingham Children's Hospital, who guided us through his 12-month Topol Digital Fellowship, exploring the usability and potential of VR as a neuro rehabilitation tool for improving upper limb functions in children with acquired brain injury.

You can find out more about the VR Showcase by reading the brochure on our website at thehilloxford.org.



PHOTO:
Joanne, a Play Specialist at OUH, tries out virtual reality.



Conferences

Conference attendance is an important part of our marketing and technology scouting activity. Our Director Megan Morys-Carter and Partnerships and Income Generation Manager Stefania Schino were invited to deliver sessions at AUTOMA's Healthcare Automation and Digitalisation Congress on the topics of *Use of connected devices to support patient care: three tiers of remote monitoring* and *Barriers to adoption of digital innovation in healthcare* respectively. Megan also spoke at the HETT North conference and the IPGG's Third Annual Healthcare Innovation and Technology Conference and Exhibition, as well as judging ReWired Pitchfest and the HSJ Partnership Awards. We were also invited to exhibit at the regional Berkshire, Oxfordshire and Buckinghamshire West Integrated Care Board (BOB ICB) Digital & Data Summit, which brought together colleagues from all NHS organisations in the area as well as local authority, voluntary groups, patient groups and social care partners. These conferences raise awareness of our activities, enhance our pipeline of potential technology partners and increase the profile of TheHill and Oxford University Hospitals as a leading innovative organisation.



TheHill Digital Innovation podcast

The second series of our [Digital Innovation Podcast](#), hosted by TheHill's director Megan Morys-Carter, returned in 2023 highlighting the needs of healthcare staff on the frontline.

Guests on the podcast included staff from Acute General Medicine, Neurorehabilitation, Cardiology, Sexual Health and Geriatric and General Medicine, who told their stories of their time working in the NHS, while sharing their thoughts on digital innovation, both how they use it in their everyday work and what they'd like to see in the future.

All episodes are available on our website or via your favourite podcast platform.

Series 2, Episode 1

Sneha Sunny, Trainee Advanced Clinical Practitioner in Acute General Medicine



Series 2, Episode 3

Dr James Gamble, Consultant Cardiologist



Series 2, Episode 5

Dr Sudhir Singh, Geriatric and General Medicine Consultant and Clinical Director



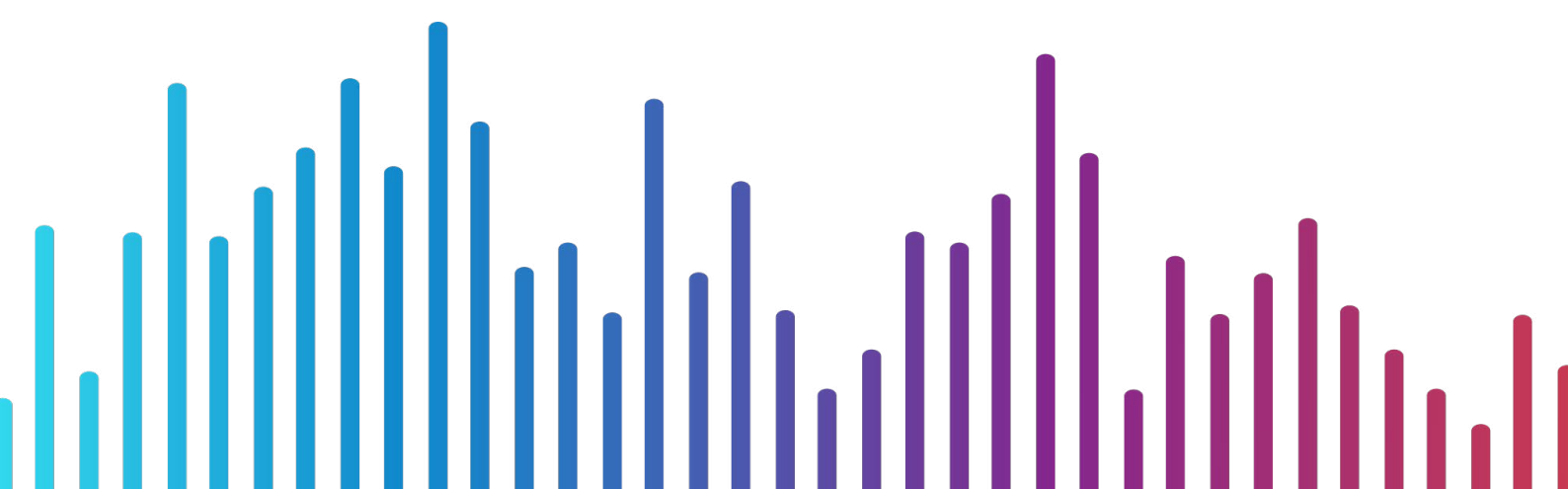
Series 2, Episode 2

Charlie Winward, Neurorehabilitation Consultant Allied Health Professional and Katie Butler, Specialist Physiotherapist



Series 2, Episode 4

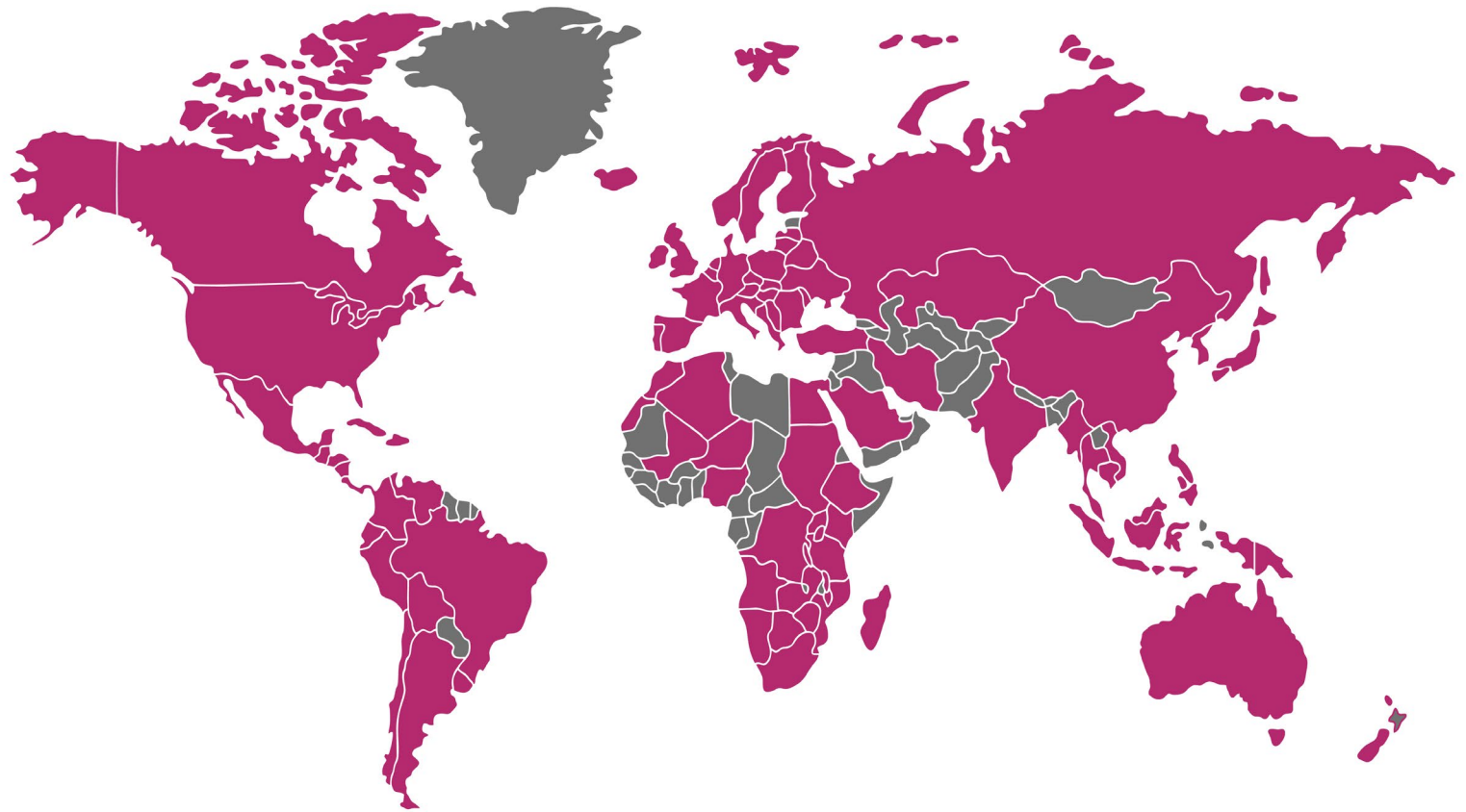
Dr Emily Lord, Sexual Health Consultant and Clinical Lead





Website users from across the globe.

Pink = location of website visitors



6.2k+

Visitors to the website



45k+

Page views



99k+

Events (clicks etc)



2,178

Reactions on LinkedIn



33%

Increase in Followers



27%

Increase in Subscribers

Publications & Reports



Alongside bringing digital innovation to the NHS, our work also includes research and reporting on areas of healthcare where digital innovation is just beginning or is advancing. Our unique position of being embedded within an NHS trust while having a far-reaching ecosystem of clinical staff, academics and entrepreneurs allows us to approach reports from a variety of different angles.

Digital Inclusion in Virtual Wards

Buckinghamshire, Oxfordshire, and Berkshire West Integrated Care Board (BOB ICB) commissioned TheHill to [produce a Digital Inclusion report](#) into virtual wards, to inform the implementation of digital technologies within a virtual ward/hospital at home service throughout the BOB area. The report looked at the wider considerations from the application of digital technology to virtual wards and highlighted key findings of digital inclusion from a combination of conversations and workshops with those working in major hospitals throughout the BOB locality, alongside literature research.

Those approached for conversations and workshops included staff from Oxford University Hospitals (OUH), Oxford Health (OH) and Principal Medical Limited (PML) in Oxfordshire and Buckinghamshire Healthcare Trust (BHT). Colleagues from the Royal Berkshire Hospital and Berkshire Healthcare NHS Foundation Trust gave feedback directly to TheHill.

The report noted the importance of digital inclusion considerations as services develop virtual wards and the further work that needs to be done to support successful implementation.

Some of the other work undertaken by TheHill as part of the virtual wards project, included:



Understanding clinical needs and developing technical specifications for technology to meet those needs.



Comparing and contrasting standard operating procedures across provider trusts, to help share best practice and understand the points of difference and similarities.



Work with clinical teams and patients to understand how the virtual wards service can be as inclusive as possible.

Remote Monitoring in Healthcare

Ishbel Henderson and Sophie Shang, our Remote Monitoring Project Officers, undertook a needed research project to understand how remote monitoring technology could assist in the delivery of care in hospitals and at home, by conducting semi-structured interviews with a range of healthcare professionals both at OUH and across other trusts.

[View the report here.](#)



Innovation Fellowship

One of the challenges of doing innovation in an acute NHS setting is allowing clinical staff the time to engage with projects. One way of addressing this is to allocate significant time to some roles, similar to the academic clinician approach to research projects. As a pilot of this approach, this year we jointly recruited an Innovation Fellow with OUHs paediatric department, having secured charitable funding for the innovation Dr Esther Quinn took on the role as our first Innovation Fellow.

Esther, a specialist registrar in paediatrics with an interest in early intervention and health promotion, gathered and prioritised needs from across paediatrics and started a project in the paediatric emergency department to evaluate the effect of remote patient monitoring on patient flow and to learn more about its use in an acute paediatric setting.

Esther's role encompassed her usual clinical responsibilities as a Specialist Registrar for three days a week, with two days (funded by Thinking of Oscar) dedicated to digital innovation in the fellowship role.

At the interim review stage of the Fellowship, a survey was conducted with key stakeholders from the paediatrics department to understand the impact of the role. Out of those surveyed, 100% agreed or strongly agreed that having an innovation fellow enhanced their department; 75% agreed or strongly agreed that it made it more possible for innovation to happen in their department and 75% agreed or strongly agreed that it made them more positive and/or enthusiastic about innovation.



Digital Skills

Our pilot digital skills training offering has developed over the last year and is now named the DESk (Digital Education and Skills) programme. It is designed to help healthcare professionals develop practical IT skills and increase confidence to support the adoption of digital innovation in healthcare.

Participants learn essential IT skills to enable them to be more efficient in their roles, allowing allocation of more valuable time for patient treatment and reduction of administrative workload. As well as a Basic Digital Skills module, which was delivered to over 80 staff as a pilot intervention, we have also developed a Digital Pioneers programme for staff interested in managing digital change and transformation in an NHS organisation. This module was funded as part of the Barclays Ecosystem Partnership Programme and runs alongside our Start-up Labs programme (both outlined below).

Delegates have been extremely enthusiastic about the Basic Digital Skills module, with feedback highlighting a rise in confidence levels on average by 50% when using an OUH computer. All respondents shared they learnt new skills which will have a direct impact on their work.

Participants stated: *'it's the best training I've ever attended, informative, relevant and fun'* and *'this will help tremendously in my role going forward and make things a lot quicker for me in the future'*, while others commended the content of the course, with one saying *'I have learnt lots of new skills around [Microsoft] Excel'* and another commenting *'I would really recommend this training for all of my colleagues who are working on computers.'*

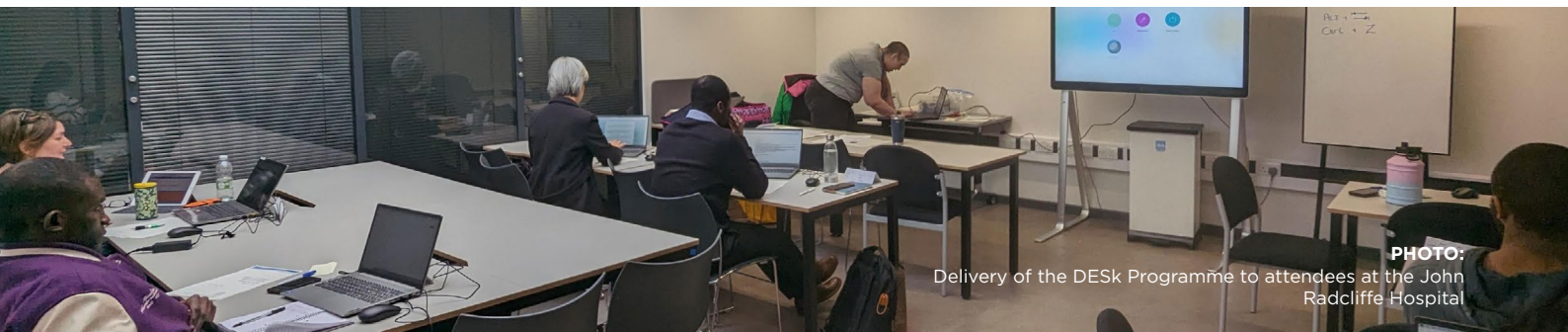
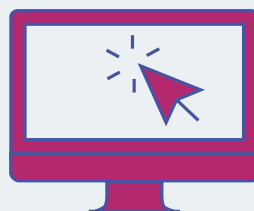


PHOTO:
Delivery of the DESk Programme to attendees at the John Radcliffe Hospital

Want to know more?

If you want to delve further into the work we do at TheHill and catch up on the latest programmes and events we're running, you can visit our website, follow us on social media or keep up-to-date via our newsletter.



If you wish to comment on anything mentioned in the annual report, or wish to collaborate with us on future projects and ideas, please email connect@thehilloxford.org



Looking Ahead

Some of our programmes and projects began towards the end of February/March 2024 and won't be completed until the 2024/25 reporting period, however we would like to highlight these in brief, as the work undertaken on these programmes/projects has been significant in the last couple of months.

Start-Up Labs

Our Start-Up Labs programme, supported by Barclays Eagle Labs and funded by the UK Government, brings early-stage companies and nurses, midwives, and allied health professionals (NMAHPs) together to form multidisciplinary teams and develop digital solutions which address a clinical need within the NHS.

For the companies, the programme will begin to lay the foundations on which to build their business and help cultivate the relationships they'll need to take their idea to the next level, while for NMAHPs, they'll learn about becoming a clinical entrepreneur, gain new skills and an understanding of digital innovation in healthcare, and work towards finding a solution to an identified need in their area of work.

Delivery on this programme started in quarter one 2024 and will continue over the next few months.

Digital Pioneers

We developed and launched an interactive online course for healthcare staff across the Southeast, aimed at those interested in driving digital change in a fun and interactive learning environment where attendees can learn skills to help champion digital innovation and address resistance to change.

This programme has been designed and tested and will be delivered in quarter two 2024.



Empowering Digital Innovation in Health and Care