Healthy Ageing Innovation Cluster

AGENDA

- *09:30*   *Tea/Coffee & Registration*
- 10:00   **Welcome and Cluster Update**   Moira Mackenzie, DHI
- 10:15   **UKRI Director of Research, Healthy Ageing Innovation Challenge** - Professor Judith Phillips
- 10:45   **Intro to Advanced Care Research Centre** - Professor Ian Underwood
- 11:00   **Scotland's AI Strategy Consultation** - Steph Wright, The Data Lab
- *11:15*   *Tea/Coffee refresh*
- 11:30   **Developing a data and innovation platform for Care Homes** – Dr Susan Shenkin/Lucy Johnston
- 12:00   **The potential of technology to promote social connectedness for adults in Scotland** - Alison Dawson,   University of Stirling
- 12:15   **ECHAlliance Ecosystem Opportunities** - Andy Bleaden, ECHAlliance
- 12:20   Cluster Feedback & intro to Afternoon Session   Moira Mackenzie, DHI
- *12:30*   *Lunch/Networking*
- 13:30   **Co-design workshop on Care Giving Innovation Fund Challenge** – Leah Lockhart, Facilitator
- *15:30*   *Close*

Aim: To accelerate digital innovation and Adoption in health and care.

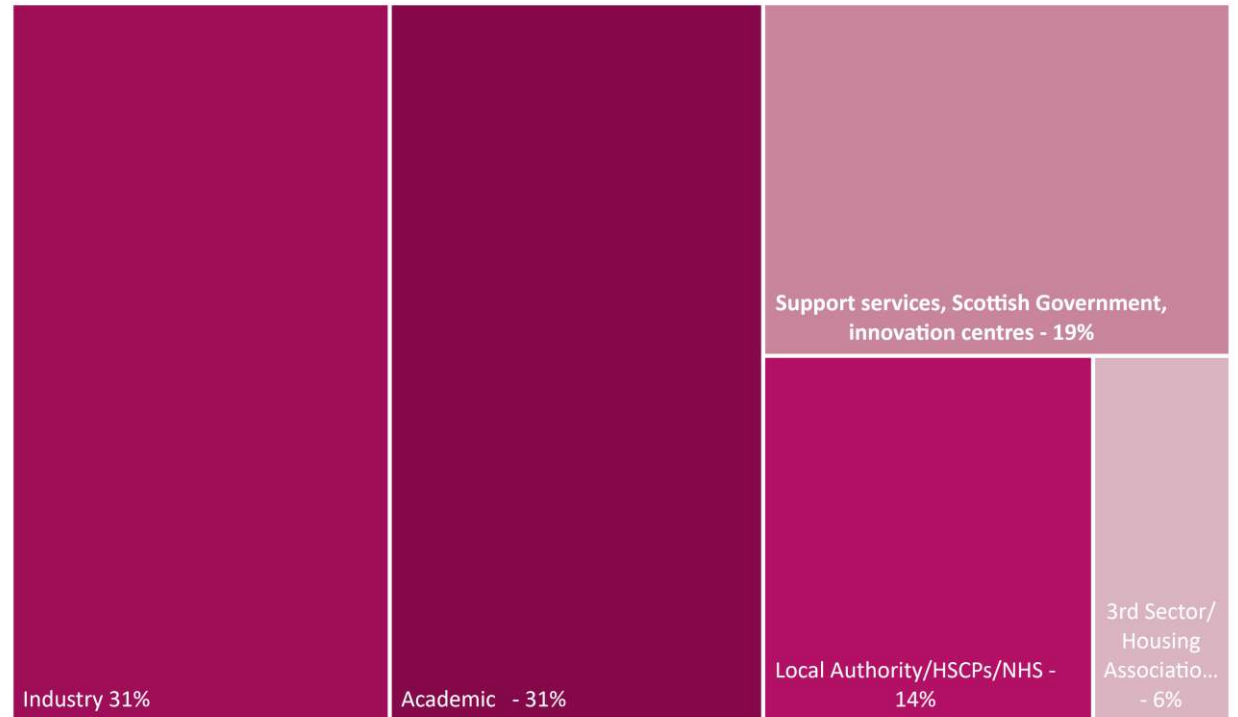| Create	Share	Build	Seek & Solve	Opportunities
Create a collective of shared interests, expertise and skills	Share information and support knowledge exchange	**Build Collaborations that are greater than the sum of their parts.**	Seek and solve demand led challenges	Identify funding/host challenge opportunities

Cluster Membership & Activity to date

- 270+ individual members

- 5 meetings since Dec 2018

- Average of about 60 attendees per cluster

- Survey out at the moment for feedback on the impact of the cluster to date and how it will move forwards…please take 5 minutes during coffee/lunch to complete the survey.

HAIC Membership – 270 individual members – February 2020

Industry 31%

Academic - 31%

Support services, Scottish Government, innovation centres - 19%

Local Authority/HSCPs/NHS - 14%

3rd Sector/ Housing Associatio… - 6%

Funding Opportunities

▶ Innovate UK Smart Grants – Closing date 22nd April 2020

   ▶ £25k - £500k –for projects between 6-18 months.   £25k - £2m for projects between 19-36 months. Further information: https://apply-for-innovation-funding.service.gov.uk/competition/515/overview?utm_source=December+HAIC&utm_campaign=fe6e29cfd4-EMAIL_CAMPAIGN_2020_01_07_09_36&utm_medium=email&utm_term=0_bd107602c8-fe6e29cfd4-335810841#summary

▶ NIHR – 20/07 Mobile data for public health – closing date 28th July 2020

   ▶ How can mobile data be used in Public Health? Interested in receiving applications interested in using a range of potentially innovative designs and methods to evaluate whether, how and at what cost, existing publicly available non-health mobile digital technologies could be used to improve population health in the UK. tps://www.nihr.ac.uk/documents/2007-mobile-data-for-public-health/23623

Funding opportunities continued…

- **Voices for Diagnosis – £10k USD -** The Foundation for innovative new diagnostics, with sponsorship from Becton, Dickson & Company and Johnson and Johnson – for implementing innovative new approaches to improve access to and demand for, timely and cost effective diagnostic solutions for infectious diseases in low and middle income countries – this call theme is "protecting antibiotics by promoting approaches that support evidence based prescribing".

- **Tech for Good - £50k per project** - Comic Relief, in partnership with the Paul Hamlyn Foundation, will be opening the next Tech for Good Programme in February 2020.   This fund supports not-for-profit organisations who already have some technical capabilities to take their digital innovation projects forward.   The awards will focus on 4 core areas: Children survive and thrive, global mental health matters, Fighting for gender justice and a safe place to be.

- **Innovate UK – Digital Health Technology Catalyst –** Anticipated June 2020

HAIC Survey – initial feedback

- **Top 3 cluster activities:**
  - Identification of funding and collaboration opportunities
  - Sharing information and exchanging knowledge
  - Being part of a collaboration that is greater than the sum of its parts

- **Missing activities?**
  - A digital collaboration environment for sharing knowledge and help networking/link ups
  - Looking at standards and regulations
  - User Group Representation
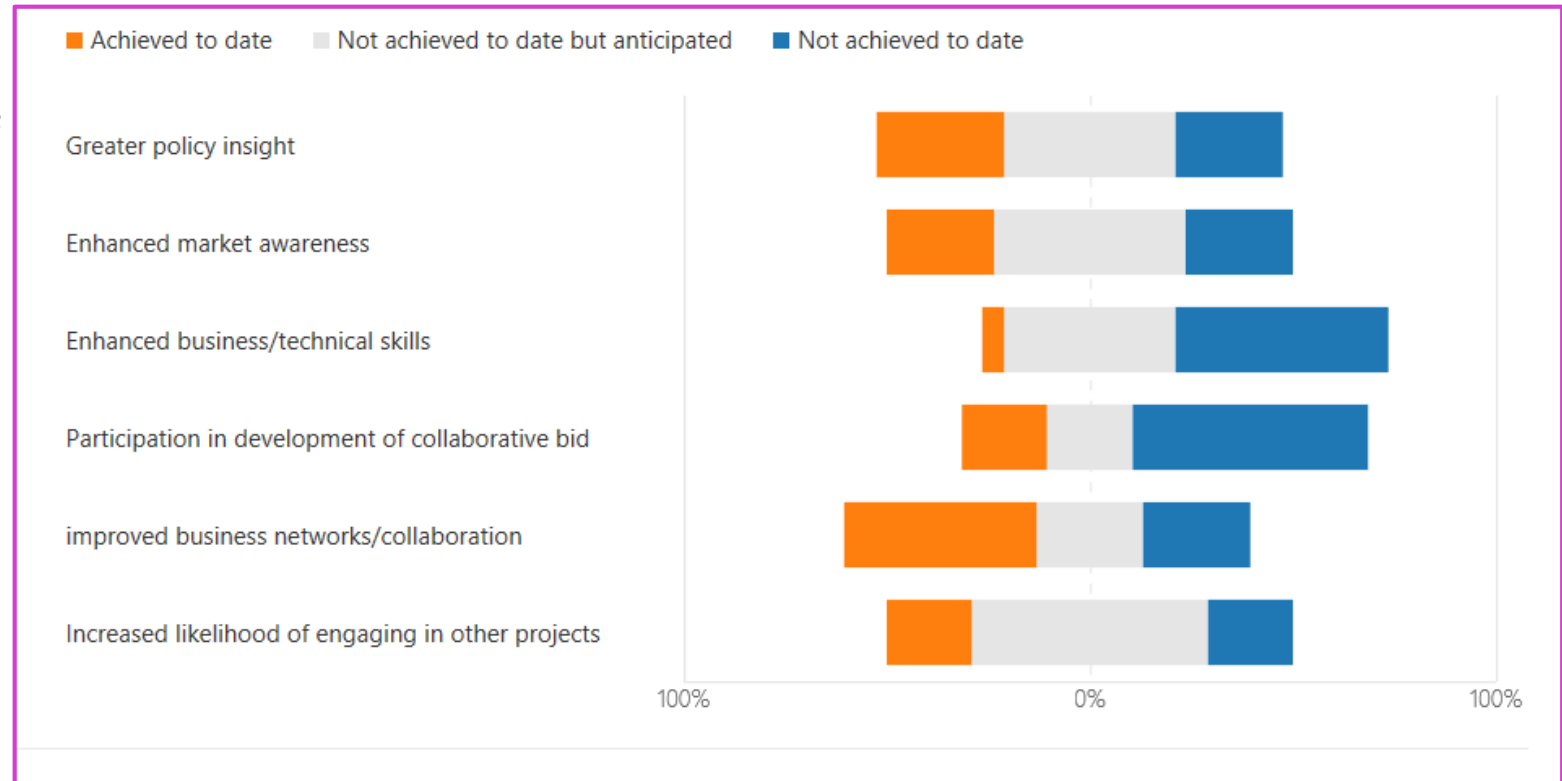 - Web-ex facilities

Feedback continued…

- **How can the cluster be improved in 2020?**
  - Distributing profiles/attendee lists prior to event to aid networking/Online capacity for making connections
  - Help to quantify the problems being addressed
  - More opportunities for pitches
  - Create a forum for developing new and innovative opportunities – led by cluster members
  - Honour those making a contribution
  - Bring in stakeholders who live with the issues the cluster is trying to address

Feedback continued…

Benefits and impacts

- Provides a greater understanding of the front line challenges

- understanding the sector better.

- Useful to meet people and understand where they are coming from and why they might not understand or appreciate the same things you do.

Legend: Achieved to date | Not achieved to date but anticipated | Not achieved to date

- Greater policy insight
- Enhanced market awareness
- Enhanced business/technical skills
- Participation in development of collaborative bid
- improved business networks/collaboration
- Increased likelihood of engaging in other projects

100%   0%   100%

HAIC Survey Participation

▶ https://tinyurl.com/haicsurvey

Can Do Innovation Challenge Fund

SUPPORTING INNOVATION
IN THE PUBLIC SECTOR

Scottish Enterprise

CANDO

SCOTLAND O
IT'S TIME TO MAKE HISTORY

Fund Benefits

Public Sector – Challenge Sponsor
- Explore creative solutions
- Reduced delivery costs
- Deliver improved service quality
- Reduced risk to developing innovative solutions
  - Up to 100% funding to find and develop solutions
  - Phased, competitive procurement process

Industry – Challenge Solver
- Access to crucial 1st customer
- Demonstrate technology with challenge sponsor
- Stepping stone to wider market exploitation
- 100% funding for R&D costs
- Retain the right to exploit IP

CAN DO
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IT'S TIME TO MAKE HISTORY

Results to Date

Public Sector (Sponsors)
- 4 calls
- 116 applications
- 52 organisations
- 23 projects approved
- 18 launched

Company (Solvers)
- 261 applications to first 12 projects
- 55 contracts awarded
- 58% Scottish winners.

Example Project Sponsors

CAN DO

SCOTLAND
IT'S TIME TO MAKE HISTORY

Can Do
- Challenge Attributes Required

- Clear challenge identified, significant impact on public service/policy delivery if solved.
- Market assessment – no solution available and require innovation.
- Line of sight to implementation and roll out - don't just want tech demo!
- Project management resource to lead project.
- Significant market for the solution outside 1st customer.
- Strength in Scottish supply chain to compete and benefit.
- Further info on Can Do ICF and other support at https://www.openinnovation.scot/support-and-funding
- Contact Team to discuss challenge ideas - candoicf@scotent.co.uk

CAN DO

SCOTLAND
IT'S TIME TO MAKE HISTORY

Key challenge updates

Healthy Ageing Challenge:
Social, Behavioural and Design Research Programme

Prof Judith Phillips, Research Director

Healthy Ageing Innovation Cluster
4th March, Edinburgh

Healthy Ageing Opportunities

Sustaining physical activity

Maintaining health at work

Managing common complaints of ageing

Healthy Ageing Challenge Framework

Living well with cognitive impairment

Design for age-friendly homes

Supporting social connections

Creating healthy active places

The ambition is to impact on the lives of millions of people within a decade.

This will have both social and economic impacts and is a global opportunity for business.

- **Lifecourse approach; inclusive design;**
- **Meaningful engagement and co-design; reflecting the diversity of older people; innovative use of existing data.**

Eco system of the Healthy Ageing Challenge
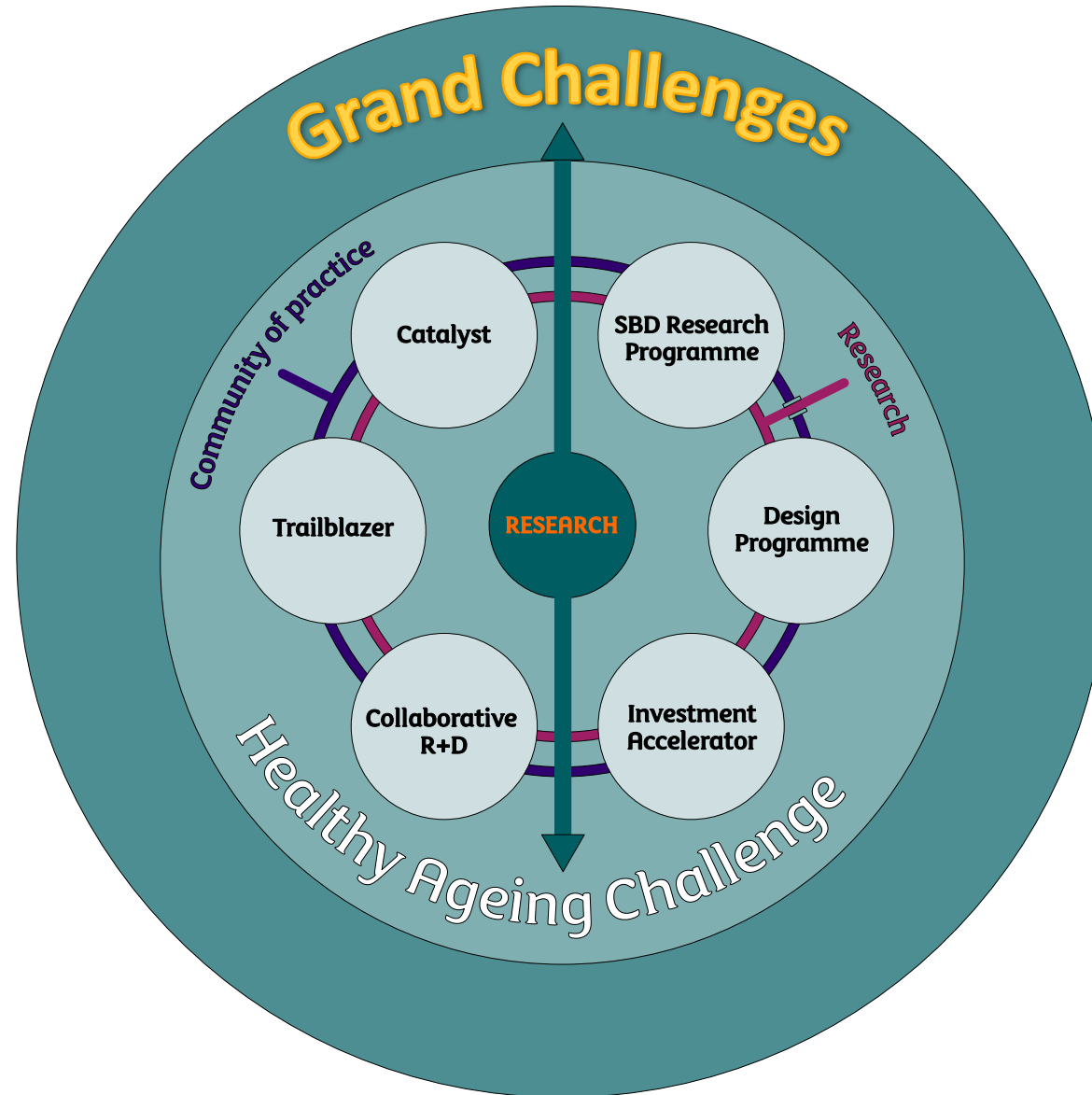
Healthy Ageing Challenge Investments

Community of Practice

Research

- £8.6M
- Social, behavioural and design research
- Multi-disciplinary, multiple institutions

Investment Accelerator

£29M + match

Individual innovations with clear potential to be adopted at scale

Trailblazers

- £40M + match
- Larger 'service integration' collaborations
- Impact at scale

Early Stage Pipeline

and Social
Research Council

Background

Our commitments and strategic priorities
for ageing and demography research

Broader Strategic Context

Range of relevant high profile activities & priorities e.g.

- Government's Ageing Society Grand Challenge – mission to ensure people enjoy 'five extra healthy, independent years of life by 2035, whilst narrowing gap between experience of the richest and poorest'.
    - ➢ Industrial Strategy "Healthy Ageing Challenge" within this
- Conservative manifesto commitment to "long term solution to social care"
- NHS Long Term Plan – includes support to help people age well

UK RI

Economic
and Social
Research Council

ESRC 2019 Delivery Plan

Specific 'Changing Populations' priority area

But also relevance across the broader Delivery Plan

ESRC: Delivering Economic, Social and Cultural Impact		
Advancing the Frontiers of Social Science		
Discovery research		
Focused Research and Innovation Priority Areas		
Productivity, prosperity and growth	Transforming productivity	
	Transforming working lives	
Next-generation public services	The future of public services	
	Education: improving outcomes	
	Innovation in health and social care	
Living with technology		
Wider Research and Innovation Priority Areas (Opportunities and Challenges)		
Changing populations	Connecting generations	
	Inclusive ageing	
The UK in a changing world	The UK in Europe	
	Changing politics	
Global development, environment and society	Raising learning outcomes	
	Responding to climate change	
Foundational pillars		
Talent, methods and leadership	Mobilising knowledge, impact and engagement	Data and infrastructure	Enabling international collaboration

Pushing the Frontiers of Human Knowledge and Understanding

UKRI Economic and Social Research Council

ESRC Delivery Plan – Changing Populations

Near term actions

Connecting Generations – *"a programme that expands research on demographic change and its consequences for transfers between generations"*

Inclusive Ageing – *"an initiative that takes a life-course approach to understanding the impact of early-life-course factors on later life, key transition points and the wide range of social and economic factors affecting health, social risks and outcomes"*

Funding format – Centre, full competition launch in April 2020

Funding format – to be decided, launch later 2020

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Past activity

What ageing and demography research have we funded so far?

Economic and Social Research Council

Managed and Responsive ESRC-led Research

- Example: Ageing and demography research funded through our responsive mode grants assessment process
  - e.g., "Understanding Recent Fertility Trends in the UK and Improving Methodologies for Fertility Forecasting" (PI: Professor Hill Kulu)

- Example: Since 2009 over £12m invested in the Centre for Population Change (CPC), directed by Professor Jane Falkingham

- Example: Historic, large-scale investment in longitudinal studies including English Longitudinal Study of Ageing, Understanding Society, 1970 British Cohort Study, Northern Ireland Cohort for the Longitudinal Study of Ageing, 1958 National Child Development Study

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Research Council

Recent Relevant ESRC Initiatives

- Example: Award made through our <u>Innovation In Social Care call</u> in 2019 will support the adult social care sector to start up, implement, spread and scale-up affordable innovations that work well for all adults needing care. (PI: Dr Juliette Malley)

- Example: Since 2014 the <u>ESRC/NIHR Dementia Research Initiative</u> has funded 10 large grants bringing together clinical application and social science in dementia prevention, interventions and care

Working with UKRI and International Partners

- Example: £75m invested across two major cross-council ageing programmes
  - New Dynamics of Ageing
    - ESRC led with AHRC, BBSRC, EPSRC, MRC (2002 – 2012)
  - Lifelong Health and Wellbeing
    - MRC led with AHRC, BBSRC, ESRC, EPSRC (ran 2011 – 2015)

- Example: Joint Programming Initiative, More Years Better Lives (JPI MYBL)
  - Joint Transnational Call 2015 on Extended Working Life and its Interaction with Health, Wellbeing and beyond
  - Fast-track activities on e.g., employment participation of older workers, demographic change and migration

UKRI Economic and Social Research Council

Current activity

What ageing and demography research are we working to fund next?

Industrial Strategy Challenge Fund

Healthy Ageing Challenge

- "enable businesses, including social enterprises, to develop and deliver products, services and business models that will be adopted at scale which support people as they age. This will allow people to remain active, productive, independent and socially connected across generations for as long as possible"

- ESRC leads on:

  - ISCF Healthy Ageing Research Director (Professor Judith Phillips)

  - Social, Behavioural and Design Research Programme

  - Global Catalyst Awards, with National Academy of Medicine (US)

UKRI Economic and Social Research Council

Strategic Priorities Fund

UK Centre for Evidence Implementation in Adult Social Care

- Better use of research evidence in adult social care
- ESRC collaborating with The Health Foundation - £15m, commence Oct 2020

Multimorbidity

- MRC led, in partnership with DHSC (NIHR) and ESRC

Pain

- MRC led, in partnership with Versus Arthritis, BBSRC and ESRC

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Fund for International Collaboration

UK-China Healthy Ageing initiative

- Interdisciplinary call on understanding and addressing health and social challenges facing ageing societies
- ESRC-led in partnership with MRC and NSFC (China)

Thank you

ESRC: Economic and Social Research Council   @ESRC   Economic and Social Research Council

Advanced Care **Research** Centre
(ACRC)

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Legal & General

Professor Ian Underwood FREng FRSE FInstP
Director, the Academy, ACRC

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Strategic Partnership - University of Edinburgh

World Top 20 in research and innovation
(QS World University Rankings 2020 of Top Global Universities)

UK's largest ever R&D investment in data-driven innovation
"Best City Deal in the UK"

Founding partner in **Turing** plus major **UKRI dementia/ageing networks**

Highlights in 2019:
- **Data for Children collaborative**   *UNICEF & Scottish Government*
- **DDI DataLoch**   *NHS, H&SC Partnerships*
- **ARCHER2** Nat'l Supercomputer   *UKRI & Cray*
- **Hainan Medical Campus**   *China Merchant Group, SJTU*
- **ACRC**   *Legal & General*

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Legal & General Funding

- Legal and General is the UK's largest provider of individual life cover and the UK's largest investment manager for corporate pension schemes.

- Revenue   > £42.5 billion

- Assets under management   > £1 trillion

- L&G has made a public commitment to inclusive capitalism (Forbes Magazine 4th Feb 2020)

- £20M **research grant** to UoE May 2020

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Context

- Population ageing
  - Life expectancy growing faster than healthy life expectancy
- Health and social care systems not optimal
  - Austerity but also single disease focus in health
  - Poorly coordinated and don't always focus on what matters to individuals and their families
- A major societal challenge
  - Care is complicated
  - Many stakeholders committed to this area

Context
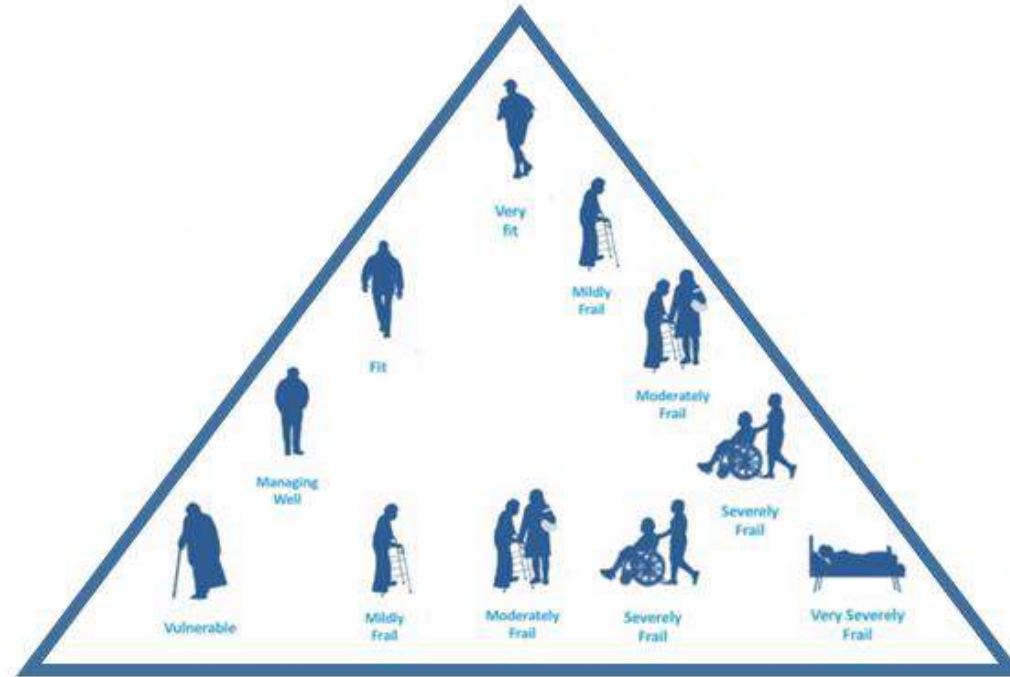
Our vision is of data-driven, personalised and affordable care that supports the independence, dignity and quality of life of people living in their own homes or in supported care environments

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Delivery Model

Active stakeholder engagement to co-create research and translation into policy and practice
Leading a national debate about "Your Life: Who Cares?"

Understanding the person in context

Data-driven insights and prediction

New technologies of care

New models of care

The person in later life is at the heart of everything we do
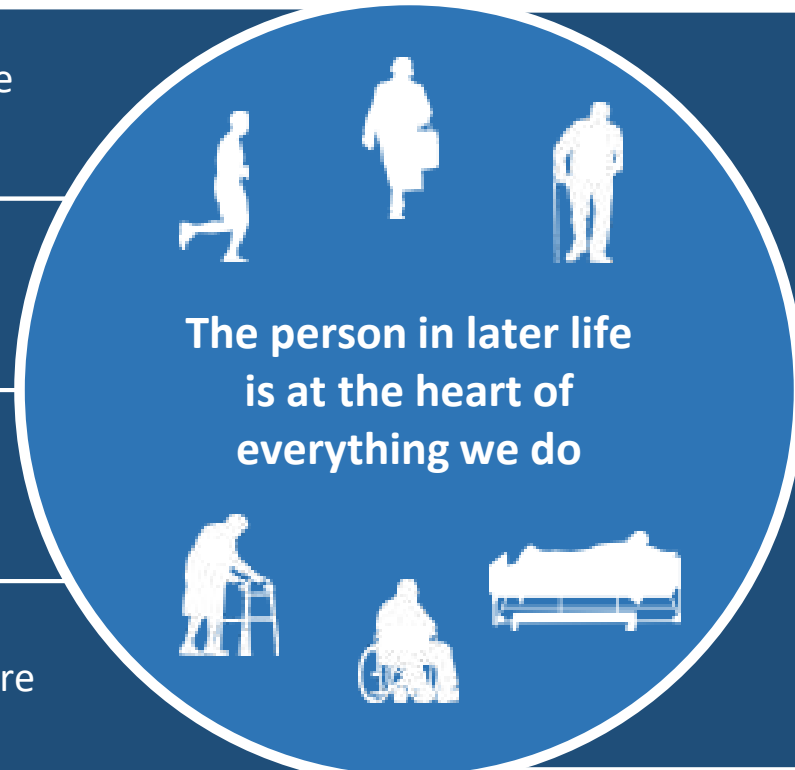
AT HOME

EXTRA CARE HOUSING

RESIDENTIAL CARE HOMES

World-leading inter-disciplinary and cross-sectoral research.

Translation into health and social care policy and practice.

New companies, products and services.

Informing the wider societal response to the challenges of population aging.

The Academy for Leadership and Training
Educating and training the leaders of the future through a uniquely interdisciplinary doctoral training programme.

Enhancing the data infrastructure in later life
Systematically exploiting and enhancing existing data, and developing new data resources

Some ACRC Workpackages

The Academy (cross-cutting)

Capacity Building:
Develop a new generation of leaders in the care sector trained in innovation who possess research expertise and deep specialist knowledge,
and a broad cross-disciplinary/cross-sectoral perspective
fostered by a unique cohort-based pan-disciplinary structured programme of training and research - "PhD with Integrated Study".

Agile Component of the Research Agenda:

Deliver significant aspects of the research agenda of the ACRC including more speculative and high-risk / high-reward project topics.

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Enhancing the data infrastructure (cross-cutting)
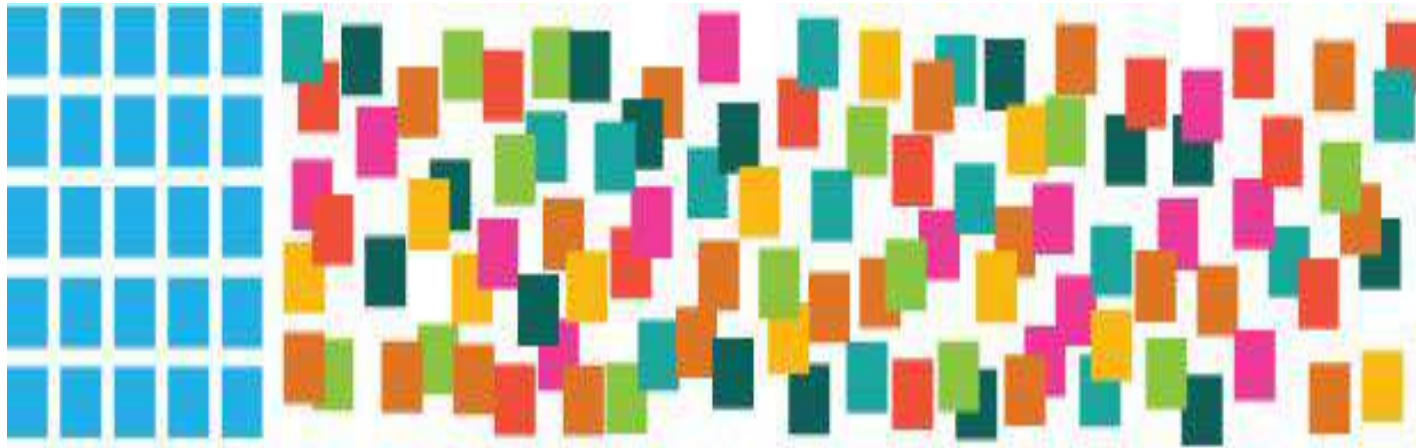
80% of the world's data is **unstructured**
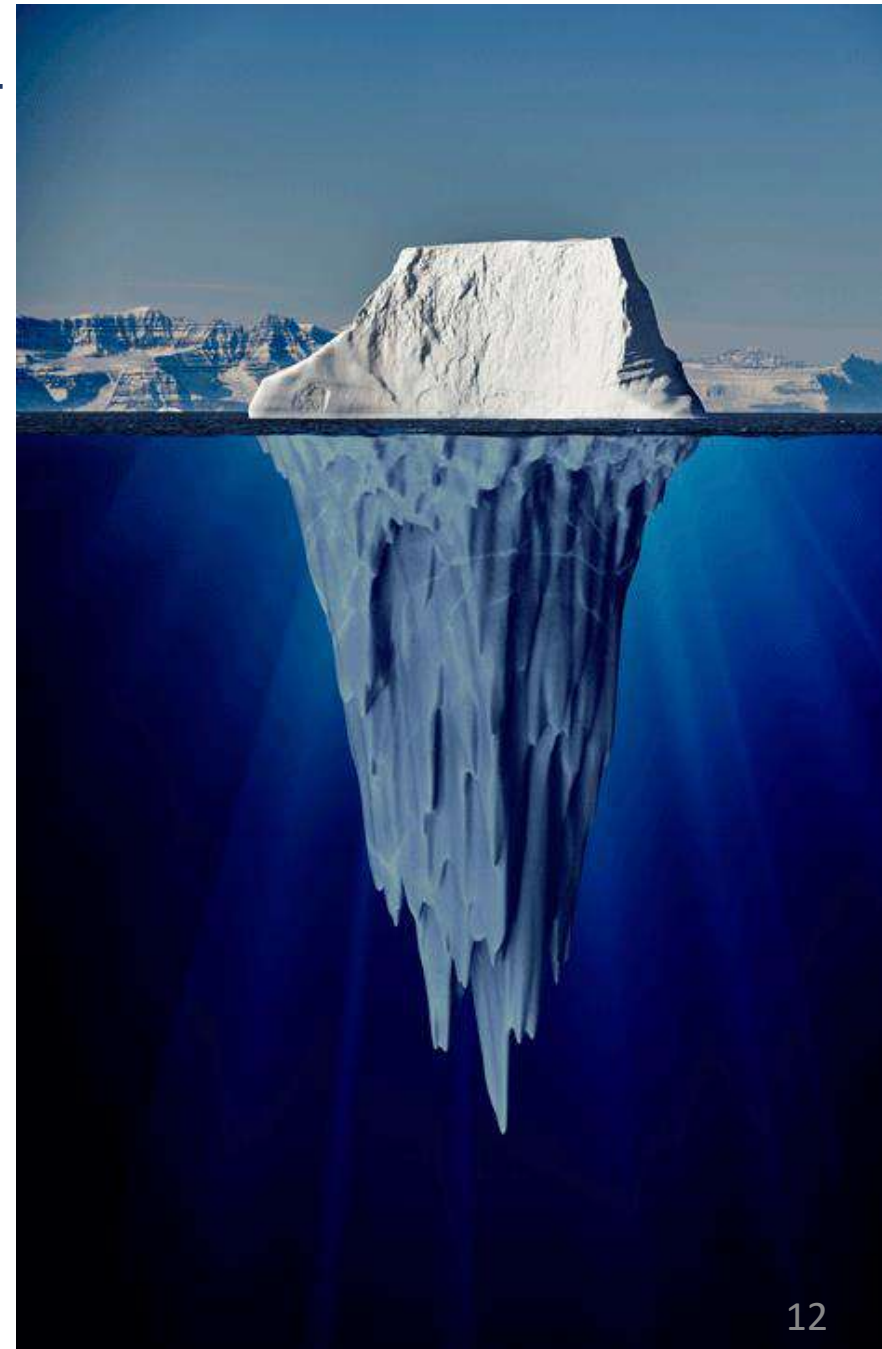
Understanding the person in context

Personal Projects

Citizenship & Care

Care Transitions

Value for Care

Develop new data-driven sharing models to support and sustain informal care networks

Shifting the focus of care to promote social participation and active citizenship throughout life

Data driven insights and prediction

Function and quality of life — High / Low

Need for care and resource use — Low / High

Single late catastrophic event

Time

14
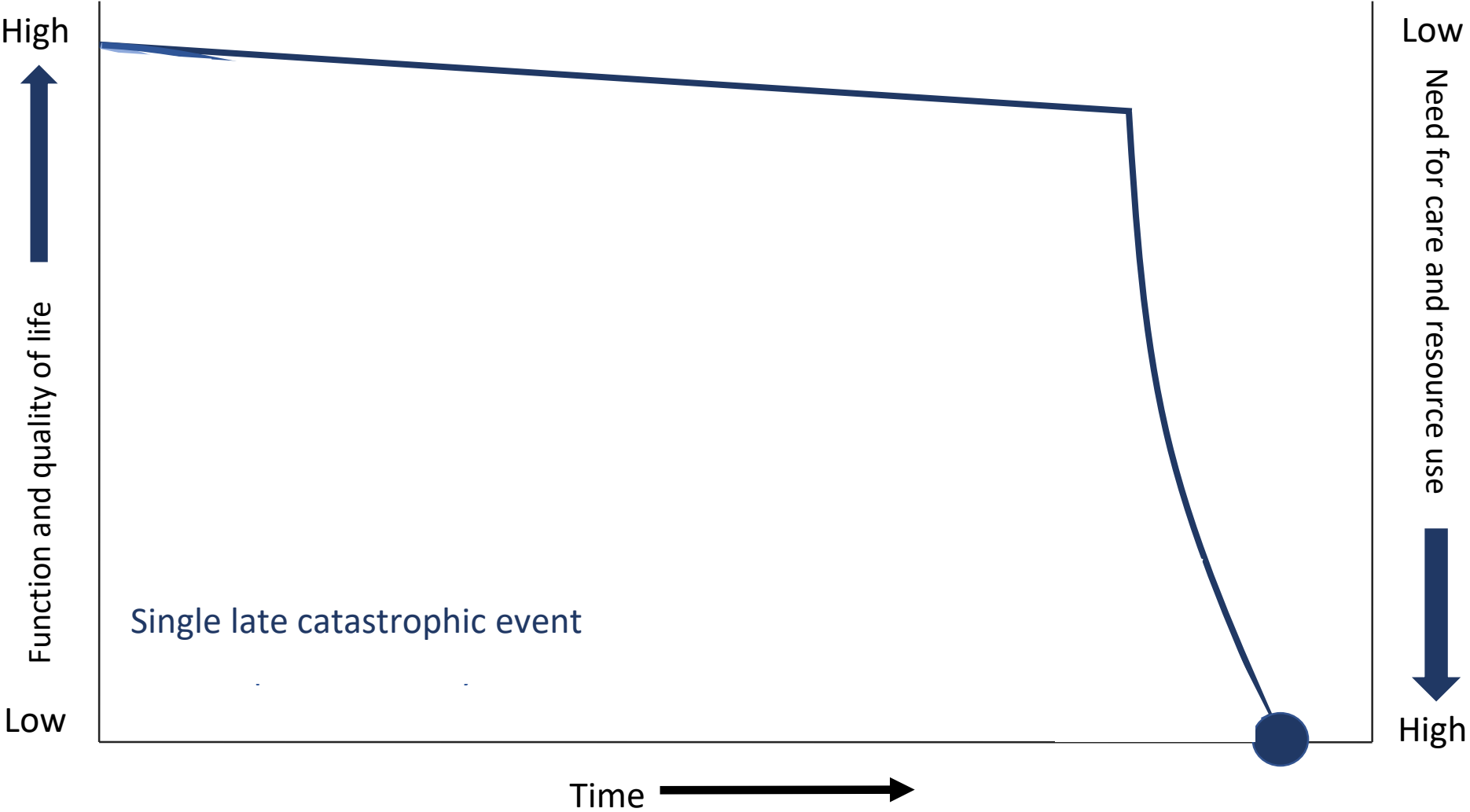
New technologies of care

Phase I:
Implement routine physiological monitoring

Phase II:
Develop and implement additional sensing modalities and interactive technologies

- *Not technology push!*
- *Must deliver according to evidence of end-user or carer requirement*
- *Not one-size-fits-all!*

New models of care

New Technologies

New NLP Techniques

New data and prediction tools

+

New understanding of people in later life

New way of leadership training

New way of communicating the issues

=

New models of care

Timeline

Now | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Years 5–10
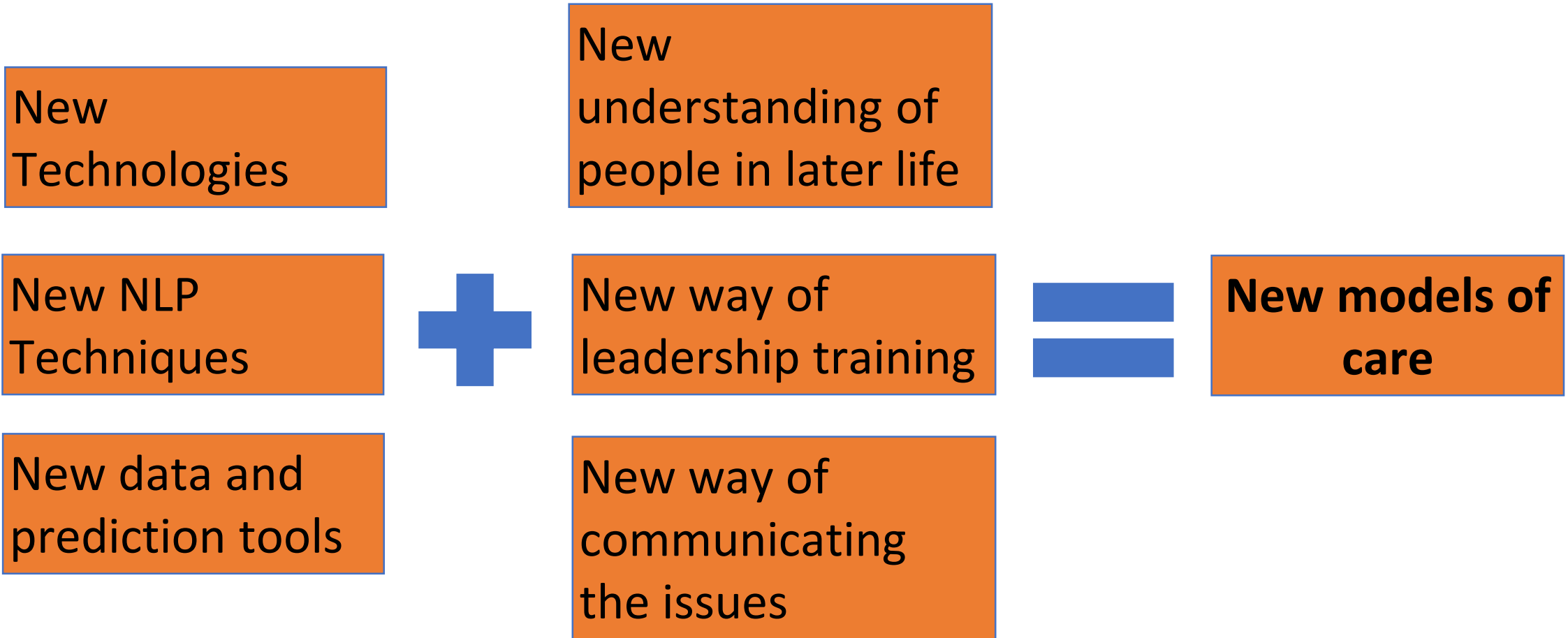
Advanced Care Research Centre (ACRC)
Core research and innovation programme

Turing of Care
Multi-university/industry/country collaboration with leveraged funding

ACRC dedicated hub
Wider Medical School and Edinburgh Bioquarter Development

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ACRC Development

Other Industry Funding

L&G Core ACRC Funding

Other Grant Funding

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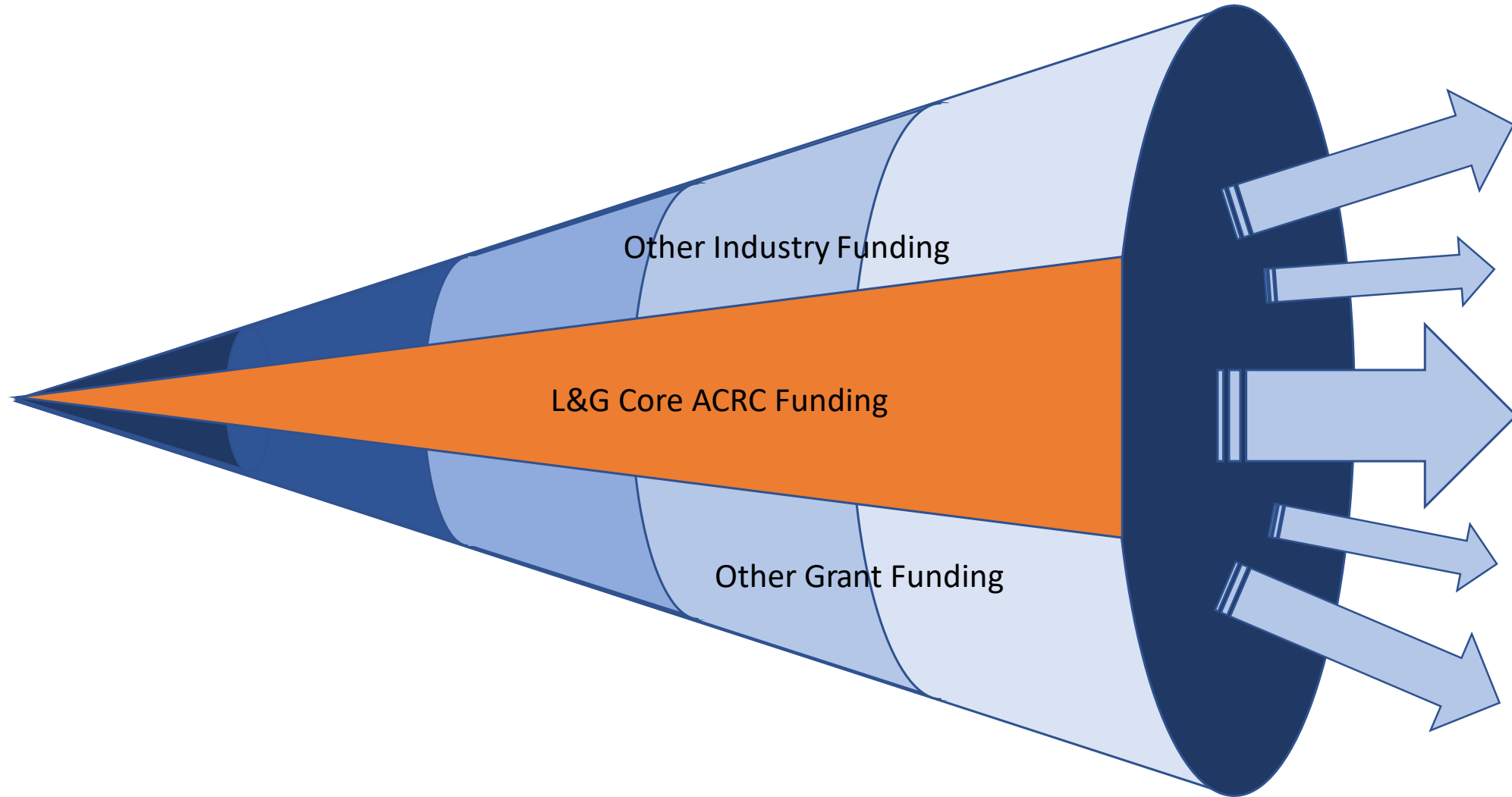
Thank you for your attention

To get in touch email acrc@ed.ac.uk

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Some ACRC Ambitions

Lead **public debate** on meeting the challenges of an ageing population

Develop understanding and **insight** into the changing nature of ageing

Device robust methods & tools to **predict mortality** and care transitions

Develop and test **novel technologies** to support people in later life

Implement, evaluate new **data-driven models** of health and social care

Educate & train **future industry leaders** and experts in the Academy

Insight into **future needs, opportunities** inspiring new products & services

Support **innovation & entreprise** in the Accelerator (part of the Academy)

The Scottish Government (SG) have tasked The Data Lab Innovation Centre (TDL) to be an impartial convenor and lead on the coordination of the strategy's development.

Benefit to the people of Scotland will be the core guiding principle for the development of the strategy and the strategy itself

The process will be OPEN and TRANSPARENT

We will provide as many opportunities as possible for everyone to contribute

"We aim to develop a strategy that is of Scotland, by Scotland and for Scotland."

— Kate Forbes MSP, Cabinet Secretary for Finance

Scotland's AI Strategy

Through the adoption of AI:

- the people of Scotland will thrive, and
- Scotland's organisations will prosper

Aligned to the National Performance Framework

What do we mean by AI?

Technologies with the ability to perform tasks that would otherwise require human intelligence, such as visual perception, speech recognition, and language translation

House of Lords Select Committee on AI
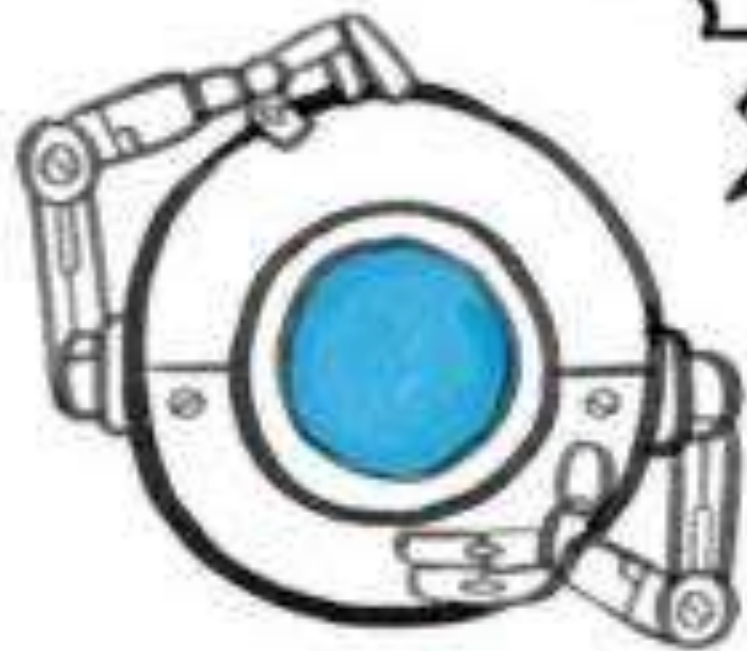
Scotland's AI Strategy

Desired Outcomes

STRATEGY
A high level AI strategy for Scotland that outlines the roadmap for the following 5 years with key targets/ambitions

OWNERSHIP
A declaration of strategy owners and their responsibility for roadmap delivery needs

TRUST
Build trust in the use of data and AI technologies and in organisations using them

INVESTMENT
The strategy should outline measures to leverage existing national assets and identify new areas for investment from public and private sector

Key things that have happened

- Scoping document published for open consultation on 24 January 2020
- Public consultation opened on 17 February 2020 and will close 27 March 2020
- Open application process for working groups now closed
- Engagement programme launched February 2020

How to get involved?

- Respond to the consultation on the scoping document
  - Submit an individual or organisational response
  - Organise your own engagement activities to form a response to the consultation
- Participate and encourage others to participate in the engagement activities. We have fun interactive online quizzes available as well as a series of downloadable conversation packs to prompt discussions. We will also be running events in Glasgow and Inverness

THANK YOU AND QUESTIONS?

Please email Steph Wright
AI Strategy Development Lead at Data Lab
(also Director of Health & Wellbeing Engagement)

steph.wright@thedatalab.com

Developing a Data and Innovation Platform for Care Homes:

A Whole Systems Analysis and Approach

Funding for 12 months from:
East Region Innovation Team &
National Test Bed Governance Group

Dr Susan D Shenkin, Clinical Senior Lecturer, Geriatric Medicine and Usher Institute University of Edinburgh

Lucy Johnston - Research Fellow, Edinburgh Napier University

- Susan.Shenkin@ed.ac.uk
- L.Johnston@napier.ac.uk

@lucyjohnston555
@SusanShenkin

The rest of the Team

- **6 CARE HOMES - Lothian Care Home Innovation Partnership**

- **Dr Jo Hockley**, Senior Nurse Researcher, Primary Palliative Care Research Group, Usher Institute;

- **Professor Scott Murray**, Emeritus Professor of Primary Palliative Care, Usher Institute;

- **Dr Catherine Mahoney**, Lecturer, Edinburgh Napier University

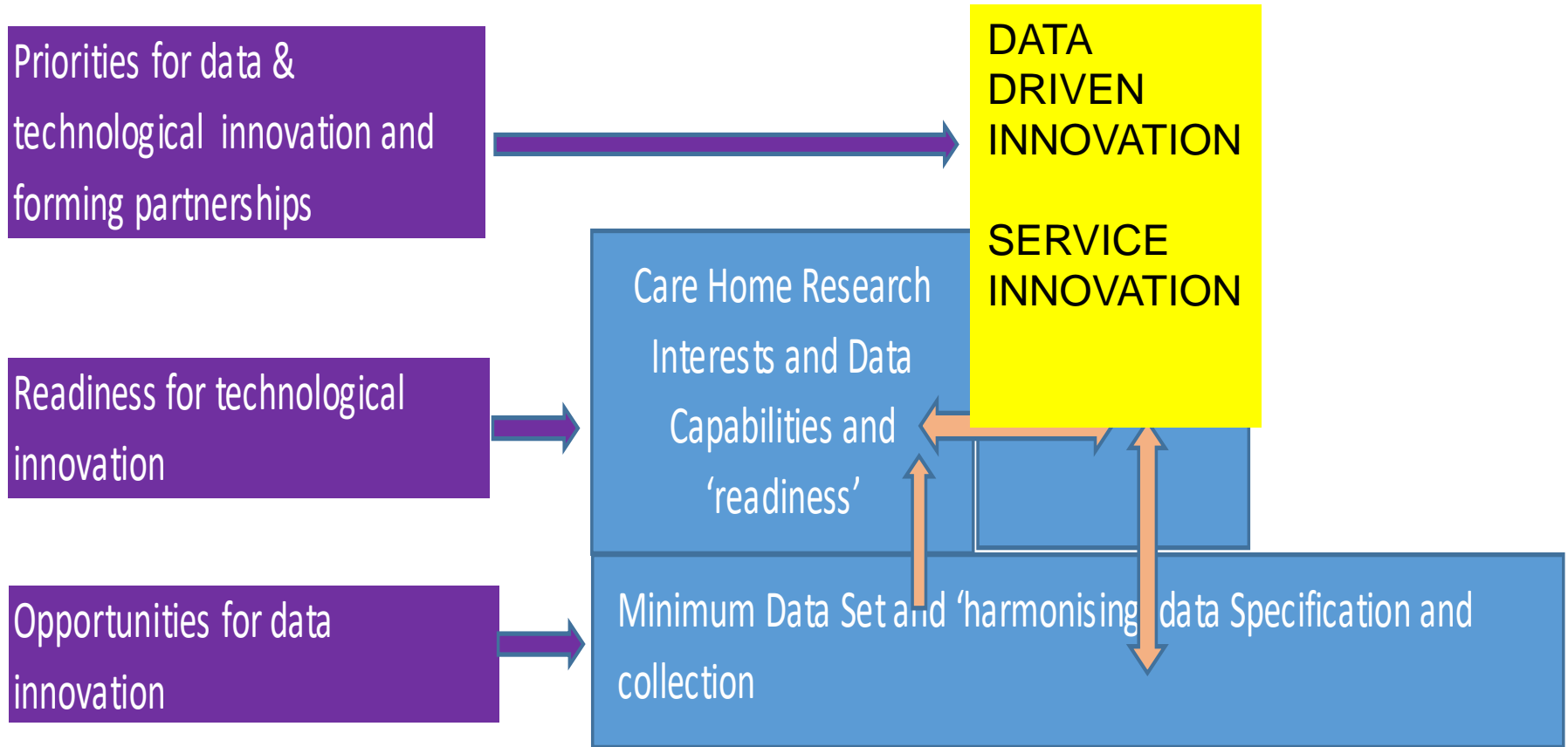- **David Henderson**, Research Fellow, Scottish Centre for Administrative Data Research & Edinburgh Napier University

What we will share with you today

- Further detail on what we have been doing over last 7 months

- Provide Scottish Care Homes Context

- Share some findings with you

- Set out our next steps and potential areas for innovation & collaboration

What have we been doing?

Data scoping and groundwork undertaken to

(a) develop an inventory of routine data (Minimum Data Set)

(b) clarify the innovation challenges through a whole systems analysis of the extent and nature of the problem(s) to be solved within care homes and

(c) develop community of interests/partnerships across homes, academia and industry to progress future bids/collaborations.

Edinburgh Napier
UNIVERSITY

Priorities for data & technological innovation and forming partnerships

DATA DRIVEN INNOVATION

SERVICE INNOVATION

Care Home Research Interests and Data Capabilities and 'readiness'

Readiness for technological innovation

Opportunities for data innovation

Minimum Data Set and 'harmonising' data Specification and collection

Why have we been doing it?

- The care home sector has huge potential to benefit from technological innovations.

- Realising this potential will require strong three way partnerships between <u>care homes</u>, innovators in <u>academia</u> and <u>industry partners</u>.

- Learning from the Care Home sector can inform Home Care Services, wider data initiatives, interoperability (NHS/social care/third sector) and workforce issues

- Feeding into the VISION for a Teaching/Research based Care Home

- Care Home Residents …………should not be left behind

Care Homes in Scotland (1)

- Around 1,100 care homes FOR OLDER PEOPLE
  - 58.6% privately owned
  - 27.1% owned by voluntary or not-for-profit providers
  - 14.3% by local authority or Health Board

- 31,223 long stay residents in care homes for older people (March 2017: ISD)

- Hospital Beds in Scotland???

  13,500

Care Homes in Scotland (2)

Location of Adult Care Homes in Scotland 2012-2016

- Older People
- Learning Disabilities
- Mental Health Problems
- Physical and Sensory Impairment
- Other

Health Board Boundaries
1. Ayrshire & Arran
2. Borders
3. Dumfries & Galloway
4. Fife
5. Forth Valley
6. Grampian
7. Greater Glasgow & Clyde
8. Highland
9. Lanarkshire
10. Lothian
11. Orkney
12. Shetland
13. Tayside
14. Western Isles

Scottish Government
Riaghaltas na h-Alba
gov.scot

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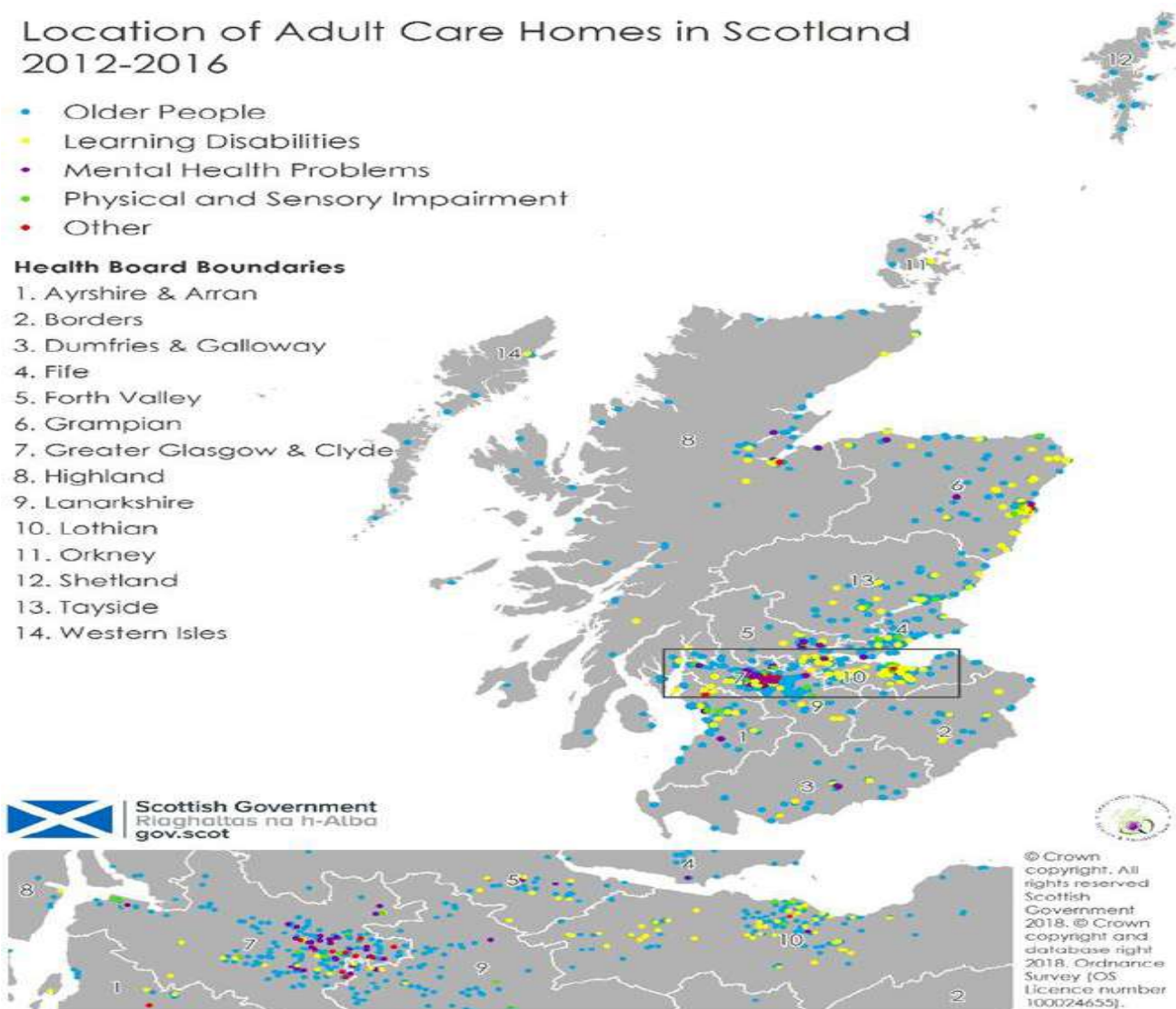
Care Home Residents in Scotland

- Median age is 83 years

- Most are female (over two-thirds of care home residents)

- The percentage of long stay residents living with dementia (either medically or non-medically diagnosed) was 62% at 31 March 2017

- Care home residents are increasingly frail with multiple co-morbidities

- Median time to death is 1.7 years

Care Homes in Lothian Partnership

- Braeside, Royal Blind, Edinburgh – small 'charitable' organisation

- Cluny Lodge, Edinburgh – small 'for profit' family run business

- Erskine Edinburgh – small 'charitable' organisation

- Linlithgow Care Home – part of a large 'for profit' organisation

- Newbyres Village, Midlothian – council run care home with on-site nursing

- Viewpoint Housing, Edinburgh – medium 'not for profit' organisation

Results of Scoping & Groundwork

DATA PLATFORM

CHALLENGE AREAS

THE **VISION**
FOR A TEACHING/
RESEARCH-BASED
CARE HOME
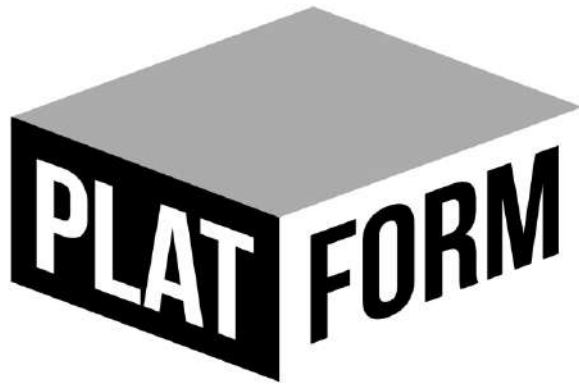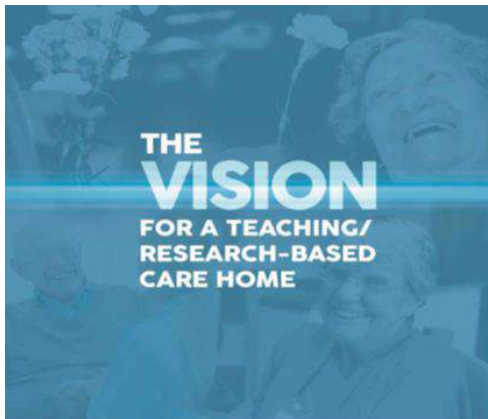
National Data: Shoogly Platform?

Table 1: Comparison of SCS and SCHC demographic categories

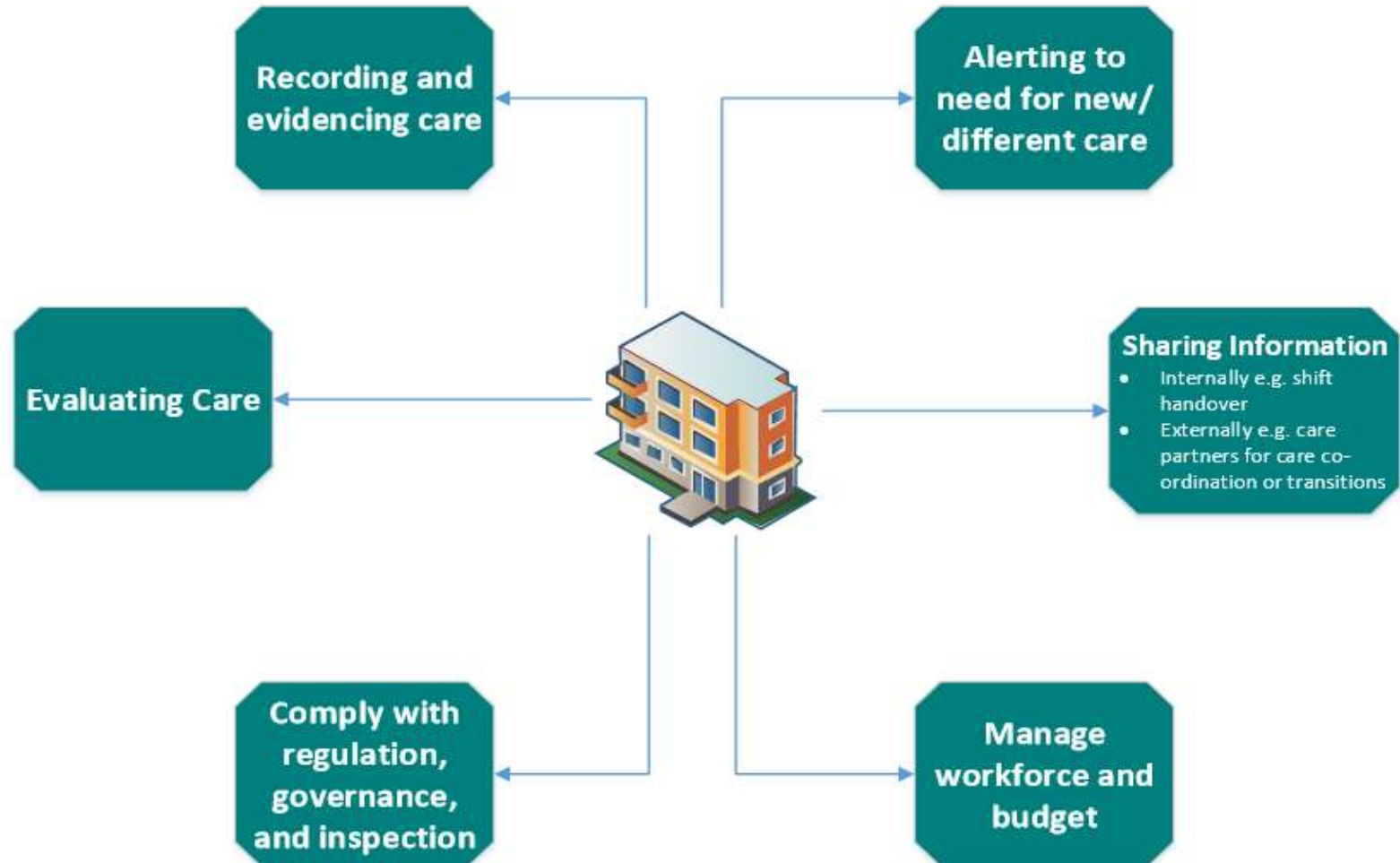| Data Variable	Social Care Survey	Scottish Care Home Census
Date of Birth	Date of Birth	Date of Birth
Age	Age	Not collected
Gender/Sex	Male or Female	Male, Female, or other
Ethnicity	White Mixed or multiple ethnic groups Asian, Asian Scottish, or Asian British African, Caribbean, or Black Other Ethnic Background not disclosed	White Other Ethnic group Not disclosed Not known
Client Characteristics	Dementia Mental Health Problems Learning Disability Physical Disability Addiction Palliative Care Carer's Problems arising due to infirmity of age Other	Requires Nursing care Dementia - medically diagnosed Dementia - not medically diagnosed Visual Impairment Hearing Impairment Acquired brain injury Learning disability Other physical disability or chronic illness Mental Health Problems Alcohol Dependency Drug Dependency None of these

Colours denote agreement across sources: Green = exact match, Amber = Similar match, Red = No match

Data Domains in Care Homes

Who Uses Care Home Data?

Recording and evidencing care

Alerting to need for new/ different care

Evaluating Care

Sharing Information
- Internally e.g. shift handover
- Externally e.g. care partners for care co-ordination or transitions

Comply with regulation, governance, and inspection

Manage workforce and budget
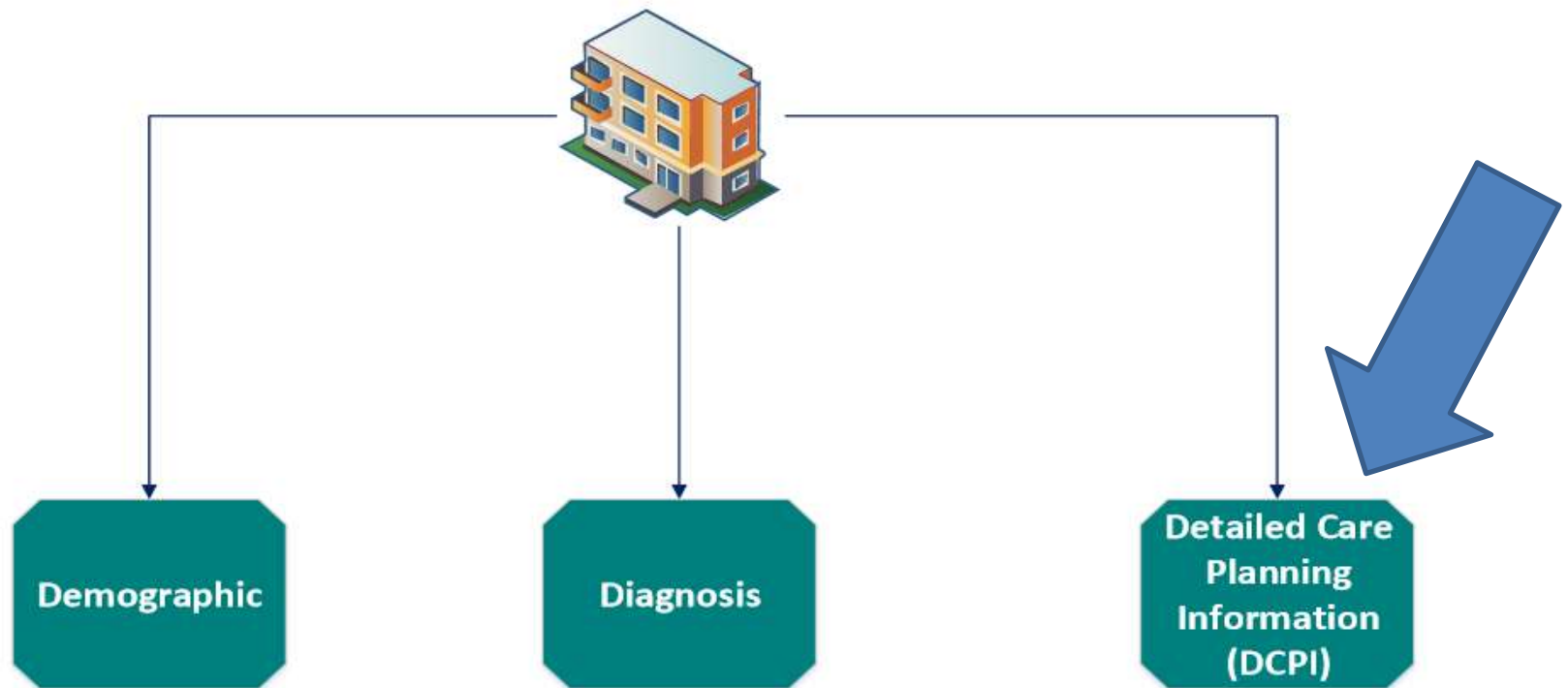
Can we use Care Home Data?

Table 4: Examples of the number and range of assessment components for care planning

Erskine (Edinburgh)	Linlithgow
Acute Infection Care Plan	Behaviour
Anticipatory Care Planning/End of Life Care	Bladder & Bowel
Breathing & Smoking	Choking
Bowel & Bladder	Communication
Communication	Dependency Rating Scale
Eating & Drinking	DNACPR/End of life decisions
Falls	Eating & Drinking
Hearing/Vision	Falls Risk
Life History/This is me	Mood
Medication and Treatment	Oral Health
Mental Health, Cognition,	Personal Care
(Memory/Understanding), and Personal Safety	Mobilising
Mobility	Waterlow Risk
Oral & Dental	
Personal Hygiene	
Restraint Risk	
Sleep & Resting	
Waterlow/Pressure Ulcer Assessment	

Harmonisation or Discord?

Table 6a: Assessment tools/measures used for "routine data"

	Area assessed	Cluny	Erskine	St Raphael's	Braeside	Newbyres	Linlithgow
1	Dependency/ indicator of need	Augmented IoRN	IoRN	Dependency assessment	IoRN	IoRN	Organisation Form
2	Nutrition	MUST	MUST	MUST	MUST	Eating Well in Care homes/ Cook Safe	Organisation Form
3	Weight	Kg/BMI	Kg/BMI	Kg/BMI	Kg/BMI	Kg/BMI	Kg/BMI
4	Incidence and risk of falls	FRASE	Organisation Form	Falls Risk	Falls Risk	Organisation Form	Organisation Form
5	Incidence and risk of pressure sores	Braden (at least monthly)	Pressure Ulcer Cross/ PU Checklist/ Waterlow	Waterlow (monthly or as required)	Waterlow	Waterlow	Skin Integrity Care Plan
6	Infections	Count/ type of infection	Count/ type of infection	Count/ type of infection	Count/ type of infection	Count/ type of infection	Count/ type of infection

No Standardised Assessments

Table 6b: Assessment tools/measures used for "regularly used data"

	Area assessed	Cluny	Erskine	St Raphael's	Braeside	Newbyres	Linlithgow
7	Wounds (new and ongoing)	Internal Chart	STAR Classification	Wounds assessment	Chart on PCS	NHS Wound Assessment Chart	Organisation Form
8	Frailty	CIRC	SPAR Tool	Edmonton Frailty Scale	Clinical Frailty Scale	Not collected	Not collected
9	Bowel Movement(s)	Bristol Stool Chart	Bristol Stool Chart	Chart on PCS	Bristol Stool Chart	Bristol Stool Chart	Organisation Form
10	Fluid intake	Internal chart	Organisation Form	Chart on PCS	Chart on PCS	Organisation Form	Organisation Form

Stabilising the Data Platform

Data Driven Innovation? Policy?

National Minimum Data

Data on Non-Care Tasks

Data on Staff Input/Outcomes

Standardisation/Utility/Interoperability
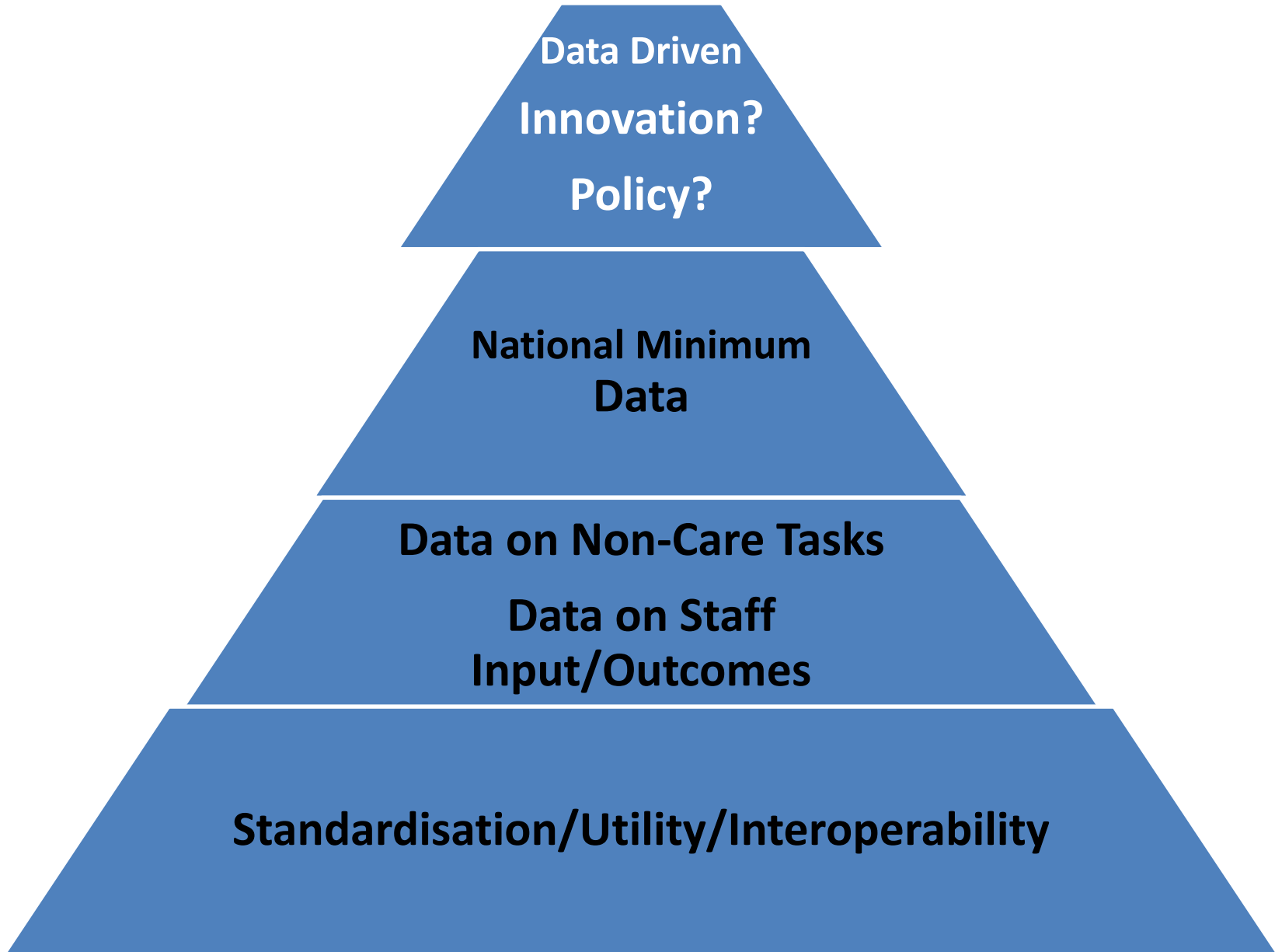
Care Home Challenge Areas
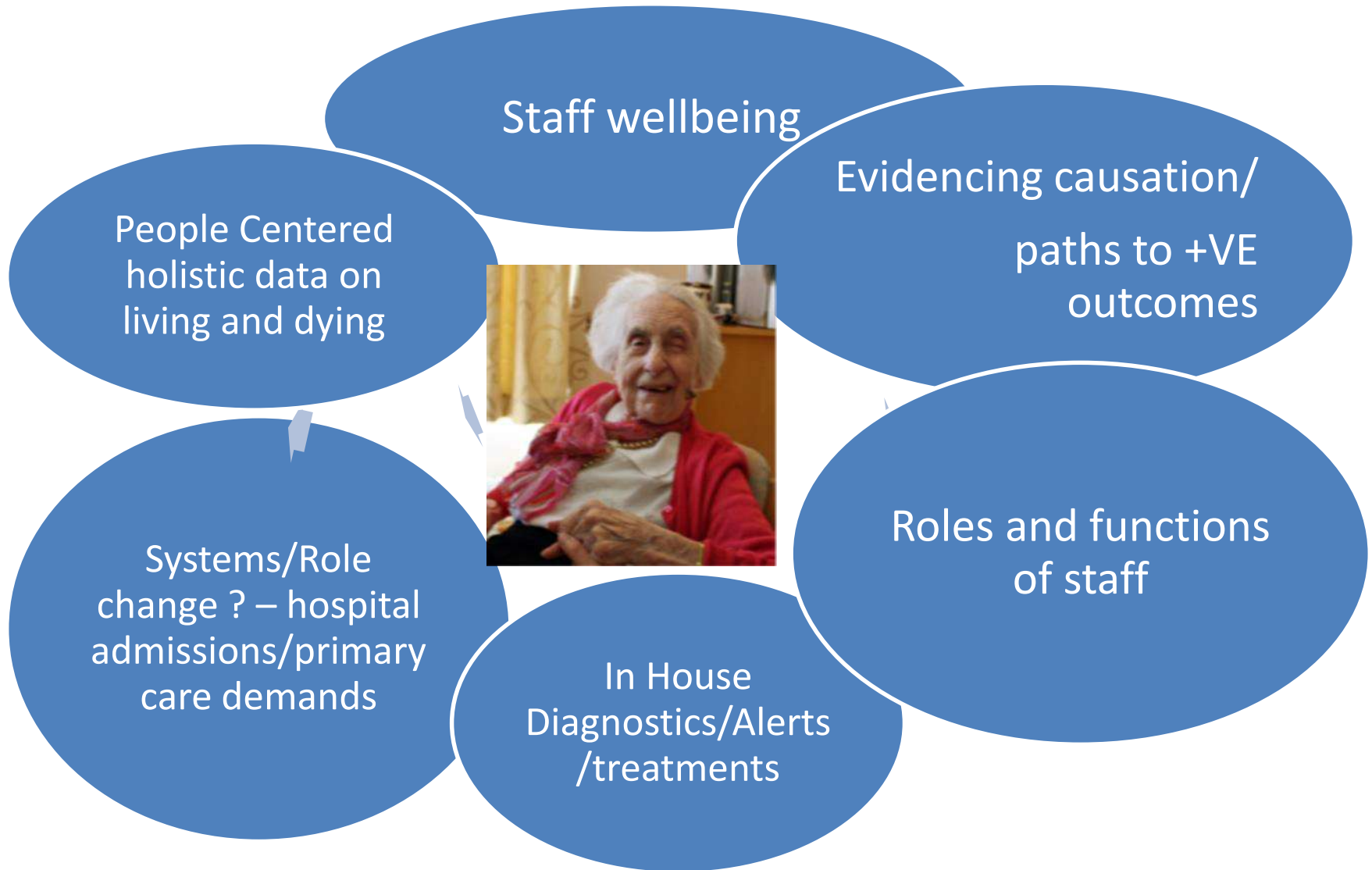
Our Next Steps

- Develop work with wider group of Care Homes on range and diversity of data systems and assessment tools (ENRICH)

- Refine and sense check challenge areas ----> Challenge STATEMENTS

- Hold a knowledge Exchange Event in late Spring for Interested People/Organisations

- *Continue to Actively develop partnerships with industry to address identified innovation challenges and develop funding bids*

Contact us:

- Susan.Shenkin@ed.ac.uk

(also to be added to 'Ageing Research Network' email distribution)

- L.Johnston@napier.ac.uk

@SusanShenkin

@lucyjohnston555

T&SCon

The potential of technology to promote social connectedness for adults living in Scotland

Louise McCabe, **Alison Dawson**, Elaine Douglas, Mike Wilson and Alison Bowes

Image: https://www.ohhowcivilized.com/how-to-eat-a-scone-properly/

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Social Isolation and loneliness

Social isolation refers to when an individual has an **objective lack** of social relationships (in terms of **quality and/or quantity**) at individual group, community and societal levels

Loneliness is a **subjective** feeling experienced when there is a **difference between** the social relationships we would like to have and those we have.

Source: Scottish Government (2018) A Connected Scotland
https://www.gov.scot/publications/connected-scotland-strategy-tackling-social-isolation-loneliness-building-stronger-social-connections/

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Factors influencing social connectedness

- Individual, community and societal levels

- Complex interactions between levels and factors

- Not all factors open to change

Societal factors

Community factors

Individual factors

Socio-economic drivers

Life course events and transitions

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BE THE DIFFERENCE
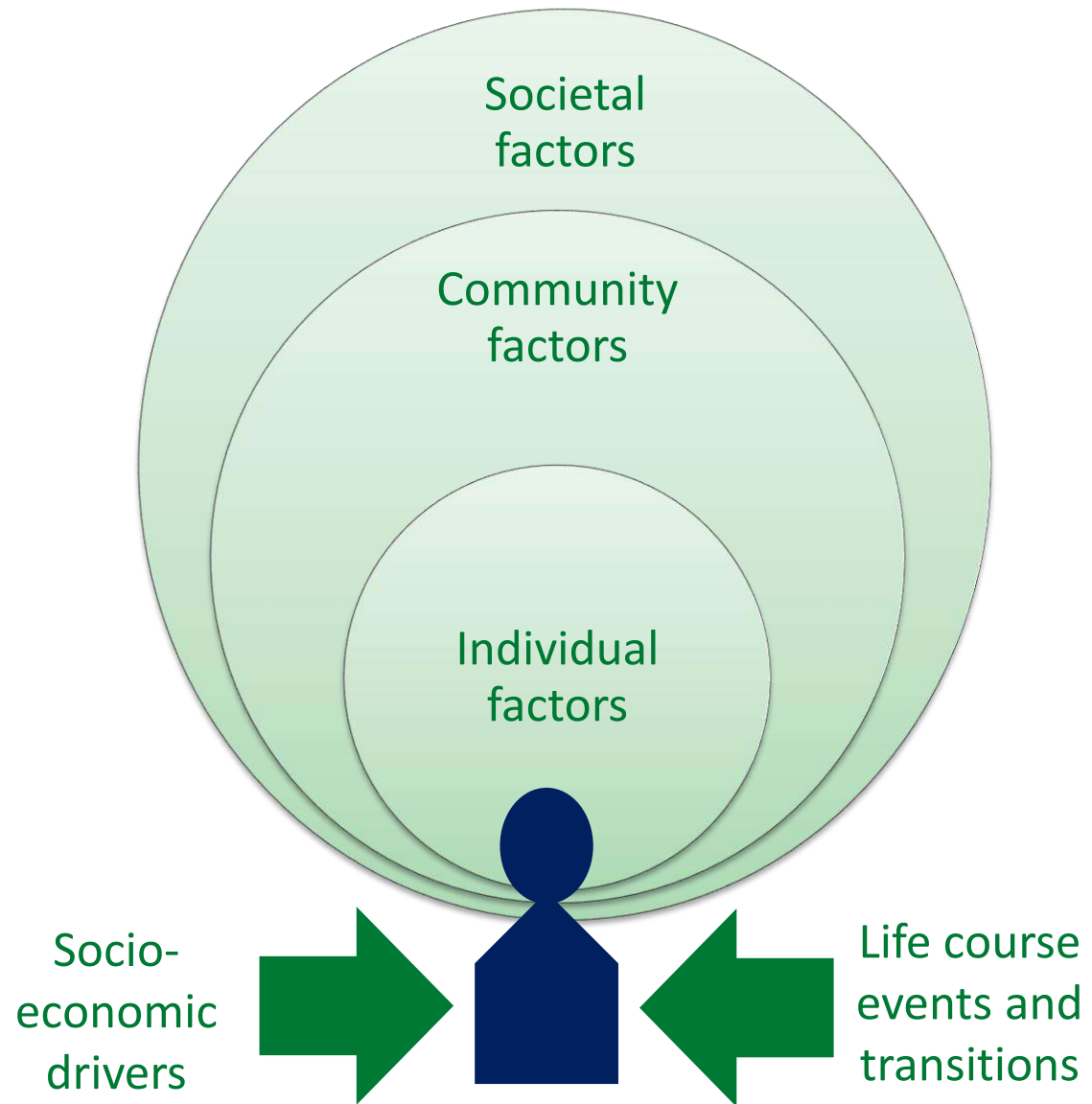
What we did

Scoping of research, policy and evaluation literature to elucidate the current state of play

Secondary analysis of HAGIS dataset to understand the scope and patterns of social isolation in Scotland

Four focus groups with stakeholders from across Scotland providing technology enabled support

Co-creation workshops with service providers and clients to develop **toolkit** for services using technology to address social isolation.

Social Isolation and loneliness

Left pie chart:
- 39.8 — High - All
- 16.2 — High - Children
- 17.2 — High - Friends
- 15.1 — High - Friends & Family (No Children)
- 6.3 — Mod-high - Children & Friends
- 5.4 — Mod - Children (No Friends & 33% No Children)
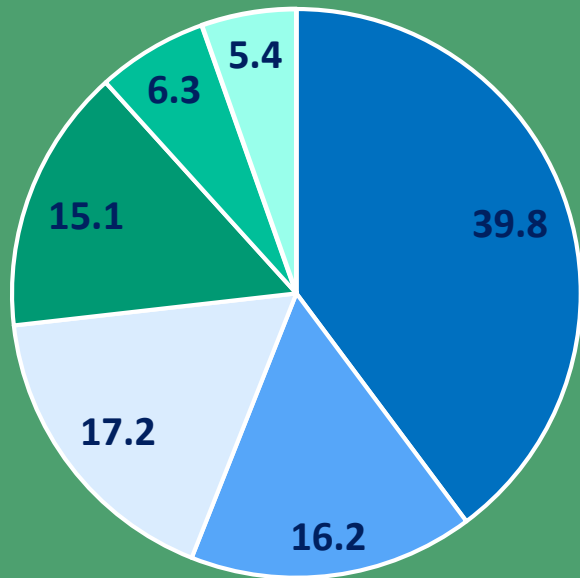
Legend (left):
- High - All
- High - Children
- High - Friends
- High - Friends & Family (No Children)
- Mod-high- Children & Friends
- Mod - Children (No Friends & 33% No Children)

Right pie chart:
- 61.9 — Hardly Ever Lonely
- 28.8 — Sometimes Lonely
- 9.3 — Often Lonely
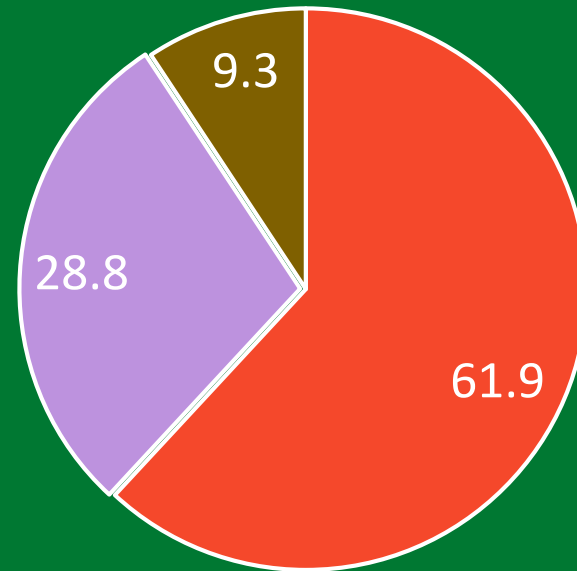
Legend (right):
- Hardly Ever Lonely
- Sometimes Lonely
- Often Lonely

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Use of Technology

1. On average, how often do you use the internet or email?

   - Over 75% use internet regularly
   - Those highly connected with children and No Friends use the least (though not significant)

2. Where have you used the internet/email in last 3 months?

   - At home – 72%
   - At work – 19%
   - On the move – 27%
   - Library/internet café – 10% *

3. Which device did you use?

   - Desktop computer – 20% *
   - Laptop – 28%
   - Tablet – 30%
   - Smartphone – 25%
   - TV – 7%

4. What did you use internet for?

   - Email – 43% *
   - Finding information about goods/services – 41% *

* Significant variation across profiles

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Relationship between Social Isolation and Loneliness

- 6 distinct profiles of social connection based upon frequency of contact with children, family, and friends

- 3 distinct profiles of loneliness: Hardly Ever, Sometimes, and Often (based on UCLA-3 short scale)

- Social Isolation and Loneliness are distinct yet inter-related concepts

- Analyses conducted for T & Scon investigate patterns of digital technology use between profiles.
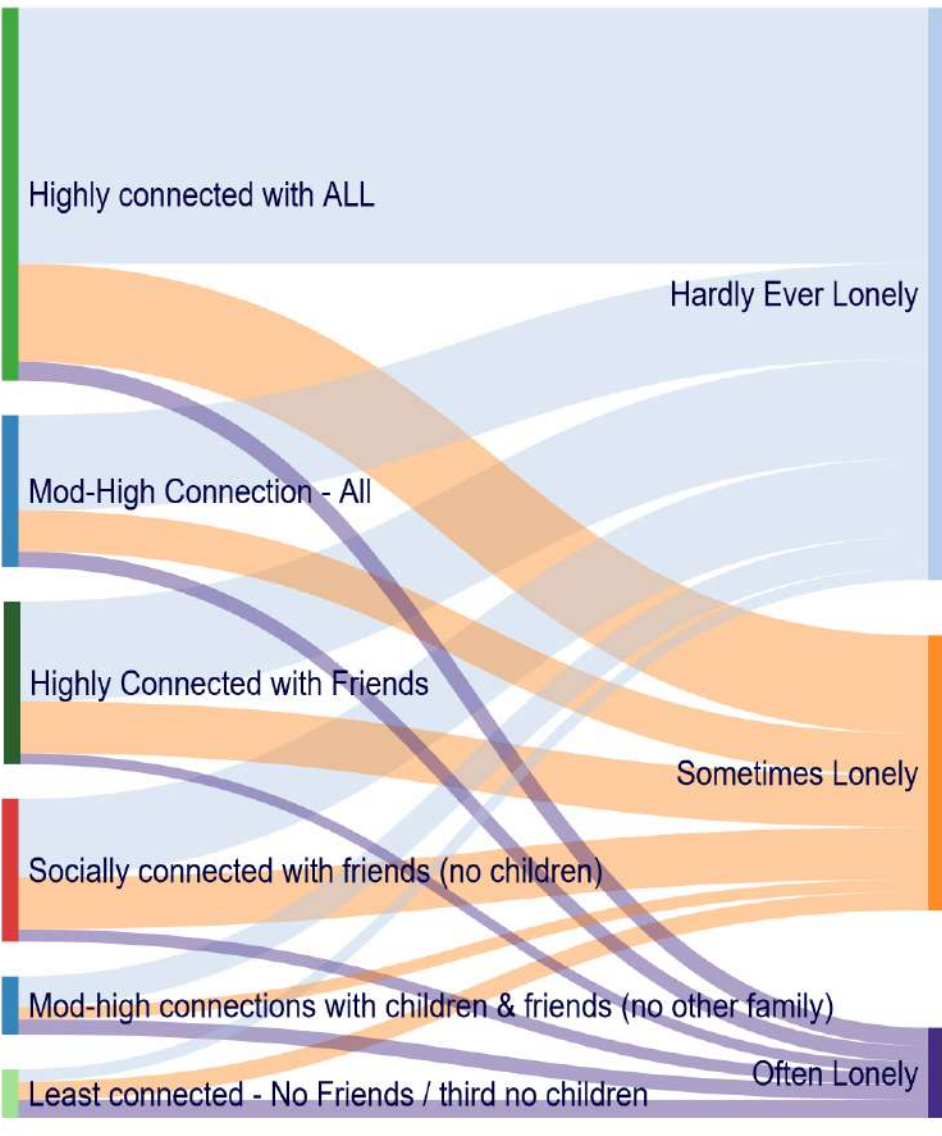
Literature review: Inclusion criteria

Relating to social isolation	Relating to population of interest	Relating to technology
(social* AND isolat*) OR (social* AND connect*) OR lonel*	adult* OR 'older' OR elder*	technolog* OR 'SMS' OR telephon* OR internet OR 'social media' OR online OR ICT OR video* OR virtual OR digital

Inclusion criteria:

- Studies published in English, on or after 1 January 2008

- Reports of primary research, case studies of interventions or services

- Intervention/service: i) for adults; ii) intended to reduce loneliness or increase social connectedness; iii) involves ICT; iv) examines outcomes related to social connectedness or its elements

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Literature review: Search results

Searched: EBSCOhost; ScienceDirect: Social Services Knowledge Scotland (SSKS); Web of Science Core Collection

Search results after removal of intra- and inter- database duplicates: **5693**

Potentially relevant on basis of title: **360**

Full texts reviewed: **59**

Items included: 31

Image: https://redislabs.com/blog/use-redis-content-filtering/

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Literature review: Key findings

- Few items meet inclusion criteria
- Associations between social connectedness and use of ICTs, use of social networking sites, etc. but not as intervention for social connectedness and do not show causality

Included studies

- Most relate to older populations
- Most report development/ prototype testing/ piloting (feasibility, acceptability, usability)
- Little on scalability, practical aspects of implementation

...it was me, right?

Image: https://signlanguageco.com/the-chicken-and-the-egg-and-the-interpreter/

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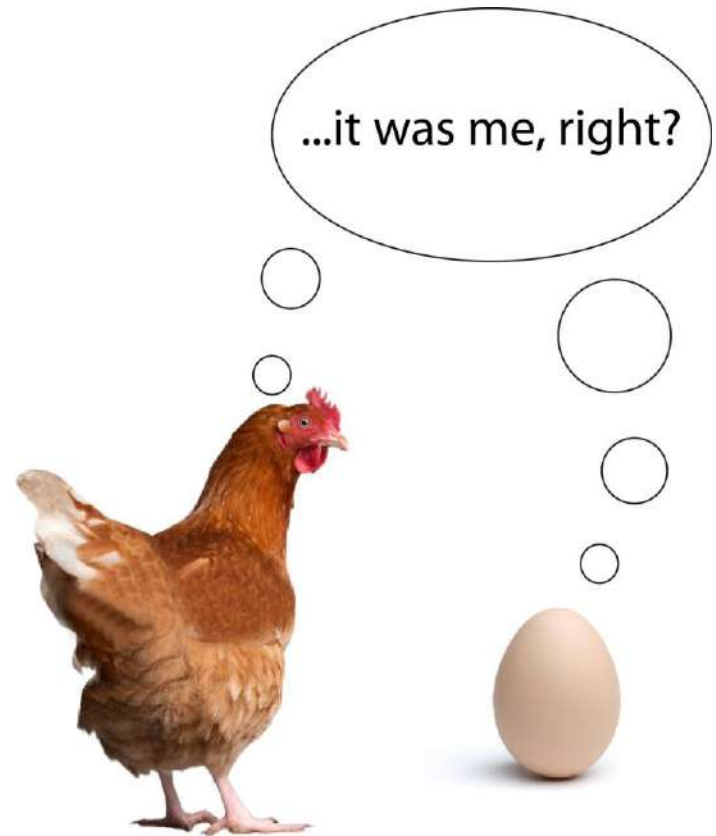
BE THE DIFFERENCE

Focus groups and co-creation workshops

Experiences and opinions were collected from a diverse range of service providers and adults who use technology to support social connectedness and findings were refined during the two subsequent co-creation workshops.

We found positive examples of technology supporting social connectedness both *directly*, for example, using Skype to connect with family overseas and *indirectly*, by technology freeing up time and energy for social activities, for example, accessing NHS support through text messaging or videoconference.

Co-creation workshop: Feedback on guidelines

Co-production workshop – constructing a case study
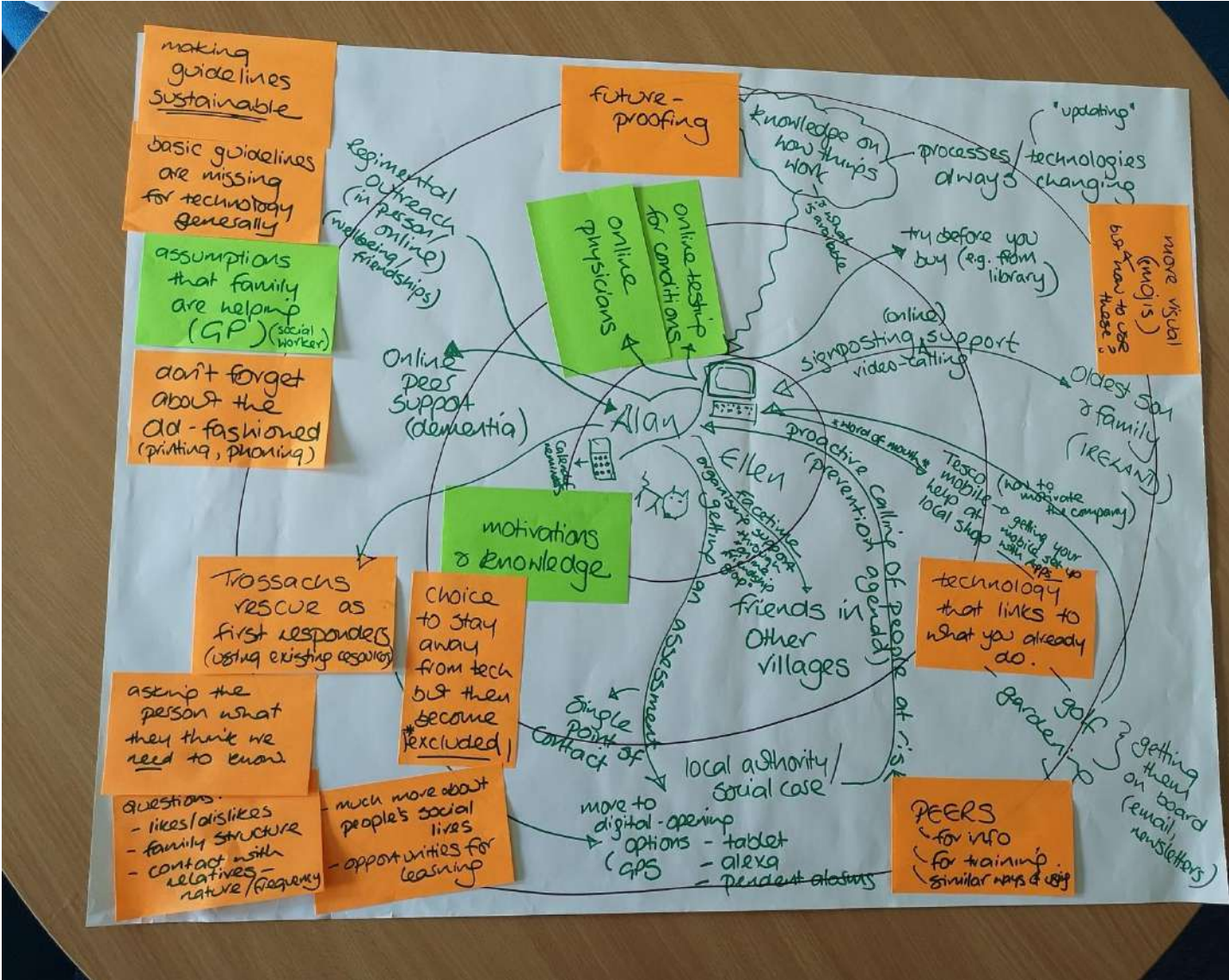
The following **recommendations** emerged for organisations and individuals thinking about using technology to support social connectedness:

PEOPLE: recognise potential users as individuals, avoiding assumptions about age, gender, disability etc, and protecting human rights.

RISK: careful consideration of risks for individuals is needed but balanced presentation of risks, taking account of individual choice, is important.

PARTICIPATION: get staff and potential users on board from the start involving them from the planning stages onwards.

SYSTEMS: carefully assess infrastructure as well as devices for cost, accessibility, suitability and usability.

TRAINING: users will need support and training to use new devices; peer-to-peer learning, hands-on demonstrations, and simple take-home instructions are recommended.

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Guidance for organisations and individuals using technology to promote social connectedness.

'How to' guide for setting up a service

Who

What

Why

How

Case studies: Individual Service

Evidence Base
- Full project report
- Literature review
- Technology scoping dataset
- *Healthy Ageing in Scotland* survey analysis

Guidance and supporting project documents available to download as PDFs from: www.tec.scot/resources/

Thank you for listening!

Email: a.s.f.dawson@stir.ac.uk or louise.mccabe@stir.ac.uk

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ECHAlliance

"The Global Connector for Digital Health"

Healthy Ageing Innovation Cluster

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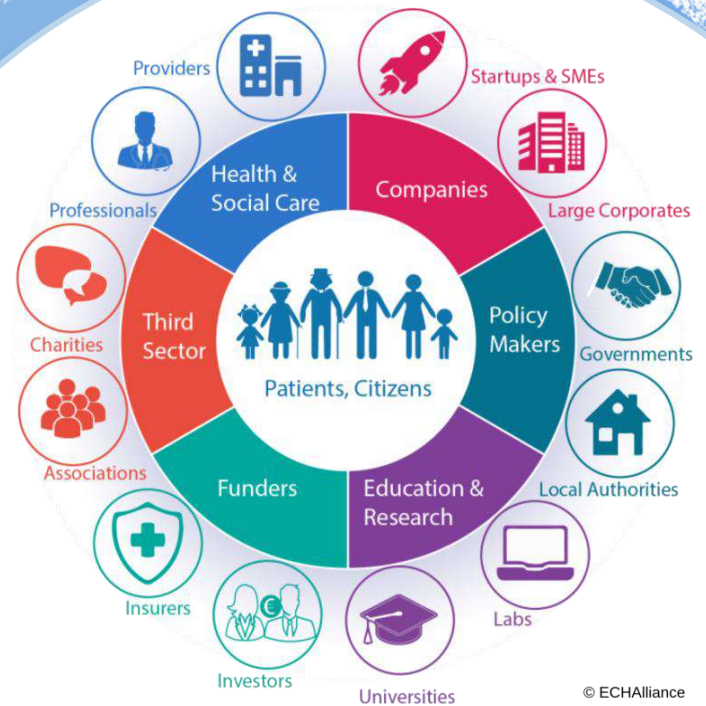
who

Member Organisation (700+ organisations - Join Us)
Companies, policy-makers, researchers, health & social care providers, patients, insurance…

16,500+ experts / professionals

Not for Profit Organisation
Registered in Ireland and in the UK

where

Growing reach across 78 Countries and 4.6 billion people

International Network of Ecosystems
(150+ ecosystem gatherings a year)

what

Connecting & joining the dots

Communication / networking

Member Support

Global events workshops

Funding/Tender Services

Become a member of ECHAlliance

Boost your network

Promote your organisation.

Join Working groups.

Access Ecosystems

Discounts on events

Make direct Connections

Funding and tender alerts

Collaboration in funded projects

www.echalliance.com

Ecosystems

..bring together a community of stakeholders to develop a joint health agenda, aiming to address and find common solutions to regional health challenges

The main benefit of working together in an Ecosystem is the multiplier effect of collaborating in our International Network of Ecosystems.

Ecosystems:

- **break down silos,**
- **transform healthcare delivery,**
- **create economic growth**

© ECHAlliance
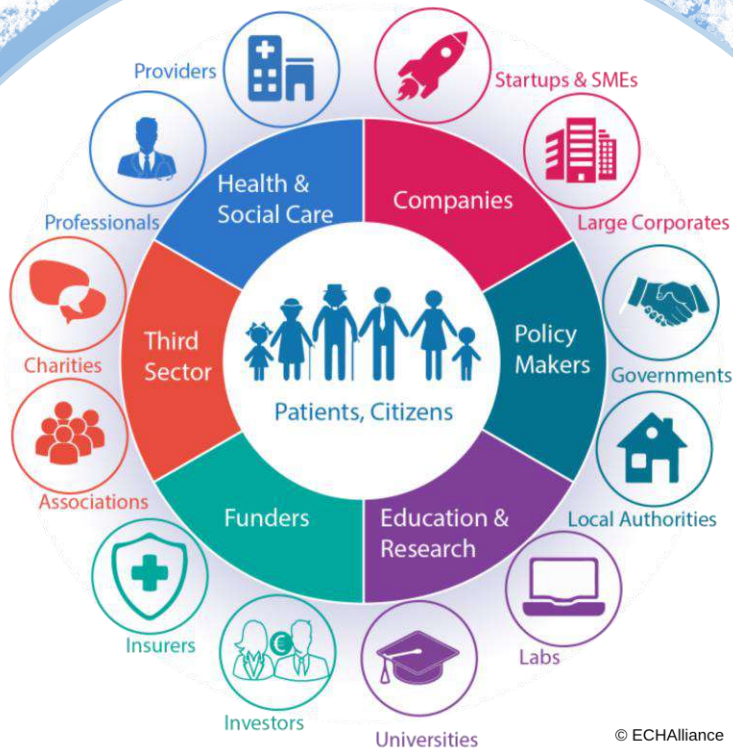
Members of our International Network of Ecosystems

150+ quarterly gatherings per year

Our Current Ecosystems 2020

- Belgium - Brussels
- Belgium - Flanders
- Canada - Ontario
- Czech Republic
- Denmark – South
- England – Manchester
- England -North West Coast
- England – London
- England - Yorks/Humber
- South West England **NEW**
- Estonia
- Finland Oulu
- Finland Ostrobothnia **NEW**
- Finland South Ostrobothnia **NEW**

- Finland – Kuopio **NEW**
- Finland – Central Finland **NEW**
- France – Bretagne **NEW**
- France – Nice PACA
- Germany-Rheinland
- Greece – Athens
- Malta
- Melbourne – Australia **NEW**
- Netherlands - Friesland
- Northern Ireland
- Portugal
- Republic of Ireland
- Romania – Cluj-Napoca **NEW**
- Serbia
- Scotland
- Highlands & Islands (Scotland)

- Slovenia
- Spain – Valencia
- Spain - Galicia
- Spain – Catalonia
- Spain Basque Country **NEW**
- Sri Lanka **NEW**
- Västerbotten- Sweden **NEW**
- USA - New York
- Wales

Our plans 2020

NEXT

Norbotten- Sweden

Jämtland -Sweden

Montreal/Quebec

Helsinki – Finland

Satakunta – Finland

Extremadura - Spain

Andalusia Spain

Croatia

Dolomites Italy

Buenos Aires – Argentina

Hess – Germany

Bavaria – Germany

Berlin/Brandenburg– Germany

Also in planning more in....

East Africa

Chile

Uruguay

France

Norway

Spain

Hungary

Crete

Benefits of joining an International Network of Ecosystems

As part of an international network of ecosystems an ecosystem can:

Increase access to international markets

Collaborate with other regions

Scale up innovation in your region and country in new settings

Bring in best practice from outside your country in Healthcare

Join 40+ other Digital Health Ecosystems

ECHAlliance

"The Global Connector for Digital Health"

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