Danish Society for Quality in Healthcare January 2023

Digital Health & Care Innovation Centre

Transforming great ideas into real solutions

Prof George Crooks OBE

Scotland’s national innovation centre for digital health and care

Based in the Inovo Building, with a Demonstration & Simulation facility in the TIC building, University of Strathclyde

dhi-scotland.com

Who are we?

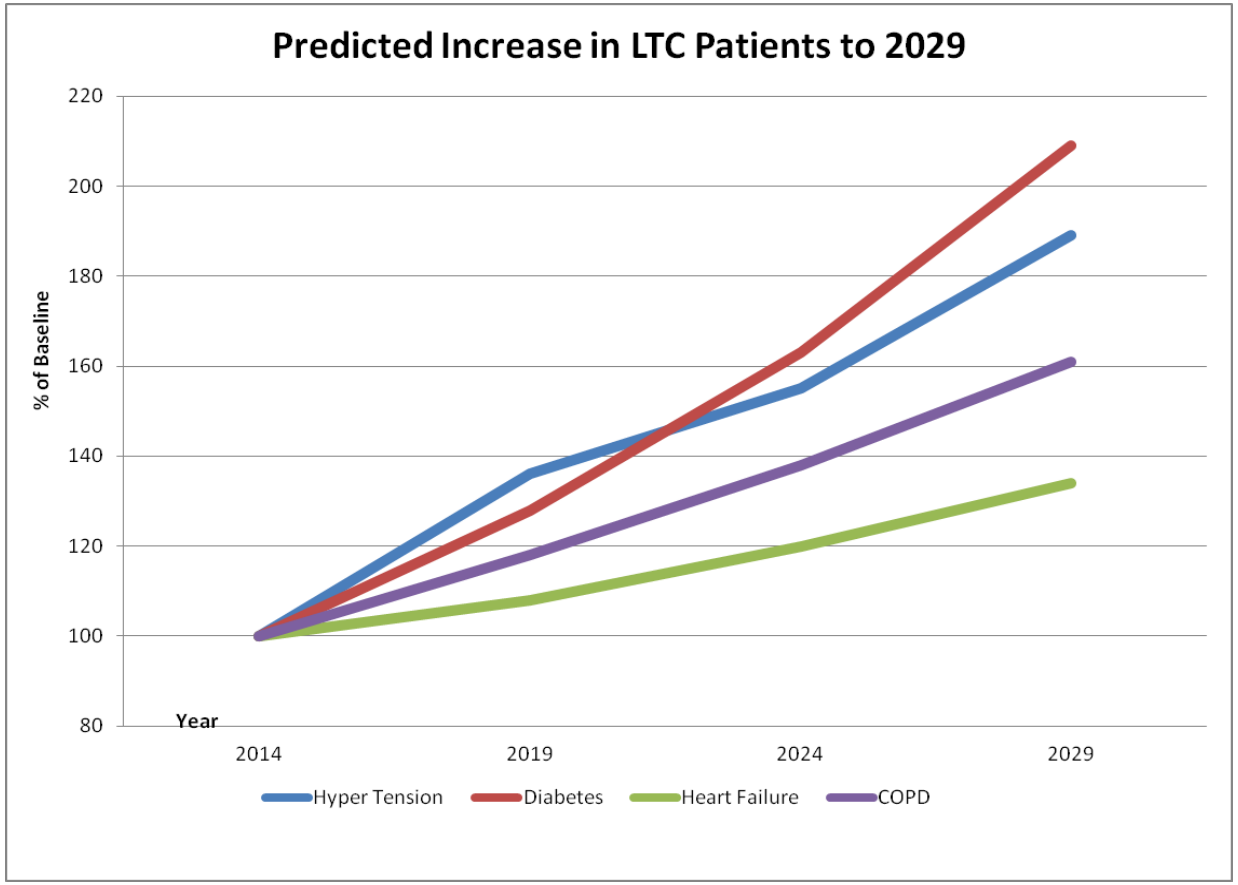
- Formerly known as the Digital Health & Care Institute (DHI)
- Established in 2013 as a national R&D resource
- Core running costs funded by the Scottish Government & the Scottish Funding Council (£2m p.a. – 25%/75%)
- One of Scotland's 7 x SFC funded innovation centres
- We work with Civic organisations, Commercial industry (SMEs through to Enterprise level organisations), Academic institutions and Citizens

Vision: innovation in digital health and care will help the people of Scotland live longer, healthier lives and provide sustainable and inclusive growth for our economy

GET THE FACTS

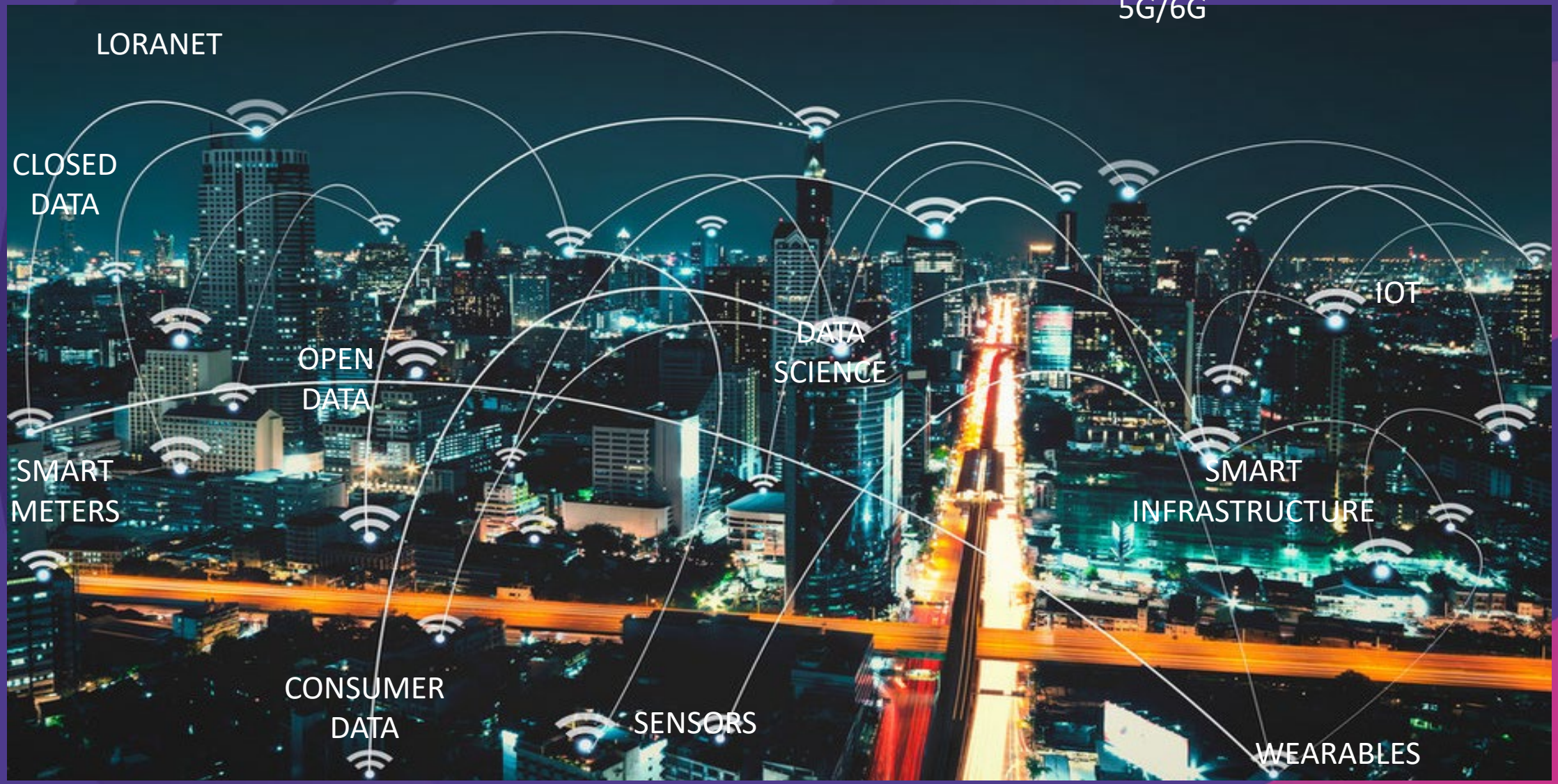
50
EURO

Projected prevalence of Chronic Disease



DIGITAL HEALTH & CARE INSTITUTE

DIGITAL
HEALTH & CARE
INSTITUTE


5G/6G
LORANET
CLOSED
DATA
IOT
DATA
SCIENCE
OPEN
DATA
SMART
METERS
SMART
INFRASTRUCTURE
CONSUMER
DATA
SENSORS
WEARABLES

#Think
Digital

SO WHAT IS OUR FUTURE?

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Next Generation Services

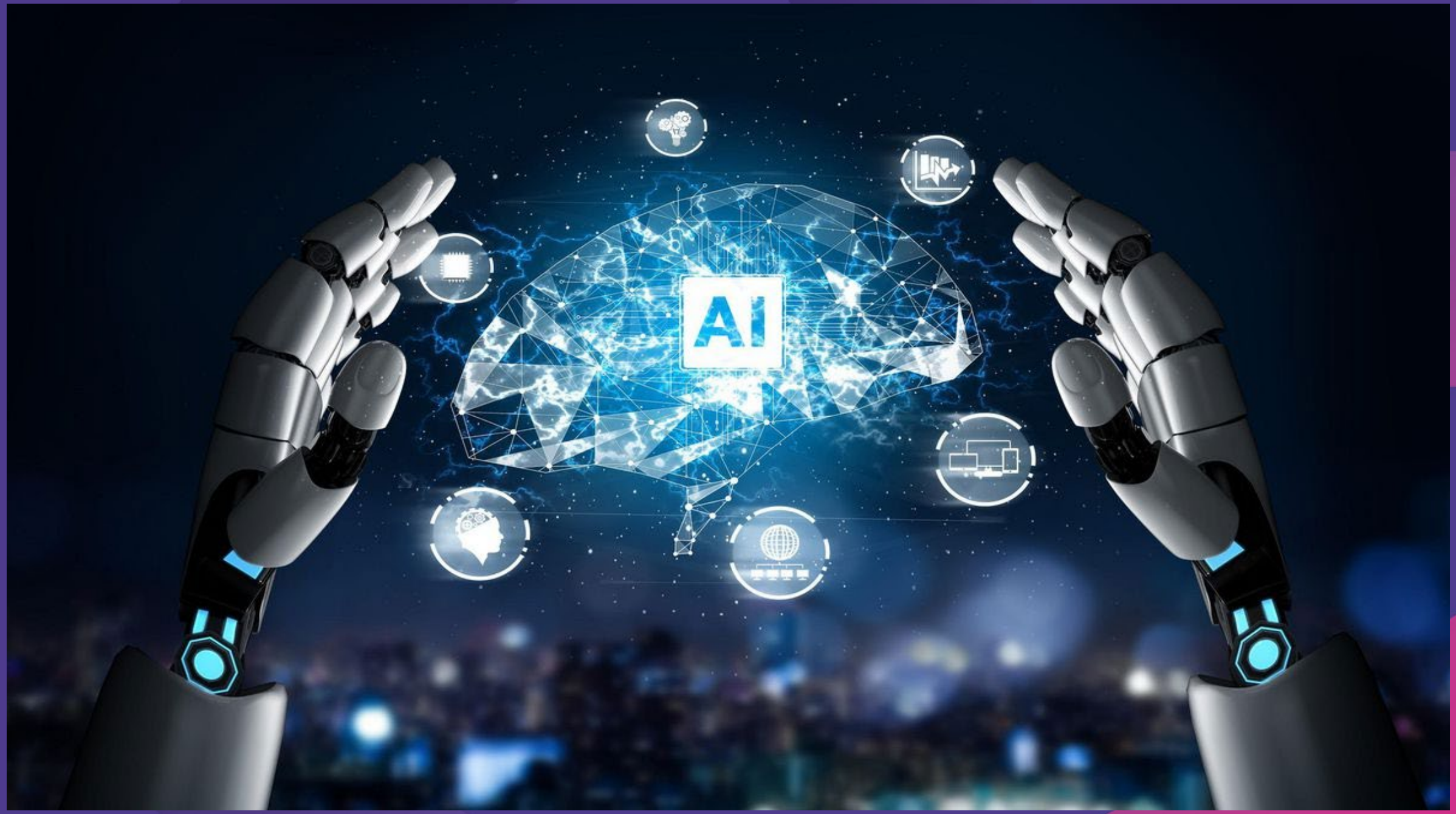
Our focus is to shift the balance of care

SHIFTING THE BALANCE OF CARE

Government health expenditure as a share of GDP, 1880 to 2021
10%
8%
6%
4%
2%
0%
1880
1900
1920
1940
1960
1980
2000
2021

W
H
E A L T H

Designing for digital at scale


AI

Integrating innovation strands to enable adoption

DEMONSTRATING

Service model innovation

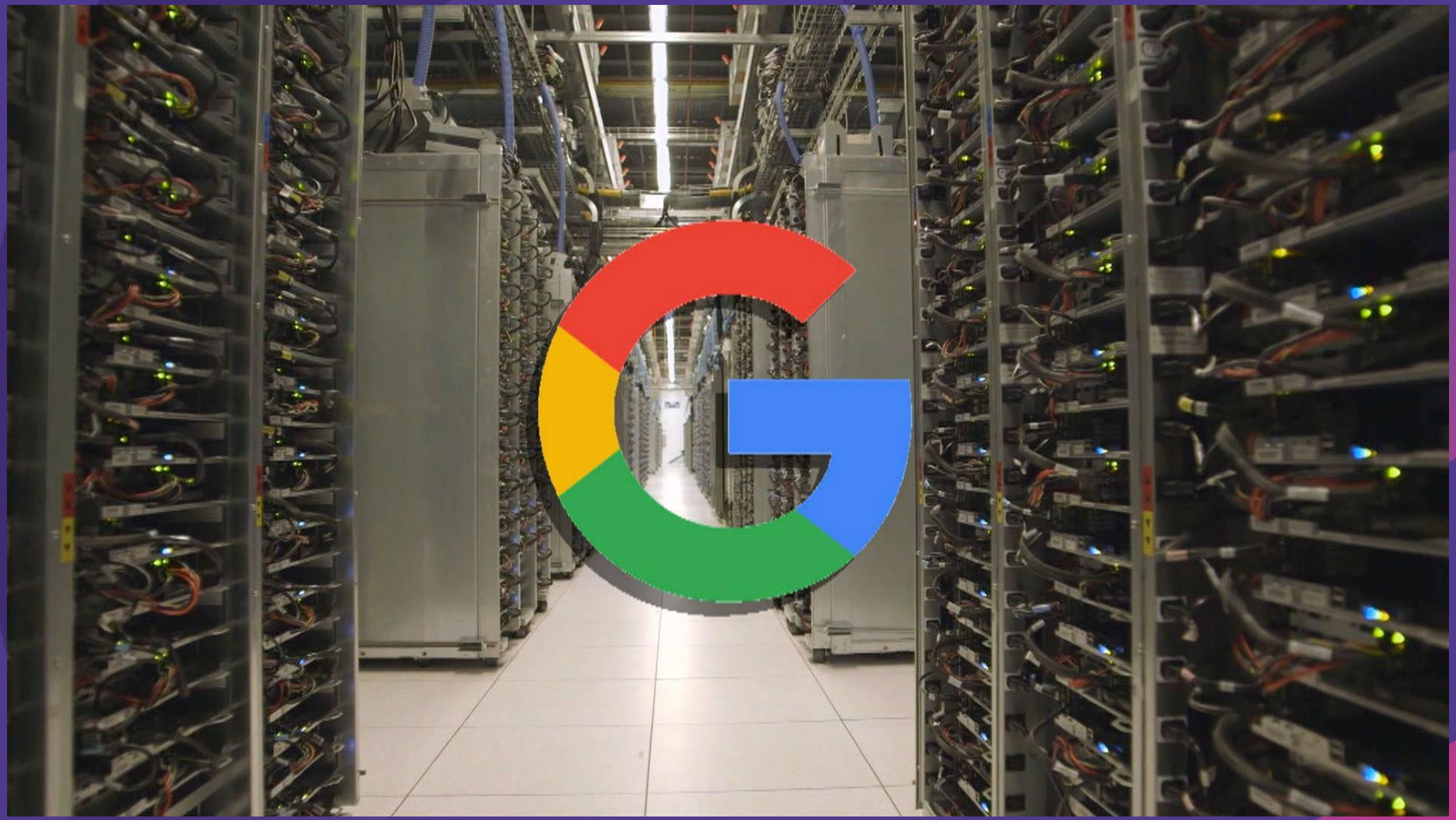
Technical/Digital innovation

Business model innovation

ACCEPTED SERVICE MODELS

READINESS TO ADOPT/ SCALE

data



Products
Services

Service design principles

- Predictive and proportionate care
- Balance between user and system needs
- Citizen activated services

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Technical principles

- Create data only once
- Trust in distributed data
- Personal ownership of data

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Business principles

- Open solutions that scale and evolve
- Services not products
- Serve the consumer and the commissioner

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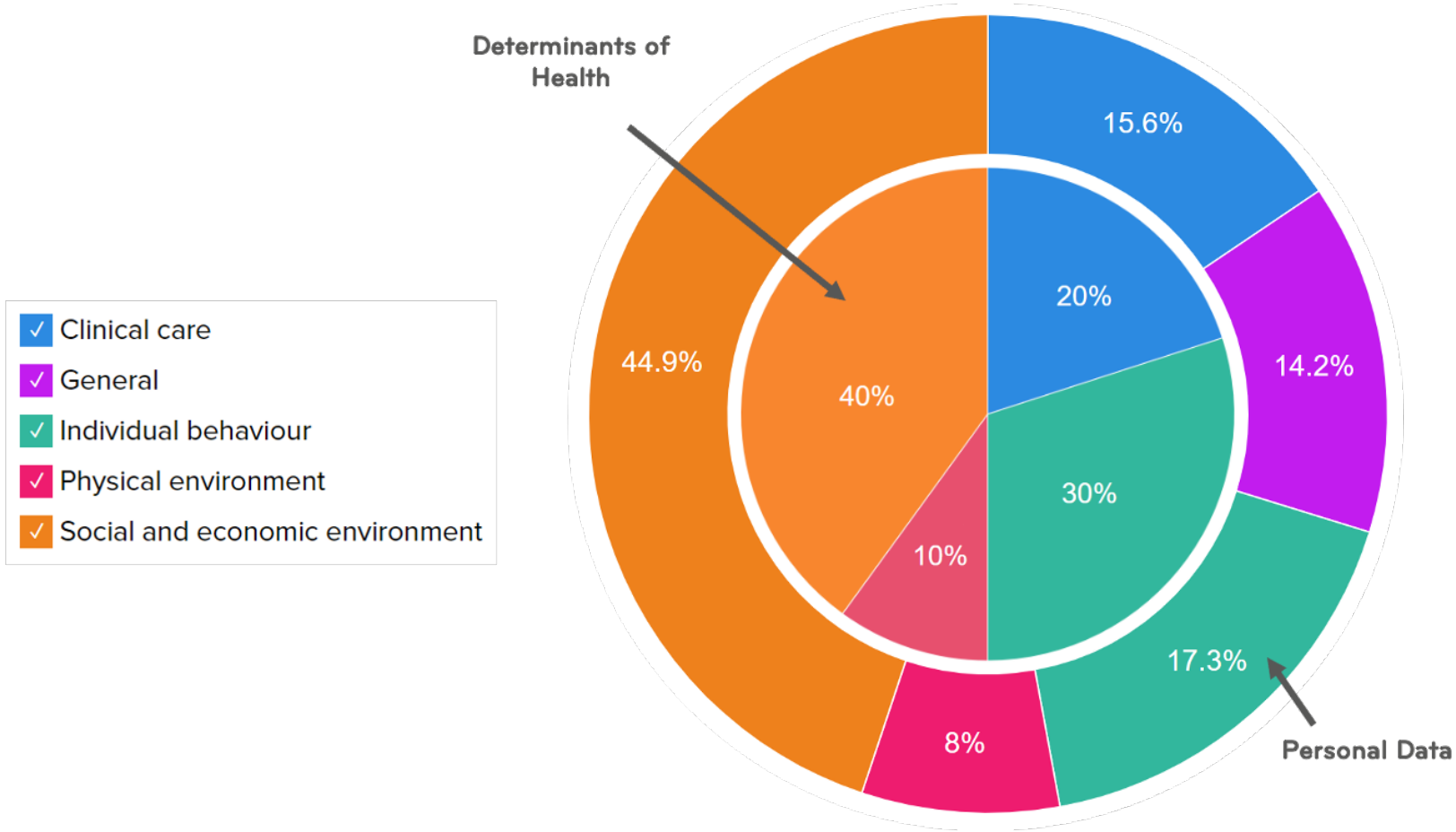
BLEND CITIZEN GENERATED DATA WITH FORMAL HEALTH AND CARE DATA

DELIVERS AN UNDERSTANING OF THE TRUE LIVED EXPERIENCE OF A CITIZEN

Personal Data by Determinants of Health



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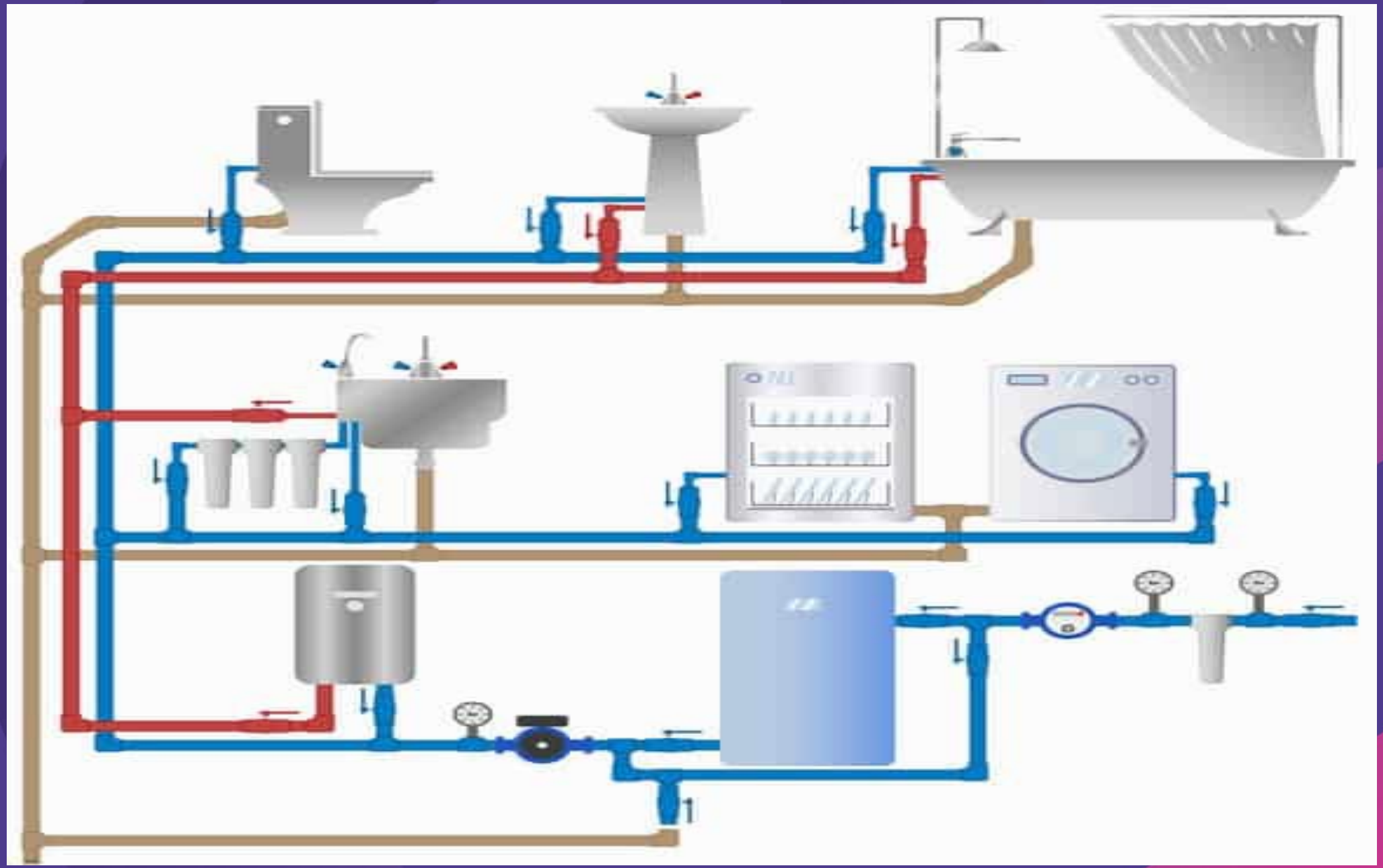
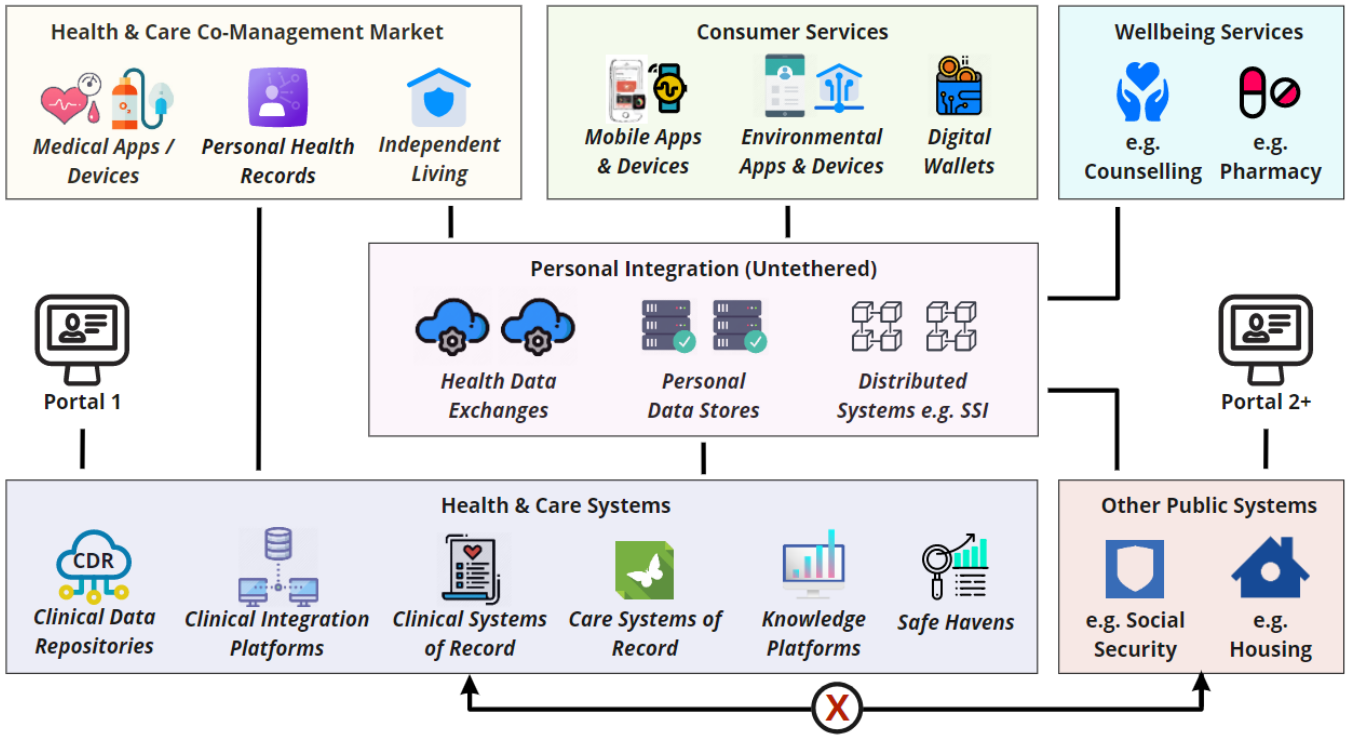


Person Centred Data Sharing - Architecture



Personal Integration infrastructure can bridge between a citizens' broader life and their health and care services

Supports person centred, integrated services:

- Strong citizen user control
- Breaks traditional silos
- Respects complexity of user

Supports innovation:

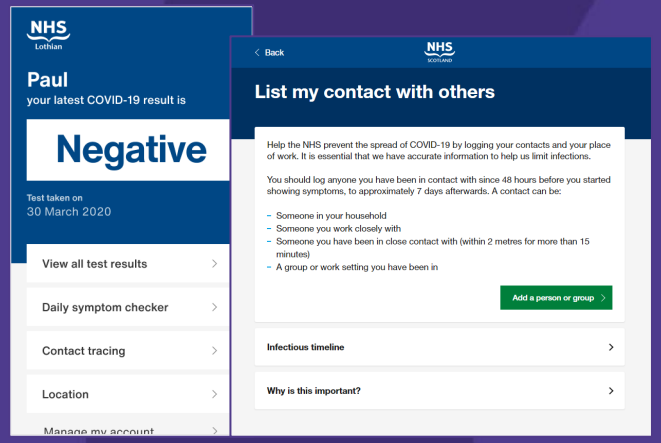
- Choice of many suppliers for both citizens and services
- But with a focused, coherent route to integration
- Unfettered innovation centred on citizens

Requires new kinds of effort:

- More learning needed around how to orchestrate
- Managing a variety of suppliers (but reuse of integrations)

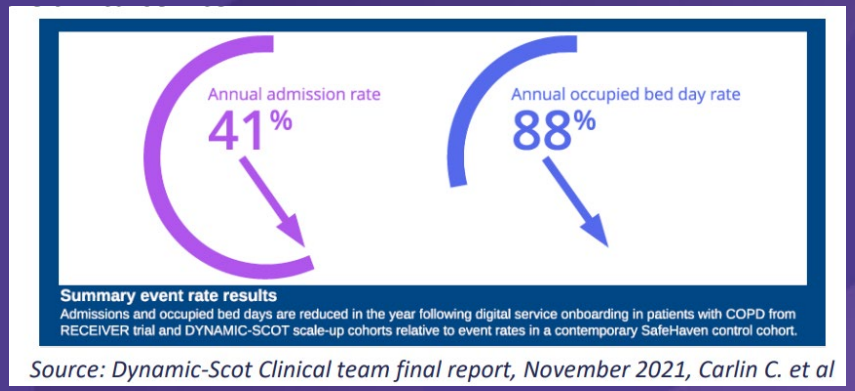
Benefits Realisation – Effectiveness & Efficiency

Covid – Co3



- 64% channel shift of contact tracing effort to digital channel
- 75% of patients who self serve do so within 45 minutes of receiving positive result

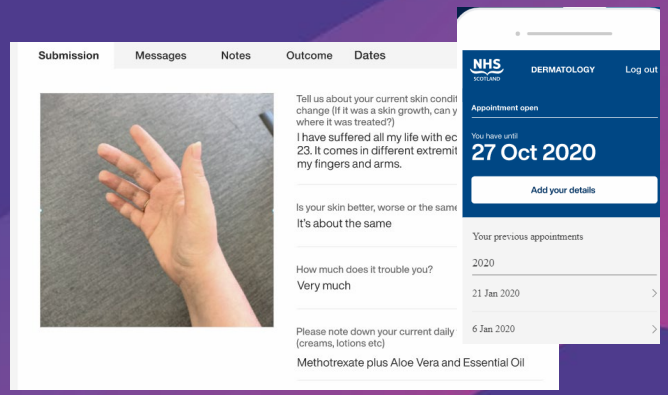
Dynamic Scot



Source: Dynamic-Scot Clinical team final report, November 2021, Carlin C. et al

- 54% mean reduction in hospital admissions
- 4.5 fewer occupied bed days per patient p.a.
- Median time to readmission or death increased from 2 months to 12 months
- Co2 emissions decreased by 96,530 kg e.g reduced travel

Asynchronous clinics (Derm)

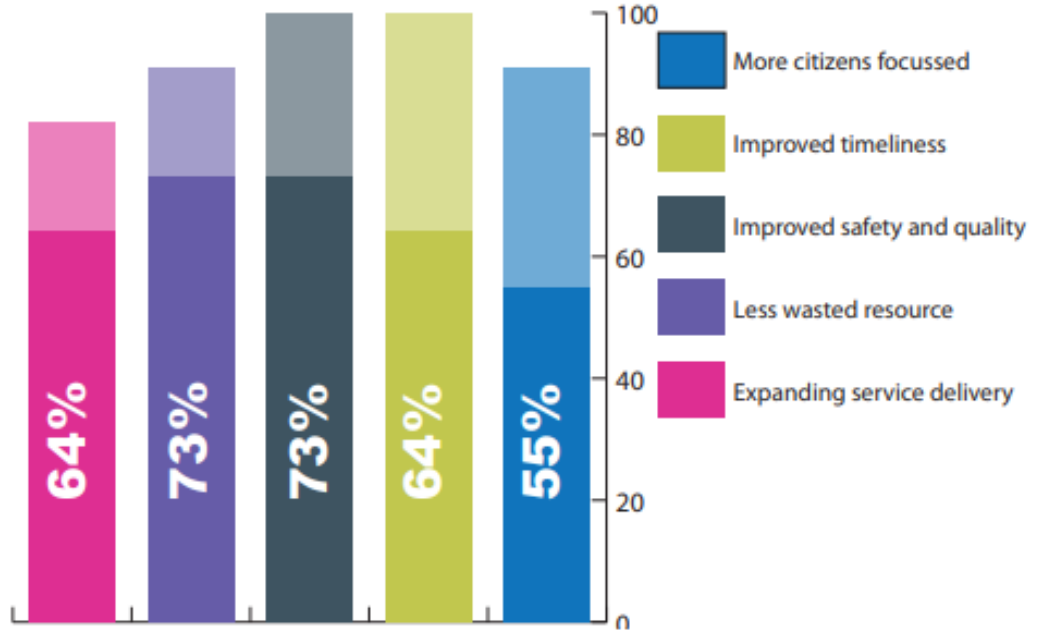


- 3000 patients (8 Health Boards) reported that appointment times halved in duration
- Enabling 23% more clinical time, and high patient-satisfaction, with 82% of respondents reporting ease-of-use – ref Muthiah S et all
- ‘

Benefits Realisation – Impact on operational activity

- 64% anticipated service expansion, with 18% stating that this has been achieved
- 73% said it had already improved safety and quality of care or reduced clinical risk; a further 23% said they anticipated this was going to emerge
- 18% reported less wasted resources due to this work
- 64% said it had already improved the timeliness of the service with a further 34% saying that they anticipated this will emerge
- 55% said it has already made services more person/citizen centred and/or empowered patients or citizens

Fig 11. Impact on operational activity and patients

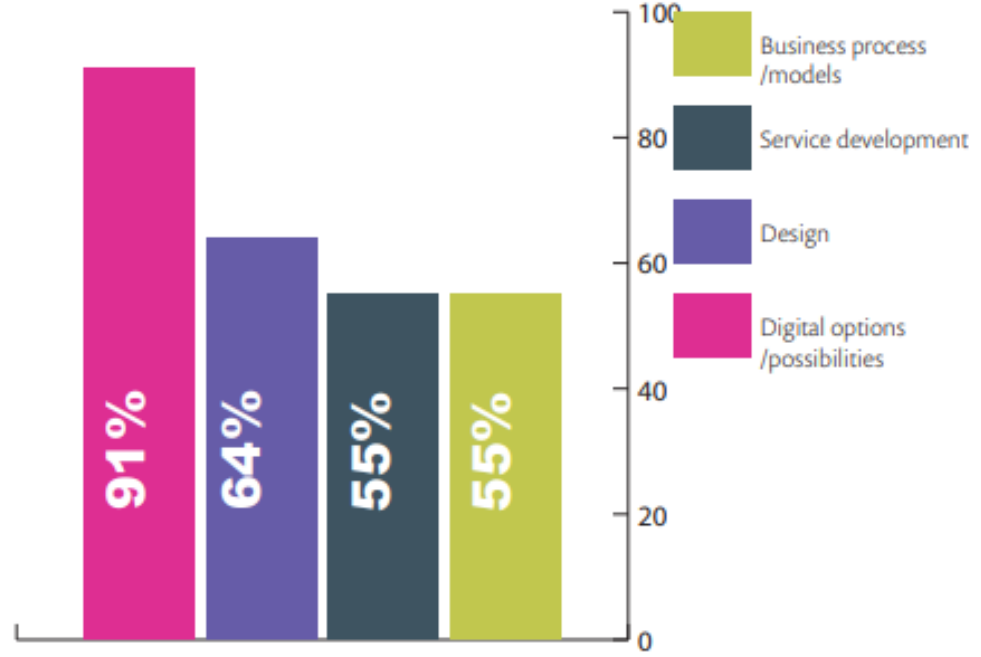


Benefits Realisation – Increased knowledge and Know how

DHI appears to help stakeholders by improving different types of knowledge, with;

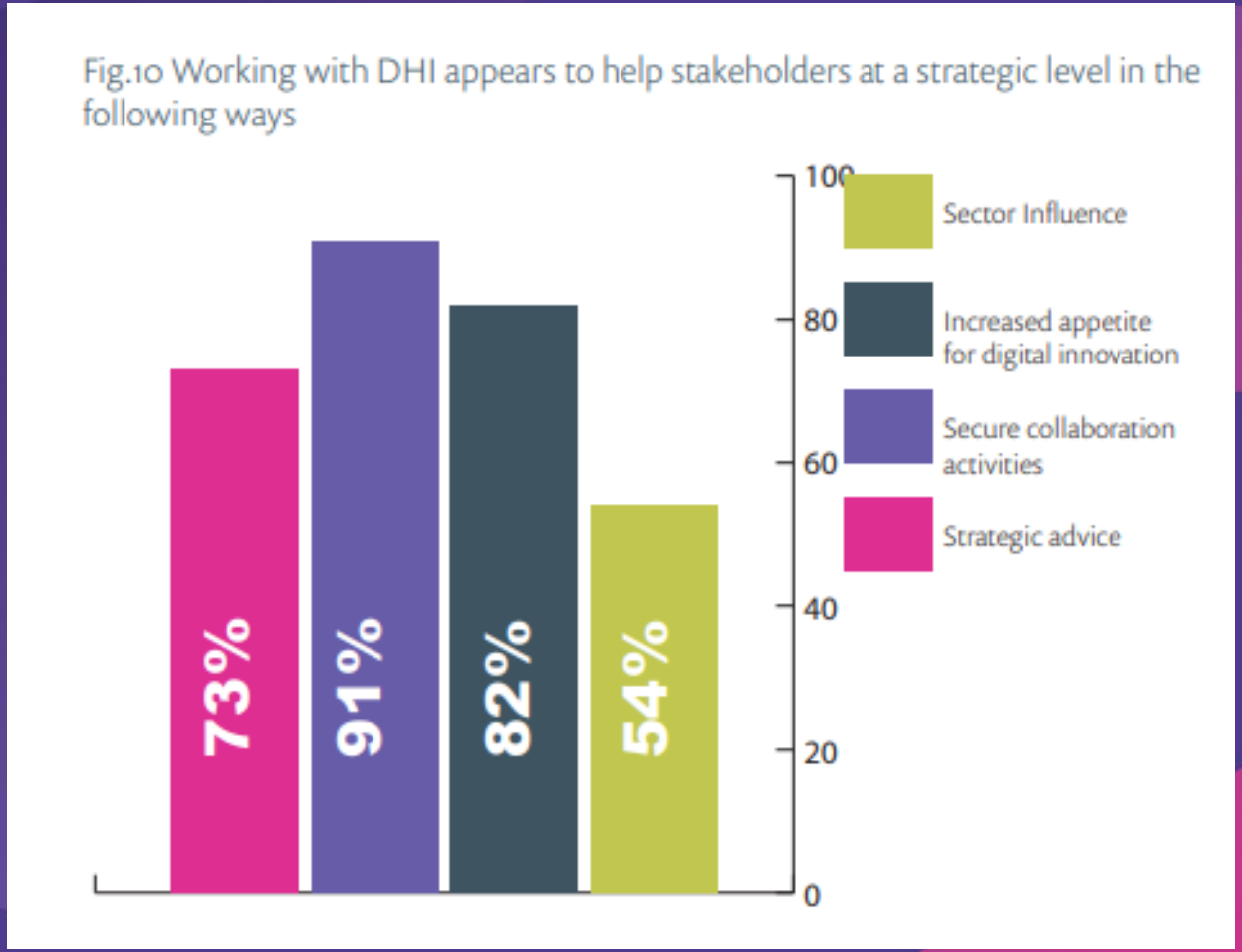
- 91% said it had in terms of technical readiness and/or digital options - products and service possibilities highlighted
- 64% said it had in terms of design
- 55% said it had in terms of service development
- 55% said it had in terms of business process/models

Fig 12. Working with DHI was noted to help stakeholders by improving different types of knowledge and know-how:



Benefits Realisation – Strategic leadership, facilitation and brokerage

- 73% said it has had an impact in terms of provision of a strategic advisory role
- 91% said it has had an impact on securing collaboration activities
- 82% said it has had an impact on increasing the appetite for digital innovation
- 54% said it has had an impact on influencing change by being a voice for the sector



Contact us

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