



## **Adding Life to Years**

**George MacGinnis Healthy Ageing Challenge Director** 



This report marks the conclusion of UKRI's ground-breaking investment in Healthy Ageing. Our five-year journey has energised a community of innovators and researchers from a wide range of industries and academic disciplines around a vision to enable people to remain active, productive, independent and socially connected across the generations for as long as possible.

We set off knowing that there was no pre-prepared script. We recognised the need to catalyse interest right across the innovation pathway, from research and spin-out, through to scale up. On the way, recognising the need to unlock the creative potential of the UK.

The following pages offer a glimpse of the impacts that have been achieved against a background of a global pandemic and cost of living crisis. Credit goes to all those involved, not just those featured, as well as the wise counsel from our Advisory Group and the fantastic support provided by our partners and assessors.

Ageing populations remain today's reality and tomorrow's opportunity. The Healthy Ageing Challenge may be ending, however the mission to build the knowledge and innovation to make the most of this opportunity continues.

"The fact that people are living longer compared to a century ago is a triumph of medicine and public health.

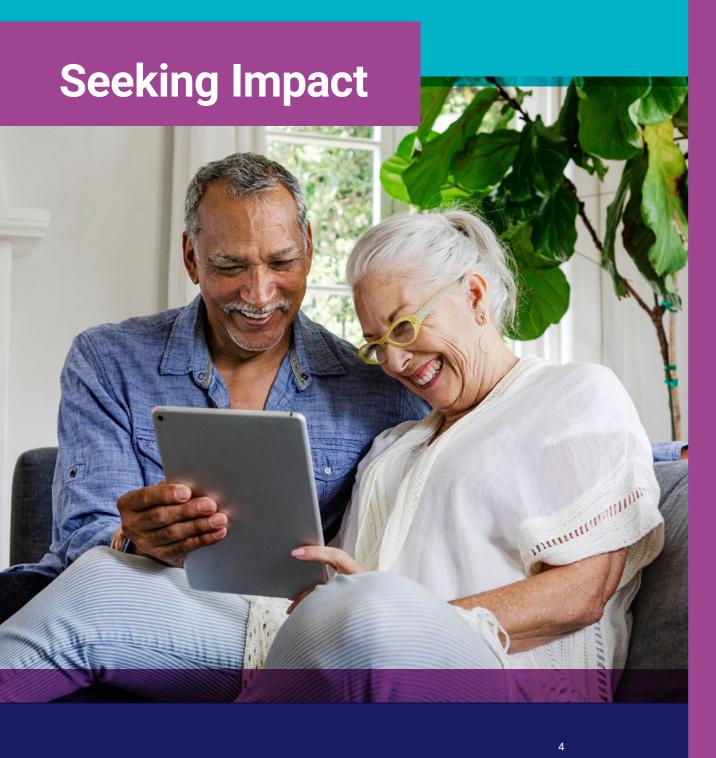
An expansion of the period of life spent in ill health is not inevitable. I highlight in my recent report that improving the quality of later life is about both preventing and delaying the onset of ill health, and adapting the environment so that people can maintain their independence for longer.

The Healthy Ageing Challenge was set up with both goals in mind, and it is excellent to see what has been achieved so far."



**Professor Chris Whitty. Chief Medical** Officer for England





#### **Our Vision**

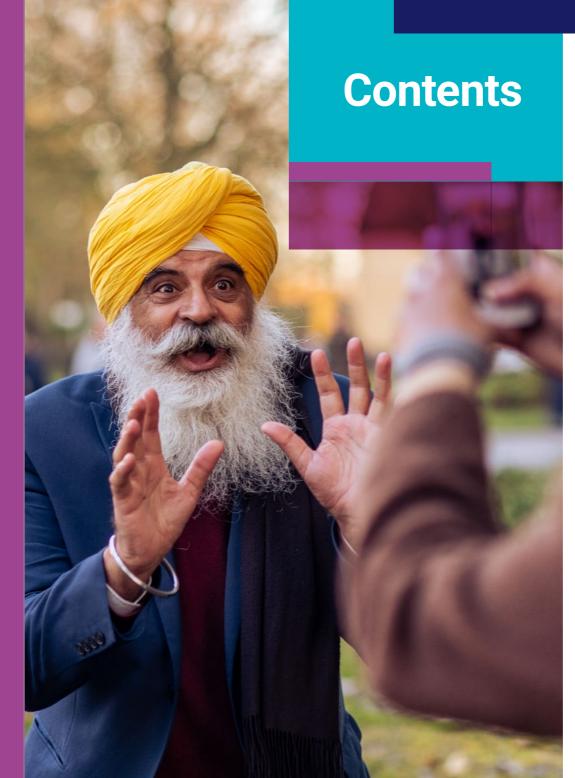
The aim of the Healthy Ageing Challenge was to enable businesses, including social enterprises, to develop and deliver products and services which support people as they age and the innovative business models that enable them to be adopted at scale. This will allow people to remain active, productive, independent and socially connected across generations for as long as possible.

#### **Our Ambition**

To impact the lives of millions of people within a decade. We recognised that to achieve this, the Challenge is acting as a catalyst and won't achieve that impact on its own.

## Our Impact

This report highlights the impact from a diverse portfolio of research and innovation projects, notably those relating to staying active, work, housing and care.



ising to the Opportunity	6
ovel Achievements	8
/orkstreams	12
alvanising the Domain	14
hat was unique about the Healthy Ageing Challenge?	16
haping the Future Together	18
K-wide Investment Reach	20
niting Economic Potential and Impacting Lives	2
hemes	24
Care	24
Housing	32
Staying Active	38
Work	4
oing Global	50
/hat's Next?	5
eferences	5

P

## **Rising to the Opportunity**

We don't just want to live longer.
We want to make the most of our longer lives.

"The challenge is not about how we deal with more old people in the future, it is about how we adjust to living for longer now.

And it is not just our later lives that get better."

Professor Andrew Scott,
Economist, Author, and Co-founder
The Longevity Forum

In 2023, there were **11 million** people **over the age of 65** in England. Projections indicate by 2043 there will be an additional 3.5 million people.<sup>1</sup>

While average life expectancy has risen to **81 years**, average healthy life expectancy is much lower, at only 62 years.<sup>2,3</sup> Today, over **74% of people over 65 in England live with at least one long-term health condition**, and a quarter of all adults have two or more long-term health conditions.<sup>4</sup>

At the same time, life expectancy and healthy life expectancy vary starkly between different areas. Life expectancy for females



## **The Opportunity**

Today, a 65-year-old can expect to live 18 more years. By 2040, over-50s will account for 63 pence in every pound of UK spending. Removing barriers to their spending such as poor design, lack of research and age discrimination could add 2% to UK GDP. That's £47 billion.

By providing innovative and attractive solutions that people want and need, we can also provide access to the care, social support, work, housing and activities that will help people to thrive in later life.

Since it launched in 2019, the Healthy Ageing Challenge has been dedicated to the mission of adding life to years through carefully designed funding programmes and focused support for projects.



#### Research

The first Innovate UK Challenge to engage a research director to drive strong evidence-based innovation and help businesses understand the opportunities emerging from healthy ageing.

Harnessed the very best of the UK's creative talent, with our **Catalyst programme** opening a new route to impact for researchers from the arts, humanities and social sciences.

## Approach

Affirmed the social and economic value of taking a **mission-led approach** to tackling the major challenge and opportunity an ageing population presents.

responsive strategy, taking learning from earlier funding rounds to inform future competitions and reflect the ever-evolving needs of society.

Maximised impact by
forging partnerships with
both private investors and
charities to raise the
co-investment needed to bring
more inspiring products and
services to market.



Listen as people from across the UK talk about their experiences of ageing



Our commitment to embed the views of people with **lived experience** across our entire programme, including within our governance, has helped shape a portfolio that is truly inclusive, diverse and supports levelling up on health inequalities.

#### **Innovation**

Created a new approach to embed **inclusive design** in innovation projects to ensure solutions were fit for market and further investment.

Provided support for **social venture** innovation projects, another first for Innovate UK, highlighting the potential for investments to have social as well as economic impact.

Focused on near-to-market innovations that involved technology at high readiness while developing sustainable business models with significant potential to scale and spread.

# £161 Million total investment

£19.8

follow-on private investment already secured by February 2024

including challenge investment

and £98£63 Million co-investment from industry

> (exceeding the business case objective for £23M)



80% of projects inclusive of lower income groups

2.200 Community of practice members

**Followers Universities** across social media engaged

Million

by the end of the challenge

**Projects led** by large corporates

**133** 

**Publications** 

research projects

reported from

**Innovations** came from research institutions

80% of projects reported the development or improvement of workforce technical skills/knowledge

Projects funded

**SMEs funded** of which

234 57





#### **Trailblazers**

Flagship collaborative projects with businesses across the UK to create new services and products that deliver sustainable impact at scale.

£24 Million



## Designed for Ageing

Harnessing the best of UK design talent and inclusive user engagement to fund near to market innovations that have potential to scale.

£20 Million



#### Research

Multi-disciplinary, evidence based research providing critical insights for business and social venture innovators.

£12.3 Million



## Investor Partnerships

UKRI and private investment joining forces to fund SMEs bringing inspiring products and services to market.

£11 Million



#### Catalysts

Igniting universitybased innovations with the potential to meet the needs of older people globally, delivered in partnership with Zinc.

£8.3 Million



#### **Social Ventures**

Supporting social ventures' ambitions to expand their mission to help people age well, delivered in partnership with UnLtd.

£7.1 Million



## Longitude Prize on Dementia

Collaboration with the
Alzheimer's Society to fund
breakthrough innovations
for the care of people living
with dementia using Al,
delivered in partnership
with Nesta.

£3.5 Million



## Community of Practice

Bringing together organisations to build a community of shared learning.

£2 Million



### Design Pathfinders

Supporting SMEs

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through collaboration
with the Design Age
Institute as well as
opening up international
markets in collaboration
with the Northern Health
Sciences Alliance.

£1.4 Million



## Covid Fast Response

Agile, community-led responses to address Covid-19 related issues and fuel post-pandemic recovery.

£0.6 Million

Plus additional flexible funding: enabling the Challenge to adapt in an agile way through investment. Includes Design Age Institute Pathfinders, the Housing Learning and Improvement Network (LIN), and UK-Canada AgeTech Innovation Exchange programme.

12

## **Galvanising the Domain**

Shaping the future of healthy ageing through knowledge sharing and collaboration

# Bringing the domain together

Five years ago, healthy ageing was still a nascent domain. Researchers and innovators were doing great work across the UK but often without the knowledge networks and connection opportunities that a well-established ecosystem can provide. The focus was on managing frailty and very old age.

The Challenge provided an opportunity to shift the focus to early prevention and achieve sustained impact by facilitating collaboration, not just across the funded investments, but across the wider healthy ageing ecosystem.

"It's been so brilliant to work alongside organisations where in other walks of life we would be 'competitors', we're collaborators and peers. And we achieve so much, through shared learning, shared insight dissemination and peersupport and guidance. I've never experienced anything guite like it."

Ben Wilkins, CEO Good Boost Wellbeing

We established the Healthy Ageing Community of Practice to share insights and experience right across our community of entrepreneurs and researchers.



The Healthy Ageing Challenge showcases projects at NHS Confed, 2023

The community has grown to reach a truly diverse community of 2,200 people working across all aspects of the healthy ageing ecosystem.

We have hosted annual events that have attracted a growing national and international audience, providing opportunities for our community to showcase their work and win awards. Sharing experiences as well as knowledge has created collaborations and networks which will long outlive the Challenge.

## The Healthy Ageing Conferences

Our annual conference exemplified how the domain has come together to collaborate since the Challenge began.

The Challenge's final annual conference,
Healthy Ageing 2023, attracted over a
thousand delegates. Included was an
exhibition area, innovation pitching zone,
VR zone, and interactive music with dance
workshops. The keynotes – internationally
renowned designer, Dr Patricia Moore,
and Chief Medical Officer, Professor Chris
Whitty – were a particular highlight.



Professor Judith Phillips, OBE speaking on the State of Ageing Research at Healthy Ageing 2023



# Focused collaboration and support

A network of fantastic partners has provided focused support and collaboration opportunities for specific cohorts of project workstreams. Some examples include:

- Social impact business accelerator,
   Zinc, worked to build the entrepreneurial ambitions of our 64 Catalyst projects.
   Zinc provided coaching, cohort get togethers, pitching workshops and codesign sessions. They also ran several showcase events where the Catalysts pitched to a panel of investors.
- Social entrepreneur champions, UnLtd, worked with our social venture cohorts to provide one to one coaching and access to specialist advice so they could build their plans to scale, as well as cohort building activities to exchange knowledge and ideas with fellow social entrepreneurs.

Research Director,
 Professor Judith Phillips

Phillips, worked with her team at Stirling
University to bring the multi-disciplinary
academic community together. Supporting
engagement with business innovation
projects, developing the community of early
career researchers, responding flexibly
to emerging themes and sharing learning
from their work with the international
research community, with findings
published in 45 publications by 2022.

"The [2023] conference was a real milestone, I was really inspired by seeing and hearing such enthusiasm from people who are developing products and services to those carrying out research and I got a sense of a common purpose, which is about adding life to years."

Heléna Herklots CBE, Older People's Commissioner for Wales and Healthy Ageing Challenge Advisory Group Chair

# What was unique about the Healthy Ageing Challenge?

# A new approach to maximise impact

The Challenge adopted an ecosystem approach, fostering collaboration between industry and academia to translate research into products and services, that together with innovative business models, help support widespread adoption and sustainability.

Unlike a medicalised approach that addresses disease and frailty related to ageing, focus was on enabling people to make the most of their later lives, using research from the arts, humanities and social sciences to ensure innovators designed solutions people really want.

#### Research

#### An impact-led approach

Collaboration is crucial to successful innovation. So, from the start, research projects needed to show how they were going to engage with businesses to create real impact, especially for those who would benefit most.

Social, behavioural and design research provides evidence, particularly around user needs, to help businesses create products and services fit for market and further investment. Businesses help research achieve impact, while policy makers and the third sector provide access to users for co-design, and some routes to funding and market.

# 168 collaborations

between business, research, or third sector were reported in 2023 over and above formal project agreements



#### **Transforming research into impact**

Our innovative Catalysts programme also followed a 'research meets business' approach.

Entrepreneurial researchers were funded to accelerate the translation of their research and were supported on their journey by a social venture accelerator, Zinc, who helped them build business know-how, hone their offer, and understand their route to impact.

Catalysts awardees are now going on to build businesses and social ventures, licence their innovations or stimulate social movements that will make a real difference. Those that were able to most clearly demonstrate a route to scale won further acceleration funding.

Here's how the Catalyst projects are looking to achieve impact:

27% Social ventures

26% Commercial spin-out

11% Licensing

10% Commercial partnership

10% Consulting

8% Social partnership

5% Campaign

3% Publishing

#### **Social Ventures**

Supercharging projects that are already embedded in communities

A first for Innovate UK and one of our proudest Challenge achievements has been to invest in the growth of Social Ventures – their work is crucial in supporting older people to stay active, connected and productive.

In doing so, with the support of UnLtd who have provided access to business support contacts and tailored mentorship, we are helping create sustainable businesses, address inequalities, and achieve impact directly in those communities set to benefit most.

## Impact Investors and Charities

Sourcing finance with a social dimension

For many of the businesses in the Challenge portfolio, social impact objectives are as important as financial goals, so alongside traditional venture capital and angel investors, we also partnered with impact investors such as Nesta, the Social Tech Trust, Newable and Prostate Cancer Research – another first for Innovate UK.

This helped many scalable projects on their journey to impact and provided the runway to further investment in healthy ageing-related products and services.



## **Shaping the Future Together**

The role of co-design in creating inclusive solutions

"Lived experience informs teaching, it informs research, it informs the project."

Ro Panghelli, Co-Researcher, DesHCA Project



Co-design is critical for addressing inequalities and achieving market success. From the start, we made a commitment to involve people with lived experience in our decision-making. As a result, inclusive design thinking has been integral to the governance, design and delivery of the Challenge.

For example, citizen representatives took part in our interview panels for competition applications, ensuring lived experience directly influenced the decisions around which projects were awarded.

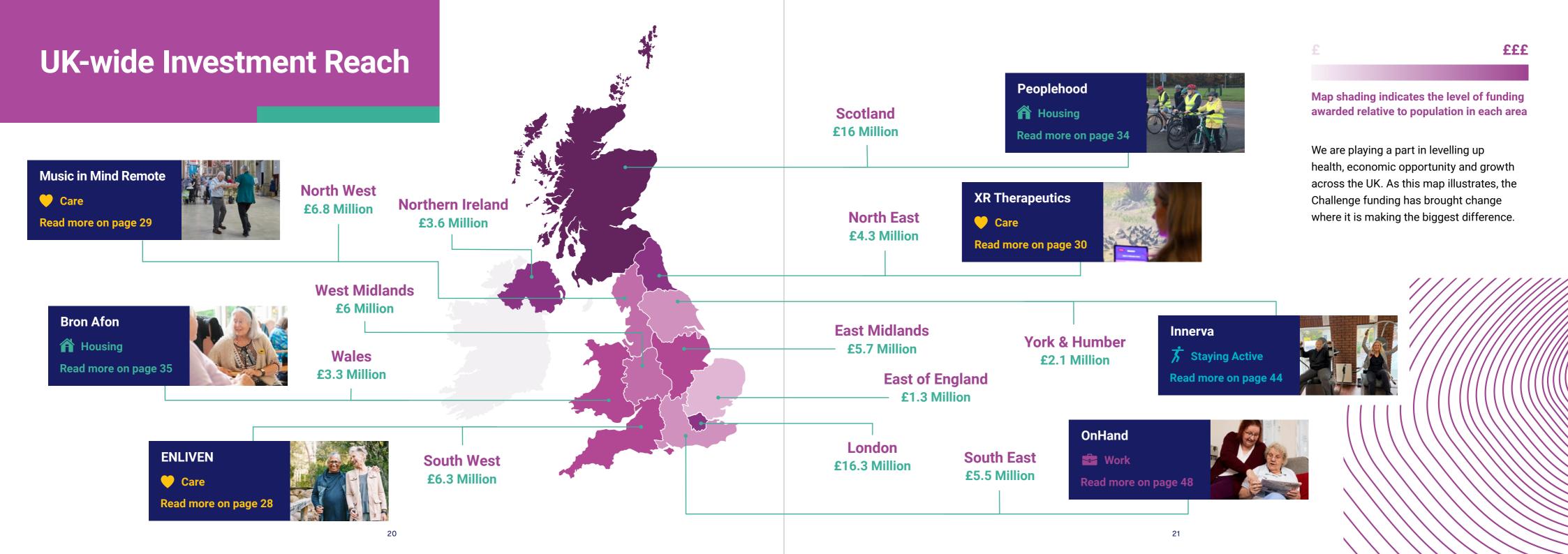
Alongside this, only those projects that could demonstrate meaningful engagement with lived experience were successful in achieving funding. Projects needed to show a clear understanding of what users really wanted, through the involvement of people with lived experience in production and design.



a market as possible. "By taking part in interviews for **UKRI's Healthy Ageing Challenge**, I was pleasantly surprised to find that contributions made by members of the public were seriously considered in deciding on the best applications. I felt like an equal part

of a team which gave funding to the best projects with excellent and deliverable ideas."

Sead Masic, Citizen Representative, Social Ventures **Project Selection Panel and Member of Citizen Network VOICE** 



# Igniting Economic Potential and Impacting Lives

The £98 million investment by the Healthy Ageing Challenge resulted in the development of new products and services that have delivered both societal and economic impact on the most important issues that face older people today: providing support for them to stay active, healthy and connected to others, reducing hospital visits, providing better access to care, housing fit for independent living, and continued employment.

# Innovation for societal benefit

The aim of Healthy Ageing Challenge was to enable businesses, including social enterprises, to develop and deliver products, services and business models that could be adopted at scale to support people as they age. The purpose

of these initiatives was to allow people to remain active, productive, independent and socially connected across generations for as long as possible.

The societal impact of the projects funded by the Healthy Ageing Challenge has been widespread.

## New products and services now help people:

Live longer in their homes and have a better quality of life by by adapting housing to meet changing needs as they age.

Find more attractive **alternatives to residential care**, such as **co-housing**.

Connect with their communities and support wellbeing, boosting independence and quality of life.

**Stay active** to prevent co-morbidities and support **better mental health**, to delay or **prevent additional care** and **hospital stays**.

Stay in work for longer by extending employee wellbeing services to SMEs.

**Get back to work** using their skills, whether that be in caring and odd-jobs, or through volunteering.

Get access to **products and services** provided by their **Local Authority** that support **healthy ageing**, adding life to years.

# Innovation for economic benefit

The Healthy Ageing Challenge has stimulated economic growth by supporting businesses that have the greatest potential to scale, ensuring research is working directly with businesses to capitalise on the economic opportunities of an ageing consumer base, and providing fresh commercial opportunities among entrepreneurial researchers working on innovative products and services.



Research projects funded by the Healthy Ageing Challenge have subsequently achieved

£11.8 million

of further funding

that's almost double the

initial research funding

Serving as a dynamic force for innovation, the Challenge's projects are creating sustainable economic impact by:

Supporting healthier working in later life, contributing to the national productivity agenda.

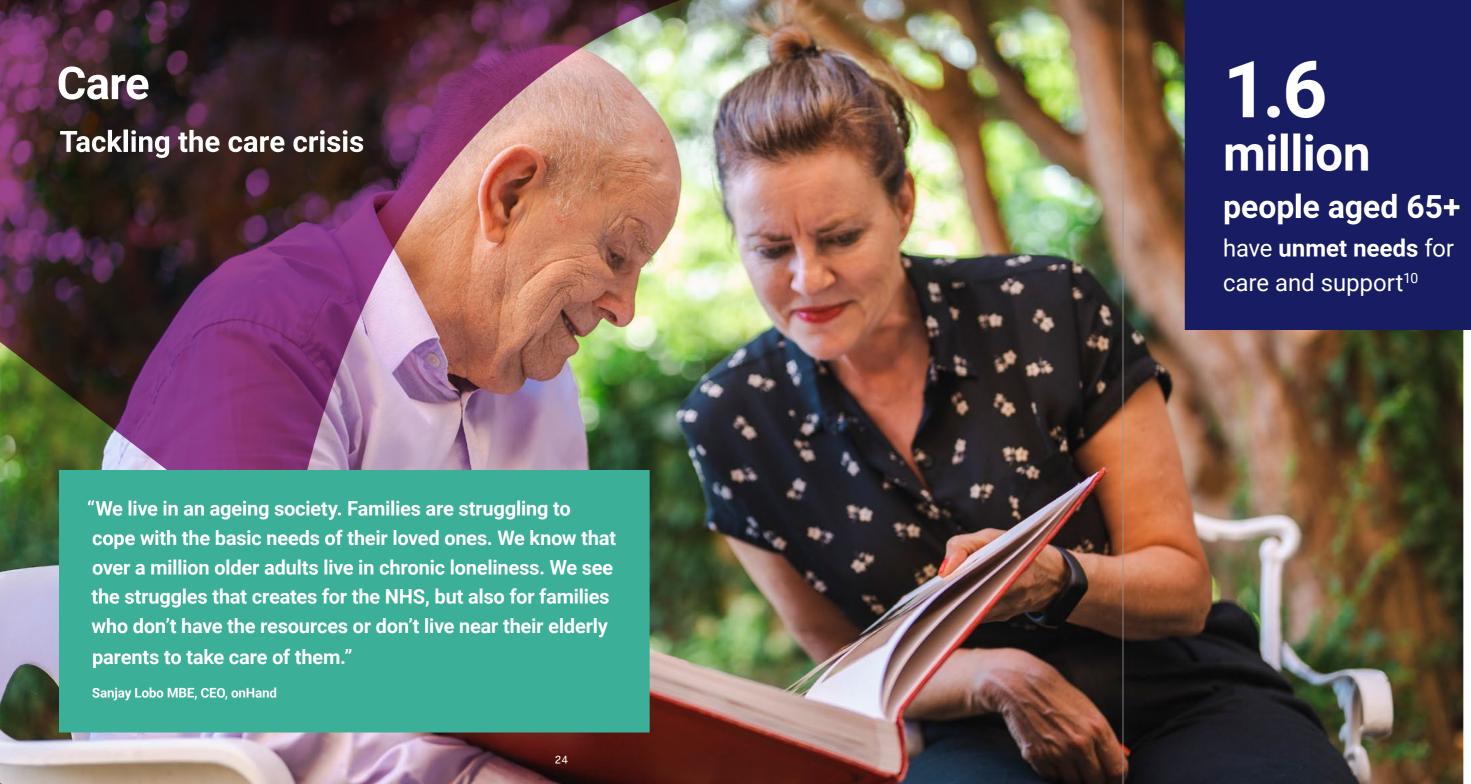
Creating **job opportunities** within **housing** and the **care economy.** 

Creating services and products that are designed with users to enhance market adoption and unlock economic opportunity.

Preventing hospital admissions and reducing lengths of stay through innovative approaches to community-based care and activity.

Developing cutting-edge technologies to reduce the cost of NHS treatments and waiting lists.

22



3.5 million older people in the UK need support to live safely at home.13 This figure is projected to rise to 5.9 million by 2040. Health and social care play a vital role in our communities, enabling older people to remain at home and thrive in an environment that is healthy, connected and safe. But the care sector is in crisis. Around one in ten carer posts now stand vacant, which is the highest level since records began in 2012/13.14

More than half of the projects funded by the Healthy Ageing Challenge are related to health and social care. These projects are providing solutions from personal care at home and technology to support independent living, to products and services that enable older people to engage with their communities and live fulfilling lives.

almost

3 million people aged 50+ are unpaid carers<sup>11</sup>

By 2035 we are going to need an additional

480,000 social care staff

just to keep pace with the rate at which the population is ageing.12

in the UK

#### BelleVie

## **Reinventing the future** of homecare



**Investor Partnerships SME, DAI Mobility Pathfinder** 



**South East** 

BelleVie is building a society which values fulfilling careers in care, so every member of the care ecosystem is supported through meaningful, reciprocal relationships. Their innovation is a new model of care delivery inspired by the successful Buurtzorg model which has revolutionised community care in the Netherlands. Their self-managing teams of care workers are supported by an innovative Wellbeing Operating System technology platform.

#### Improving the lives of older people and care staff

The BelleVie way of working has a positive impact on the lives of both those giving and receiving care, with improved care worker

"If I were to fall, [my wife] couldn't pick me up... so she'd have me back in hospital. Well, I'm not going back in hospital." Eric, Beneficiary of BelleVie

recruitment and retention: 90% or more of their clients strongly recommending their services and winning the 'best in show' Gold Grand Prix Winner title at the 2024 UK Homecare Awards. They provide both state and privately funded care. They've also launched 'Thrive with BelleVie', a managed marketplace of vetted, trusted suppliers for the ageing population, and are expanding their software to include predictive analytics and AI to support more people to live their best lives at home.

Hear more about the impact BelleVie is having on the lives of older people here



#### Tribe

## **Addressing inequalities** in local and national care and community support



The mission of 'The Tribe Project' is to directly tackle national care inequality.

Tribe provides a way to identify gaps in local care provision, then facilitates the upskilling of individuals via a digital platform and light touch regulatory framework to start and run their own 'Community Micro Enterprise'. These new businesses have an immediate impact on delays in local NHS hospital discharges through improved homecare capacity.

Founded as a not-for-profit initiative between Bronze Labs, Carers UK, Shared Lives Plus and Skills for Care, Tribe provides a scalable solution capable of generating high quality well paid employment in the form of home care provision and community nurses.

"Health inequalities are one of the major challenges of our time, and that's what Tribe is entirely focused upon. Tribe is an opportunity to do things differently. It's a message of hope."

Julia Darby, Head of Communities, the Tribe Project

A co-produced Al-centred platform, Tribe is the first to deploy an innovative blended care support model quickly bringing for an individual from the voluntary sector, social prescribing groups and home care provision restoring choice and control, supporting people to live in the place they call home surrounded by the people and things they love.

Tribe has been recognised by the World Health Organization (WHO) as one of the top ten global innovations in healthy ageing and is included in the 'Time to act' report published by the Directors of Adult Social Services (ADASS). Tribe was recently highlighted in the Department for Health and Social Care's 'Accelerated Reform Innovation Priorities' as a tangible way to tackle national care inequality.

Hear from Richard Howells, CEO & Founder, The Tribe Project, and some of the beneficiaries of Tribe here:



#### Innovative solutions for brain health

## Half a million people over 65

experience anxiety disorder and just under half a million experience a **major** depressive disorder<sup>17</sup>

## 1 in 11 people

over the age of 65 have **dementia**<sup>16</sup>

This may impact their ability to live independently, connect with others, and lead fulfilling lives. It may also impact the lives of the people who care for them. Social isolation and loneliness affect about a quarter of older people and are key risk factors for mental health conditions in later life.15

Supporting social connection, positive mental health, and cognitive wellbeing are essential elements of effective care.

Here are four projects that form part of a care solution and demonstrate how Healthy Ageing Challenge initiatives are supporting brain health across the UK.

#### **ENLIVEN**

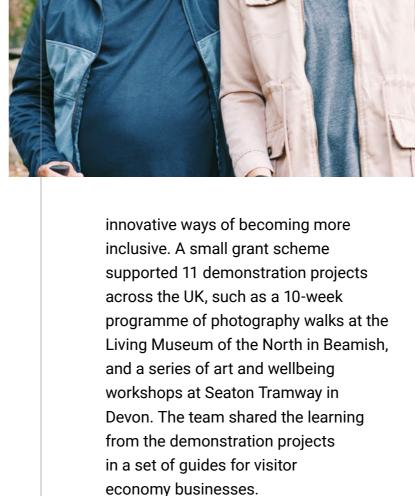
## **Making outdoor activity** accessible for people with later life dementia





People with dementia and their families often highlight the benefits of interacting with nature - they feel more engaged, hopeful, resilient and better able to deal with challenges – but they experience many obstacles to getting outdoors and engaging in nature-based pursuits.

ENLIVEN worked with businesses and organisations that provide access to nature-based outdoor activities to make them more accessible to people living with dementia or other forms of cognitive impairment. Connecting these providers with people affected by dementia and researchers allowed them to co-create



### **Music In Mind Remote**

**Delivery of music therapy-based** activities for people living with dementia





Social Venture,

Designed for Ageing



North West

Co-founded by the University of Manchester and Manchester Camerata Orchestra, Music in Mind Remote (MIMR) is an award winning, research-based programme that has a transformative impact on people living with dementia, their carers and families. MIMR delivers music therapy-based activities to help people living with dementia express themselves and communicate with others, creating meaningful moments of connection in conversations without words. This project builds on ten years' work in this field and evaluates impact in care homes and community groups. MIMR is increasing sector capacity by enabling care staff and volunteers to become "Music Champions" and deliver therapeutic music sessions for people living with dementia without the need for a trained musician on site.

"Everyone's spirits, including mine, have been lifted. Whenever families say we've improved the quality of life of their loved one, the

Carer, Trained in Music in Mind Remote, **Rochdale Care Home** 

feeling we get is unbelievable."

## **XR Therapeutics**

## Immersive tech to treat ageing population phobias



[♦♦♦] Investor Partnerships SME, Mindset



North East

XR Therapeutics, a spin out from the University of Newcastle, combines traditional Cognitive Behavioural Therapy (CBT) with graded exposure therapy to treat a wide variety of anxiety disorders, delivered using immersive technology to display life-like digital scenes in a custom and interactive space, for people over the age of 50. XR Therapeutics is already delivering impact by overcoming issues of social isolation and helping people start, resume and sustain active, independent and productive lives. Traditional CBT can take between 8 to 16 sessions to make an impact. The impact of XR Therapeutics

"It has been extraordinary to watch our intervention grow and develop thanks to Innovate UK's support. We have really been able to turbocharge the technical development of our product and we are now proudly treating patients through NHS partnerships."

Penny Day, COO, XR Therapeutics

treatment can be seen in under 1 hour, reducing waiting times and the strain on mental health resources, while increasing the capacity of mental health professionals to treat more patients.

XR Therapeutics has subsequently received further funding via Innovate UK's Mindset Extended Reality Programme, to adapt their solution to suit a wider range of technological interfaces, such as VR headsets.



**Hear how XR Therapeutics** is providing fast, effective treatment for mental health conditions



## **Making Reading Real**

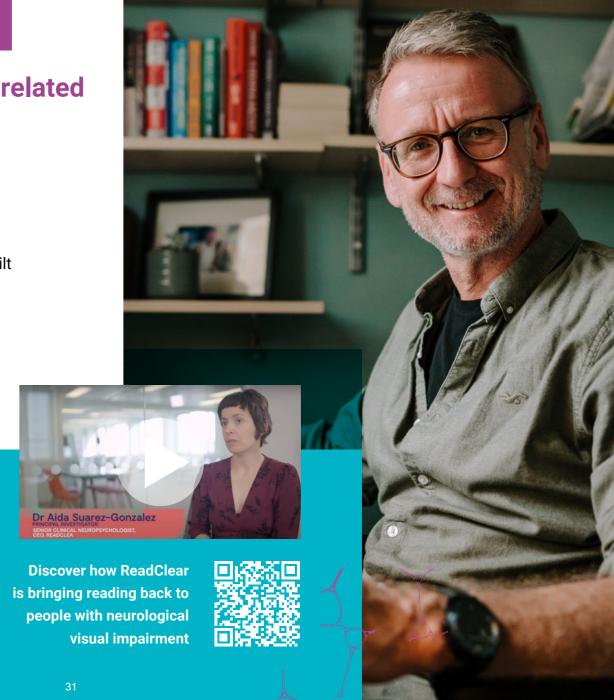
## **Supporting people with brain-related** visual impairment to read



Co-produced with people living with Posterior Cortical Atrophy, ReadClear is the only purpose-built and clinically proven assistive reader for people with brain-related visual impairment.

The beta version had more than 2.000 users in the first year from launch, which allowed the team to conduct market research and develop an updated version with personalised content and a new easyto-use interface. The team is now looking for licensing partners to commercialise the app, find out more online at makingreadingreal.org.

After the Catalyst Award, ReadClear received follow up funding from the UK foundation of Social Entrepreneurs and the UKRI Catalyst Accelerator.





## Housing

## Cutting-edge housing solutions for a healthier future

As people age, their housing needs may change. The suitability of the home they live in and the housing stock available to them play a critical role in maintaining their health and wellbeing.

The government has categorised **3.5** million homes in the UK as posing a risk to residents' health or life. Half of these are occupied by older people (aged 55 and over).<sup>19</sup>

The UK's ageing housing stock, one of the oldest in Europe, imposes a substantial cost on health and care services, with unsuitable housing leading to a £624 million burden on the NHS due to hazards and falls.<sup>20</sup> In addition, there are large disparities

More than

1 in 3

people of **pension age**in the private rented sector
are living in **relative poverty**<sup>22</sup>

in the distribution of non-decent homes across the UK. With regions in the north of England having almost double the number of non-decent older households than in London and the South East.<sup>21</sup>

The Healthy Ageing Challenge has invested over £18 million in projects across the UK related to housing from designing age-friendly homes, to providing care technology and retrofitting existing housing stock to make it fit for purpose.

These housing solutions are enabling more older adults to stay in their own homes, live independently, and stay connected across generations.



## Peoplehood

## **Creating neighbourhoods** for independent living





Blackwood Homes and Care are combining a new design of attractive, accessible housing with a range of placemaking innovations that create vibrant neighbourhoods that people want to live in.

Taking a partnership approach, Peoplehood collaborates with residents based in Dundee, Glasgow and Buckie, along with local authorities, health providers, industry and academia. Designing homes like the Blackwood House that are beautiful. affordable, accessible, and adaptable as people age, enabling individuals to live independently and socially connected within their neighbourhood for longer.

Reaching further to deliver greater impact, Peoplehood also supports housing organisations by providing guidance on

"The investment has taken Blackwood into a new commercial position, the partners into a new commercial position, but ultimately the people of Charleston and the neighbourhoods into living more productively for the remainder of their years."

Simon Fitzpatrick, Lead Development & Commercial Director, **Blackwood Homes and Care** 

adapting existing homes to better support people as they age. An example is their CleverCogs™ digital system, a customisable tablet device designed to support people within the neighbourhood with a range of services and information linked to their health and wellbeing goals. Plus a Smart Meter linked to AI that monitors energy usage to establish patterns of behaviour that may predict when intervention is required to prevent a hospital admission.

Already delivering significant impact, residents across all tenure types are benefitting, including those with the greatest inequalities and poorest health outcomes.





## **Co-Housing Communities**



Social Venture Wales

Social venture Bron Afon has created a senior co-housing model: a community of private homes, clustered around

a shared space that enables people to 'live together, apart'.

By bringing older people together into communities where they share facilities and decision-making, Bron Afon has

wellbeing, reduces loneliness and isolation, and promotes activity and engagement.

This project has created a model that helps older people age well, stay healthier for longer, and enjoy continued personal autonomy and independence while delaying the need for people to access costly health and social care interventions.



provided a solution that enhances



Whole-house solutions for safe, energy efficient, independent living



E.ON

**West Midlands** 

E.ON is delivering home improvements as an extension of their energy efficiency services to enable people to remain independent and living in their own homes for longer.

By building on energy efficiency services and joining up existing and new innovations, E.ON has created a whole-house solution with inclusivity, dignity and independence in mind. This includes aesthetically pleasing home adaptations, that are dual purpose and non-stigmatising; the StairSteady, which provides support getting up and down the stairs, enabling exercise and encouraging mobility; the Pippa hob safety device to encourage people to continue to cook safely for themselves; an Amazon

Echo that encourages people to connect with digital services as well as connect with loved ones; the Fitbit to encourage people to keep active by counting steps, reporting on sleep and helping people to reach even small goals.

E.ON delivered over 5.000 measures to 2,500 homes. Their partners at Newcastle University, who developed the evaluation of the programme, have shared the results. There has been a positive improvement in mental health, increase in mobility around the house, and people who were completely dependent now being completely independent. This brings a huge potential cost saving on social care.

## **DesHCA**

## **Designing Homes for Healthy Cognitive Ageing**





Scotland

**DesHCA** worked with older people experiencing cognitive change and those who design and develop housing to identify scalable and sustainable design improvements that support healthy cognitive ageing, enabling people to live better in their homes for longer.

By providing guidance that goes beyond narrow conceptions of 'age and dementiafriendly design' into a more expansive and inclusive approach to housing innovation, DesHCA helps developers and house builders as well as local authorities and the third sector understand how to make designs age and dementia inclusive in an attractive and affordable way to future-proof homes.

"There are many things we can do to the home to adjust it, from the very small, to having a plug in a certain place, to the very large, adjusting door frames."

Dr Vikki McCall, Professor of Social Policy, **University of Stirling** 

Their guidance encompasses the designing of new builds and the retrofitting of existing homes, along with evidence-based information on housing needs.



Find out more about how **DesHCA** is supporting housing innovation







70%

inactive

of people aged over

85 are physically

a healthier, longer life. Yet for some older age is a time of great difficulty, with dignity impaired, independence curtailed and encroaching frailty, discomfort and loneliness. Ill health and disability in older age, however, is not inevitable. Eminent doctors talk about exercise as a miracle cure. For instance, staying active helps to maintain muscle mass and bone density, the loss of which can affect strength and balance leading to a loss of self-confidence

and the ability to engage with others

which in turn can impact on mental health. Exercise is also used to help people escape from arthritic pain, yet 25% of all adults are physically inactive and inactivity levels increase significantly as people age.<sup>24</sup>

Over 71 of the 242 investments in research and innovation made by the UKRI Healthy Ageing Challenge enable older adults to stay active and engaged in their communities. This amounts to a total of £27.3 million.

'physically inactive'
according to the
government definition,
which means they do
less than 30 minutes
of moderate intensity
activity per week<sup>25</sup>

# Regular physical activity

reduces the risk of
hip and knee
osteoarthritis pain by 6%,
depression by up to 30%,
and falls by 76%<sup>26</sup>

29%

of people aged

between 65-74 are

physically inactive

47%

of people aged

between 75-84 are

physically inactive

## **Active Families**

Physical activity to improve the health, wellbeing and lives of older people





North East

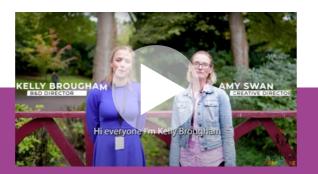
Active Families offers a diverse range of programmes in community venues successfully breaking down barriers to activity and engagement for vulnerable and older individuals. The impact of the programmes is widespread, improving the physical health of participants and offering them the opportunity to socialise, alleviating loneliness and helping them feel part of their community.

Their **Mission 2 Mobility** programme has helped many older people with strength, balance and mobility issues get active, as well as people who have had a physical or neurological injury or ongoing health issues.

Their Well Bean Machines are taking exercise programmes directly to hard-toreach audiences in neighbourhoods with high densities of vulnerable older people, many of whom are living in poverty, are socially isolated and are inactive. They are fitted out with equipment and fold up seats to deliver low intensity exercises, health assessment tools, wellbeing information packs and tea/coffee dispensing machines. They activate local communities by proactively knocking on doors as well as providing exercise information and aids so older people can stay active in their own homes. In summary, Active Families takes exercise and activity to people.

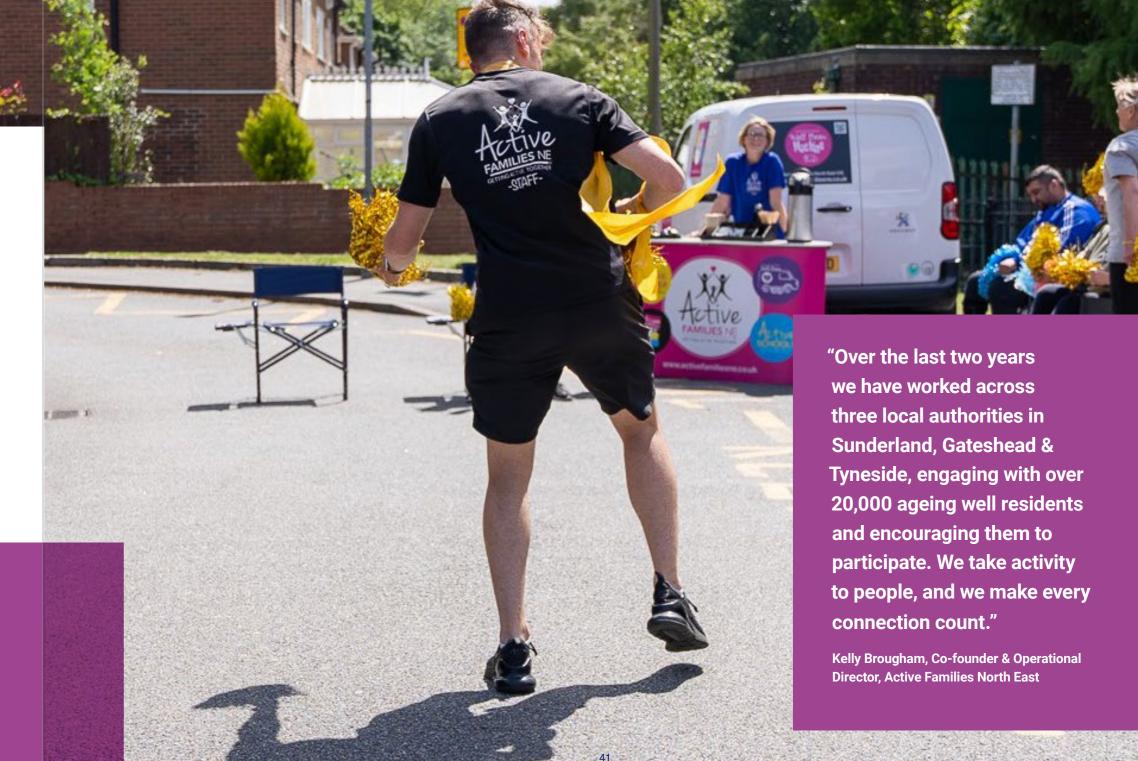
Helping older people improve and sustain physical and social activity contributes to a positive impact on their health and wellbeing. Serving refreshments from the vans before and after the sessions helps them develop the social bonds that maintain ongoing commitments to exercise.

Active Families is now scaling up to roll out services across the UK.



See Active Families in action:





### **Good Boost**

## **Transforming gyms into** community MSK hubs



Social Venture,

Designed for Ageing



London

Musculoskeletal disorders (MSKDs) disproportionately affect older adults, with over 13 million people aged 55+ living with MSKDs.<sup>27</sup>

Multi-award winning Good Boost is a rapidly growing UK SME delivering pioneering medical technology across the UK. It's helping older adults with MSKDs and related disabilities enhance and preserve their strength and mobility, reducing pain, improving their quality of life, while alleviating the strain and even the need for surgery on the NHS. This could save the NHS £200 million by 2030.

An Al-driven software solution transforms leisure centres and community swimming "I was due to have an operation in December...I was all prepped. When they examined me they said I didn't need to have the operation. They cancelled the operation."

Linda, Good Boost Beneficiary

pools into community hubs for supported self-management. Good Boost's solution delivers personalised exercise routines and condition self-management education, facilitated by trained centre staff and supplemented by an at-home therapeutic exercise experience which incorporates gamification features and peer-support to maximise motivation.

With 82% of the UK population living within two miles of a public swimming pool,<sup>28</sup> Good Boost's solution is highly accessible and inclusive, supporting a diverse population to engage in supported self-management for MSKDs, effectively addressing health inequalities. Good Boost is already successfully scaling up in leisure centres and gyms across the UK and internationally.



Discover more about the positive impact of Good **Boost for adults living** 



### **WeWALK**

## **Navigation system for** the visually impaired





London

The WeWALK Smart Cane enables sight-impaired people to travel more safely and confidently, reducing barriers and contributing to more inclusive and accessible urban environments. Unlike a standard cane, it detects obstacles both above and below the waist to help the user navigate safely.

The WeWALK Smart Cane is linked to a smartphone app that offers an accessible solution for reliable turn-by-turn walking and public transport navigation to support way-finding. The WeWALK Smart Cane is helping visually impaired people get their independence back, be with others more easily, and lead more fulfilling lives.

"We don't want an improvement in efficiency or simple optimisation. We want our users to do things that they've never done before."

Dr. Jean Marc Feghali, Head of R&D, WeWALK



Hear more about the development and impact of WeWALK





#### Innerva

## A gamified, power-assisted solution encouraging physical activity for older adults



**Designed for Ageing** 



Yorkshire & The Humber

Innerva has developed an innovative and intelligent seated exercise programme centred around an ergonomic, powerassisted exercise machine delivered in leisure centres, community venues and health settings. This solution caters specifically to individuals who find conventional exercise challenging and is particularly helpful for people who live with pain, have restricted movement or low confidence in their physical ability; helping them to enhance their strength and flexibility through assisted

movements, while encouraging longterm participation through progress tracking and gamification.

Breaking down barriers to exercise participation in underserved groups, the machines have been made physically and digitally accessible to ensure ease of use; and specifically designed to look like standard gym equipment, so there's no stigma to using them.

by Innerva users:

Here are a few facts reported

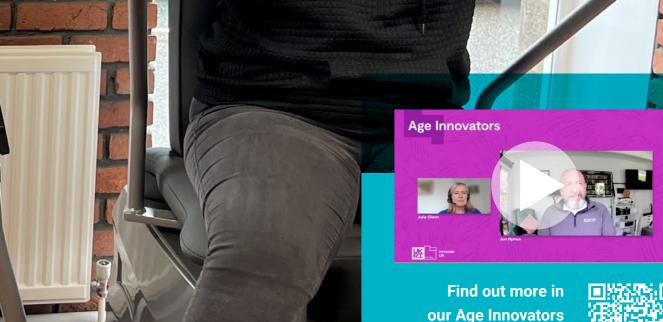
of users report a positive **impact** on their mental health, feeling more relaxed and less stressed

of users say they can move better in their

of operators report

"The world's population is ageing fast - for the first time in history people aged 60 years or over outnumber children under five years. By 2050, people aged 60 years or over will also outnumber 15-24 year olds. We believe everyone has the right to healthy ageing, which is why we will and invest in new technology and digital innovations that assist with active ageing."







MD, Jon Hymus

## Work

**Keeping older people** in fulfilling employment



of improvement in the employment rate of older age groups was stalled by the pandemic<sup>31</sup>

Since the pandemic, employment rates among people in their 50s and 60s have declined. Many are not working or even looking for work because they have left employment early, mainly due to ill health.

There's a disparity according to wealth and gender. People aged 45-65 on lower incomes are often forced to leave paid work early due to health issues, while those with higher incomes are much more likely to leave by choice. Women aged 45-60 are much more likely than men to have left

or be thinking about leaving work before retirement age to care for grandchildren or parents.<sup>29</sup>

Fulfilling employment offers older people a continued sense of purpose and value, benefitting their health and financial wellbeing. Older people have expertise and experience to bring to an inter-generational workplace where the young can learn from older colleagues and vice versa. Having more older people in work also benefits the economy as they continue to contribute to tax and pensions and have more disposable income.

Through the UKRI Healthy Ageing Challenge, around £16.5 million has been invested in projects related to work.

## 1 in 3 workers

in the UK is aged 50 or over<sup>30</sup>

#### **Business Health Matters**

## **Early intervention** to head off employee health problems





Business Health Matters (BHM) is a collaboration involving 15 partners. The core partners are Active Lancashire, University of Central Lancashire, Lancashire Mind, and ukactive, with the other 11 acting as a delivery network for health checks. The collaboration offers a new form of workplace health screening, targeted exclusively at SMEs which generate a large proportion of UK employment yet rarely offer workplace support due to lack of time, money and resources.

Starting in Lancashire, which reports some of the greatest health inequalities and lowest healthy life expectancies in the UK. trained fitness and leisure centre teams "It's been a great experience so far. Very easy. Throughout the whole of the UK more people are employed in SMEs than in the larger corporations. So it's great that we're now able to target more of the population with programmes like this. And it's really important that the government supports small businesses to help their staff."

David Walker, Managing Director, +24 Marketing (SME using the BHM service to benefit their staff)

deliver health checks in the workplace helping to create a community-centric solution that addresses both physical and mental health needs. This initiative is helping prevent major health issues, while reducing absenteeism and presenteeism. Beneficiaries describe how effective the service is, how cared for they feel and how useful it is to potentially share data directly with their GPs to help improve health outcomes.

Find out more about Business Health Matters here:

Inspire Commu



## OnHand

## **Uber for volunteering**







OnHand is the world's first on-demand impact platform, giving employees a simple way to do good. Its location-based matching technology lets users see who they can help in their local communities, provides opportunities to help remotely, and also offers sustainability lifestyle pledges with tracked CO<sub>2</sub>e reporting. In 2023, OnHand users completed 1.2 million social and eco actions, fulfilled more than 45,000 minutes on befriending phone calls to older and isolated people, donated over 100,000 items to charity, and reduced 696 metric tonnes of CO<sub>2</sub>e.

"What I love most about the OnHand app is how it ignites a passion in you to help out, whether that involves undertaking volunteering projects, leading a more eco conscious lifestyle or becoming better informed about the key issues at the heart of our society!"

Imran. OnHand Volunteer

Set up in collaboration with some of the UK's leading charities (including The Red Cross, Royal National Institute of Blind People, Guide Dogs, Water Aid, and the British Heart Foundation), the platform operates worldwide and supports a number of causes including elderly & isolated help, poverty, homelessness, crisis response, and environmental and climate action.

OnHand has won multiple awards, most recently being placed at #13 in the Startups 100, for the most innovative companies in 2024 (previous alumni including Deliveroo, Monzo, and HelloFresh) and was named as a Global CSR Leader in G2's Winter 2024 report. On Hand became B Corp certified in January 2024.



Learn more about onHand from CEO Sanjay Lobo MBE and onHand volunteers here:



#### **Local Treasures**

### **Kick starting local economies**





Social Venture,
Covid Fast Response



**South East** 

Once out of the labour market, it can be harder for older workers to return. Employment support services achieve much worse outcomes for people aged 55 and over than for younger age groups. This gap gets larger the older you are. 32 Local Treasures is a fully automated matching platform that uses a 'totally tailored technology' approach to connect customers who need help with a skilled workforce of over 50s.

Enabling older workers to maintain work in later life, to date 700 Treasures have been onboarded and 565 of them have found work helping people in their communities. A plug and play model has been developed to enable Local Treasures to be operated from anywhere in the UK.

"I feel that the benefit of using older adults is that they've got a lot of experience. I've found them to be incredibly reliable and trustworthy. By doing it through Local Treasures I don't have to look for personal recommendations or worry about references and I trust them."

Melanie Conder, Customer, Local Treasures

Trialled in Gloucester, this is now being rolled out across the UK as a franchise operation, championing older people as Local Treasures workers and as franchisees.

Hear how this initiative is impacting people in communities



By 2030, one in six people, or 1.4 billion, in the world will be aged 60 or over.<sup>33</sup>
By 2050, the proportion of the world's population aged over 60 will be 22%.<sup>34</sup>
Despite what we know about our ageing global population and the lessons learned in the pandemic, the world is not prepared, but that also gives room for opportunity.

There is a vast global market opportunity in ageing populations for innovative products and services tailored to meet the needs of this demographic. When you compare countries across the G20, those that invest more in health and in preventative health see people working, volunteering and caring for longer.

The Challenge has worked with the
Department of Business and Trade, the
Foreign, Commonwealth and Development
Office, International Longevity Centre,
and other partners to showcase research
and innovation from the UK to the rest
of the world. Over the last five years the
UKRI team has promoted the work of the
Challenge at 57 international events around
the world, including international missions
and online participation in conferences.

The international reach of the Challenge:

- Delegates from 42 countries and 5 continents joined our annual conference in November 2023.
- A delegation to the AgeingFit 2023 conference in Lille, France where

Challenge projects were winners of the Gold, Silver and Bronze Innovation Pitch competition awards, with the first-place winner, Good Boost, being recognised as the most innovative project in Europe.

- A showcase of UK companies at the Global Ageing Conference in Glasgow 2023.
- Representation of the Challenge and showcasing of its projects at the Independent Ageing 2023 conference in Japan.
- The Challenge Research Director led delegations of early career researchers to both Canada and Sweden to connect with the international ageing research community and develop opportunities in ageing research.

# Opening up opportunities in the Canadian AgeTech Market

This UK-Canada AgeTech Innovation
Exchange programme was run in
partnership with the Northern Health
Sciences Alliance in the UK as a
collaboration with AgeWell and the
Centre for Ageing + Brain Health
Innovation in Canada. It supported an
in-person exchange visit involving
eight UK and five Canadian companies.

The programme also supported a virtual exchange for over 50 UK and Canadian companies. All companies reported that they had made at least five leads as a result of the activity they planned to pursue, and all respondents said they would recommend the programme to others.

As part of their visit, UK delegates attended COLLISION, a global tech conference in Toronto.

"Canada spends approximately 6% of its health budget on prevention. As a result, it has seen an increase in life expectancy from 79.1 to 82.2 years between 2000-2019."

**International Longevity Centre (ILC)** 

"We secured angel investment from people we met as a direct result of the conference.

We have since been introduced, and have now signed a pilot with a government department in Canada, and we've just agreed a pilot with a 300 bed dementia ward."

Bruce Elliott, Memory Lane Games (UK delegate on the UK-Canada AgeTech Innovation Exchange)

The NHSA
Healthy Ageing
Programme

y Ageing

Northern Health Science Alliance

A Health Partnership for Northern England agross a population of 16 million people with a membership of leading research-intensive NHS trusts and universities

Discover more about the UK-Canada AgeTech Innovation Exchange programme



50

"Our failure to adapt to demographic change is a global phenomenon."

David Sinclair, CEO, ILC

## A collaboration connecting projects to a global movement

In 2019, the Challenge set up a global collaboration with the National Academy of Medicine (NAM) in the USA. This enabled our Catalyst projects to join a global cohort of Catalyst awardees and gain access to worldwide networks and opportunities. It also enabled Catalysts to take part in the Healthy Longevity Global Grand Challenge, a global competition to comprehensively address the challenges and opportunities presented by worldwide population ageing.

Many of our project investments are already achieving global impact and reach:

- Social Venture. Good Boost is launching its AI-personalised exercise programmes for older adults living with musculoskeletal disorders in New Zealand, and Australia is next on the list!
- Designed for Ageing project, Innerva, is launching its assisted exercise programmes in gyms across Scandinavia, the Benelux, France and Ireland.
- Research Project **SPACE** (supportive environments for physical and social activity, healthy ageing and cognitive health) is achieving international impact through its collaboration with the University of Southern California as part of the Gateway to Global Ageing Data Study. Project Lead, Professor Ruth Hunter is also the Director of the WHO Collaborating Centre for research and training on complex systems and network science.

More than

1 in 10

people in Japan are now **aged 80+** 

Japan consistently rates as having the world's oldest population

#### Learning from Japan

People aged 65 or over accounted for 13.6% of the total labour force in Japan in 2021, compared to just 3.8% in the UK in the same year. The Healthy Ageing mission to Japan in 2023 was tasked with learning from their experience and understanding the possibilities that may exist for our ageing population in the UK.35

## What's Next?

The social and economic impacts of the Healthy Ageing Challenge have already been felt across the UK: in the communities our innovators have reached, in the businesses we have touched and through the research providing fresh insights to guide the next stage of the journey.

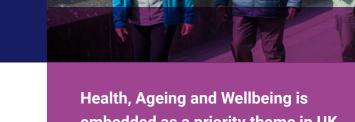
The mission-led approach has worked, opening up new avenues for collaboration between innovators and academics from the arts, humanities and social sciences. It has also fostered novel routes to support entrepreneurial researchers to translate their passion into societal impact.

The objectives of the Healthy Ageing Challenge remain as pertinent today as when the Challenge was first conceived in 2017. Our society continues to age and the opportunities this presents are growing with it.

There is more work to do. Many of our projects are still on their journey to scale and spread to realise their full potential. They will continue to benefit from the support of investors who recognise their value, and ultimately from customers in both the private and public sectors who understand the potential that innovation offers.

"Population ageing is poised to become one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society."

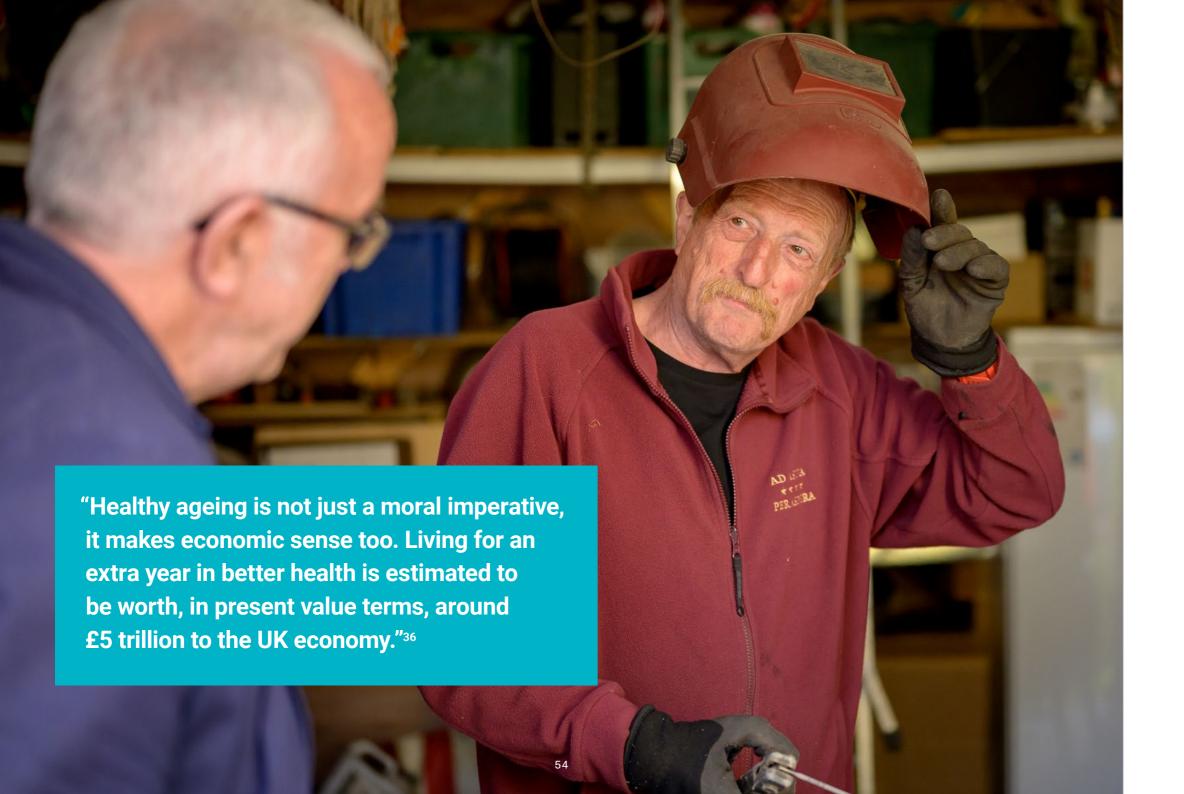
**United Nations Global issues: Ageing** 



embedded as a priority theme in UK Research and Innovation's strategy.

This continues to connect interests from across all disciplines, and ensure that our research and innovation activities align with work towards other global mega-trends including climate change and the advance of artificial intelligence.

The work of the Challenge has helped to galvanise the nascent healthy ageing domain that spans many sectors, and catalyse a movement needed to transform all aspects of society, including how we live, work and relate to one another. In this UN Decade of Healthy Ageing, it's encouraging to see that adding life to years remains a priority in the UK and globally.



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