



Innovation Programme

# Annual Report 2022



NATIONAL  
DOCTORS  
TRAINING  
& PLANNING



Health &  
Social Care  
Professions



Oifig an Stiúirthóra Seirbhísí  
Altranais & Cnáimhseachais

Office of the Nursing &  
Midwifery Services Director

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## FOREWORDS

Our greatest asset in healthcare are our people. It is our healthcare colleagues who deliver care and who come up with the best innovative ideas as to how we can deliver better care. Through what has been a very difficult past few years for all of our colleagues in healthcare, we have witnessed extraordinary commitment, bravery and dedication.

In recent times, we have seen huge drive for innovation in our workforce and we have also witnessed great transformation in healthcare. This may have been triggered by the COVID-19 pandemic, but many of the items were imagined long before.



Supporters of the HSE's Spark Innovation Programme have known for a long time that we must be open to innovation and change in order to overcome the growing challenges of healthcare delivery: including an ageing population, complex multi-morbidity and public health threats.

As a health service we need to be adaptable, flexible and responsive, and it is in driving those traits across the health service that the HSE Spark Innovation Programme comes into its own.

It is wonderful to see the truly multi-disciplinary ethos at the HSE's Spark Innovation Programme, with strengthened partnerships between National Doctors Training and Planning, The Office of Nursing and Midwifery Services Director and Health and Social Care Professions.

In recognition of this increase in growth and engagement in the field of frontline innovation, it has been decided to form a new office under the Office of the CCO: the Frontline Clinical Innovation and Simulation Unit. The aim of this new office is to advance simulation and innovation to support improved healthcare delivery for patients and service users. This unit will embrace a multidisciplinary approach that includes nursing and midwifery, health and social care professions and doctors in developing innovative approaches to delivering health care and training to our healthcare professionals.

The creation of the new Frontline Clinical Innovation and Simulation Unit signifies that we acknowledge and trust that frontline healthcare workers have the knowledge and insights that we need to nurture innovation in the health service. Clinical staff in the unit will be at the forefront of driving improvement and excellence in service delivery, thus securing a more effective health system for the future.

I am delighted to continue to support the HSE's Spark Innovation Programme in empowering healthcare workers to shape the services in which they work.

*'Ní neart go cur le chéile'*

**Dr Colm Henry**

Chief Clinical Officer

I am delighted to bring you this year's edition of the HSE's Spark Innovation Programme's annual report.

The Slaintecare strategy has given us a clear mandate to reimagine healthcare delivery so that patients receive the right care from the right person at the right place and time, and the Design Principles for Government validates our investment in and strong emphasis on the value of design in healthcare innovation.

The fruits of that investment are clear to be seen in some the projects that are included in this report.



As the synergies grow with our fellow actors in the ecosystem for healthcare innovation such as the St James's Design Lab, Mater Transformation, Tallaght Innovation Team, CUMH, UHL, NCAD, MTU and the list goes on - it's starting to feel like a rising tide that is lifting all boats.

That means it's getting easier for frontline workers to suggest, test and get support for innovative approaches to longstanding problems;

it's becoming the norm for multidisciplinary teams from across hospitals, hospital groups or healthcare regions to come together to bring collective insight and a systemic response to 'wicked' problems;

the successes of projects coming through Spark Ignite, Seed, and our various Innovation Funds means we are able to bring more resources and more expertise to the aid of new projects with exciting potential.

It was an immensely proud moment for the team in 2022 to receive a National CIPD award for Employee Empowerment and Trust. It validated the value of our work as an effective way to engage healthcare professionals and realise the collective potential for change that frontline healthcare professionals represent.

Our move to the new National Frontline Clinical Innovation and Simulation Office within the Office of the Chief Clinical Officer in the coming year will enable us bring even more energy to important developments that strengthen capacity for innovation and design in healthcare.

We are also working on how we can build a network of Design and Innovation labs across the country that can bring design and innovation expertise closer to the frontline than ever before, ensuring everyone in healthcare, both in hospitals and in the community, has equal opportunity to make a difference to how things are done.

Along with our ever supportive partners in NDTP, ONMSD and HSCP we look forward to even more exciting times as we get better together at this thing we call innovation.

**Jared Gormly**

Head of Spark Programme





I am delighted that the Office of Nursing and Midwifery Services Director has continued to collaborate with the Spark Programme during 2022.

It was a very exciting year that saw the first ONMSD supported Nursing and Midwifery National Fellowship in Innovation. This one year developmental opportunity gives a clinical nurse or midwife the opportunity to develop their innovation and leadership skills and shape the Spark Programme.

Ms Amy Carroll, our first midwifery fellow, joined the Spark team in April 2022. Providing nursing and midwifery leadership from within the spark programme team has resulted in increased engagement from nurses and midwives in the programme as Spark continues to do remarkable work encouraging and supporting frontline innovation. With the end of COVID-19 restrictions the presence of Spark at many of the in-person national nursing and midwifery conferences has meant more visibility, promotion and showcasing of both the Spark Innovation Programme and nurses' and midwives' contribution to healthcare innovation. Through the Spark Innovation Programme, nurses and midwives show the insights and empathy on which they develop and promote new ways of working to deliver safe, high-quality, person-centred care.

We continue to be excited and committed to work collaboratively with Spark to expand opportunities for nurses, midwives and interdisciplinary teams to bring their passion, expertise, creativity and insight to healthcare innovation. As you can see from this report, the collaboration results in improvements in the totality of people's experiences (staff and patients), better health outcomes and pioneering nursing and midwifery practices. Congratulations and thank you to everyone involved.

**Dr. Geraldine Shaw**

Nursing & Midwifery Services Director, Office of the Nursing & Midwifery Services Director (ONMSD), Clinical Programme Implementation & Professional Development, Office of the Chief Clinical Officer



As we delve into this year's annual report, I am delighted to once again lend my wholehearted support to the Spark Innovation Programme.

The diverse and inclusive initiatives laid out in this report have provided a platform for doctors to actively engage in addressing unmet needs, tackling unresolved challenges, and exploring boundary-pushing solutions. Through engagement with Spark, our doctors can become catalysts for change, driving transformative advancements in healthcare.

I commend the programme's continued dedication to nurturing innovation among frontline staff. By encouraging healthcare professionals to think creatively, we pave the way for pioneering breakthroughs and improvements in patient care.

A culture of excellence and innovation is a fundamental pillar of the NDTP strategy. I would like to extend my deepest gratitude to all involved in the Spark Innovation Programme their tireless efforts and commendable achievements in fostering this culture.

Together, let us celebrate progress made and look forward to the transformative innovations ahead.

**Prof. Brian Kinirons**

Medical Director  
National Doctors Training and Planning Department



The HSE Spark Innovation Programme has been a driving force in engaging and embedding innovative activity within our healthcare system. The National HSCP office is delighted to continue this fruitful collaboration and continue our commitment to promoting innovation and transformative change in healthcare.

I am delighted to highlight the exceptional success and value of the newly established National HSCP Innovation Fellow post. The fellowship has proven to be an extraordinary catalyst for innovation within our healthcare ecosystem. So much so, that we have made the decision to elevate the role to a full-time position. This strategic move demonstrates our recognition of the immense value and potential this position holds in driving sustainable and impactful innovation in healthcare.

In addition to this significant milestone, there has been an increased focus on supporting innovation in community healthcare teams and services, aligning with the HSCP commitments outlined in our HSCP Deliver framework. HSE Spark, with its design informed approach and emphasis on inclusivity, exemplifies the spirit of innovation and collaboration that underpins our vision for healthcare transformation. By embracing design, we empower all stakeholders, including service users and patients, to actively participate in shaping the future of healthcare. This not only promotes true patient-centered care but also ensures that the collective wisdom and diverse perspectives of all involved are harnessed to drive meaningful change.

I extend my appreciation to the HSE Spark team, the National HSCP Innovation fellow, and all who have contributed. As you peruse this report, I invite you to immerse yourself in the stories of success, the breakthrough ideas, and the remarkable impact that our collaboration continues to generate. Together, let us celebrate the remarkable achievements and boundless potential of healthcare innovation, as we forge a path towards a brighter, healthier future for all.

**Jackie Reed**

National Lead for the National Health and Social Care Professions Office

# SPARK INNOVATION

## AIMS & OBJECTIVES

The aims and objectives of the Spark Innovation Programme align closely with the HSE Corporate Plan 2021-2024, ensuring that activity receives strong support from the centre of the organisation.

- Promote the development of innovation culture to embed innovation as a foundation of the organisation at every level.
- Advocate for innovation capacity building across the organisation to ensure that innovation activity is identified and supported as a strategic priority.
- Seek to build capability through skills and mindset development to unleash the innovation potential of the frontline.



### 1. ENGAGE & EMPOWER FRONTLINE STAFF

We seek to empower staff to deliver change, identify barriers and implement improvements for patients and service-users.\*

- Promote and celebrate initiative, creativity and collaboration
- Create funding streams for staff-generated solutions to identified problems and opportunities
- Enable access to training in design and innovation methodologies
- Provide mentoring
- Share success stories

### 02. CREATE A SUPPORTIVE ECOSYSTEM FOR HEALTH INNOVATORS

With a shared vision of improving patient and service-user experience, we will work together more effectively and overcome barriers that have made change more difficult in the past.\*

- Create an innovation-friendly workplace
- Promote collaborative work practices
- Normalise innovation practices
- Promote the role of human-centred thinking in the health system
- Promote early engagement with emerging technology

### 03. DEVELOP SYSTEMATIC CAPABILITY

To create this environment...an increased focus on teamwork and collaboration... education and training programmes... and developing necessary structures (e.g. locally based change and improvement networks, communities of practice etc)\*

- Create an innovation-friendly workplace
- Promote collaborative work practices
- Normalise innovation practices
- Promote the role of human-centred thinking in the health system
- Promote early engagement with emerging technology

## SPARK TEAM



**Jared Gormley**  
Head of Programme



**Caitriona Heffernan**  
HSE Spark Innovation Lead



**Dr Rachel McNamara**  
National NCHD Innovation Fellow



**Dermot Burke**  
National HSCP Innovation Fellow



**Dr Cathal MacDháibhéid**  
National NCHD Innovation Fellow



**Amy Carroll**  
National Nursing/Midwifery  
Innovation Fellow

## PILLARS OF THE SPARK PROGRAMME

2022 has seen an expansion in the scale of activity undertaken by the Spark Programme. Though previously the activity of the Programme fell broadly under the strands of 'Spark Seed', 'Spark Ignite' and 'Spark Design', this year has prompted a review of activity and a recognition of the growth of the Spark Programme portfolio.

At Spark, we are constantly re-evaluating and re-iterating our activities, and in empowering the frontline healthcare workers to be innovative and disruptive, we apply those same principles to all elements of our programme. We are now operating through 7 Pillars:

### INITIATIVES

Creating opportunities to develop skills, secure micro funding, access mentorship and embed innovation.

### DESIGN

Implementing user informed change and innovation.

### NETWORK

Gathering and connecting our internal and external partners.

### RESEARCH

Contributing to the body of research in the frontline innovation space both nationally and internationally.

### ENGAGEMENT

Providing multimodal engagement opportunities for our innovation collective across the health service.

### PIONEERING

Leading the way with new products, services and ways of working through pilots and validation studies.

### PROFESSIONAL DEVELOPMENT

Developing our staff for agency and impact.

## INITIATIVES



In the HSE Spark Innovation Programme we are constantly pivoting our offerings to suit the needs of the frontline staff that engage with us.

True to form, we have trialled multiple iterations of the Spark Seed Initiative to ensure that we are giving the best support to clinical staff.

With an expanded Spark team, we were able to expand our offerings and the initiative underwent a number of changes including:

**Name change:** This was amended from 'Spark Seed Funding' to 'Spark Seed' to reflect the other support available including project management support, networking opportunities and design input

**Workshops for all:** All applicants are now offered a place on a design thinking workshop, an opportunity that was previously reserved only for those that were shortlisted. Applicants who don't fit into Spark Seed's shortlisting criteria can now refine their problem and solution.

**Digital Scheduling Platform:** Our new online platform is empowering applicants to self-select into preferred workshop dates and pitch times to fit around their clinical workloads.

**Individualised Feedback:** All applicants now received individual written feedback on their ideas at the point at which they left the initiative. This included sign-posting to alternative resources within the HSE and any networking opportunities where projects had similar themes or endeavours.

**Survey Monitoring:** Successful projects were sent periodic surveys to raise issues or barriers with the Spark Seed lead. Through this, project leads were able to share any challenges they were experiencing and the Spark team were able to provide guidance/ support and keep records of progress.

2

Spark Seed Initiatives,  
one in Spring and  
one in Autumn

183

Applications in total, all  
invited to design-thinking  
workshops

136

Shortlisted

75

Pitched

46

Supported/Funded

€90k

Funding Approved

### SUPPORTS

- Phone calls/virtual meetings/in person visit when requested for more detailed feedback support
- Consultation with designers
- Links with National Programmes, links with industry partners, links to other organisations in HSE undertaking similar projects
- Signposting to other HSE supports such as 'Health Services Change Guide', HSE QPS, and E health, advice r.e. HSE procedures/ governance etc.

### FEEDBACK

"I can not put into words (which is unusual) how truly grateful I am for Spark, being involved with your programme has been the most constructive, educational and beneficial time I have spent. I look forward to continuing our relationship and conversation about the project."

— Audrey Finnegan, CNS

"For you to give me the feedback and tell me it was a good idea meant the world Amy, I'm not giving up."

— Laura, Midwife

## AFTER NICU

MDT / HSCP Led project

**Innovators:** Amanda Scott (S&LT), Sinead Donaghy (Lactation Consultant), Naomi Hastings (Dietician) Sarah Campbell (Parent & Midwife)

**The problem:**

1 in 10 babies are born prematurely. Feeding is the biggest issue reported by mothers of infants after 'NICU discharge'. 42% Of babies who were born prematurely or required support from the NICU continue to have feeding problems during the first year, 1 in 3 of these falter with feeding when they go home. Where babies experience desaturations on feeding /weight loss/ failure to thrive they end up being re-referred into NICU

**The Solution:**

'After NICU' is an MDT feeding support and advice service for families & babies who have spent time in the NICU. Traditionally supports are provided when difficulties arise rather than being preventative. After NICU provides a Drop in feeding support group for families and babies providing peer support, expert advice from the team from team.

**Value:**

- 7 sessions carried out since January
- 29 babies attended
- Additional 84 babies seen in 'drop in' slots

**The figures:**

- €11,000-€5,000 (Spark) and €6,000 (matched local investment)
- Cost of a SCBU bed is €1000 (average length of stay for these admissions ~5 days)
- For every readmission avoided a cost saving of ~€5000 is achieved, as well as a reduction in workload within the unit

**Potential:**

- Model of service for other maternity units in the country



## THE PRESSURE ULCER MIRROR

Nurse-Led Project



**Innovator:**

Nicolette Berbal (Student Public Health Nurse)

**The problem:**

It is very challenging for clinical staff to get a view of the heel aspect of the foot, in order to undertake a skin inspection and to look for pressure sores. 55% of pressure ulcers in Mayo are on the heel. Difficulties in examining these areas mean that early pressure ulcers can be frequently missed.

**The solution:**

The pressure ulcer mirror can be worn on a retractable connection similar to a name card holder. It offers staff the ability to examine heels easily, picking up on subtle changes that can lead to pressure ulcers.

**The expected benefits:**

- Earlier detection of pressure ulcer signs.
- Quicker adoption of the SSKIN care bundle (recognised best practice)
- Reduction in heel pressure

**Value:**

- €500 provided by HSE Spark to produce mirror and case prototypes
- The funding from Spark has paid for 100 mirrors. So far 20 public health nurses have received the education session and the mirrors to use in practice

**Potential:**

- If successful, a reduction in the complications resulting from pressure sores and subsequent costs and treatment
- Roll out across the country

## THE FAIR PROJECT

**Innovators:**

Dr Sandra Greene (Respiratory Specialist Registrar), Mr Joe Gannon (COO CHI Temple Street), Pat Kenny (Environmental Protection Agency) & Team

**The problem:**

Poor air quality is a major cause of disease burden in Ireland, which costs the state over 2 billion euro annually. Exposure to air pollution in childhood can have significant repercussions, right into adulthood. Emergency department attendances for respiratory complaints increase at times of poor air quality

**The Solution:**

An informative and engaging video display - highlighting local air qualities and the air quality of surrounding areas. It will also explain the harms of exposure to poor air quality, the steps we can take to improve our local air cleanliness and ways to mitigate against exposure to air pollution.

**Value:**

Launched in June 2023

Patients informed and empowered to prevent exacerbations of respiratory conditions

**Potential**

Model reproducible for paediatric hospitals across the country



**In 2022, the HSE Spark Innovation Programme, in collaboration with the Acute Hospitals Division, HSE Digital Transformation and HSE Services Change Matters, launched and ran the Hospital Innovation Fund (HIF).**

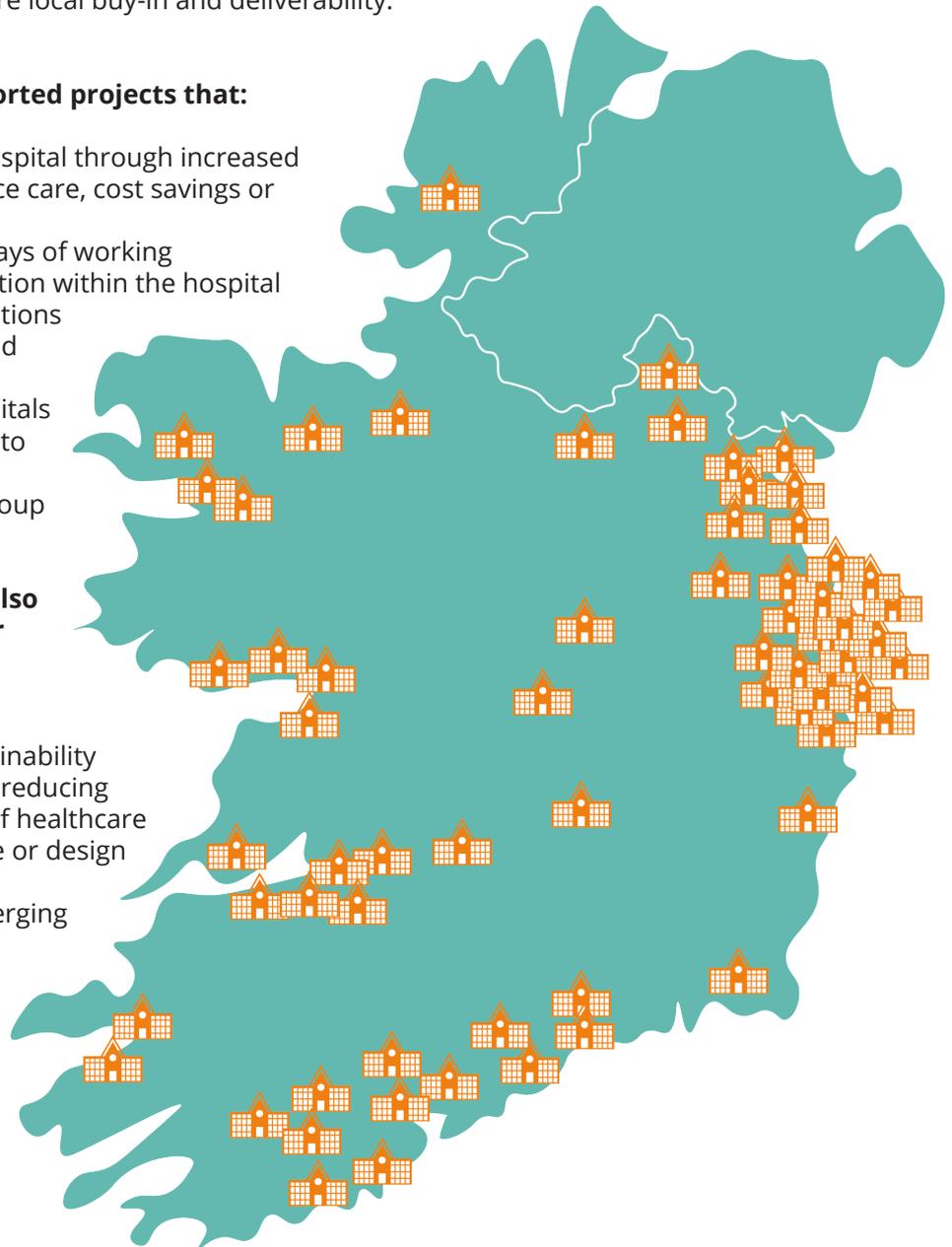
This initiative was designed to promote innovation in Irish Hospitals by funding senior-led hospital projects. It offered support and funding from €20,000 up to a maximum of €60,000. Senior healthcare professionals applied for funding for novel initiatives that had the potential to significantly improve the way care is delivered in our public health service. All approved projects required sign off from the Hospital CEO, to ensure local buy-in and deliverability.

**The HSE Spark HIF supported projects that:**

- Added value to the hospital through increased delivery of best practice care, cost savings or increased capacity
- Demonstrated new ways of working
- Encouraged collaboration within the hospital and between organisations
- Could be scaled up and transferred to other services or other hospitals
- Showed commitment to innovation from the hospital or hospital group

**The following features also scored favourably in our opportunity analysis framework:**

- An emphasis on sustainability and a commitment to reducing the carbon footprint of healthcare
- Evidence of innovative or design thinking
- Engagement with emerging technologies



**85**

Applications  
Received

**27**

Institutions  
Applied

**33**

Projects  
Shortlisted

**15**

Projects  
Supported

## HIF SUCCESSFUL PROJECTS

### HEADACHE MANAGEMENT PATHWAY AT TALLAGHT UNIVERSITY HOSPITAL



Innovation Type: Process Optimisation

Value: Admission Avoidance

Problem:

Headaches make up 1-4% of all Emergency Department Presentations. Up to 1 in 3 patients are admitted for imaging 'just in case', despite a very low risk on headache risk assessment via International Classification of Headache Disorders.

Solution:

- Restructuring of services to include:
- Safe Discharge of Low-risk Headache patients
- Increased utility of outpatient MRIs (ring fenced onsite)
- Early follow-up at consultant-delivered clinic after appropriate imaging

Value:

- \*Early results from 3 month pilot\* - €9,000 invested
- 150 Bed Days saved ~€120,000
- Unnecessary CT Scans Avoided
- PET reduced
- Patient experience enhanced

### SEE AND TREAT CLINIC FOR SKIN CANCER PATIENTS



Innovation Type: Process Optimisation

Value: Waiting List Reduction

Problem:

There are over 17400 patients on the Plastic Surgery Waiting List. Current resources are not keeping pace with demand, and this waiting list is increasing. Rates of skin cancer diagnoses expected to double by 2040.

Solution:

Streamline service delivery.

- Prime suitable patients to potentially having surgery on day of first review
- Reduce clinic appointments from 3-4 to 1-2
- Earlier resection and diagnosis – leading to enhanced patient experience and better outcomes

Value:

- \*Early results from 3 month pilot\* - €50,000 invested
- Waiting time reduced from 130 days on regular pathway to 50 days on new pathway

### MANUAL VACUUM ASPIRATION SERVICE



Innovation Type: Adoption of Novel Technology

Value: Patient Empowerment and Choice

Problem:

At present, options to remove early pregnancy tissue from the womb include surgical intervention (Evacuation of the retained products of Conception, ERPC), which necessitates general anaesthesia, absence from work and support structures and significant healthcare resources.

Solution:

Manual Vacuum Aspiration (MVA) has been found to be a safe alternative to surgical management of miscarriage or early termination of pregnancy. It does not require a general anaesthetic, enabling patients to return to normal activities approximately 1 hour post procedure. The MVA service was launched in March 2023

Value:

- Financial and Time savings: The cost of MVA is roughly 10% the cost of ERPC
- Freeing of Theatre Space: Obs and gynae theatre space can be reserved for alternative procedures, tackling long waiting lists in the discipline



The Community Innovation Fund was developed in an attempt to tap into the expertise and innovation potential of frontline workers in Community Services.

Though we had seen many fantastic projects come through the programme prior to 2022, we identified the need to further engage this previously underrepresented cohort of Clinicians through a dedicated funding call. The Community Innovation Fund was created to uncover opportunities to improve and innovate within services based at primary care level or where there was an integration of services between Primary and Acute care settings. Furthermore, the initiative was designed to identify and validate high potential, high impact projects that align with the strategic priorities of the Spark programme and its sponsors.

**Projects focused on the following areas were of specific interest for the Community Innovation Fund call:**

- Care of Older Persons
- Scheduled Care
- Disability
- Mental Health
- Chronic Disease
- Integrated Care Pathways

**Our existing validation framework was used to select high potential and high impact ideas. Proposals were assessed and shortlisted based on the following criteria:**

- The significance of the problem space
- Anticipated impact
- Degree of innovation/novelty
- Anticipated return on investment
- Scalability and transferability of validated approach
- Evidence of collaboration/support

Though the Community Innovation Fund was delivered in Q3 of 2022, we have already seen some very promising results from the project leads. We look forward to outlining the details of the interventions and the value added in our future reports.

TOTAL NUMBER OF APPLICATIONS  
**89**

**44**  
HSCP

**28**  
NURSING &  
MIDWIFERY

**17**  
DOCTORS

### PROJECT CATEGORY BREAKDOWN

(applicants could choose more than one)

INTEGRATED CARE PATHWAYS  
**36**

DISABILITY  
**33**

CARE OF OLDER PERSONS  
**28**

MENTAL HEALTH  
**27**

CHRONIC DISEASE  
**26**

SCHEDULED CARE  
**18**

OTHER  
**16**

As part of the Community Innovation Fund call, applicants were invited to participate in online Design Thinking workshops to validate their ideas and ensure that their proposed solutions were in line with the values of the Spark Innovation Programme and our commitment to Human Centered Design.

**NUMBER OF ATTENDEES AT ONLINE  
DESIGN THINKING WORKSHOPS:**

**155**

**NUMBER OF PROJECTS  
FUNDED TO DATE:**

**10**

## 10 SUPPORTED PROJECTS

### Near patient testing to improve COPD care and reduce admissions

Galway COPD Outreach Service  
- Respiratory Integrated Care  
- Integrated Care programme Chronic Disease - Galway City Hub

#### Project Aim:

To provide a novel care pathway where non-life threatening COPD (Chronic Obstructive Pulmonary Disease) exacerbations can be managed through a 'rapid assessment' model of COPD review in the Acute Medical Unit. This includes Point of Care Treatment and follow-up with COPD outreach teams or within community specialist ambulatory hubs.

### Share to Care - Optimising leg ulcer care

Mater Misericordiae University Hospital

#### Project Aim:

To pilot the use of a digital platform to enable the sharing of information between the community TVN and the hospital based team. The digital platform will consist of digitised documents with a co-designed and agreed data set relating to the patient's leg ulcer treatment. This innovation is anticipated to improve communication and support the treatment pathways for patients engaging with multiple clinicians using a shared care model.

### Integrated Care Programme for Older Persons Vestibular Assessment and Rehabilitation Service

HSE Mid West Community Healthcare

#### Project Aim:

To integrate a vestibular assessment and rehabilitation programme into the existing Mid West ICPOP falls assessment services. The service will be expanded beyond the standard delivery which is currently delivered by specialist trained physiotherapists only. This expansion will include vestibular assessment in the service by advanced nurse practitioners, clinical nurse specialists and medical staff in addition to senior physiotherapy staff.

### Staying Fit for the Future- Capturing Real-time Attendance Data

Cork Primary Community Care Physio

#### Project Aim:

To capture real time attendance data for weekly 'Staying Fit for the Future' exercise classes in an effort to better collect, visualise and interpret data for planning and expanding services. The project aims to engage with Design methodology to design for users and bring about culture change that will encourage improved patient engagement and participation in physical exercise over time.

### Integrated Primary Care OT led Hand and Wrist Clinic

St James's Hospital

#### Project Aim:

To deliver integrated scheduled patient care between Saint James's hospital and primary care (Community Healthcare Organisation Dublin, Kildare and West Wicklow) Occupational Therapists for GP referred patients with hand and wrist pathology. This project will deliver a more seamless pathway for both Staff and Patients to navigate and will result in better use of resources and improved patient outcomes.

### Skinnovate: transforming how routine skin conditions are managed across the healthcare system

Mater Misericordiae University Hospital

#### Project Aim:

To provide a practical, high impact support to GPs and other clinicians in the Community who deliver Dermatology care. This project involves the development of bespoke and innovative training modalities for practising Primary Care providers and additionally attempts to resolve the inadequacies and challenges in training at undergraduate and postgraduate level for non-Dermatologists.

### Lung Ultrasound

HSE Dublin North Integrated Care Centre for Chronic Disease (affiliated with Beaumont Hospital)

#### Project Aim:

To enable Heart Failure Advanced Nurse Practitioners to deliver Lung Ultrasound (LUS) during routine patient assessments. This project will support advancing practice for Specialist Nurses within the project site and provide improved access to point of care assessment for Patients accessing Chronic Disease management services.

### ENT-egrate clinic: GP led Specialist services with Acute Hospital supports

Mater Misericordiae University Hospital

#### Project Aim:

This project aims to establish a new model of care for patients under the care of Rhinology services. The project will develop a specialist Rhinology service the "ENTegrate Clinic". The service will be led by a specialist GP with an extended role in ENT supported by the Rhinology Consultant in Mater University Hospital.

### Community Rehabilitation Inpatient Specialist Programme (CRISP)

Peamount Healthcare

#### Project Aim:

To provide direct access to short-term in-patient rehabilitation for older adults who are experiencing functional decline or increasing frailty in the community. The project plans to enhance CRISP's diagnostic and treatment capacity with a new project titled 'Harnessing Technology to Augment Comprehensive Geriatric Assessment in CRISP Admissions'.

### CAS (Centrifuge at Source) Hub

Tallaght University Hospital

#### Project Aim:

The project will disrupt one key element in the total testing process, by moving the critical centrifugation step out of the laboratory and into the GP practice. CAS (Centrifugation At Source) allows for the component elements of blood samples to be separated at the point of extraction and thus reducing the instances of samples 'spoilage' between the GP practice and the lab.

# Spark Summit

The HSE Spark innovation Summit 2022 brought together healthcare staff, industry and academics to be informed, inspired and excited about frontline health innovation.



The conference explored the value of frontline innovation and the key roles played by design, lean transformation and technology in bringing about positive change for patients, staff and the health service at large.



With over 220 delegates in attendance, the event was opened by the HSE's Chief Clinical Officer, Dr Colm Henry, and enjoyed keynote addresses from Trevor Vaugh, Assistant Professor of Design at Maynooth University and Siobhan Manning, Service Innovation and Design Lead at Mater Misericordiae University Hospital.



Forty-five innovative projects were recognised with HSE Spark Innovation Awards. The winning initiatives included:

- New tools for health assessment
- Redesigned care pathways for patients
- Novel technical platforms for resource management
- Aids to empower patients in their own care
- Pilot schemes for cutting edge new technologies
- Machine learning techniques to revolutionise diagnosis



The event also played host to an educational poster session, where 23 excellent innovation, quality improvement and change projects were exhibited.



The HSE Spark Summit Innovation Conference will return in June 2023.

# Spark Ignite

Spark Ignite is an annual call run to support Frontline Innovators who have an idea that could be commercialised and brought to market or an idea that has the scope to be scaled across the organisation for mass benefit.

NUMBER OF APPLICATIONS  
**64**

WORKSHOP ATTENDEES  
**51**

In 2022, the Spark Ignite competition was delivered as a collaboration between the Spark Innovation Programme and Health Innovation Hub Ireland (HIHI). The goal of the Spark Ignite competition is to help frontline staff in the health service to develop solutions to the challenges faced by care providers and patients and solve those problems through the lens of product or service development. HSE Spark Ignite is open to all disciplines and departments within the HSE, enabling staff to develop their ideas through the validation of clinical need and determining the market for their proposed solution, product, or service.

This year, over 50 successful applicants benefited from three bespoke, expert delivered, healthcare focused innovation workshops to develop and hone their idea and build their skills in crafting the perfect pitch. Additionally, they benefited from the expert guidance of established entrepreneurs who have vast experience in bringing products and services to market.

Participants were invited to pitch their idea at one of three online regional finals, competing for two top prizes of €3,000 and three runner-up prizes of €2,000 towards the further development of their project. The top four projects across all three regions were then invited to take part in the Spark Ignite grand final at the annual Spark Summit where our overall national winners were announced.

## OVERALL NATIONAL WINNING PROJECT

**Wee catch it! Bernadette Higgins, Anne Murray**  
**A multi purpose urine collection device with inbuilt reagent strip**



Bernie and Anne have developed three solutions to address the challenges of collecting urine samples for analysis. The solutions cater to pregnant women, the elderly, and babies/children, making the process easier and hygienic while reducing contamination.

For pregnant women, a barcoded sample stick collects urine, and the results are automatically transmitted to the GP or hospital system. For older individuals, people with physical impairments, and babies, a barcoded 'smart' sanitary pad with an inbuilt reagent strip is used. The third solution is a unisex urine collection device with a built-in reagent strip, capable of collecting the first 10 mls of urine for analysis. This solution component also has a barcode for result transmission.

These solutions simplify urine collection and decrease waiting times at healthcare facilities. They offer environmental benefits and help manage urinary tract infections (UTIs) and antimicrobial resistance. Treating suspected UTIs costs approximately €343,000 annually in primary care alone. Extrapolating nationwide, the estimated annual cost reaches €19.2 million. By improving UTI diagnoses and reducing unnecessary antibiotic prescriptions, these solutions can alleviate the burden on hospitals and healthcare budgets.

## REGIONAL FINALS

### DUBLIN (A) FINAL

1. "ADMIRE ADHD" - Prof Jane McGrath
2. PnPlus, Paediatric Nutrition Plus - Niamh Murphy, Emma Gentles
3. Let the music play - Sue Kennedy Hughes

### DUBLIN (B) FINAL

1. New Graduate Nurse in Critical Care Support App - Sinead Gill, Shauna Vandendries, Shauna Delaney, Lisa Dunne, Bernie Garvin
2. Empower yourself - Dr Jennifer Edgeworth - "Empower Yourself" (EY) is a 6-week didactic group psychological intervention which encourages participant's active involvement through engagement in skills-building activities and experiential exercises
3. The START programme for children with ASD - Dr Michelle Howard

### CORK FINAL

1. My Kidney Health - Dr Sinead Stoneman, Dr Sarah Moran
2. My Healing Wounds - Noreen Whitehead
3. A Delirium friendly Emergency Department - Dr Mary Buckley (Amanda Brolly, Kay Fitzmaurice)

### GALWAY FINAL

1. Wee catch it! - Bernadette Higgins, Anne Murray (Regional + National Winner) - Unisex - A multi purpose barcoded, funnel type, meandering urine collection device with inbuilt reagent strip
2. CORRIB - Physical Health Template data entry tool - Emma Beatty
3. Online library for parents to help children with disabilities - Aisling Smith

## RUNNERS-UP

### "ADMIRE ADHD" - Prof Jane McGrath

ADHD, a prevalent neurodevelopmental disorder, lacks standardized protocols for assessment and treatment in Ireland leading to underdiagnosis and inadequate management. The commercial and clinical impacts of this issue are significant, negatively affecting individuals' well-being and incurring societal costs.

To address this challenge, the proposed solution involves creating a secure web-based app that automates the ADMIRE clinical protocol. Building upon the ADHD-Tracker app developed by Dr. McGrath's Australian collaborators, this solution aims to translate the ADMIRE protocol into a digital, scalable process. Initially focused on children and adolescents but applicable to adults with ADHD, the app will provide clinicians with secure online access to assessment tools, auto-scored rating scales, longitudinal follow-up for cardiovascular health, template letters/forms, and a psychoeducational website.

This innovative app offers several benefits. It enables clinicians to deliver evidence-based ADHD assessment and management, leading to improved health outcomes. Safety measures, such as automated red flags, alert clinicians to potential risks. Efficiency is enhanced through a paper-free data-entry system and automated calculation and plotting of assessment and management data. Moreover, the app facilitates accurate reporting from parents and teachers through online requests, enabling ecological momentary assessment of ADHD severity and adverse effects.

### New Graduate Nurse in Critical Care Support App - Sinead Gill, Shauna Vandendries, Shauna Delaney, Lisa Dunne, Bernie Garvin

To support the transition of new graduate nurses into the critical care environment and ensure safe staffing levels, the team proposes to develop a support app specifically designed for new graduate critical care nurses. The app will serve as a quick reference guide and provide essential support throughout their learning journey.

The app will be hosted on the existing Tallaght University Hospital App. It will feature five categories, including head-to-toe assessment, clinical presentations, skills videos/simulation, research, and health and wellbeing. Each category will contain quick links to evidence-based practice guidelines and checklists, offering valuable resources and clarity for new graduate nurses.



### My Kidney Health - Dr Sinead Stoneman, Dr Sarah Moran

Chronic kidney disease affects a significant portion of healthcare users in Ireland, leading to increased morbidity and mortality. Patients with kidney disease often have complex needs, multiple comorbidities, and varying stages of the disease, making it challenging for clinicians to communicate effectively with them and making it difficult for patients to fully understand their care options and recommendations.

To address this issue, patient leaflets and books have been developed, but yet there is a lack of comprehensive information available for kidney disease patients in Ireland. Existing apps primarily focus on self-management, while a repository of information specific to kidney disease care is absent. Studies have shown that patients with kidney disease have limited understanding of their illness, and enhancing their self-knowledge improves self-efficacy and self-management.

The proposed solution is to develop a patient-focused app that provides information on medications, primary kidney disease, disease stages, living with dialysis and transplantation, essential contact details, and more. The app will prioritise health literacy, be mobile and searchable, and utilise accessible media for patients.

## DESIGN

In October 2022, the Department of Public Expenditure and Reform commissioned a body of work to support the vision of delivering public services that are user centric, accessible, effective and efficient.

Placing Design at the centre of how public services are developed and delivered is underpinned by evidence from around the world which shows that Design is a powerful tool for transformation and innovation in the delivery of public health services.

The first phase of work was to develop and launch 'Designing our Public Services' and the first set of 'Design Principles for Government in Ireland'. The principles will serve to empower public servants to embrace a new way of working, acknowledging the power of design to deliver human centred solutions across public service.



The Spark Innovation Programme is proud to be leading the way in how the Design Principles for Government can be adopted and applied in Healthcare. We have already demonstrated our commitment to Human Centred Design as a core value of the programme and are establishing models for skills building, engagement and adoption of Design informed healthcare right across the health service.

### Some examples of how the Spark Innovation Programme engages with Human Centred Design:

- Encouraging all subscribers to the programme to engage in foundation level training in Design Thinking mindset and methodology.
- Running immersive bootcamps using the Design Thinking process to anchor progress and learning.
- Co-funding Designers in Residence in clinical settings to embed Design as a 'way of working' on clinical and service challenges.
- Engaging in Action Design Research to explore how Design and Design Thinking might be adopted as a core skill set and function within the health service.
- Constantly adapting our offerings and internal structures at the programme in response to user feedback.

## DESIGNERS IN RESIDENCE

The Spark Programme is proud to support Designers in Residence within Hospital settings. To date the Programme co-funds three Design experts at St. James's Hospital and The Mater Hospital in Dublin. Designers in Residence are fully embedded within the clinical setting and are immersed in the real challenges experienced by patients, staff and the organisation on a daily basis. They work closely with clinicians to solve complex problems and deliver better patient and staff experiences and better patient outcomes.



**Máire Keane: Designer in Residence, St. James's Hospital**



**Alan MacFarlane: Designer in Residence, The Mater Misericordiae University Hospital**



**Conall Casey: Design Engineer, St. James Hospital**

## SPARK DESIGN

In 2022 Spark expanded, fully embedding human centered design into our offerings. Through all our workshops/ boot camps/ webinars we aim to help frontline staff develop a design thinking mindset to ensure when facing clinical innovation challenges, they spend time in the problem space and prototype solutions so that the final results are more likely to succeed.

### ONLINE WORKSHOPS

New to the Spark Seed offering for 2022, all applicants were offered a place on a Design Thinking workshop as part of the application process. The full day online workshop run by expert Designers Trevor Vaugh and Martin Ryan, provided an introduction on how Human Centered Design can assist health professionals in their innovative endeavours.

The group were introduced to methods such as journey mapping, empathy mapping and formulating 'how might we' questions to prompt responses in the solution space. In addition to the Design Thinking workshop, attendees attended a masterclass on 'pitching' and learned how to effectively communicate the problem to be addressed and the opportunity or solution that they have identified.

As a result of this newly introduced universal education component for Spark Seed in 2022, the quality of the final pitch presentations are of a very high standard and the skills developed will serve frontline innovators beyond their engagement with the Spark Programme when developing pitches and business cases for support within their own organisations.

For the first time this year applicants were able to select their preferred workshop dates to fit around their clinical workloads and even to spread their attendance over two separate dates. Feedback gathered from attendees indicated that this flexibility was a welcome addition for the accessibility to the programme for busy clinicians.

### DESIGN WORKSHOPS

- 5 Full day online 'Design Thinking Introduction' workshops
- 183 project leads invited
- 128 project lead/teams attended

In addition to the bespoke Spark Seed Design Thinking workshops this year, a number of additional short webinars outlining Human Centred Design as a methodology and as a mindset for innovation were offered.

### WEBINARS

In March 'Design Thinking for Better Healthcare', a 1.5 hour session led by Trevor Vaugh focused on inspiring frontline staff to learn more about design thinking as a human-centred approach to problem-solving.

A webinar entitled 'Understanding your problem before finalising your solution' was held in July to offer potential 'Community Innovation Fund' applicants some guidance towards their applications and project proposals.

### FEEDBACK

*"I have always been interested in improving the care I provide, some ideas were successful and some not. This workshop is what I needed during the previous 15 years of my nursing career... I have been desperately seeking guidance or direction to enable me to launch my project but to no avail. I felt no one took me seriously, although I'm very serious and have devoted my career to establishing this campaign.*

*Thank you whole-heartedly for giving me valuable skills I need to make a difference and be heard!"*

## DESIGN & INNOVATION BOOTCAMPS

### IN-PERSON WORKSHOPS

Quarter 3 and 4 of 2022 saw frontline staff across the country gather for two novel Design & Innovation Boot camps combining human centred and medical device design disciplines.

The Bootcamps were designed to engage participants in design innovation and creative problem solving, two methodologies which do not feature as part of the traditional training curriculum for clinicians.

It was intended that clinicians would tackle shared challenges, over short time periods, within two defined themes using a 'Rapid Innovation' format.

The boot camps were open to all frontline healthcare staff, enabling a diverse range of professionals to participate and contribute their perspectives. From SHOs to ANPs, radiographers to business managers, bootcamp attendees enjoyed a combination of lecture-based didactics and immersive, hands-on group activities.

The curriculum was carefully designed to encompass empathy building, idea generation, prototyping and testing, business canvas planning, and pitching. By incorporating these components, the bootcamps empowered participants to think innovatively, collaborate effectively, and develop practical solutions to healthcare challenges.



### DESIGN AND INNOVATION BOOTCAMP - 'TRAUMA & ORTHOPAEDIC SURGERY'

In partnership with Royal College of Surgeons Ireland and the Mater hospital, the Orthopaedic boot camp focused on devices, services and user/patient experiences in the field of Trauma + Orthopaedic Surgery. Under the direction of Designers Martin Ryan and

Trevor Vaughn, participants were introduced to valuable design methodologies and strategies to transform the approach to problem solving and innovation in their specialist professional setting. The bootcamp offered an opportunity for staff representing all stages of the patient journey from admission to post discharge rehabilitation to collaboratively visualise their service 'end-to-end' via a Service Design Blueprint, identify pain points for the patient and attempt to problem solve using a systems based lens.

28 frontline staff attended the Trauma & Orthopaedic Surgery Bootcamp with inspiring solutions generated over the 4 workshop days. Outputs ranged from a novel approach to orthopaedic casting to a thoughtful public campaign on bone health.

### DESIGN AND INNOVATION BOOTCAMP: 'DESIGNING HEALTH FOR AN AGEING POPULATION'

Our partnership with EIT Health and St. James's Hospital in Q4 focussed on developing novel solutions for an ageing population over a 2 day immersive bootcamp.

56 frontline staff from 11 counties and representing 9 clinical disciplines gathered at the MISA building at St. James's Hospital and were expertly guided through the design thinking process by experts in the field.

David Pollard (EIT Health), Dr. Colin Keogh (Senior Innovation Consultant), Designers from the National College of Art and Design and the in-house team at St. James's Hospital provided a wealth of Design and facilitation skills to guide the attendees through the Design Thinking process.

Attendees were granted valuable access to the live clinical setting to observe clinician generated challenges in need of novel and innovative solutions. The outputs from the 2 day bootcamp had a particular emphasis on designing better spaces within clinical and care environments and using 'Smart Technology' to facilitate remote monitoring of the patient in their own home.

As the Spark Programme continues to evolve and expand, the design and innovation bootcamps will remain a cornerstone of its educational initiatives, fostering creativity and driving transformative change in healthcare delivery.

**Design on the Frontline is our annual initiative that invites design students to address unresolved challenges and unmet needs in healthcare through smart solutions.**

The initiative promotes interdisciplinary collaboration between healthcare providers and various design disciplines in academic settings, and highlights our dedication in encouraging designers to engage in the healthcare sector.

This year, students from six design schools across the country were invited to submit their innovative products, solutions and services. HSE Spark provided €1000 bursaries to 12 successful students to support their projects.

The Design on the Frontline showcase in May 2022 unveiled a wealth of talent. The participating design students presented innovative solutions that addressed various healthcare challenges, demonstrating their creativity and problem-solving abilities.

6

DESIGN SCHOOLS

50

APPLICATIONS

12

SCHOLARS

3

WINNING PROJECTS

THE 3 WINNING PROJECTS OF 2022

**Bubblo:** A communication device combating boredom and isolation in children’s hospitals, Asia Cheung, NCAD

**Eureka:** A modern, minimal and cost-effective solution tackling the social stigma attached to hearing aids, Gareth Byrne, NCAD

**SmoothScan:** A dynamic, handheld US scanning device with enhanced ergonomics for the user, Alexander Fives, TU Dublin



DOTFL CASE STUDY

Student: Alexander Fives

School: Product Design, TU Dublin

The problem:

Alexander discovered that ultrasonographers have a high instance of repetitive strain injury, and frequently report pain in the shoulder, neck, back and wrist.

The solution:

SmoothScan addresses this issue by allowing healthcare professionals to hold the ultrasound probe against the patient with reduced force. By minimizing the amount of force required, SmoothScan minimizes the risk of injury and reduces the impact of pre-existing injuries, enabling practitioners to work more comfortably and effectively.



Building on the success of this year’s showcase, we eagerly anticipate the opportunity to host the initiative again in 2023, where we hope to witness even more exciting and impactful solutions from the next generation of designers.

# NETWORK

## NETWORK & RESEARCH

The Spark Innovation Programme spans across a broad network of Clinicians, Clinical Leaders and Designers and Academics. Our largest network category is our engaged population of healthcare workers who interact with the programme and who access touchpoints within the programme to connect with other clinical innovators, to build knowledge and to develop skills. This is the critical mass of our workforce which is growing year on year and who appreciate both the criticality of healthcare innovation and who wish to be active agents of change.

In addition to the 'grassroots' network, 2022 saw the establishment of a Practitioners Network which gathers representatives from sites that have allocated dedicated funding to innovation staffing and innovation activity. The members of the HSE Innovation Practitioners Network share a common vision of empowering healthcare professionals to engage in innovation at a multi-regional, multi-institutional level.

This collaborative network gathers bimonthly to connect, share knowledge and expertise, and update each other on ongoing projects and initiatives across the country.

To further enhance expertise, the network is actively developing a learning strategy that encourages in-depth discussions on existing innovation guidelines, frameworks, and emerging literature amongst its members.

### The HSE Innovation Practitioners Network membership:

- Children's Health Ireland
- Ireland South Women and Infants Directorate
- Mater Hospital, Dublin
- St James's Hospital, Dublin
- Tallaght University Hospital, Dublin
- University of Limerick Hospitals Group

### EXTERNAL PARTNERS:

The Spark Programme's goal of creating a culture of innovation in healthcare benefits greatly from the expertise and collaboration of its external partners, just some of whom are mentioned below.

**Health Innovation Hub** Ireland (HIHI) works across the health sector with Irish businesses to creatively solve problems and improve patient care. HIHI works across academia, industry, and healthcare providers, enabling the development of cutting-edge solutions in the healthcare space.

**EIT Health** is uniquely placed at the meeting point of business, research and education to bring innovative, real-world health solutions to market to enhance the health of citizens.

**Actionable**, a design and innovation consultancy, brings a unique perspective to healthcare through their expertise in design thinking, user-centred design, and problem-solving, contributing to practical and impactful solutions.

# ENGAGEMENT

## DIGITAL ENGAGEMENT

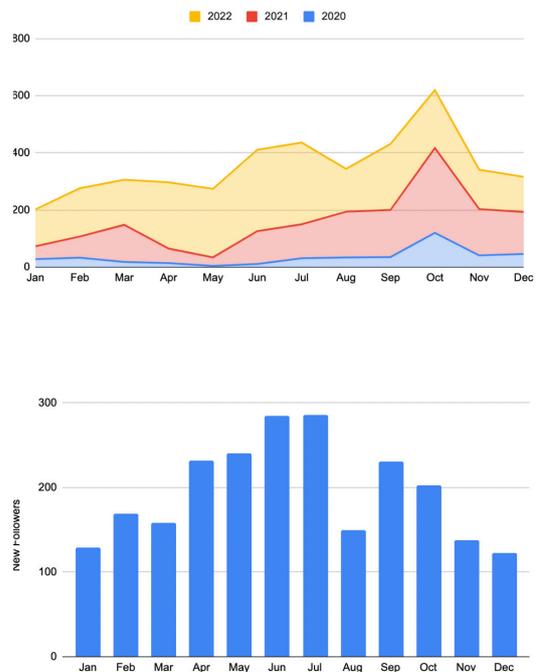
According to the Health Services People Strategy 2019- 24, increasing the agency and influence of our staff to innovate in their own departments is a key priority of the organisation.

2022 marked several milestones for us in terms of engagement with our primary stakeholders; frontline healthcare workers.

All across the Health Service, our frontline healthcare workers are at different stages in their innovation journey. While in some institutions, there exists a strong improvement and change culture, in many others, workers do not readily self-identify as innovators. At Spark we know that there is huge innovative potential across the system, and it is a matter of increasing our levels of connectivity in order to truly harness that potential.

### TWITTER

In 2022, the HSE Spark Innovation Programme twitter account gained 2344 new followers from January to December - representing a 56% increase in twitter engagement on 2021 rates.



## SHOWCASING EXCELLENCE – INNOVATOR OF THE WEEK

Many champions of innovation already exist in the healthcare ecosystem. We believe that it is so important to celebrate and acknowledge their efforts. One such initiative is the “Innovator of the Week” award; where we profile healthcare workers who have made a significant contribution to shaping the face of healthcare in Ireland through Innovation.

In 2022 this accolade was awarded to 12 Innovators from across the system.



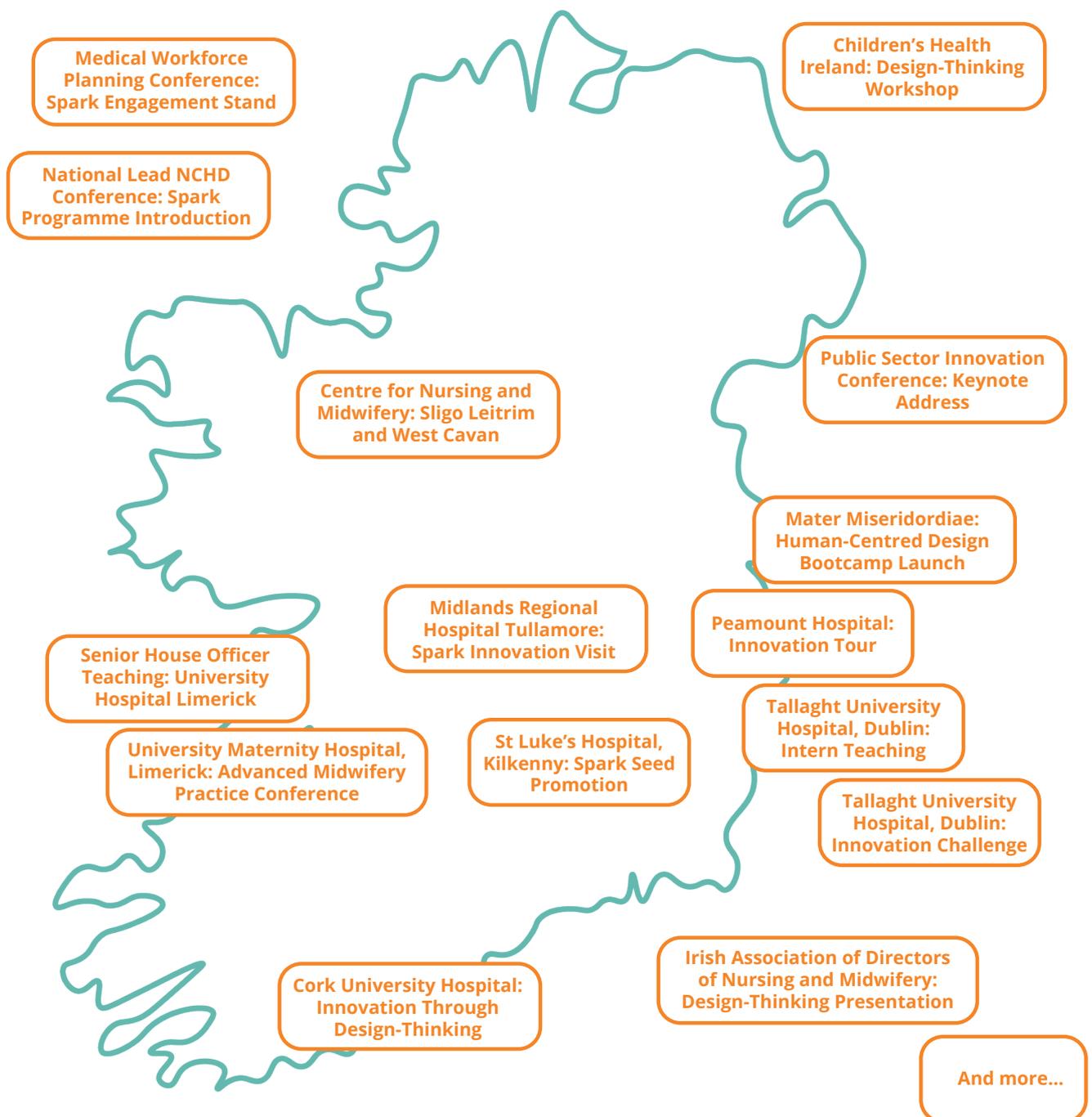
## STAKEHOLDER ENGAGEMENT

The Spark Team have maintained and expanded our reach to inform and engage our core stakeholder groups right across HSE clinical sites, in hospitals, community health organisations and public health departments.

These activities serve to:

- Showcase successful innovation projects to inspire others to take on their own
- Generate awareness and uptake of educational offerings, initiatives and support
- Foster a culture of innovation and readiness

Some examples of engagement appearances by the Spark Innovation Team across 2022:



## PIONEERING

**In keeping with Spark's aim of pioneering new models and methods of innovation with the Frontline, in 2022 we focussed our attention on 'embracing emerging technology'.**

In November, we hosted an Artificial Intelligence (AI) and Machine Learning (ML) Healthcare Forum in Dogpatch Labs, Dublin. The event focused on the potential of Artificial Intelligence and Machine Learning in revolutionising healthcare and the belief that cross discipline innovation between healthcare and Industry can improve patient care and health outcomes.

The event was launched by Minister of State at the Department of Public Expenditure and Reform; Ossian Smyth, who on opening the event commented that "Ireland has an opportunity to be a leader in how Artificial Intelligence can benefit our society. It is important that we harness this technology the right way and in a way that builds trust. This can be achieved through a people-centred, ethical approach to its development, adoption and use." He advocated the importance of Design principles in the development of public sector services and observed that the Spark Innovation Programme has been one of the first to embrace this new way of working.

Following a keynote address from Ireland's AI ambassador; Patricia Scanlon, attendees from all healthcare sectors were treated to a stimulating day of education and inspiration. The agenda for the day included an eclectic mix of expert speakers from the HSE, industry and academia who discussed topics ranging from the current reality of healthcare data, ethical considerations and the potential impact of Artificial Intelligence and Machine Learning in healthcare. This was followed by a showcase from some of the most exciting Irish companies operating in the Artificial Intelligence and Machine Learning in healthcare space.

The practical component of the day was facilitated by EIT-Health and Deloitte, Spark's collaborators for the event. The workshop sessions identified the supports that the attendees felt were needed within the ecosystem, as well as clinical opportunities for AI and ML. Professor Seán Kennelly, Consultant Physician in Geriatric Medicine and Director of Cognitive Clinical Trials Unit and Memory Service, Tallaght University Hospital led the closing session of the day sharing how Gaitkeeper, a new AI digital solution is enhancing his patient's care. "This technology is a game-changer for clinicians as to how we can monitor and gauge how well and fast our patients can walk. This is a key indicator of a person's wellness and the technology will be easy to use in any care setting. "This technology effectively offers us a digital biomarker of a patient's wellness"

The success of the day continues to be felt with early signs of interaction and collaboration between attendees already reported.



## PROFESSIONAL DEVELOPMENT

### Professional development is at the heart of the Spark Innovation Programme with professional skills development a key objective for both the internal Spark Team and the Clinical Frontline across the HSE.

Each year, the Spark Innovation Programme recruits from within the organisation to identify fellows representing our three core stakeholder groups. Through a rigorous application process we identify high potential leaders and change-makers from the NDTP, ONMSD and HSCP cohort.

The National Fellows for Change and Innovation are key to the programme as they offer insight regarding the particular needs of their representative group in the area of innovation skills and supports, they support the drive and ambition of their stakeholder to develop an 'innovation ready' workforce and they shape the programme with their unique perspectives and skillsets.

Each Fellow becomes an integral part of the delivery of the core components of the programme during their tenure ensuring that the operations of the programme are maintained to the highest standard and are responsive to the changing needs of the clinical community and the population.

For many, their Fellowship positions offer them the opportunity to engage with collective leadership, business management, communications, creative problem solving and, of course, innovation methodologies.

All members of the team are encouraged to pursue their own professional development during their time with the programme. In addition to undertaking formal education through accredited courses and presenting at various conferences, Fellows are encouraged to identify their own interest areas in the domain of Healthcare Innovation and to develop a mechanism within the programme that will allow them and the clinical population at large to be exposed to new learning and an advancement in skills.

#### In 2022, the Spark Innovation Team completed the following:

- Professional Diploma in Project Management-UCD Professional academy
- Level 9 – Innovation, Creativity and Leadership module- UCD Innovation Academy
- Post graduate Diploma in Healthcare Innovation
- PG Diploma in Innovation through Design Thinking
- Team days with focused learning including a 'Ways of working' team coaching day and 2 day Media training workshop

#### Frontline Professional Development

A core belief at the Spark Innovation Programme is the need to 'meet' the innovator where they are in their innovation journey. For many clinicians accessing our

programme, it is the first time they have engaged with innovation as a term or as an action. For others, they access the programme with a strong track record of identifying problems in practice and implementing impactful solutions.

For this reason, the Spark Programme has developed a suite of supports that both assist the innovator to meet their current challenge and also equip them with new knowledge and skills that they can apply again and again throughout their career.

- 15 minute 'ask us anything' clinics - An easy access online clinic where clinicians can speak to a team member about an innovative idea they have
- A deep dive into the problem/solution space - a 30-45 minute bookable session where clinician innovators can be guided through an innovation canvas to clearly examine and validate their challenge and articulate potential solutions
- Online Design workshops - Digitally enabled, bookable workshops guided by expert Designers to explore Human Centred Design methodologies
- Design & Innovation Bootcamps - Immersive multi-day events exploring different clinical themes through a Human Centred Design lens
- Forums - Gatherings of experts, opinion leaders, collaboration partners and frontline innovators to explore high impact topics in healthcare innovation
- Webinars - accessible online information sessions designed to educate and inform

At the Spark Innovation Programme, we acknowledge the time and effort taken by frontline staff to attend our professional development events despite their very busy clinical schedules. We also acknowledge the commitment of their managers to facilitate their attendance when staffing challenges are a factor. We believe that by investing in innovation based professional development, we are collectively building key skills for now and for the future.

No. of Days	Type
2	Online webinars
6	Online full day Workshops
7	In person design bootcamps
3	In person Conferences
1	In person Forum
2	In person full day workshops
3	Design Sprints

## THE YEAR AHEAD

As our programme for 2022 draws to a close we are once again inspired by the commitment, ambition and ingenuity of the Frontline Healthcare Workers from across the country who have engaged with the programme this year and delivered positive change and innovation for their patients, their colleagues and the service at large.

2023 promises to be another significant year for the Programme. In June of 2023 we will move to the office of the Chief Clinical Officer, Dr. Colm Henry, and form the newly established Office of Clinical Innovation and Simulation. We are eagerly anticipating the move under the clinical arm of the organisation given our close alignment to, and affinity with, the activity of frontline clinicians across the service.

Plans for the coming year include an exciting collaboration with the National College of Art and Design to further advance our position as drivers of Design informed innovation to deliver value in all its forms for patients, staff and the organisation. This work will not only impact on healthcare design and delivery but will also continue to translate the ambition of the Design Principles for Government into real tangible activity in the healthcare context.

2023 will also mark the launch of the formal programme of work to be delivered under the Research pillar of the programme. In collaboration with a number of our academic partners, we will establish the first Healthcare Design Practitioner Research Consortium in Ireland and support a community of practice that connects Frontline Researchers, Academics and Research Funders.

Ambitious plans are currently underway to develop a proposal for the establishment of Design and Innovation labs across the country. It is envisaged that these labs will offer Design and Innovation expertise and support to clinicians and clinical sites at a regional level so that the fantastic impact demonstrated through this mechanism in many sites to date can be scaled and shared equally across the entire health service. The establishment of the Regional Health Areas in 2023 are likely to shape the vision and operational elements of the labs and as such these plans are at an architectural stage currently.

Finally, we look forward to yet another year of meeting new and existing members of our network that will step forward with their vision of a better future for health and healthcare in Ireland. We look forward to supporting them and enabling them to be active agents of change and innovation in our health service.

### **Caitriona Heffernan**

HSE Lead, Spark Innovation Programme



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