



UKRI Healthy Ageing Challenge

Our Story So Far

**Helping people to remain active, productive,
independent and socially connected for longer**



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, 2022¹

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“As I age, my aim is to remain healthy, active and involved. I seek out challenging opportunities, and in giving back to society the benefits of my lived experience, I get a sense of value and fulfilment in return.”

Ros Wilson, Citizen Representative, Challenge Competition Panel

Our Challenge

The Healthy Ageing Challenge at UK Research and Innovation (UKRI) is helping businesses, including social ventures, develop and deliver services and products which support people as they age, along with the innovative business models that will help them be adopted at scale. The projects we support with funding, research and knowledge exchange opportunities, will enable people to remain active, productive, independent and socially connected across generations for as long as possible.



The Lord Filkin CBE
All Parliamentary Group
for Longevity

“Becoming a healthier nation is fundamental to growth, resilience, and to NHS and social care sustainability. A collaborative effort is needed across government, public sector, business communities and third sectors. The Healthy Ageing Challenge is playing an important part in catalysing these partnerships and enabling everyone to benefit from our ‘extra longevity’.”



George MacGinnis
Healthy Ageing Challenge Director,
UK Research & Innovation

Adding Life to Years

This report marks the half-way point since the UKRI Healthy Ageing Challenge launched in 2019. It demonstrates the enormous momentum we are achieving. Our ambition is to transform the lives of millions within a decade. We are catalysing innovation across a broad range of themes - enabling people to remain active, productive, independent, and socially connected across the generations for longer.

Our innovation projects illustrate a complex landscape. Our five Trailblazers span the sectors of care, leisure, financial services, digital and energy. Our portfolio this year has almost doubled with nearly 60 new innovators joining the 60 already underway with their projects. This includes those successful through our Social Ventures Competition, our first foray into supporting valuable social ventures to scale-up.

Our ground-breaking research is generating insights from the arts, humanities, and social sciences to help businesses understand the opportunities

emerging from healthy ageing. We are proud of our impact, but there is much more to do to reduce disparities in healthy life expectancy. We are grateful to our Advisory Group and Citizen Representatives, whose guidance is making that ambition a reality.

Navigating the pandemic has not been plain sailing. In 2020, the Challenge was fortunate to find ways to continue operating effectively. Our innovators deserve huge credit for their efforts to maintain momentum and find innovative ways to engage with their communities.

Ageing populations are today's reality and tomorrow's opportunity - set to transform all sectors of society. By continuing to build knowledge and innovation in this market, we can maximise that opportunity.



A Global Imperative

We are living longer: An achievement to be celebrated...but we are not always ageing well

By 2050, a **third** of the UK population will be 60 years or over.

Yet, a 65-year-old today will live **less than half their remaining years** in good health².

What's more, there is a clear inequality in how we age depending on our economic, social, and geographical circumstances, as well as our gender and ethnicity.



ONE IN THREE
CHILDREN BORN TODAY
WILL LIVE TO BE
100⁴

Healthy ageing matters to us all

Health is at the heart of a resilient society.

To build a thriving future, we will rely more – not less – on people as they age. As employees, as carers, and as a valuable social resource.

Creating tomorrow's prosperity must start today

We need bold, cross-sector innovation, informed by lived experience, driven at pace, adopted at scale, and delivered now to meet future challenges.



AVERAGE LIFE EXPECTANCY IN THE UK:
81 YEARS



AVERAGE HEALTHY LIFE EXPECTANCY IN THE UK:
63³ YEARS

Promoting economic opportunity

By 2040, over-50's 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 billion⁵.**

50 to 64 years olds make up one third of the working-age population⁶, but one million people over 50 are **involuntarily unemployed⁷**. This group is **rich in skills and experience**. Set against a record number of job vacancies in the UK (1.3 million in February 2022⁸) there is a powerful case to find ways to use this **valuable resource** for everyone's benefit.

“It is estimated that if the employment rate of people aged 50 to 64 matched that of those aged 35 to 49, it would add more than 5% to UK GDP.”
ONS, 2021⁹

Levelling up inequalities

People in the wealthiest parts of the country can expect to live more than five years longer than those in the poorest. That difference becomes even more stark when you look at healthy life expectancy. For people aged over 65, **where you live matters**. Living in the UK's most prosperous areas adds, on average, 11.2 years of

disability-free living for men, and 13.4 for women¹⁰.

The government aims to raise healthy life expectancy by five years by 2035 and level the gap geographically by 2030. A healthy ageing agenda must be at the heart of this commitment to levelling up.

“Levelling up means giving everyone the opportunity to flourish. It means people everywhere living longer and more fulfilling lives.”

HM Government, 2022¹¹

Benefitting us all

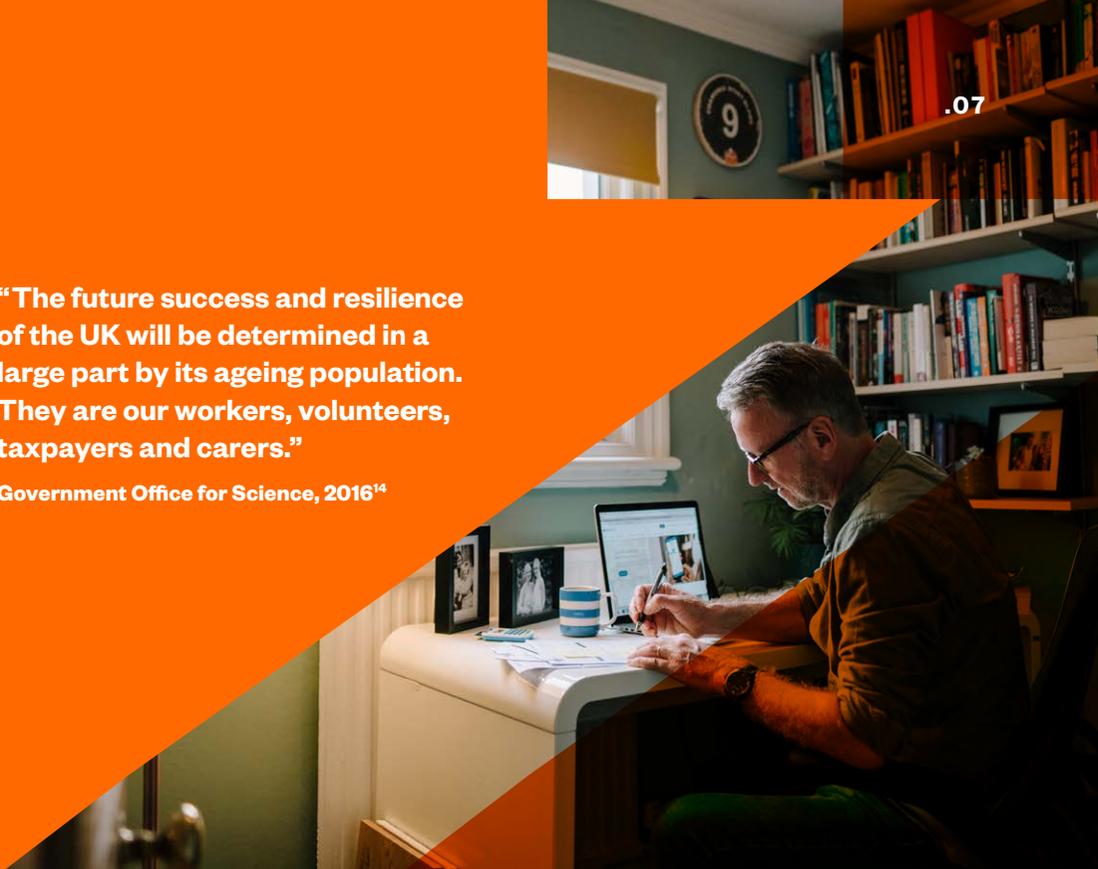
The issue of how we age affects everyone.

Even before we reach later life ourselves we may well be benefitting from the 1.4 billion hours of voluntary work provided by people aged 55 to 74 every year¹². For example 40% of over-50's provide free childcare, allowing younger parents to work¹³.

Too often an ageing population is presented as a problem society must solve. What would happen if the opportunities a healthy ageing population brings for all of us were recognised right across society?

“The future success and resilience of the UK will be determined in a large part by its ageing population. They are our workers, volunteers, taxpayers and carers.”

Government Office for Science, 2016¹⁴



“If we could improve how we age so that we live for another year in better health, that is worth, in present value terms, around £5 trillion to the UK economy.”

Andrew J Scott, Professor of Economics and author of ‘The 100 Year Life’, 2022

Rising to the Challenge

The Healthy Ageing Challenge is a bold strategy creating real and lasting change

UKRI's Healthy Ageing Challenge is investing in a programme of UK-wide innovation and research. We are supporting economic growth and improved health by helping businesses, including social ventures, to develop new products and services that can be adopted at scale.

Drawing on the latest research into diverse lived experiences of ageing, the Challenge is designed to be agile and responsive to emerging opportunities and delivered with a focus on sustainable impact.

A radical perspective

Far from being a 'problem' to be solved, investing in healthy ageing creates the conditions for powerful economic, commercial, and social transformation. The UKRI Healthy Ageing Challenge is already harnessing that potential by:

- **Connecting researchers and investors to businesses and social ventures** to catalyse and scale up the emerging healthy ageing sector.
- **Creating new opportunities** for innovation by drawing in fresh funding from private investors and charities.
- **Embedding user-centred design mechanisms**, to encourage organisations to apply rigorous design principles to help them achieve greater market share for their products and services.
- **Enhancing equality** of opportunity across society by focusing on innovations designed to have impact.
- **Making the UK a great place for the world to invest in** by strengthening the ageing innovation ecosystem and offering a route to global markets.



“Improving healthy life expectancy and reducing health inequalities is a moral imperative and benefits us all – individuals, the economy and wider society.”

Heléna Herklots CBE, Older People's Commissioner for Wales & Chair of the Healthy Ageing Challenge Advisory Group, 2022

Our investments align to **seven themes of healthy ageing**. These paint a holistic picture of what makes a healthy later life, and provide a framework for tackling market failures, stimulating innovation, and narrowing inequalities in healthy life expectancy.



Our Progress so Far

So far, we have initiated projects worth over **£100 million** across research and innovation, to develop new services and products that will **catalyse powerful change**. There is so much opportunity for sustainability, scale and spread.

£98 MILLION

total Challenge investment

80%+

OF INNOVATION PROJECTS

inclusive of lower income groups

121 PROJECTS

funded from 572 applications

7

INVESTOR PARTNERS

31 £46m

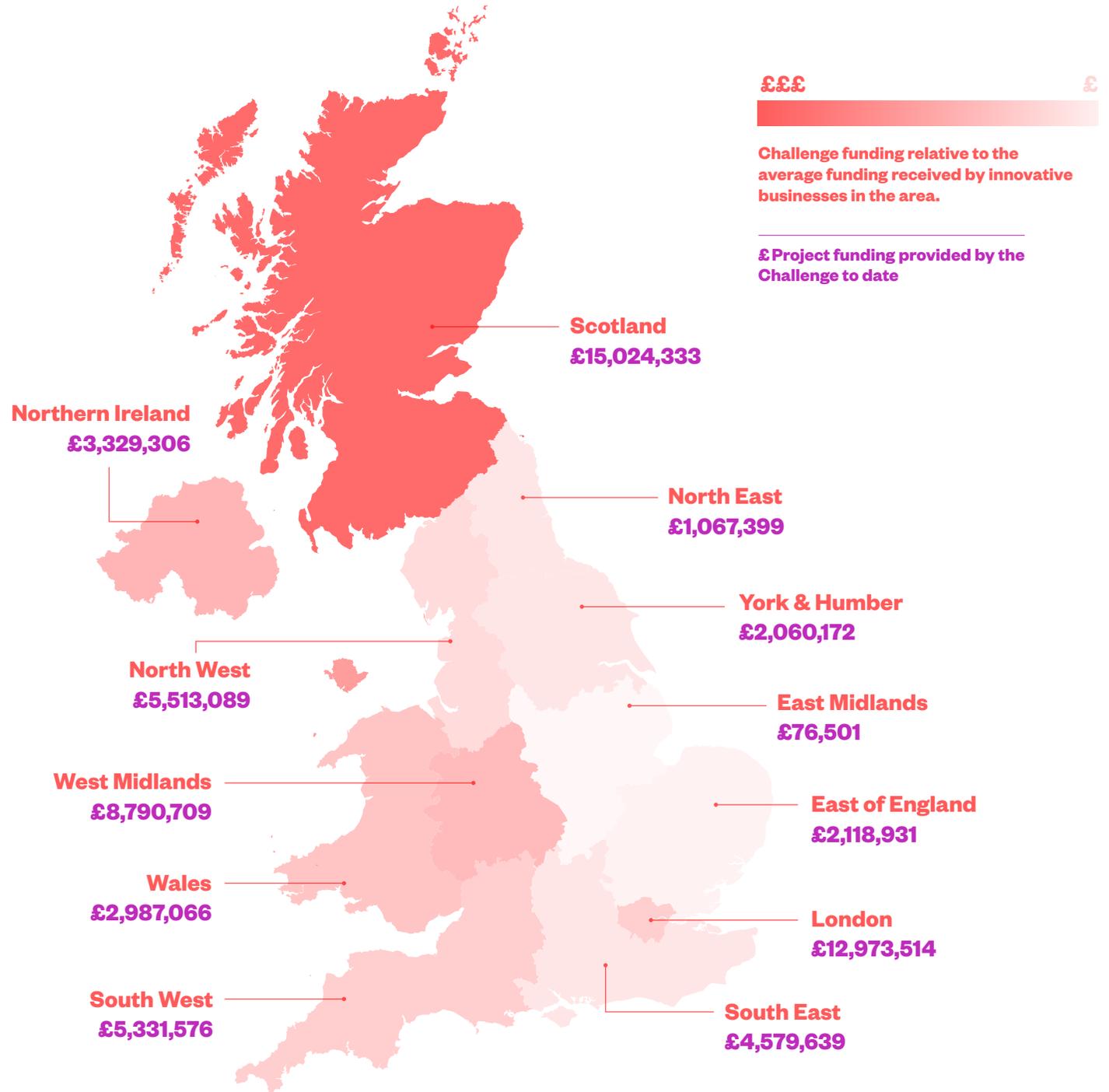
UNIVERSITIES ENGAGED

co-investment from industry



A UK-wide Investment Reach

We are playing a significant part in **levelling up** health, economic opportunity and growth across the UK. As this map illustrates, Challenge funding is **targeting change** where it could make the biggest difference.



An Agile Approach

Our investments span **multiple industries, sectors and academic disciplines** for maximum impact. Diverse experiences of ageing inform every stage of research, design and development.

The Challenge harnesses the very best of the UK's creative talent, to develop new and near to market innovations with the potential to be adopted at scale.

Challenge investments to date

TRAILBLAZERS

Funding*
£45million+

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

No. of investments
7

DESIGNED FOR AGEING

Funding
£27.7million

Harnessing the best of UK design talent and people-led principles to fund near to market innovations that have potential to scale.

No. of investments
26

SOCIAL VENTURES

Funding (up to)
£3million

Supporting social ventures' ambitions to expand their mission to help people age well.

No. of investments
31

COVID FAST RESPONSE

Funding
£600,000

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

No. of investments
9

INVESTMENT PARTNERSHIPS

Funding
£31million

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

No. of investments
7 (so far)

RESEARCH (SOCIAL, BEHAVIOURAL AND DESIGN RESEARCH PROGRAMME)

Funding
£12million

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

No. of investments
8

CATALYST AWARDS

Funding
£5million

Igniting university based innovations with the potential to meet the needs of older people globally. Led by academic research teams.

No. of investments
33

COMMUNITY OF PRACTICE

Membership
1,146

Bringing together organisations inside and beyond the Challenge to build a community of shared learning, accelerated development and collaboration.

*Funding amounts are total project costs.

Sustainable Impact at Scale

UKRI's Healthy Ageing Challenge embraces a huge societal change. In the past investments in early-stage innovation have largely failed to scale. **Our approach is different.** We focus on innovations using **sustainable business models** with significant potential to scale and spread.

Service focused

Unlocking economic potential means aligning healthy ageing solutions to the needs and aspirations of end users. There has been significant investment in technology. What is needed now is a focus on developing service innovations combining technology at relatively high readiness with solutions at low business readiness. That is why we have a research focus on the social, behavioural and design aspects that are critical for successful service development.

Innovation pipeline

Healthy ageing embraces a broad landscape. The market is still immature, predominantly served by small and

medium sized businesses. We are catalysing an innovation pipeline that emphasises scaling up new services while enabling continuous innovation at every stage of the development lifecycle.

Responsive approach

The Challenge's Delivery Plan operates in a landscape with a high degree of uncertainty where impact can be complex to achieve. That requires a need to remain agile, indeed our Designed for Ageing and Social Venture projects incorporate learnings from our earlier competitions as well as reflecting evolving needs.

Sustainable business models

Unlocking the economic potential of ageing populations means focusing on what people want and are willing to pay for. Solutions have to be attractive and affordable, hence our focus on inclusive design. Solutions providers also need customers, including public services, ready and able to pay for their services.



UKRI's Healthy Ageing Challenge embraces a huge societal change. In the past investments in early-stage innovation have largely failed to scale. Our approach is different. We focus on innovations using sustainable business models with significant potential to scale and spread.



From concept to scale-up, the Challenge is investing all around the UK across the entire innovation journey to develop new and near to market innovations.

Here are some of the stories that tell of the impact our investments are having...

OUR PROJECTS

Promoting Active Leisure for Healthy Later Lives

Engaging in leisure activities has been shown to be highly beneficial to people as they age¹⁵. A growing body of evidence is demonstrating the **positive effects of leisure pursuits** on cognitive function, physical function, and mental health.

But, as we move into later life, accessing leisure pursuits can become more difficult. Enhancing leisure opportunities in later life not only promotes healthy ageing, it creates employment, supports the economy, and decreases reliance on health services.

“We’re constantly striving to improve our knowledge and practices to support people living with dementia. By participating in ENLIVEN, we hope to establish new links and exchange knowledge with partner organisations.”

Claire Leighton, Community Development Manager, Strawberry Hill House

Research

ENLIVEN

Making outdoor activity accessible for people with later life dementia.

Lead Partner: University of Exeter

Areas: UK-wide

Staying physically active can help you remain independent by preventing loss of physical mobility. It may also slow age-related cognitive decline¹⁶. But for people ageing with dementia, there are many barriers to accessing nature outdoors.

ENLIVEN is a three-year project addressing those barriers. The research

25%
of people aged 50 to 70 are physically inactive¹⁷



informs the co-design and evaluation of sustainable business initiatives. The work enhances the outdoor visitor economy’s capacity to ensure accessibility for people with cognitive impairment.

ENLIVEN also aids post-COVID-19 recovery by creating new market potential and competitive advantage for businesses across diverse UK locations.

People living with dementia, especially those living in deprived areas and from ethnic minorities, are informing the research, which uses

creative, arts-based approaches to ensure meaningful engagement.

ENLIVEN supports a wide network of stakeholders in helping create more accessible, enjoyable and stimulating experiences. The strategy includes a Knowledge Exchange Forum and small grants to support the development and implementation of innovations.

Through a Community of Practice, a growing network of nearly 50 businesses are connecting and sharing experiences about becoming dementia-friendly.

Social Venture

Active Families

Supporting the health and wellbeing of vulnerable people as they age.

Delivery Partner:

Active Families North East

Area: Sunderland

Since the COVID-19 pandemic, the decline in physical activity amongst over-50's has accelerated¹⁸. This project will use activity - 'nature's medicine' - to improve the health and wellbeing of vulnerable older people, many of whom are living in poverty.

A multitude of interventions will include a touring 'well bean' van, equipped with exercise equipment, seating, coffee and other refreshments. The aim is to make physical activity accessible and enjoyable in an innovative way.

Detailed evaluation will inform the replication of the model across the North East of England.

REGULAR PHYSICAL ACTIVITY REDUCES THE RISK OF HIP AND KNEE OSTEOARTHRITIS PAIN BY 6%, DEPRESSION BY UP TO 30%, AND FALLS BY 76%¹⁹



Research

Connecting Through Culture as we Age

Digital innovations to tackle inequalities in arts and culture participation.

Lead Partner: University of Bristol

Area: Bristol

The pandemic has exacerbated loneliness in later life, increasing reliance on digital services. COVID-19 restrictions have also profoundly affected the arts and culture sector. This project tackles these issues simultaneously - meeting demand for digital innovations in the creative sector, whilst building audiences for the arts and increasing social connections as people age.

The project forges partnerships with people in later life, community organisations working with older disabled, socioeconomically and racially minoritised people, and the creative industries. It is researching the structural barriers to digital participation, how participating in art and culture promotes healthy ageing, and how to make digital cultural participation accessible and meaningful in later life.



This understanding will be used to design, develop and commercially evaluate inclusive digital innovations for people to embrace arts and culture as they age. The results will foster digital innovation across Bristol - identified as one of the key city regions outside London with international growth potential in the arts and culture sector.

OUR PROJECTS

Keeping People Happy, Healthy and Productive for Longer

As of 2020, one third of UK workers were aged over 50, yet **only 30% of women and 40% of men are still in work at 65²⁰**.

Unemployment not only risks people’s independence, health, and happiness, it is a wasted resource. By supporting later life working, we embrace the rich, diverse benefits of later life experience, for the benefit of business, the economy, and society.

Trailblazer

Business Health Matters

Early intervention to head off employee health problems.

Partners: Active Lancashire, University of Central Lancashire (UCLan), Lancashire Mind, ukactive

Area: Lancashire

In Lancashire, age-related health problems often manifest significantly earlier than in more affluent areas. This costs Lancashire businesses an estimated £650 million a year in lost productivity. Active Lancashire saw a way to address the issue, while combating shortages in trained health staff by upskilling a new workforce.

Business Health Matters is training gym and leisure centre staff to perform health screenings in the workplace. As part of this, Active Lancashire has joined forces with UCLan and Lancashire Mind to

“Without doubt this has been a catalyst in joining staff together in exercise and healthier eating. Santé Group advises other employers on how to attract and retain staff...so taking on the Active Lancashire service has been great for us to practice what we preach and increase our employee focus on the importance of measuring our health.”

Paul Nugent, Chief Executive, Santé Group

develop a workplace health screening tool, and is consulting with 400 businesses to develop early health interventions for employers and employees.

Active Lancashire’s physical and mental health screenings are especially aimed at SMEs, low-wage areas, ethnic minority employees and sectors with transient staff, to address inequalities in early interventions for healthy ageing.

Tackling age-related health problems early reduces demand on GP services. It also helps businesses meet their duty of care and retain a productive, happy workforce.



Research

Healthier Working Lives

Promoting healthier working lives and ageing for care workers over 50.

Lead Partner: University of Edinburgh

Area: Edinburgh

Care sector workers face a perfect storm of low wages, insecure employment, and burnout. These problems worsen for care workers aged over 50.

This major research programme is bringing together digital, creative, academic, and commercial partners, along with care workers themselves. The project identifies ways to promote healthier working lives and healthier ageing for older care workers – developing their careers, enhancing user continuity and promoting everyone’s wellbeing.

The programme aims to transform aspects of the care sector through co-production with care workers, stimulating entrepreneurship to generate innovative products and services that will improve recruitment and retention amongst older care workers, as well as enhancing their health and wellbeing.

Trailblazer

Tribe Project

Addressing inequalities in local and national care and community support.

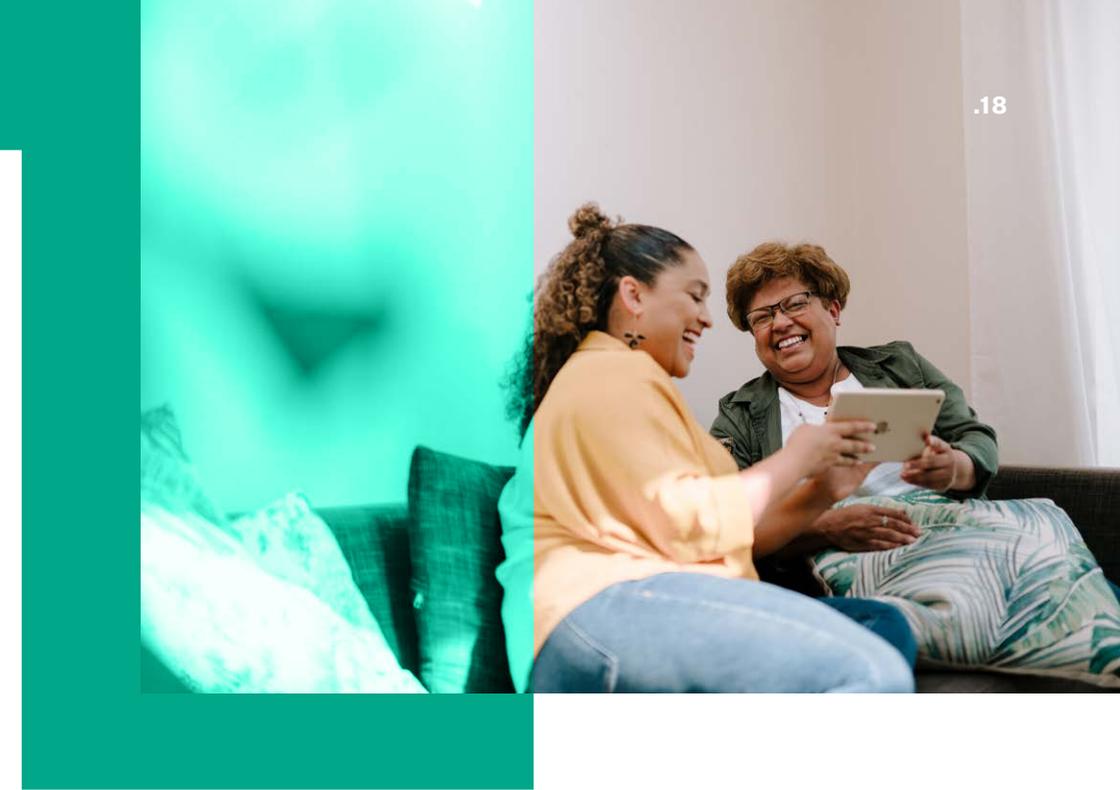
Lead Partner: Bronze Software Labs

Areas: UK-wide

Access to later life care is significantly affected by where we live²¹. Bronze Software Labs spotted an opportunity to address the problem, after the company’s CEO experienced the disparity first-hand through a family member.

The project aims to eliminate care inequalities in later life care. An artificial intelligence engine builds a picture of regional care landscapes using multiple data sources – including local authorities and the NHS. Local councils can then map present and future care needs against available services, identifying gaps and then training new carers – including volunteers.

The Tribe Project is also enabling the upskilling and accreditation of new paid and voluntary carers with the aim of creating up to 750 micro-enterprises and



ONLY 30% OF WOMEN AND 40% OF MEN ARE STILL IN WORK BY THE AGE OF 65²⁰

stimulating local, flexible care markets. People can commission exactly the services they need with a council-run personal budget, reducing council costs, streamlining personalised care services, levelling up regional inequalities in care options, and creating new, better paid care jobs. The model is currently being tested in multiple areas of England.

“Our work with key stakeholders has reaffirmed that there is a great demand for our platform, and that it will have a significant impact on thousands of people’s lives in the future.”

James Brinkler, Director of Bronze Software Labs (Tribe Lead Partner)

OUR PROJECTS

Transforming the Future of Independent Living

In homes headed by someone aged 55 and over, there are 1.6 million owner-occupied, non-decent households²².

We are supporting innovations that showcase the best of UK creativity and will deliver **aspirational housing stock** for the future. We are working with partners to develop close to market solutions that enable people to remain safe and **independent in their own home for longer**.

2 MILLION+ OLDER PEOPLE LIVE IN NON-DECENT HOUSING IN ENGLAND²³

Trailblazer

Homes For Living

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

Partners: E.ON, Newcastle University

Area: Midlands

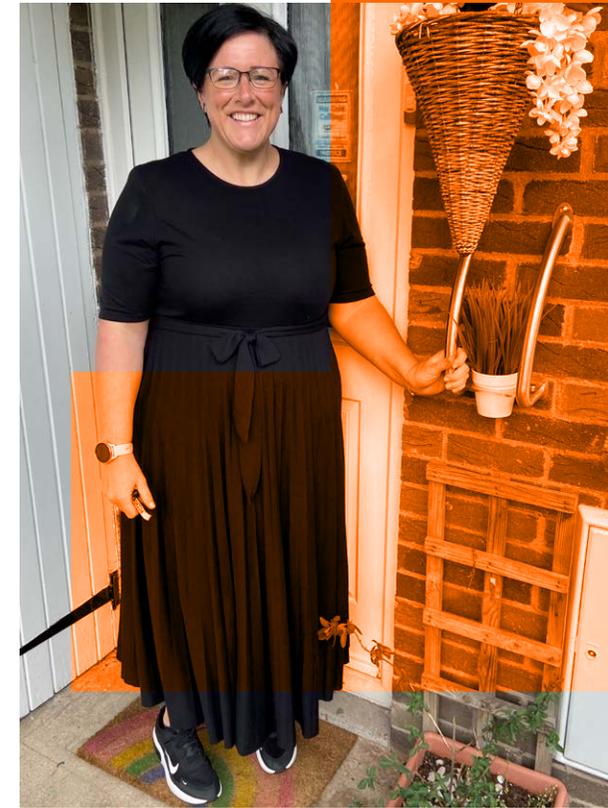
Led by E.ON, this Trailblazer project harnesses the UK’s renowned design talent to create warmer, safer homes, enabling older people to stay independent for longer.

Research tells us that older people can be disproportionately affected by accidents in the home and fuel poverty. They would benefit from warmer, more efficient and safer homes but they also want discreet, modern, aspirational and affordable adaptations that keep their home feeling like a home.

Homes for Living builds on E.ON’s participation in the Warm Homes Fund. The programme moves beyond energy measures to offer innovative home improvement adaptations that enable older people to live independently and safely for as long as possible in their own homes.

Innovative design modifications - such as induction hobs that switch off automatically when not in use and shower fixtures that double up as handrails – achieve all of these goals.

The project initially focuses on where accidents are most likely: entrances, kitchens, and bathrooms. It creates smart, inter-generational homes with aspiration, dignity, and inclusivity at their heart.



“My friend came and said she loved my plant pot holder, I had to tell her it was also a handrail. Now she uses it when she comes over!”

Customer, E.ON Homes for Living



Trailblazer

Peoplehood

Creating neighbourhoods for independent living.

Lead Partner: Blackwood Homes and Care

Area: Scotland

Being able to stay in their own home, within their communities, is the real key to a good quality of later life for many people. Peoplehood is seeking to create neighbourhoods that support people as they age so they can stay healthy and in their own homes for longer.

The team are working in partnership with residents in three demonstrator neighbourhoods alongside local authorities, health providers, industry, and academia, to meet the challenges of designing age-friendly homes, sustaining physical activity, managing common

complaints of ageing, and supporting social connections.

Community co-design is at the heart of the work, for example when developing a value-exchange model which encourages and rewards participation in a neighbourhood, or in the creation of the Blackwood House and Design Guide. A blueprint developed for affordable, connected and accessible homes, which people can adapt as they age to enable them to continue living in them independently. Sixty six of these innovative homes are currently being built in Charleston.

Inside these homes, AI technology is being put to novel use in an experimental intelligent system that flags up unusual activity that could indicate a need for help, for example a kettle left unused all morning.

All are examples of the thoughtful innovative design that is reimagining the future of housing and homes for longer, healthy, independent living.

“The Peoplehood project has been co-designed and co-created to rebalance inequalities, and empower and encourage and reward people to take an active role in their ageing journey.”

Colin Foskett, Head of Innovation at Blackwood Homes and Care

Trailblazer

Healthy Homes, Healthy Lives

Creating housing fit for now and the future.

Lead Partner: London Rebuilding Society

Areas: London, Brighton

In the UK, 1.6 million older people occupy homes that have fallen into disrepair²³.

These people are typically vulnerable, living on low incomes, and in poor health. Often, their homes deteriorate to become energy inefficient, hazardous, or both - increasing the risk of moving prematurely into care.

London Rebuilding Society (LRS) identified a market failure. The financial system excludes older people who are asset-rich but cash-poor. Unlocking finance to fund renovations is difficult, if not impossible.

Healthy Homes, Healthy Lives involves a new financing model that enables homeowners from across the socio-economic spectrum to access lending based on the value of their homes after improvements, with LRS taking on the design and construction risks.

Homeowners are involved in a co-design process. The project supports them through daunting renovations by entering into the works contract with contractors and standing between the homeowner and contractor to ensure quality and peace of mind. It also provides access to affordable connectivity, assistive technology, and energy efficiency solutions.

Rolling out across London and Brighton and with the potential to scale right across the UK, LRS are on their way to meeting their goal of helping at least 250 homeowners within a three year period.



OUR PROJECTS

Creating a Thriving Future for Health and Social Care

3.5 million older people in the UK need support to enjoy the later life they want. **By 2040, this will rise to 5.9 million²⁴**. Physical activity, social connectivity, and the ability to live independently all have a profound impact on ageing healthily with an acceptable quality of life.

By shaping the future of the social care sector, we are supporting healthy ageing and generating economic growth through commercial innovations and new, exciting career opportunities.

3.5 million older people in the UK need support to enjoy the later life they want²⁴

Research

Generating Older Active Lives Digitally (GOALD)

Unlocking digital innovation to improve older peoples' wellbeing.

Partners: University of Stirling and University of Plymouth

Areas: Scotland, South-West England

36% of people aged 65 and over in the UK live alone²⁵. Research shows that loneliness increases incidences of accidents, poor health, GP visits and early care home admission.

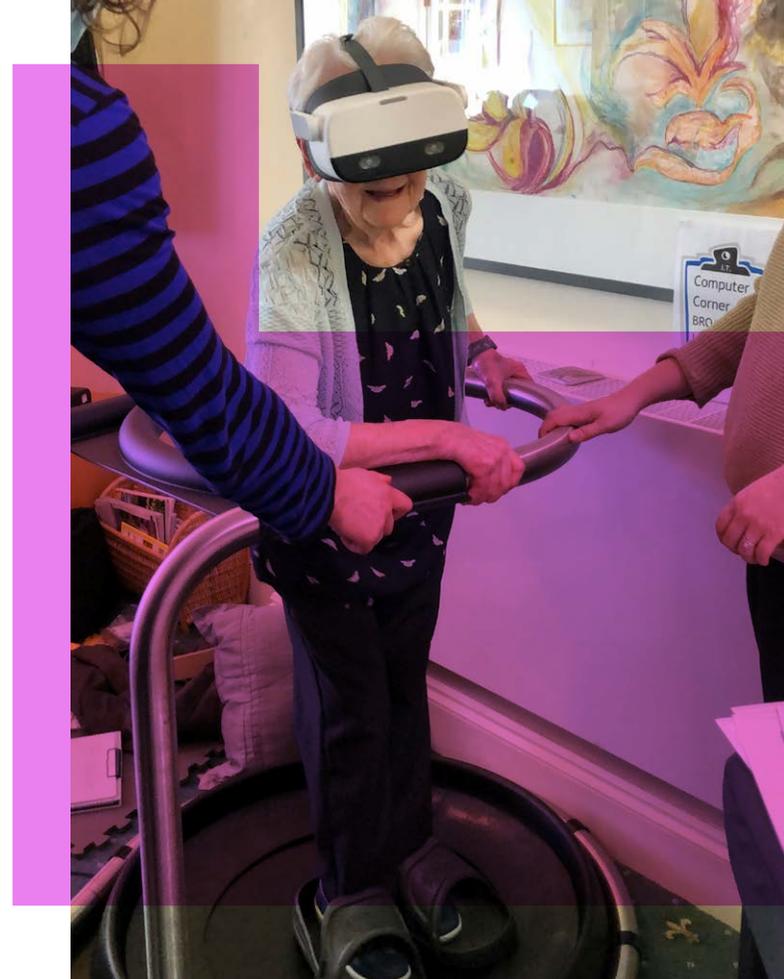
GOALD is a three-year research programme exploring how older people can engage with physical activity through digital means. It is based on two existing initiatives; intergenerational

physical activity and sports-based intergenerational reminiscence. Older and younger people from diverse backgrounds are actively involved in research, testing and feedback.

GOALD explores older people's barriers to digital connectivity. It assesses the potential impact of digitally delivered health promotion tools. It documents the possible problems, opportunities, and benefits to inform business, not for profit

and community partners as well as policy makers.

Currently, the programme is recruiting participants for its intergenerational co-production groups, which will explore the latest in digital technology. Products include a virtual reality headset and treadmill which will be used to explore places of cultural significance such as Powderham Castle and Polperro in Cornwall, recreated in stunning VR.





Investor Partnership

Reinventing the Future of Home Care

Creating a new care model for older people to thrive.

Investment Partner: Northstar Ventures

Delivery Partner: BelleVie

Areas: Thames Valley, North East

Most older people want to remain in their own homes for as long as possible. Many require some degree of care to do so.

But the 'time and task' model of home care is broken. Older people feel they are a 'tick box'. Staff are demotivated. Even prior to the pandemic, 38% of care workers were leaving the profession annually²⁶.

BelleVie Care is pioneering an alternative solution, enabling older people to thrive while creating attractive, meaningful careers. Self-managing teams of Wellbeing

Support Workers have the autonomy and knowledge to personalise and optimise care strategies. BelleVie has so far built eight teams, been rated 9.6/10 by clients and has achieved an impressive employee Net Promoter Score (eNPS) of 62%.

This two-year investment programme scales up the concept. It will build a whole operating system to underpin a network of these teams, support them with digital tools, and research how best to measure outcomes relevant to each individual client.

“BelleVie is an overall amazing company. It’s all self-managed so you work as a team to do your own rota. You can work around your life and commitments. This means there is an amazing work-life balance.”

Support Worker & BelleVie user

Investor Partnership

Healthy Ageing Pharmacogenetics and Polypharmacy (HAPPY)

Safeguarding against the risk and cost of medication side-effects.

Investment Partner: Legal & General

Delivery Partner: Congenica

Areas: UK-wide

Polypharmacy is the use of multiple prescribed medications simultaneously. An estimated 2 million older UK people take 7 or more medications²⁷.

Adverse side effects increase the risk of falls, cognitive impairment and physical harm. The collective cost of such drug reactions is £400 to £530 million annually.

This project assesses the health benefits of pharmacogenetics (the study of how genes affect an individual’s response to drugs). It will inform a scalable Clinical Decision Support platform, alerting healthcare professionals to situations where a prescription revision might be beneficial. And it will empirically assess the benefit to patients over time.

Putting Later Life Experiences Centre Stage

“Some people are excluded from the simplest and most basic of everyday experiences. Why? This is because the act of designing has given insufficient consideration to their level of physical ability or cognitive difference or cultural background or economic circumstance.”

Jeremy Myserson, Helen Hamlyn Chair of Design at the Royal College of Art²⁸

Inclusive design

The Challenge advocates inclusive design, an approach aimed at innovating the world around us for the greatest benefit for the maximum number of people, including those on the margins. This makes commercial sense by bringing in broader markets and making attractive designs that step away from ‘medicalised’ products that stigmatise older age.

Inclusive design principles run right through the programme, from research approaches, through to the knowledge shared via our Community of Practice and

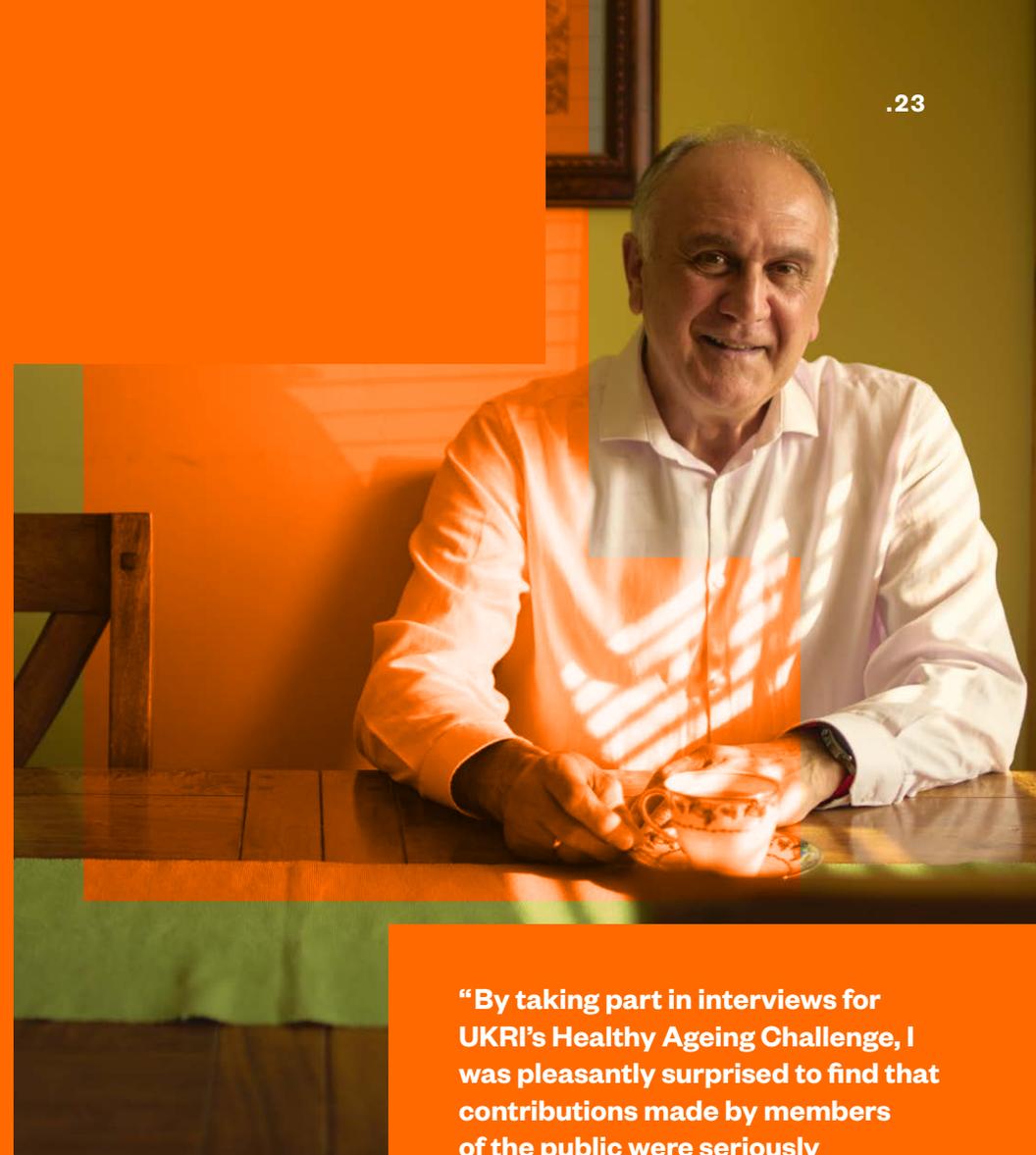
in our focus on impact investment where social ventures are making a difference at a grassroots level.

Nothing about me without me

Inclusivity means understanding first-hand the diverse lived experiences of ageing. One measure making a difference is our commitment to citizen representation. The Healthy Ageing Challenge incorporates citizen views in its decision making and is held accountable for this by UKRI governance and through an external Advisory Group.

“I have had the privilege of representing end users to raise awareness of users’ feedback on new products and systems designed to aid healthy ageing. Importantly, this feedback was listened to, and considered, by members of the panel - and the Healthy Ageing Challenge team provided excellent support.”

Ros Wilson, Citizen Representative, Designed for Ageing Selection Panel and member of VOICE



“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 VOICE

Catalysing the Sector

When the Healthy Ageing Challenge was conceived, healthy ageing was not a recognised industry sector or category. This is changing. **The Challenge is helping shape a sector** defined by a social purpose working across all parts of society and influenced by a range of industries. It is an incredibly diverse sector as reflected in our five 'Trailblazer' projects with each led from different fields: Care, leisure, digital, financial services and utilities.

Connecting innovators

We are supporting and creating opportunities to learn and share insights right across the healthy ageing ecosystem through our Community of Practice. This is driving collaboration and knowledge sharing amongst our investments and also beyond in the wider sector.

Supporting a growing ecosystem

This Challenge is acting as a catalyst for real change. Since the Challenge was launched we have supported and influenced the many ways the healthy ageing community has grown:

- National Innovation Centre for Ageing opened its doors.
- Design Age Institute founded - a collaboration led by the Royal College of Art.
- All Party Parliamentary Group for Longevity published 'The Health of the Nation Strategy for Healthier Longer Lives'.
- Business For Health coalition established by leading businesses committed to reducing health inequalities and improving healthy life expectancy.
- British Society of Gerontology formed a special interest group on Ageing, Business and Society, bringing the ageing research and business communities closer together.

Drawing on a broad research base

There is a growing academic community providing a broad-based foundation of research across the UK with over 40 centres specialising in aspects of healthy ageing. These are now supported by 11 new research networks connecting 28 universities aimed at transforming ageing research in the UK.



“It’s a privilege to contribute to the Challenge’s progressive approach to delivering impact, by directing research to provide the strong evidence base needed for businesses to develop products and services that can transform the lives of older people and society.”

**Judith Phillips, Professor of Gerontology
and Deputy Principal (Research) at the University of Stirling**

Projects

Trailblazers

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

Active Lancashire: Business Health Matters

Blackwood Homes & Care: Peoplehood

Bronze Software Labs Ltd: Tribe Project

E.ON: Homes for living

Greater Manchester Combined Authority: Connected Communities for Healthy Ageing Project

London Rebuilding Society: Healthy Homes, Healthy Lives

Urban Splash Ltd: Waterside Meadow

Investment Partnerships

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

BelleVie: Reinventing the future of homecare

Brain in Hand: Support for autistic adults

Circadia: ElderEye

Congenica: Healthy Ageing Pharmacogenetics and Polypharmacy/HAPPY

Manus Neurodynamica: Digital non-invasive Alzheimer's test

onHand: Uber for Volunteering

XR Therapeutics: Immersive tech to treat ageing population phobias

Social, Behavioural and Design Research

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

Connecting Through Culture as we Age (University of Bristol)

Designing Homes for Healthy Cognitive Ageing (University of Stirling)

ENLIVEN (University of Exeter)

Generating Older Active Lives Digitally/GOALD (University of Stirling)

Healthier Working Lives (University of Edinburgh)

SHAW/Supporting Healthy Ageing at Work (University of Edinburgh)

SPACE (Queens University, Belfast)

Catalyst Awards

A career pipeline from military service to rewarding civilian work for over fifties (University of Hull)

Active ageing environments: Embedding physical activity around the place we live (Sheffield Hallam University)

Academic research teams developing innovations with the potential for commercialisation.

AI-enabled portable incontinence management device (University of Edinburgh)

Addressing the change in memory: Herbal self-care in menopause (Northumbria University)

Co-developing a meaningful digital platform to enhance mobility of community-dwelling older adults (University of Sussex)

Co-developing a peer-to-peer mentorship program with people living with dementia (Leeds Beckett University)

Continuous monitoring of vascular age (University of Surrey)

Counselling people with dementia: An accessible, community-based model (University of Edinburgh)

Developing a digital peer support platform for carers of older adults (London School of Economics & Political Science)

Development of an affordable and intelligent robotic knee device for older people with knee osteoarthritis (University of Leeds)

Development of the WESTERN plan for promoting active ageing in care and retirement residencies (University of Bath)

Dynamic muscle function monitoring (Newcastle University)

Elderly drivers' behaviour and fitness to drive (University of Sheffield)

Evaluating accountability platforms for care (University of East Anglia)

Evaluating the Lifecurve approach and developing an app for rehabilitation and healthy living (University of Strathclyde)

Exploring how to use mixed reality and telepresence technology to tackle loneliness and social isolation (Cardiff University)

Flexible living to age in place (Northumbria University)

Improving quality of life for older autistic people (University of Glasgow)

Integrated tech to support ageing with diabetes (University of Sheffield)

Interaction, dementia and engagement in arts for lifelong learning/IDEAL (Newcastle University)

It takes a community to prevent a fall (Bournemouth University)

Leveraging digital phenotyping to support patients with vision loss (University College London)

Lower limb loading during sports movements (University of Exeter)

Making reading real (University College London)

Muscle strength as a 'building block' for healthy ageing women (Sheffield Hallam University)

Online exercise pathway (Oxford University Hospitals NHS Trust)

Physical activity, social connectivity and dementia (University of Hertfordshire)

Precision medicine in the home for real-time zero-effort monitoring of health (Imperial College London)

Preventing avoidable blindness through smart home-monitoring of vision (City, University of London)

Re-dressing ageism in fashion (University of Kent)

Reviewing physical activity in older adulthood (University of Bath)

Storytelling games for social connection and reminiscing by older people (University of Surrey)

The gut-sleep-brain axis: Targeting gut microbiota and sleep quality to promote healthy ageing (University of East Anglia)

COVID Fast Response Awards

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

Beonhand: Uber for volunteering

Bronze Software Labs: Tribe Project

Future Public: Design Age Accelerator

Karely: Turning communities into caregivers and first responders

Local Treasures: Kick starting local economies

Mantrah Limited: Natural language processing-based knowledge base and chatbot for people with dementia and caregivers

Mobilise Care: Online support for unpaid carers

Physiomedics™: PhysioWizard®

Unforgettable Experiences: Arts, Culture & Heritage Adventures

Social Ventures

Supporting social ventures' ambitions to expand their mission to help people age well.

Active Care Homes: Active care homes through the arts

Active Families: Providing physical activity interventions to improve the health and lives of vulnerable older people

AE Partners Ltd PAW (Personal Alarm Watch): Developing an emergency support solution which predicts and prevents health problems using machine learning

Age UK Blackburn with Darwen: Designing and delivering a new service for the socially isolated who also struggle with technology

Appt Health: Preventive healthcare for managing the common complaints of ageing

Book of You: Connecting our communities, sharing our memories

Bron Afron Housing: Exploring the feasibility of introducing a senior co-housing model to meet the future needs of older people

BuddyHub: Tackling the loneliness epidemic amongst older people

Cricketqube: Making cricket accessible for everyone, anytime and anywhere

Damn It! Dance It!: Shaping creative, movement workshops for and by older people

Demential Compass: Providing support for people living with cognitive issues, their carers, and families

Disabled Living: Providing support, advice and information about assistive technology to help achieve independent living

Golf in Society: Introducing the social, health and wellbeing benefits of golf to our ageing population

Good Boost: AI-personalised exercise programmes for older adults living with

disabilities and musculoskeletal disorders

Hearing Partners: Programme for improving hearing and conversation to enhance social inclusion and productive working lives

INCH Architecture: Developing ambient assistive technology to help social housing landlords manage their assets and empower their customers to live independently

InCommon: Creating connected, inclusive and age-friendly communities

Local Treasures: Enabling older workers to maintain work in later life

Manchester Camerata, Music in Mind: Transforming the lives of those living with dementia, their carers and families with music, using digital technology

MedipropectusAI: Co-designing an AI-based television-enabled application (TEA) to increase social connectivity and address loneliness

Memory Matters: Using engaging interactive treatments to help people living with dementia and their loved ones thrive

Miicare: Using AI, apps and health therapeutics to tailor-make treatment, management and prevention of diabetes

MorphFit Gentle Movement Project Ltd: Delivering gentle exercise programme with lifestyle and wellbeing interventions

OOMPH: Platform which gives older adults more independence and the ability to manage their individual wellbeing

Rural Design: Low cost, energy efficient, modular terraced housing for older residents of rural areas

Shine Public Health: Using an innovative technological platform to increase levels of physical activity and quality of life

Syrona: Creating digital therapeutics (DTx) solutions to support people experiencing menopause in the workplace

Theory of 30: Connecting people with local physical activity opportunities to improve health and wellbeing

Transitions Service: Developing an app based 'transition service' to help people prepare for and better navigate significant transitions in later life

Unforgettable Experiences: Arts, culture and heritage adventures. Interactive therapeutic sessions online to improve cognitive functioning and increase social connectivity to enhance wellbeing

WeWalk: Developing a smartphone app to provide an accessible navigation and exploration solution for visually impaired users

Designed for Ageing

Accenture: AI enabled smart home assistant solution to combat social isolation and loneliness

Amba Health & Care: Self-care service covering health, wellbeing, safety and independence

Better Home Care Services: Complete care companion utilising gamification, machine learning and automation

Connected Health: Remote incontinence care innovation

Connected Health Systems: New model of self-care in medicines management

Cross Digital: Platform to ensure older adults get the care, products and services they need

Eargym: App to improve personal confidence and hearing capability

Good Boost Wellbeing: Transforming gyms into community MSK hubs

Health Companion: AI based platform, to help BAME communities self-manage their long-term conditions

Holly Health: Digital coaching service to support the attainment of personalised healthy ageing goals

Koalaa: Soft-orthotics service to help the over 50's adapt to upper-limb impairment

KYMIRA®: Maximising Inclusiveness in Sports through Female-centric Innovation and Technology/MISFIT

Music In Mind Remote: Digital delivery of music activities to people living with dementia

MySense: Connected care solution with predictive insight

PhysiMedics™: Technology, tools and services to improve MSK condition management

POSE AR & HeroRehab: Improving preventative care, functional fitness and mobility

Shapemaster: Assisted Gamified Exercise For All/AGE4A

Sitekit: Improving the efficiency of health and care systems

SmpliCare: Self-care platform to predict, prevent, and manage common health issues

Tactuum: Local information system for Scotland about services, groups, activities and resources

Taking Care: Providing care services technology in an effective, cost efficient way

Tech In Care: Hospital to Home; an extension into intermediate care

Tendertec & Fitbees: Home sensors and wearable tech to motivate and support physical activity

Vira Health & Stella: Managing Menopause for Healthy Ageing

VRGO & Fyt: Using AI to improve sedentary workforce ageing

WeWALK: Self-calibrating navigation system to help with visual impairment

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