



Digital Health & Care Innovation Centre

Person-Centred Data Sharing – A Catalyst for Service Transformation

Chaloner Chute, Chief Technology Officer

Scotland's national innovation centre for digital health and care



Hosted by Univ of Strathclyde in collaboration with Glasgow School of Art

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
- 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

Co-design – Whole of Life



Mydex CIC / University of the Highlands and Islands
NHS Grampian / Moray Council / The Glasgow School of Art

BACKPACK

Exploring how people living with Multiple Sclerosis would like to manage their own personal information in order to improve the experience of accessing services, and understand the potential of a person-owned data store (or digital 'Backpack') to support health and care professionals to deliver more integrated and person-centred care.

Participants:

Participants: 9

Methods:

- Focus Group
- Experience Mapping
- Paper prototyping
- Digital prototyping
- Prototype Iteration

Two Exp. Labs
+ 1 Mini-Lab

Lab Team:

- Gemma Teal
- Dr. Tara French
- Dr. Jay Bradley

Lab Location:
- Elgin

2016

10 Hours Experience Lab time
+3 Hours Mini-Lab time

Academic Output:

x1 x1 - Report
- Video

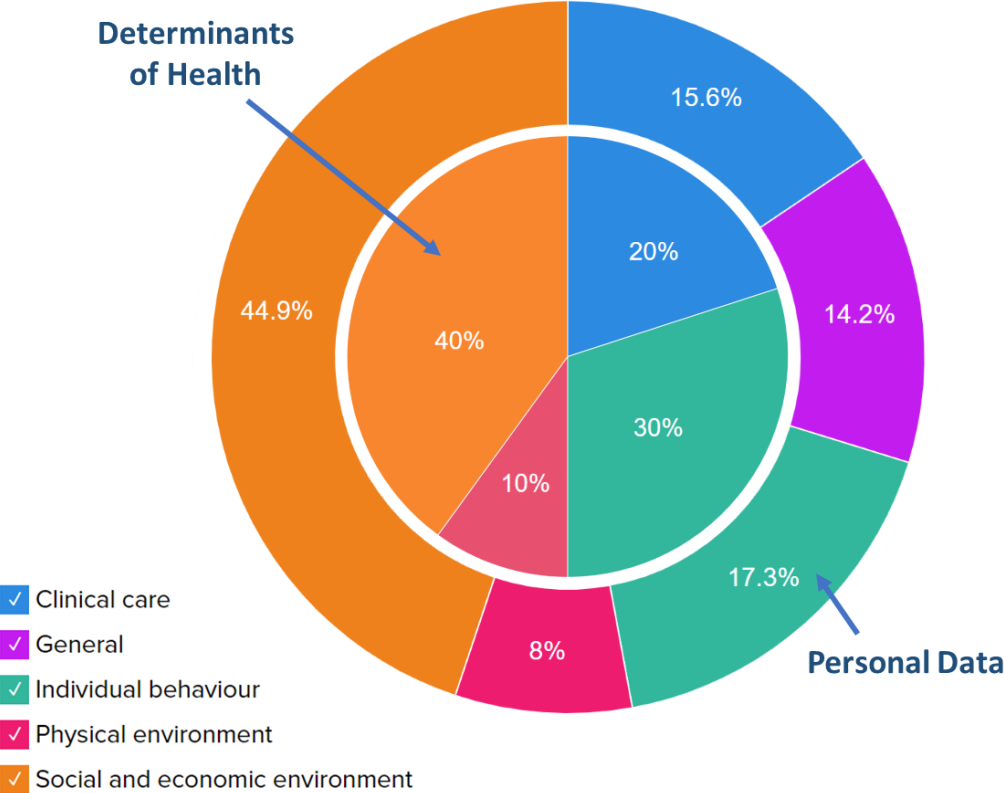
Tools:

- Backpack prototyping tool
- Personas
- Experience map
- Service mapping tool
- Scenarios
- Digital prototypes

Person-owned information

Navigating Services

Multiple Sclerosis

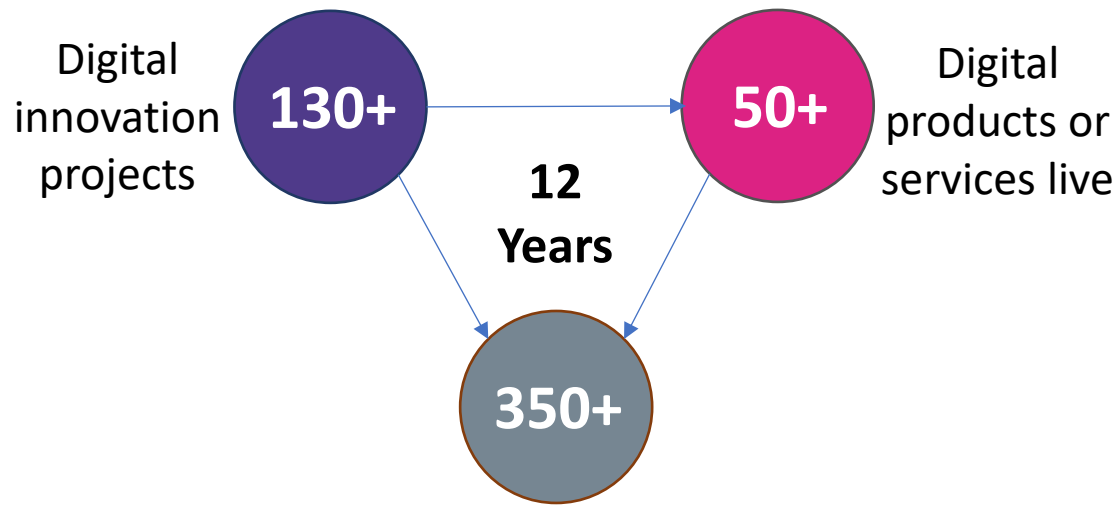




Common Unmet Needs



DHI Lessons Learned



350 + design, research and market research reports

Recognise that:

- There are condition specific products – e.g. a diabetes app.
- There are use case specific products – e.g. screening, monitoring
- Both condition and use-case specific products are transient
- Instead focus on resilience / flexibility through reusable platforms
- Many products masquerade as platforms.

Do Not:

- Push, procure or import a product to fix a service
- Focus on technical solutions to specific use cases
- Expect eHealth to support a range of these products
- Build a centralised product offering one user experience

Do:

- Focus on generic platforms to support many suppliers / services
- Integrate these enabling common platforms once for eHealth
- Use this approach to enable service redesign with front line
- Allow products to satisfy redesign needs and connect to APIs

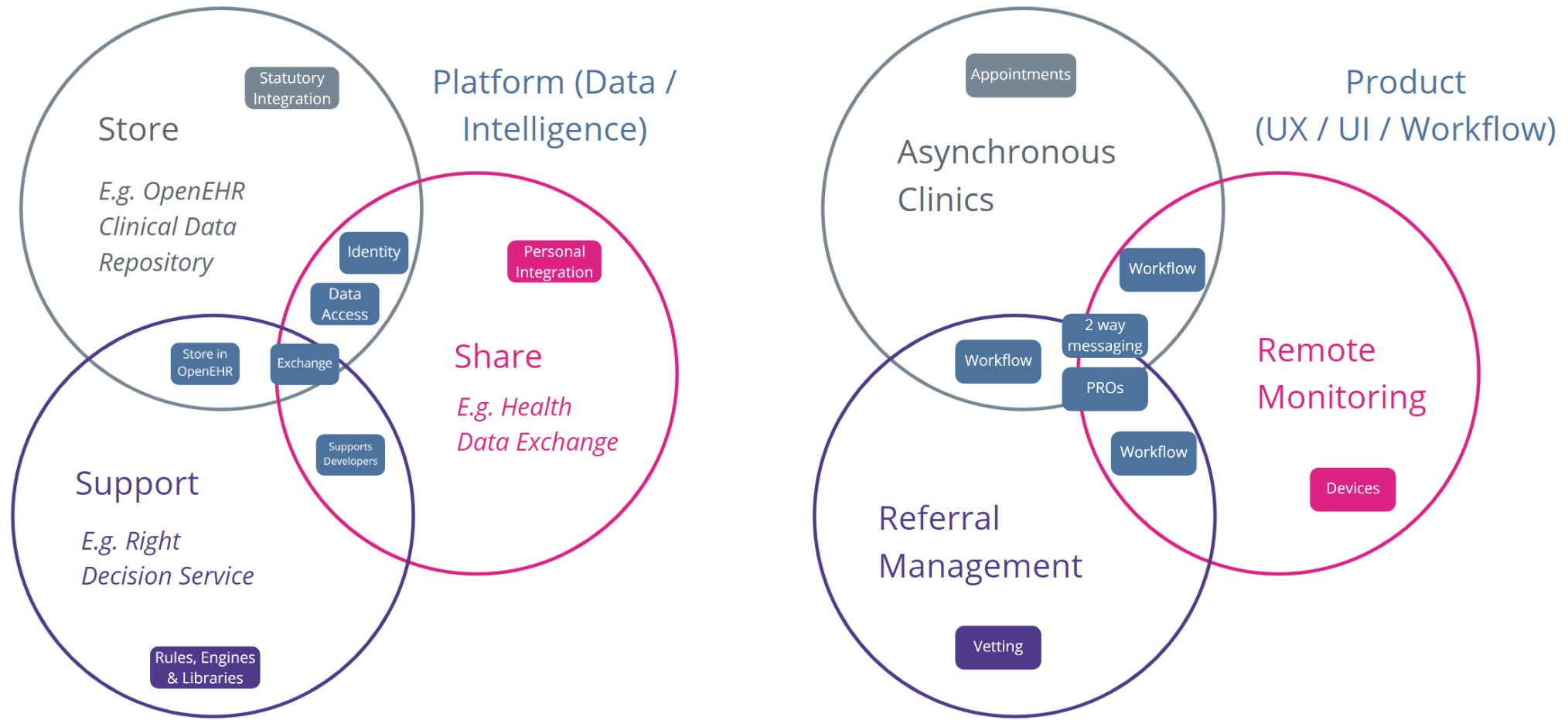


Defining Products & Platforms

A product is designed for consumers, whereas a platform is designed for both the consumer and producer.

- Platforms enable other producers to serve customers, serve each other, and support the platform operator.
- A platform should be used and extended by people other than the platform owner. This is how platforms derive value - by enabling creativity at the “edges” by supporting producers to innovate.
- Almost every product today has APIs that let it exchange data with other applications. A platform, however, plays a more active role in coordinating how multiple products work together.
- We should identify true platforms and learn how to use them as common assets to support service transformation.
- Products can add value once platform capabilities are in place.

Example Products & Platforms



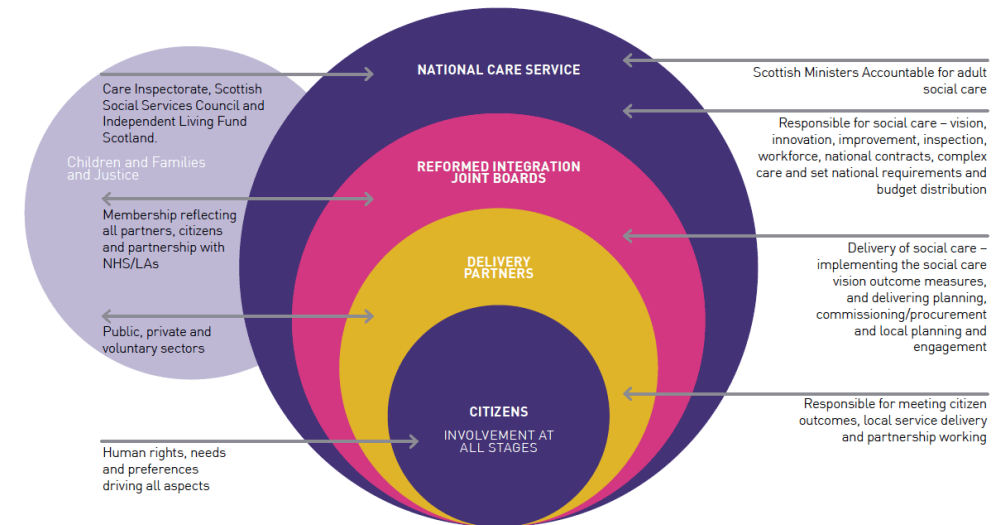
National Context



Digital Front Door



National Care Service



DHI delivering “Pathfinder” projects to understand and de-risk front line, complex care requirements (e.g. third sector advocacy or delegated access for carers).

Developing service maps, architecture, data structures and future state service models to inform strategy.

Scotland's Digital Strategy

A Changing Nation: How Scotland will Thrive in a Digital World

Introduce a digital identity service for users: We will develop and establish a trusted and secure service for users to prove who they are, and that they are eligible for a service. Users will be able to store their information and choose to share it when applying to public services.

This will improve a user's access to services by providing a safe and secure way to prove their identity, while reducing time and cost for the public sector. Additionally, we will develop an inclusive approach for all users to ensure that offline services are available for those who are unable to use a digital service.

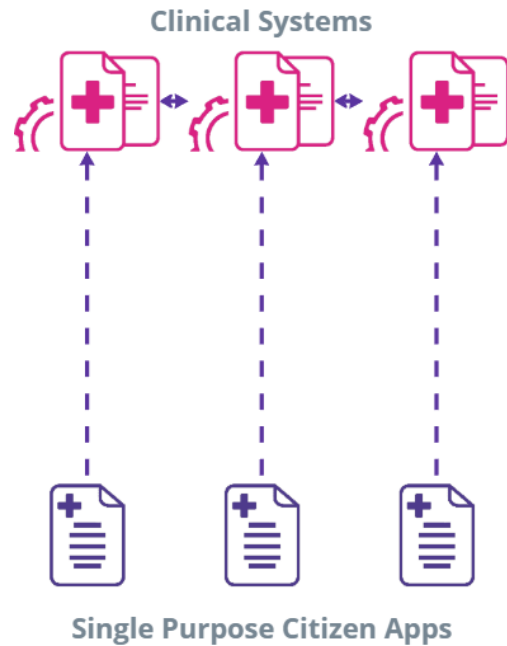


Digital Scotland Newsletter: <https://mailchi.mp/c825378db242/registration> and follow [@digitalscots](https://twitter.com/digitalscots)

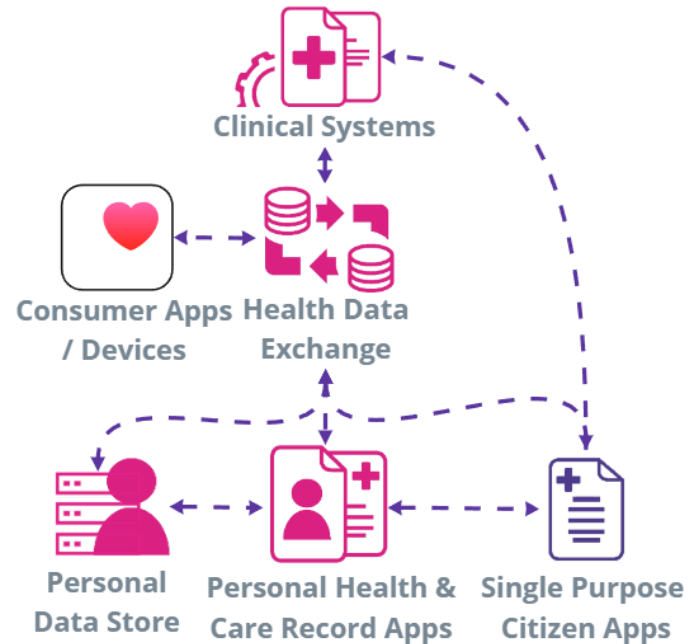
3 Horizons



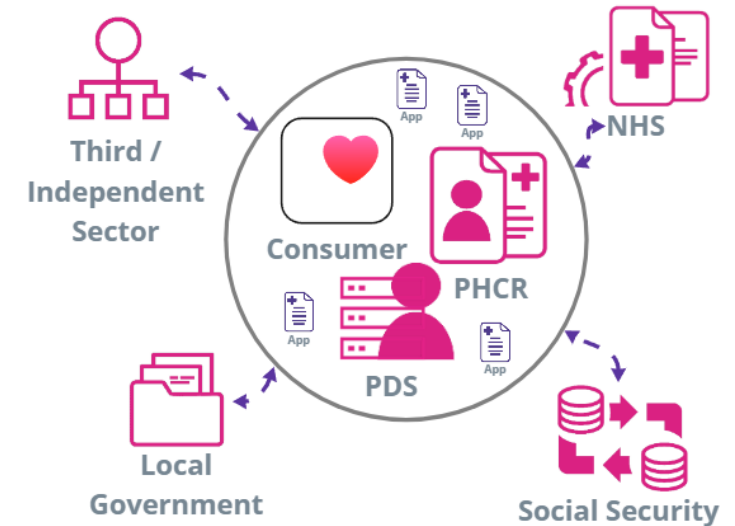
CURRENT STATE (Horizon 1 – Point to Point)



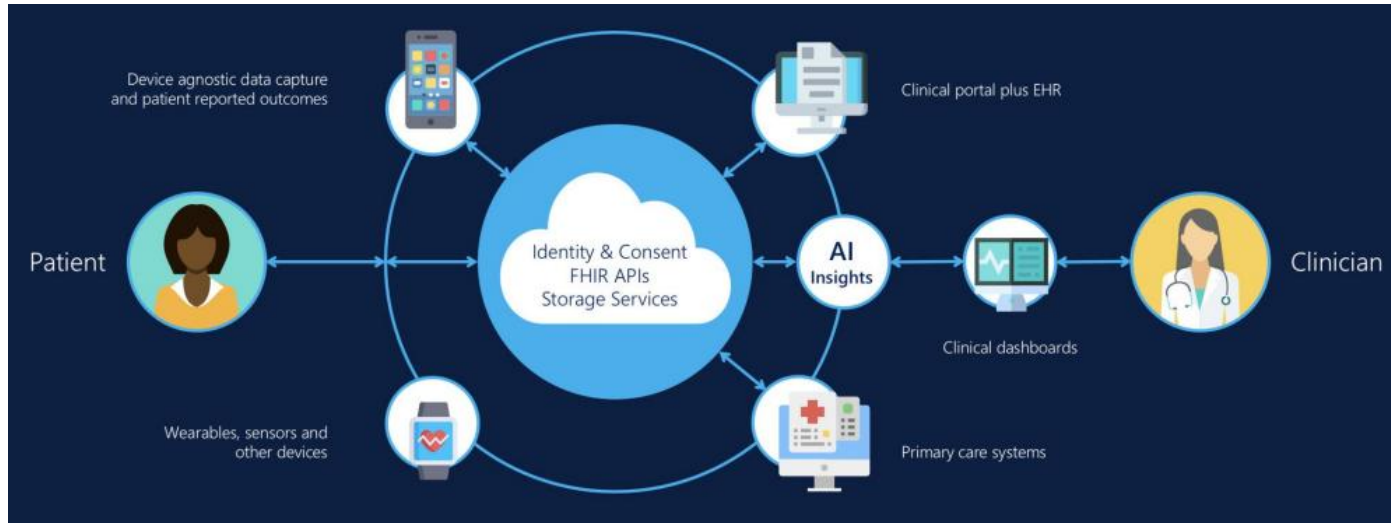
EMERGING FUTURE STATE (Horizon 2 – Front Door)



NEXT GENERATION (Horizon 3 – Personal Integration)



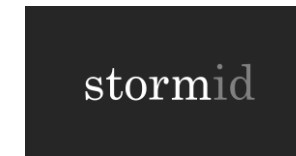
Horizon 2: Health Data Exchange



NHS
Greater Glasgow
and Clyde

NHS
Lothian

NHS
Grampian

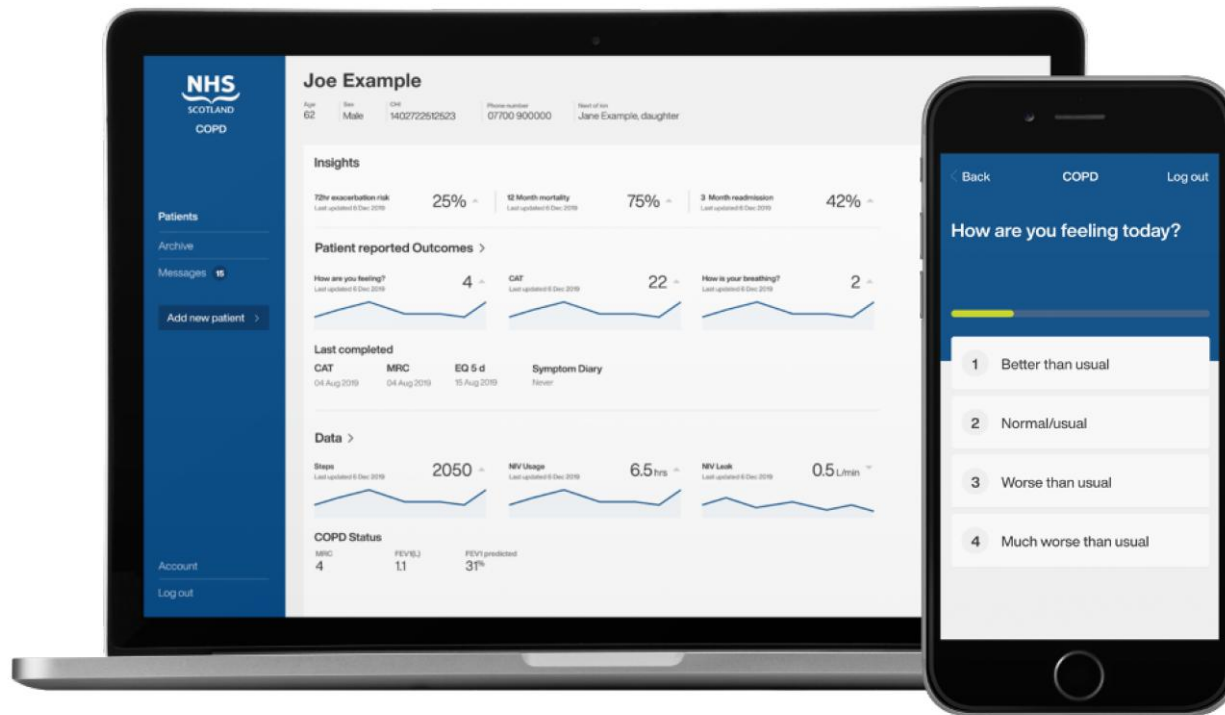



Edinburgh Napier
UNIVERSITY

A 'digital switchboard' - a citizen can actively manage the flow of their personal and clinical data between devices, applications, and stores.

DHI Sandbox is paired with a live version hosted and governed by NHS GG&C / Lothian / Grampian

Project Example: Dynamic-Scot



NHS GG&C: Optimising Remote Care:

- Initial 569 people
- High uptake 2 years on
- 54% admission reduction
- ½ 12 month mortality rate

NHS Highland: Enabling Early Supported Discharge:

- 59 patient trial
- 12 weeks
- Length of stay 6 days > 1.5 days



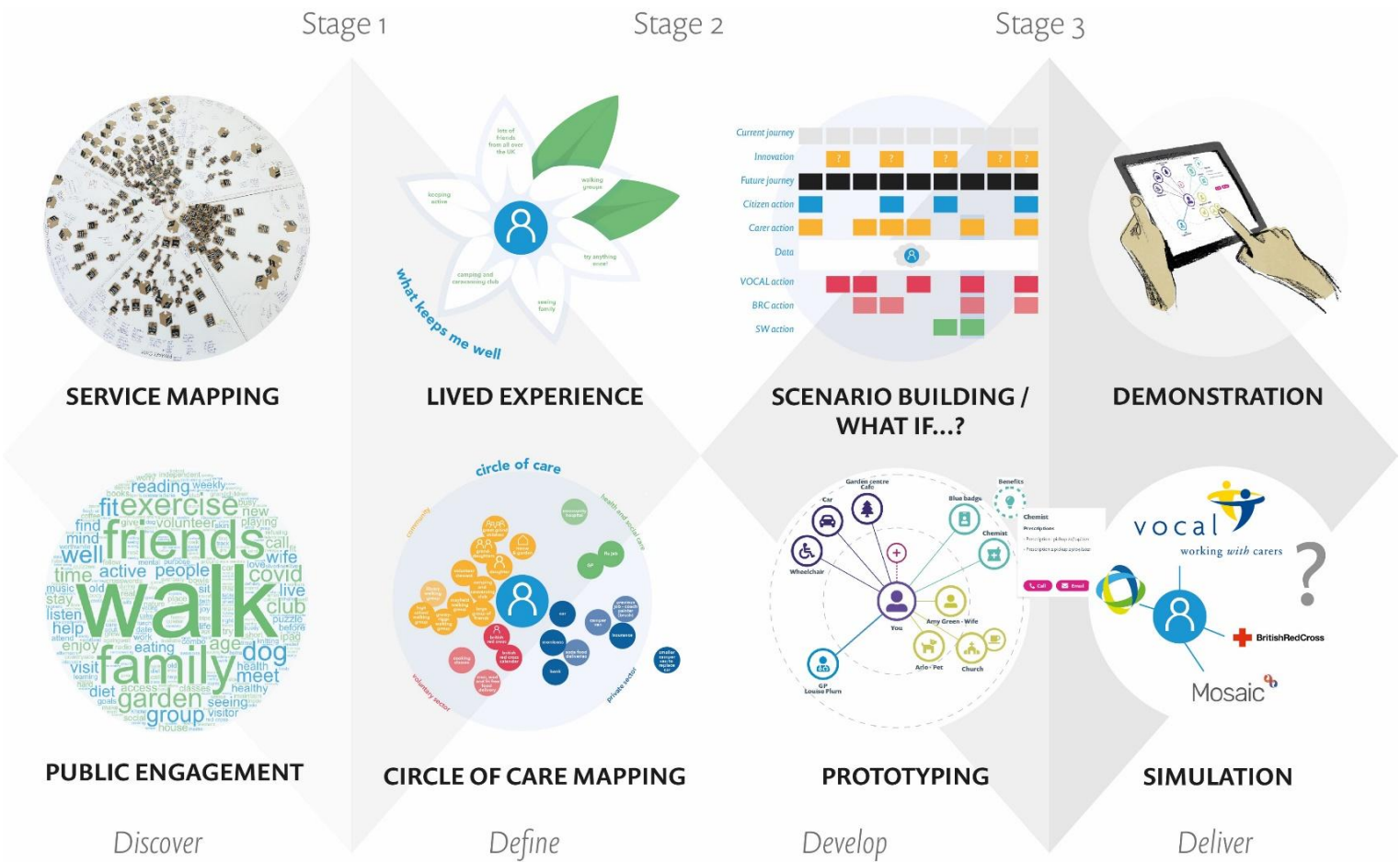
Horizon 3: A Personal Data Store



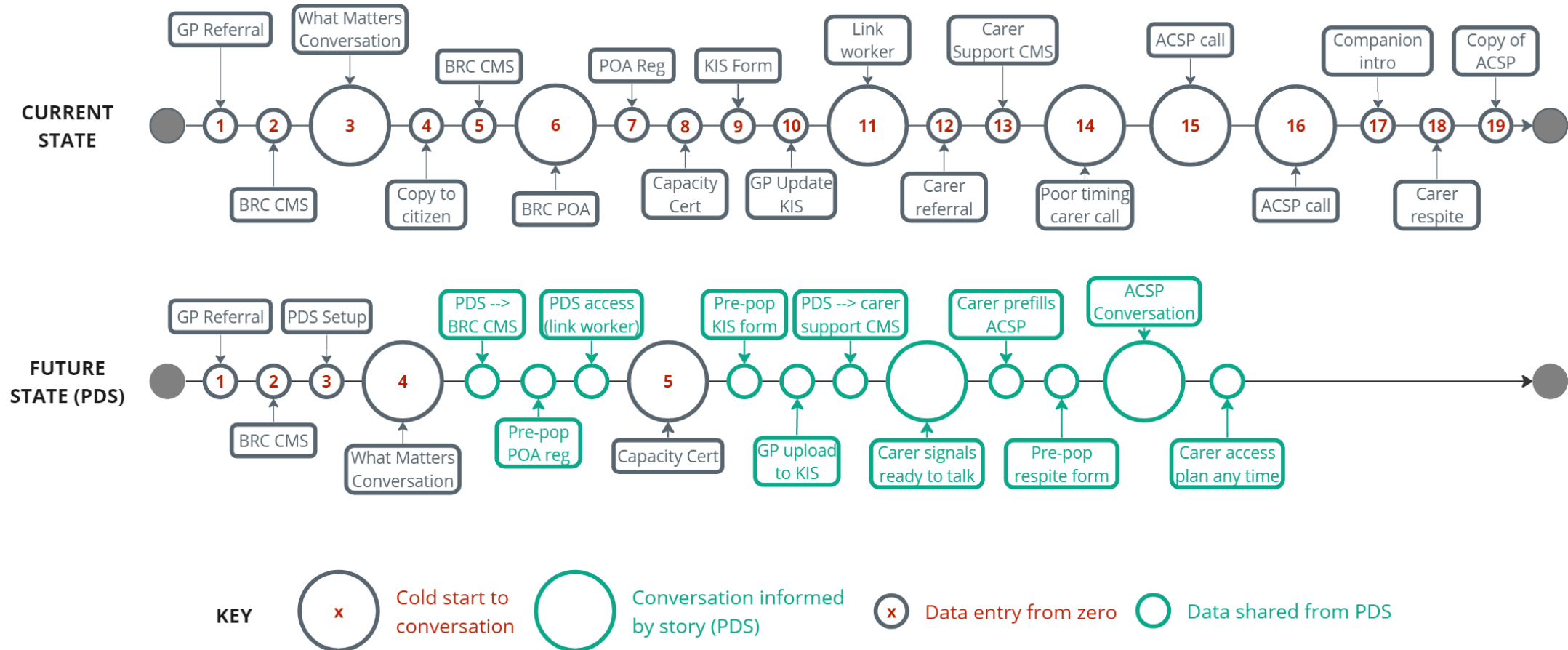
A Personal Data Store (PDS) enables cloud-based, citizen-controlled storage and exchange of personal data across people, organisations and sectors.



Midlothian Frailty Pathfinder

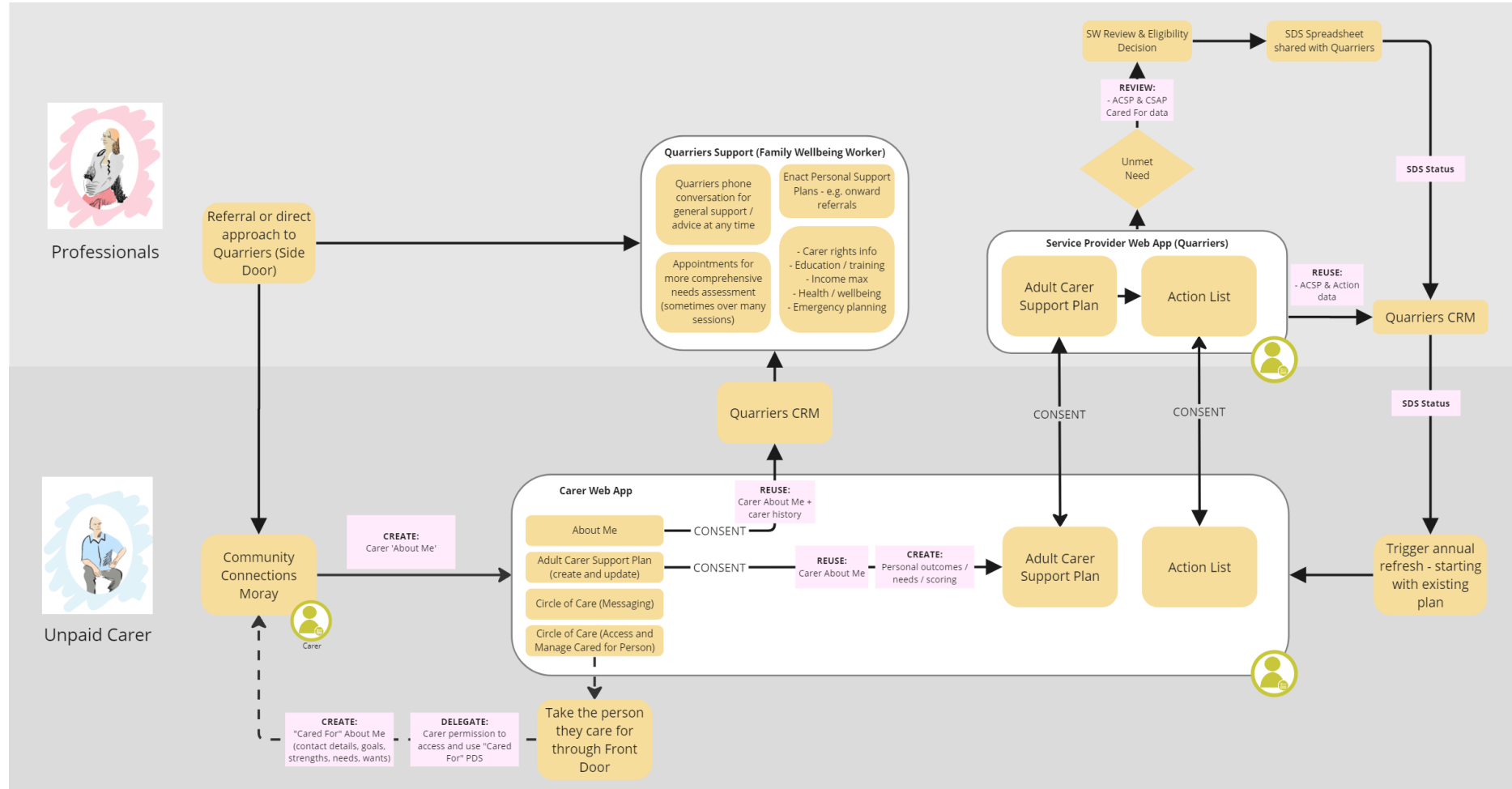


Midlothian Frailty Pathfinder



Midlothian - 6 organisations / 11 forms / 875 data items

Moray Pathfinder



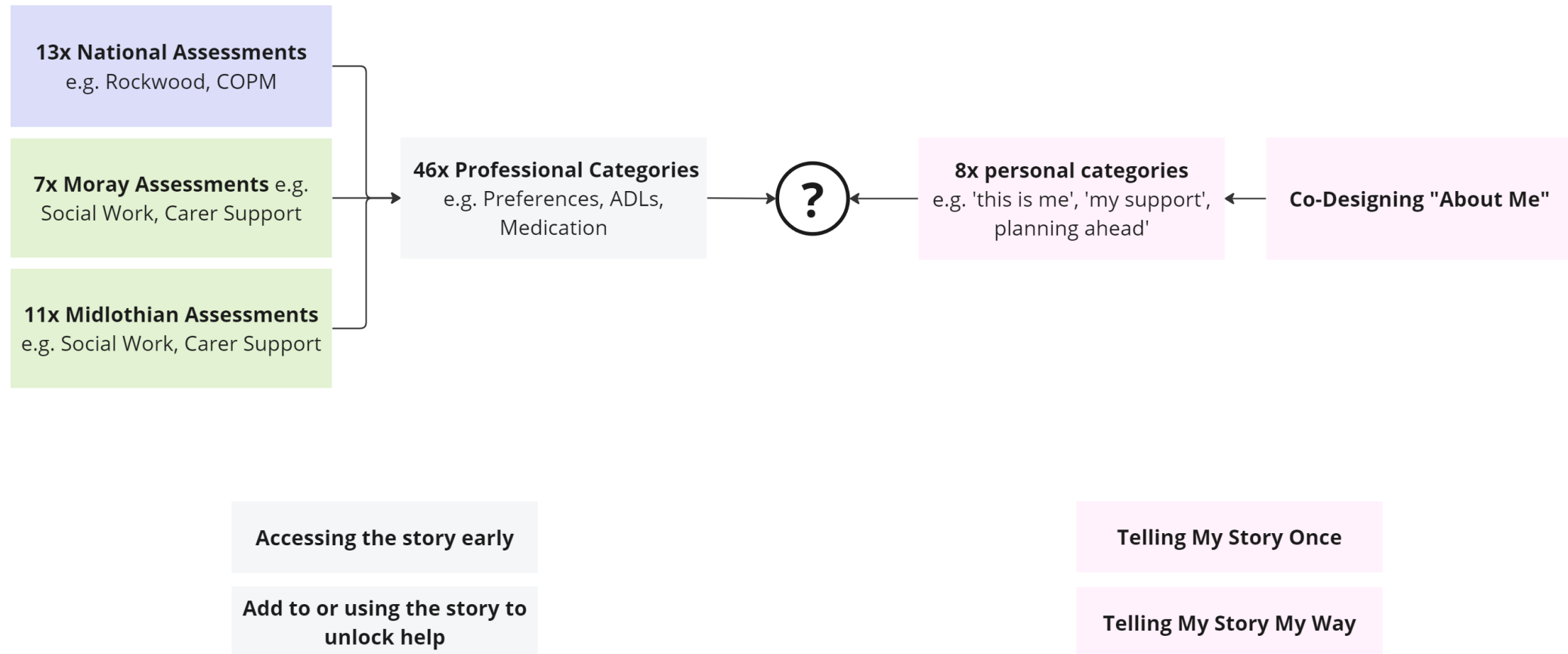
Moray - 7 organisations / 8 forms / 456 data items

National Assessments – High Level Review



Category	Sub Category	ADL Lifecycle	Rockwood	eFrail Index	DIDC	PE: Dementia	MWC-PCCP	Lothian Rehab	Grampian LD HP	CHIME	Barthel Scale	Canadian OPM	NHS Falls Screen	PRSB About Me Standard	PRSB Core Information Standard
Identity	Overall Identity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	
Identity	Basic Demographics	Y	Y	Y	Y	Y	Y	Y		Y					
Identity	Ethnicity													Y	
Identity	Sense of Self									Y					
Identity	Values													Y	
Identity	Culture													Y	
Identity	Strengths							Y		Y					
Identity	Achievements							Y							
Identity	Short Term Goals							Y						Y	
Identity	Long Term Goals							Y		Y				Y	
Identity	Dreams									Y					
Identity	Aspirations									Y				Y	
Identity	Overcoming Stigma									Y					
Identity	Spirituality / religion						Y							Y	
Identity	Skills													Y	
Identity	Good Day													Y	
Identity	Bad Day													Y	
Communication	Overall Communication								Y				Y	Y	
Communication	How to communicate with me								Y					Y	
Communication	Languages													Y	
Communication	Level of Comprehension								Y					Y	
Communication	Capacity to Consent								Y					Y	
Communication	Speech Capability								Y						

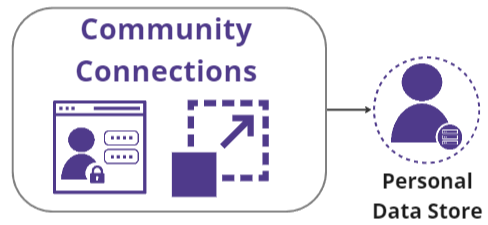
National – 100+ organisations / 14 forms / 36 data clusters / 192 data subcategories



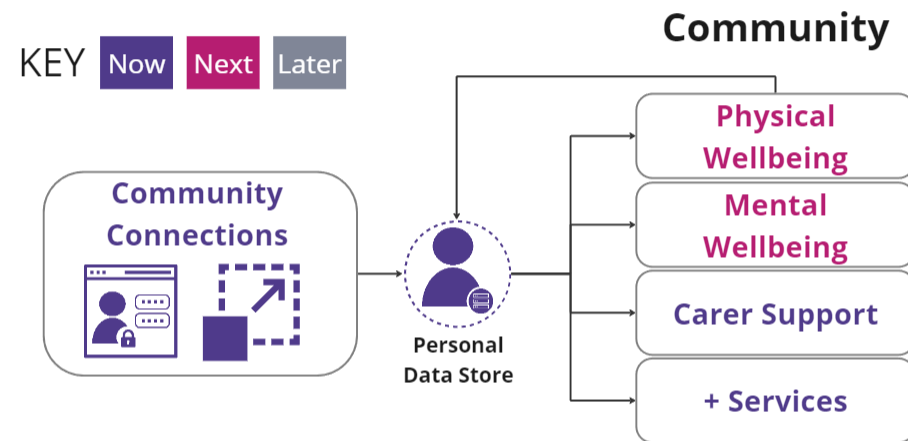
Scaling Prevention & Personalisation in Community Care



KEY Now Next Later



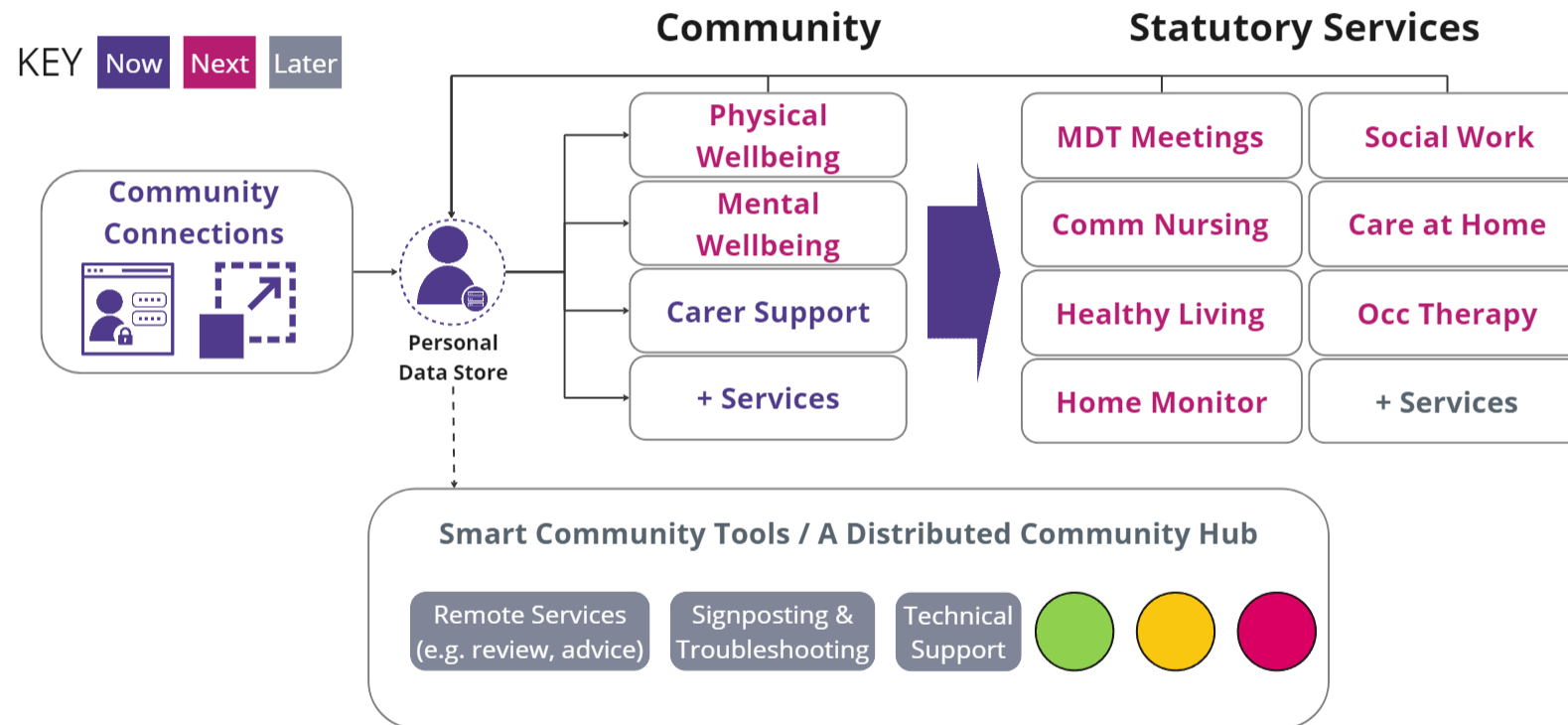
Scaling Prevention & Personalisation in Community Care



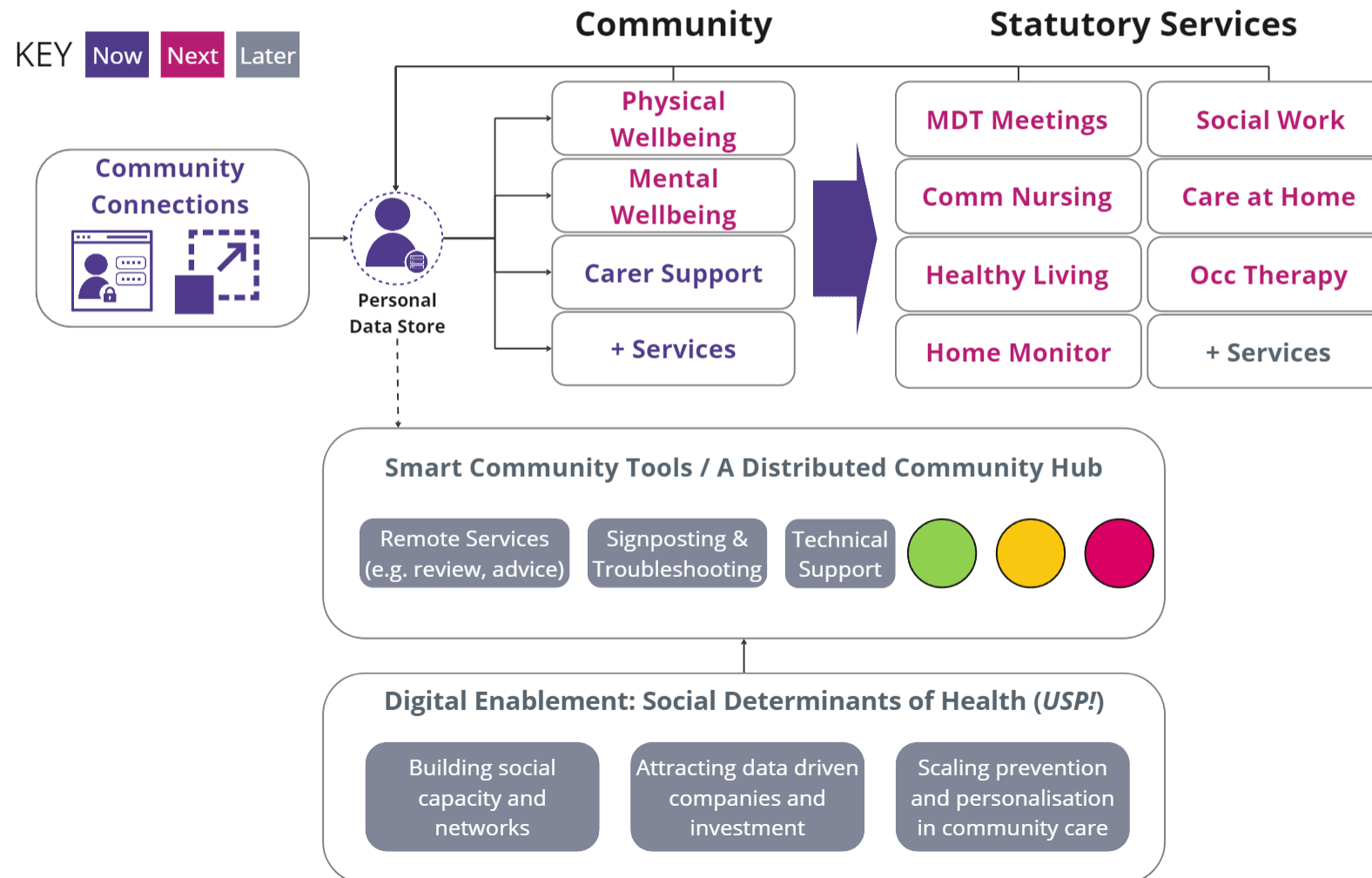
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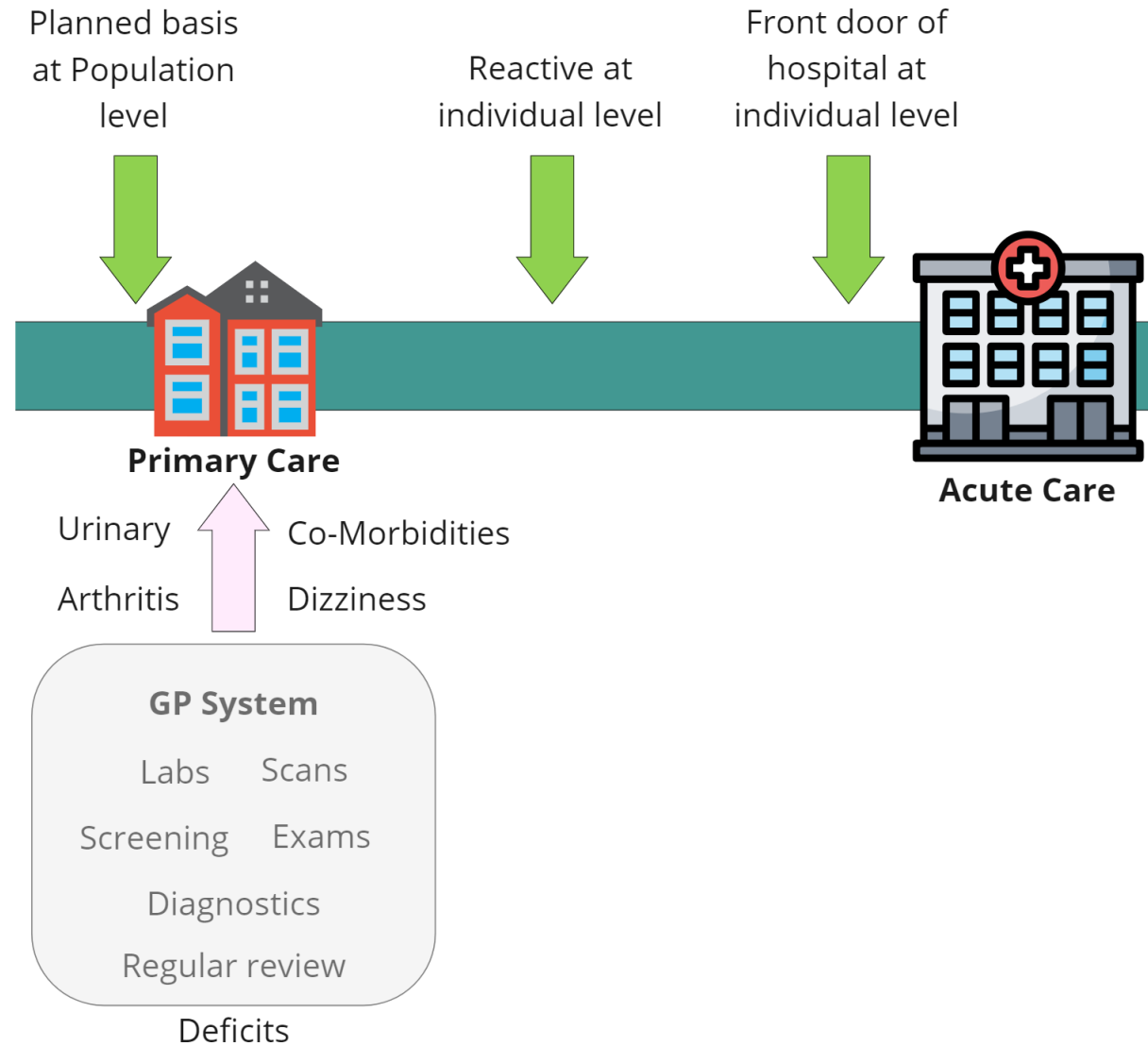
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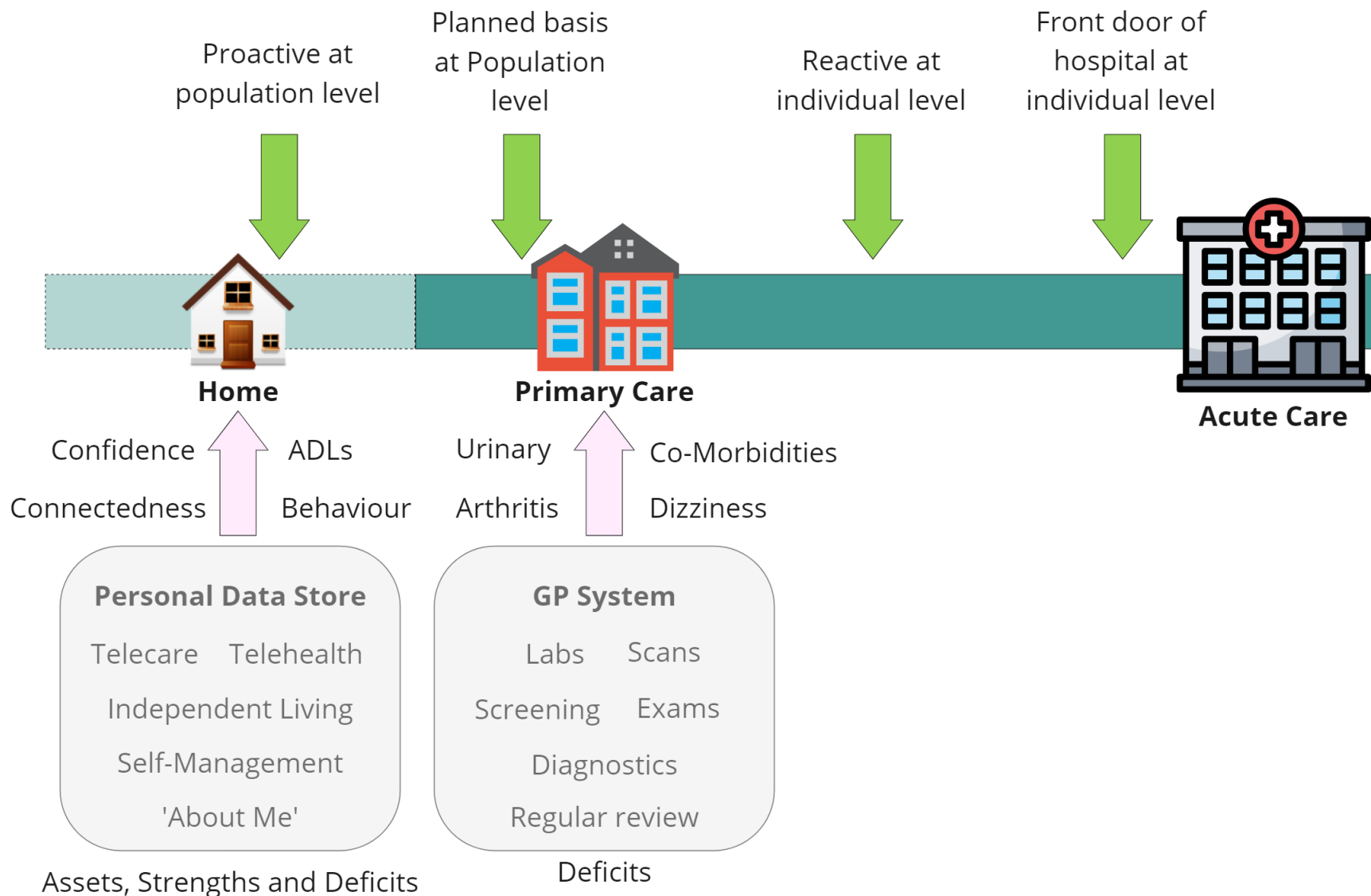
Scaling Prevention & Personalisation in Community Care



Population Management



Population Prevention



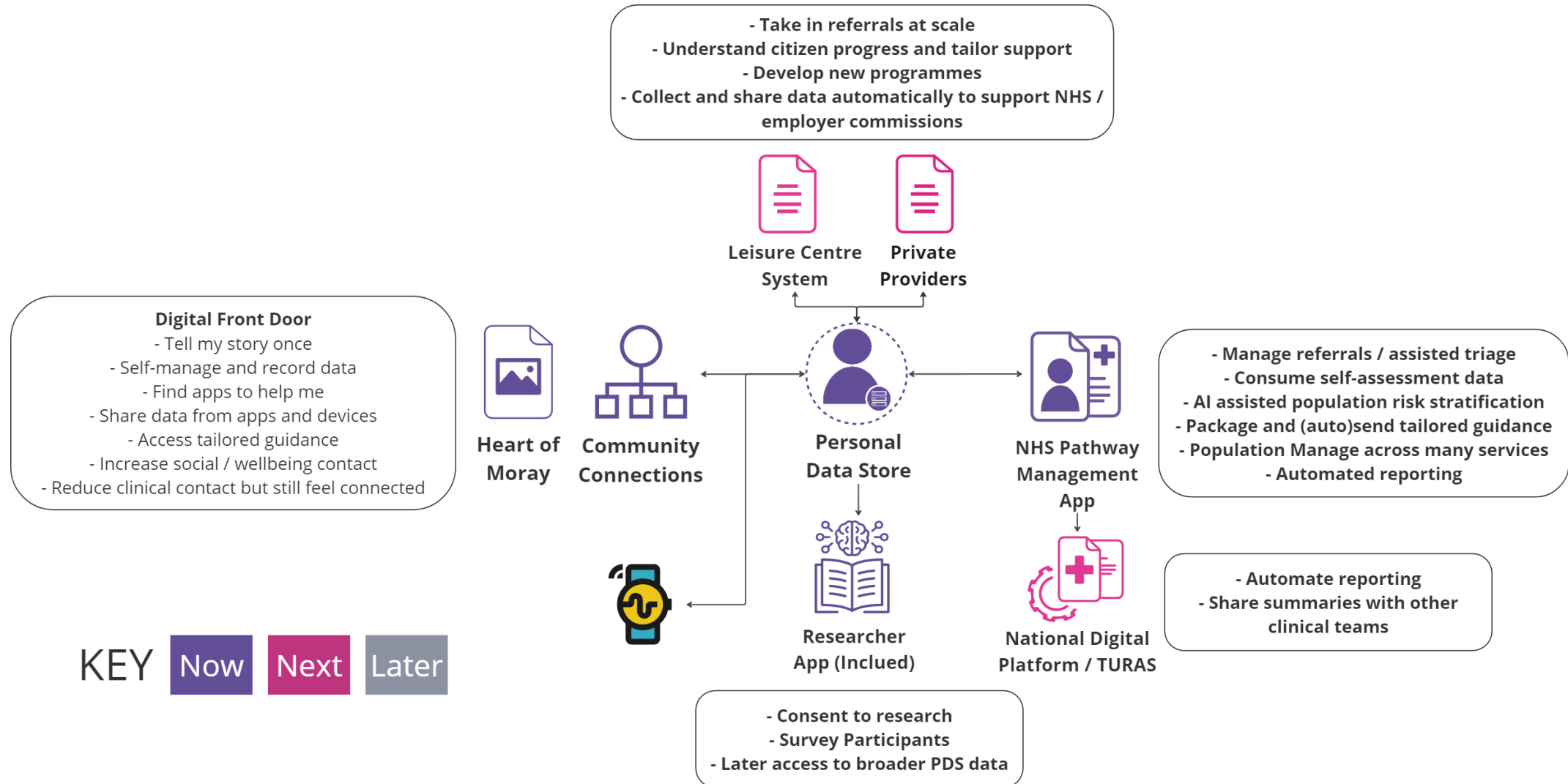


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Join our Network:
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Weight Management



Falls Prevention

