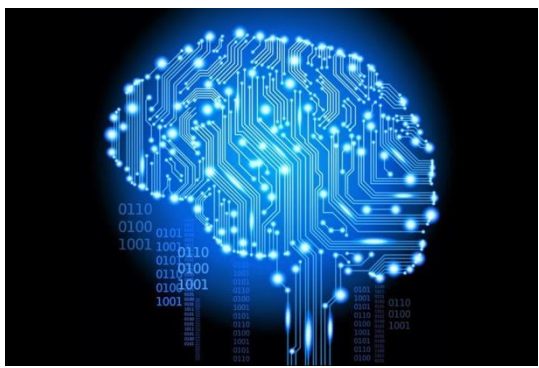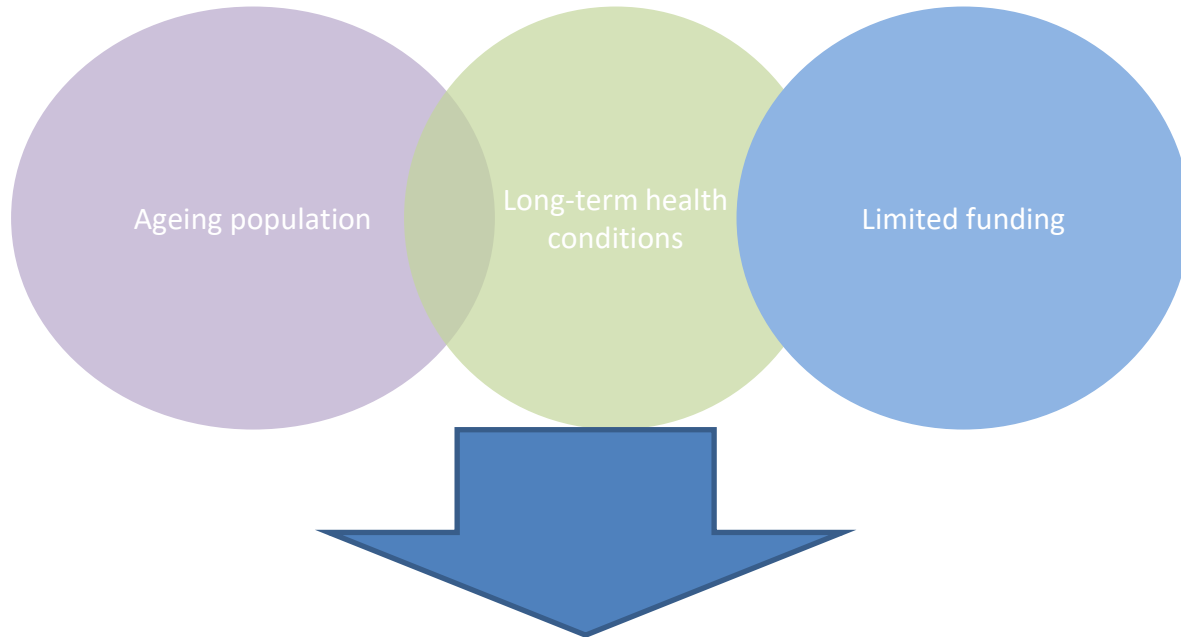# Delivering better health and care outcomes through Technology Enabled Care

Harnessing the power of data and artificial intelligence

Ruth Griffith, Lead Social Work Manager

Dumfries and Galloway Health and Social Partnership

Scotland faces significant challenges…

Ageing population

Long-term health conditions

Limited funding
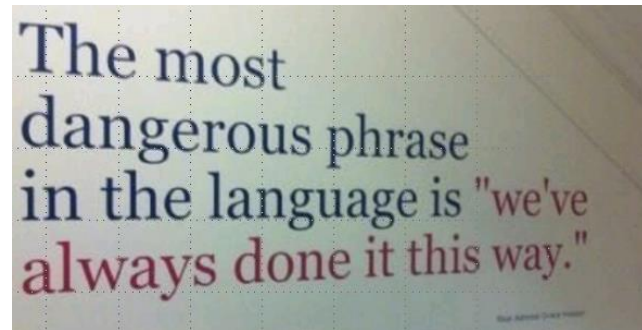
Enabling people to live more independently for longer at home through:

- Integrated services
- Risk management
- Self-care
- Early intervention

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The Case for Change

➢ People do not always have a good experience of care because they are not receiving their care in the right place at the right time

➢ How people want to receive and deliver health and social care is changing

➢ Technology and research are changing how services can be delivered

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The most dangerous phrase in the language is "we've always done it this way."

Technology Enabled Care so far TEC

2014
- Key areas –Home and Mobile Health Monitoring (Florence), NHS Near Me, increasing the use of telecare, moving telecare from analogue to digital

2018
- Publication of "Scotland's Digital Health and Care Strategy: Enabling, Connecting, Empowering" – interoperable, person centred, safe, 'Once for Scotland'

2021
- Refresh of digital health and care strategy, learning from Covid – importance of data

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Transition Process

National Direction and Leadership

National Digital Platform
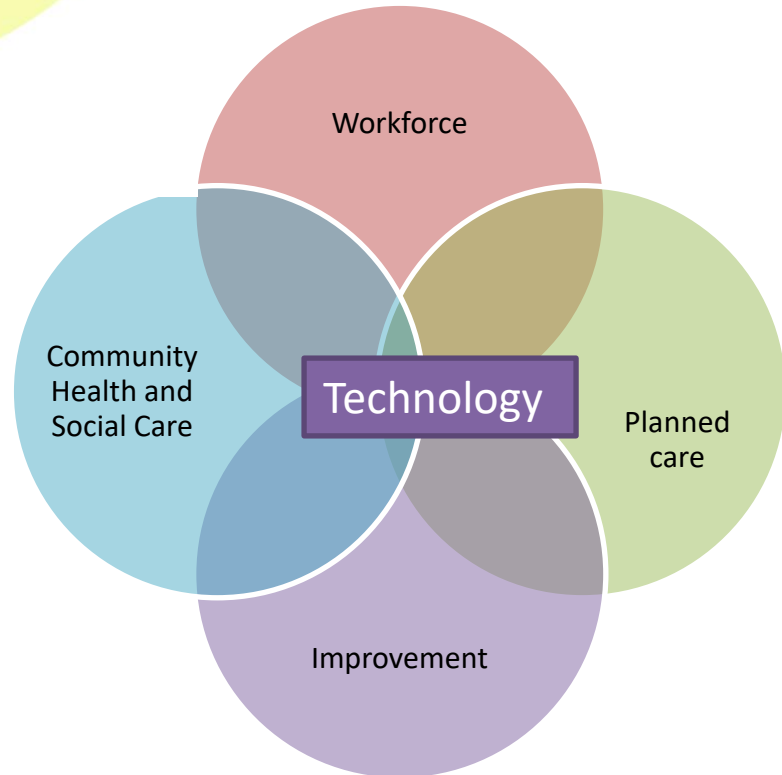
Health and Social Care should offer:

High quality services;

Focus on prevention;

Early intervention;

Supported self-management;

Day surgery as the norm;

Hospital stays only as required

Information Governance, Assurance and Cyber Security

Workforce Capability
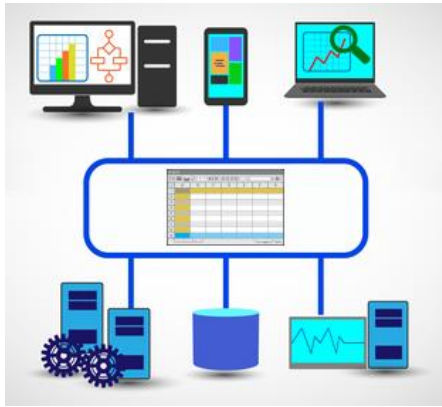
Service Transformation
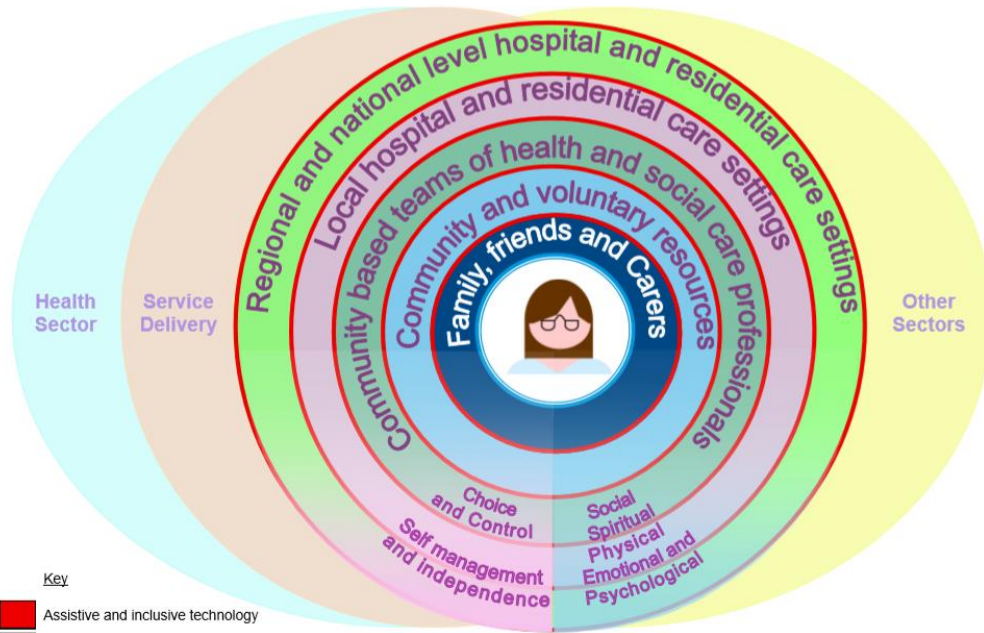
Key
- Assistive and inclusive technology
- Service delivery: Networks and facilities
- Health sector: governance, finance and resources
- Other Sectors: such as education, housing, environment, and employment

Health Sector
Service Delivery
Other Sectors

Regional and national level hospital and residential care settings
Local hospital and residential care settings
Community based teams of health and social care professionals
Community and voluntary resources
Family, friends and Carers

Choice and Control
Self management and independence
Social
Spiritual
Physical
Emotional and Psychological

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Workforce
Community Health and Social Care
Technology
Planned care
Improvement

Data – supports person-centred approach; early intervention and prevention, reduce hospital admissions; more efficient and effective delivery

Data and Artificial Intelligence (AI)

Artificial intelligence (AI) and data analytics increases the ability for healthcare professionals to better understand the day-to-day patterns and needs of the people they care for, and with that understanding they are able to provide better feedback, guidance and support for staying healthy

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Example of AI developments

Ada is an AI-powered doctor app and telemedicine service

"Ada has been trained over several years using real world cases, and the platform is powered by a sophisticated artificial intelligence (AI) engine combined with an extensive medical knowledge base covering many thousands of conditions, symptoms and findings,"
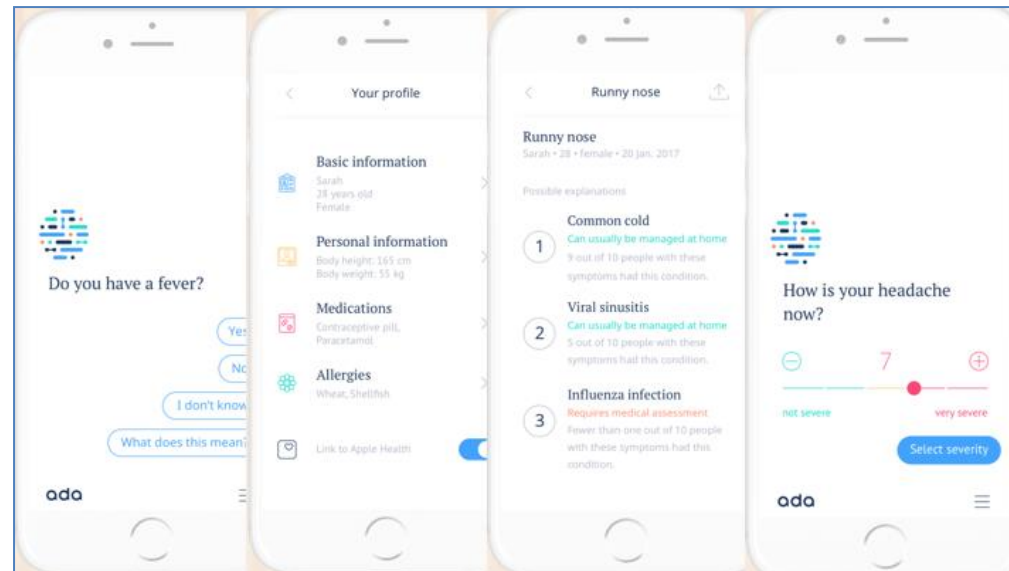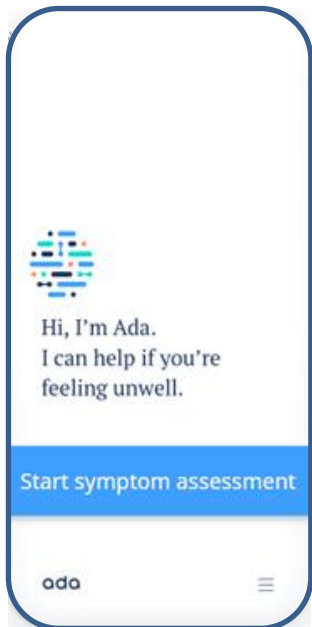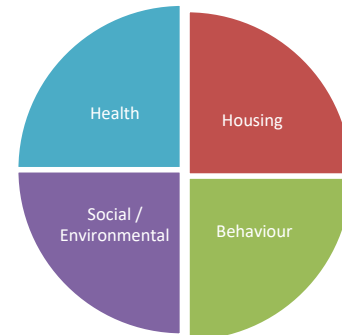
The importance of data

It's estimated that health care professionals make decisions based on about 16% of the available data on a person.

How do we match the data points collected on individuals in Scotland against the social determinants impacting our health?

Social determinants that impact our health and wellbeing

- 20% of what helps or hinders us relates to the actions of our health service

- 30% is linked to our own behaviour – such as smoking or how much exercise we take

- 10% by housing

- 40% linked to social, environmental and other factors

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Health

Housing

Social / Environmental

Behaviour

Seeing the bigger picture?

"We need to think about how data is going to flow through our system in Scotland, safely, securely and effectively and under citizens control" (George Crooks)

We need to blend citizen generated data with formal health and care data so we can better understand people's lived experience and make better planning and healthcare delivery decisions.

We need to consider how we make some of these data points available to health and care professionals and to others, but in a fully consent driven way under citizen control

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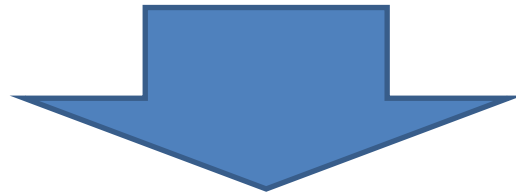**Health and Social Care**

Connected Healthcare solutions

Market changes are creating increasing opportunities for Connected Healthcare

Growth in IP-connected users,
and the emergence of an 'Internet of Things'

Need for more integrated and preventative services
to enable population management at scale

Drive towards healthcare service delivery
in the community and self-management

Technology enables the adoption of new models of care which are connected, proactive and improve outcomes across the health, housing and social care landscape

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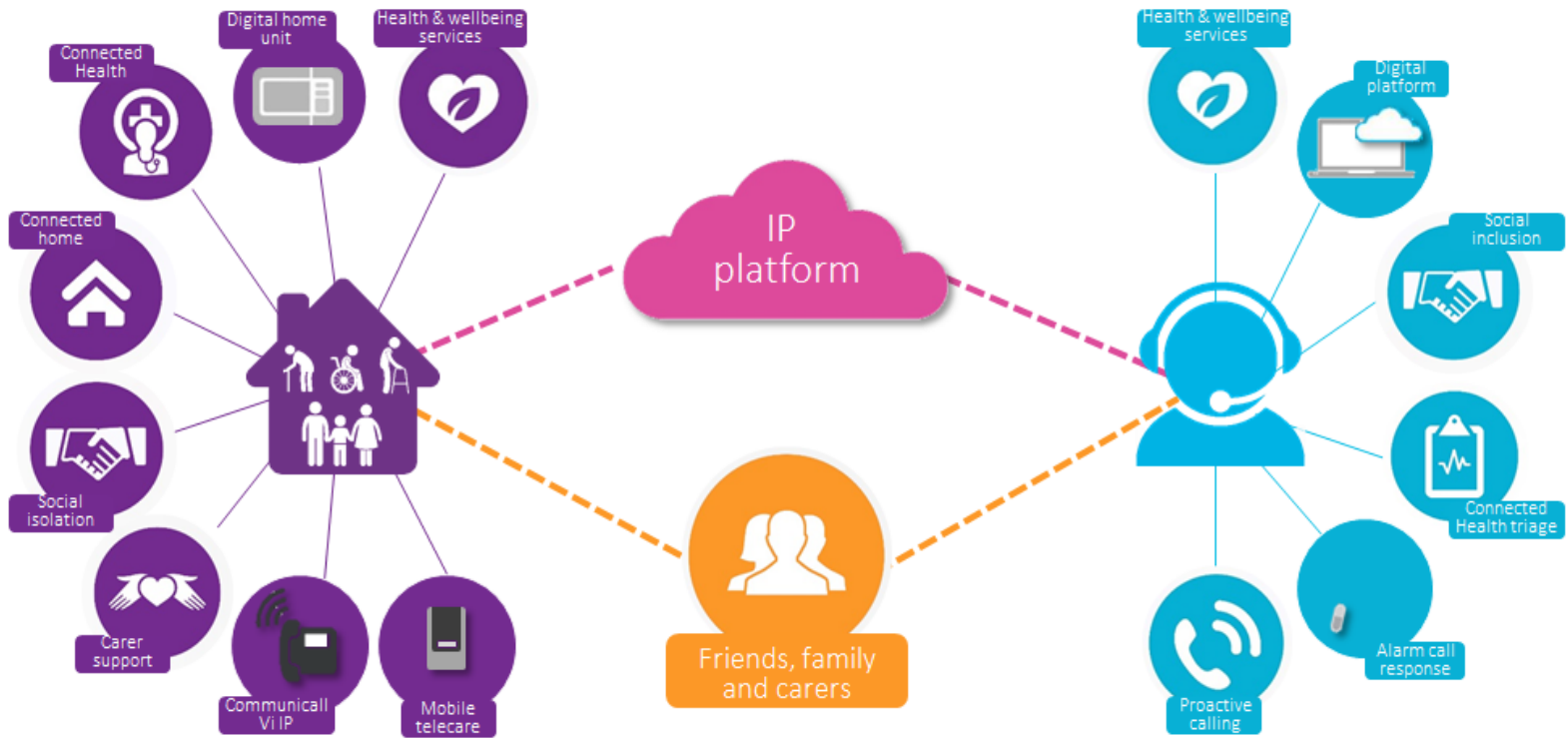
The IP Opportunity

The advent of IP and mobile technology means that for the first time people who use our services, the devices that protect and monitor them, and the carers and health professionals who look after them, can all be connected to one another in real time all the time.

The start of the journey:

Life Curve

| Wearables | IoT | Smart Home | Data cloud |

The rise of IP connected products in the consumer market

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Connected Health

Digital home unit

Health & wellbeing services

Connected home

Social isolation

Carer support

Communicall Vi IP

Mobile telecare

IP platform

Friends, family and carers

Health & wellbeing services

Digital platform

Social inclusion

Connected Health triage

Alarm call response

Proactive calling

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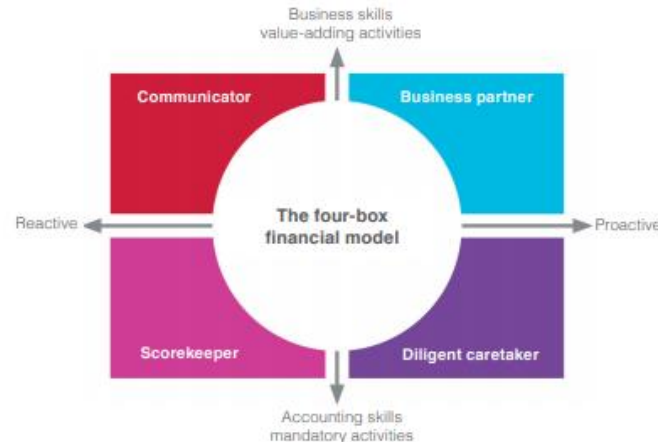DUMFRIES AND GALLOWAY
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What does this mean for finance business partners (FBP)?

FBP as critical friends

- Why things are done
- How can they change
- What barriers need breaking down to improve services and the financial position

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