Health Innovation Manchester

Aligning digital investment to deliver optimal benefits across an ICS footprint

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Technology will help us to address the many challenges and inequalities we face across Greater Manchester.

2.8m
population
Growth of 170,000+ in the last decade

£22bn resource
£7bn gap between public spend and tax income

77.8 men's life expectancy
Below England average of 79.5

81.3 women's life expectancy
Below England average of 83.1

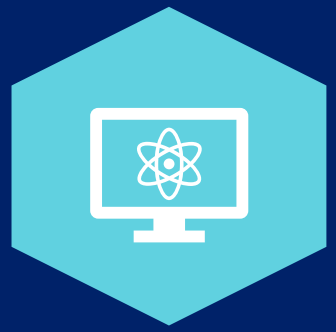
441,000
aged over 65
Growth of 50,000+ in last 25 years

12,000
children not ready for school
At the end of early years foundation stage

65,700
unemployed
4.9% down from 6.2% the previous year

1/4 of 16-19 year olds unemployed
15,300 (26.8%), up from 22.1% the previous year

Aligning health and wealth to tackle inequalities



UK Industry Strategy – leading the future by creating it

NHS Long-Term Plan and formation of ICSs

JOBS

HOUSING

EDUCATION

SOCIAL

GM Strategy

Health Innovation Manchester

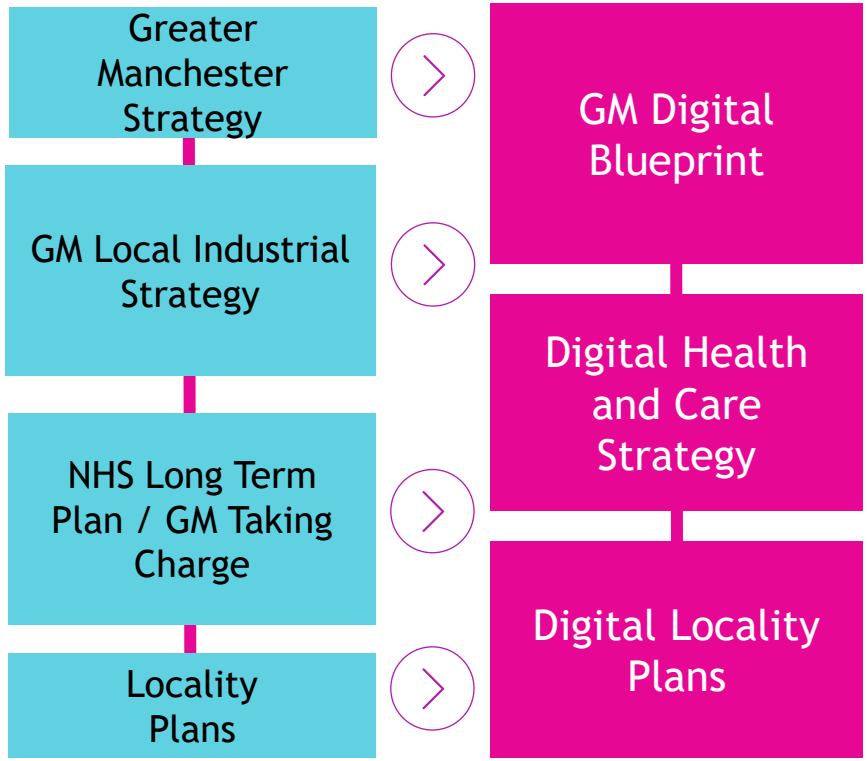
We work with innovators to

discover, develop and deploy

new solutions that improve the health and wellbeing of Greater Manchester's citizens.

Maximising digital technology is central to achieving Greater Manchester's radical reform plans and improving citizen outcomes.

Digital vision:
Improve outcomes for Greater Manchester citizens by harnessing the power of technology to better understand our population, identify their need and transform care. We will use technology to empower people to take greater control and accelerate innovation into practice.



We made significant progress on digital delivery in response to the pandemic

GM Care Record:
Data sharing, Pathway Transformation, Research

Nightingale Mobilisation

Virtual Consultations:
Primary Care and Outpatients

Digital Care Homes:
Symptom Tracker

Digital Mental Health:
Risk stratification and remote support tools

Smart Hearts:
Remote monitoring of embedded heart devices

Staff:
Remote working at scale

Stop Smoking Digital Support Platform

GM Care Record: Remote monitoring -
COVID, Heart Failure, Maternity

Mass Vaccination Centre:
Integrated Booking

Urgent Care by Appointment:
Call before you go

Population Health and Analytics Platform

For the ICS to be successful, we needed to develop a deep understanding of digital investment challenges

System-wide 3-year digital transformation plan

Digital investment priorities using an outcomes and citizen pathway-based approach

Identify Outcomes

Outcome inputs:

- Long Term Plan
- GM Taking Charge
- Locality Plans
- Local Industry Plan

Covering:

- Citizen health and wellbeing outcomes
- Social determinants
- Economic Potential

Understand Improvement Opportunities

Assessed through multiple lens:

- Citizen cohorts
- Service Transformation Priorities (cancer, mental health etc)
- Care Settings

Define & Priorities Digital Capabilities

Identify prioritized digital capabilities:

- 21 capabilities critical for transformational change
- 26 technical enablers

Set required maturity & assess current level

Determine required level of maturity (1-5) for each capability:

- **Foundational** (min level required to manage risk)
- **Aspirational** (target level to support outcomes)

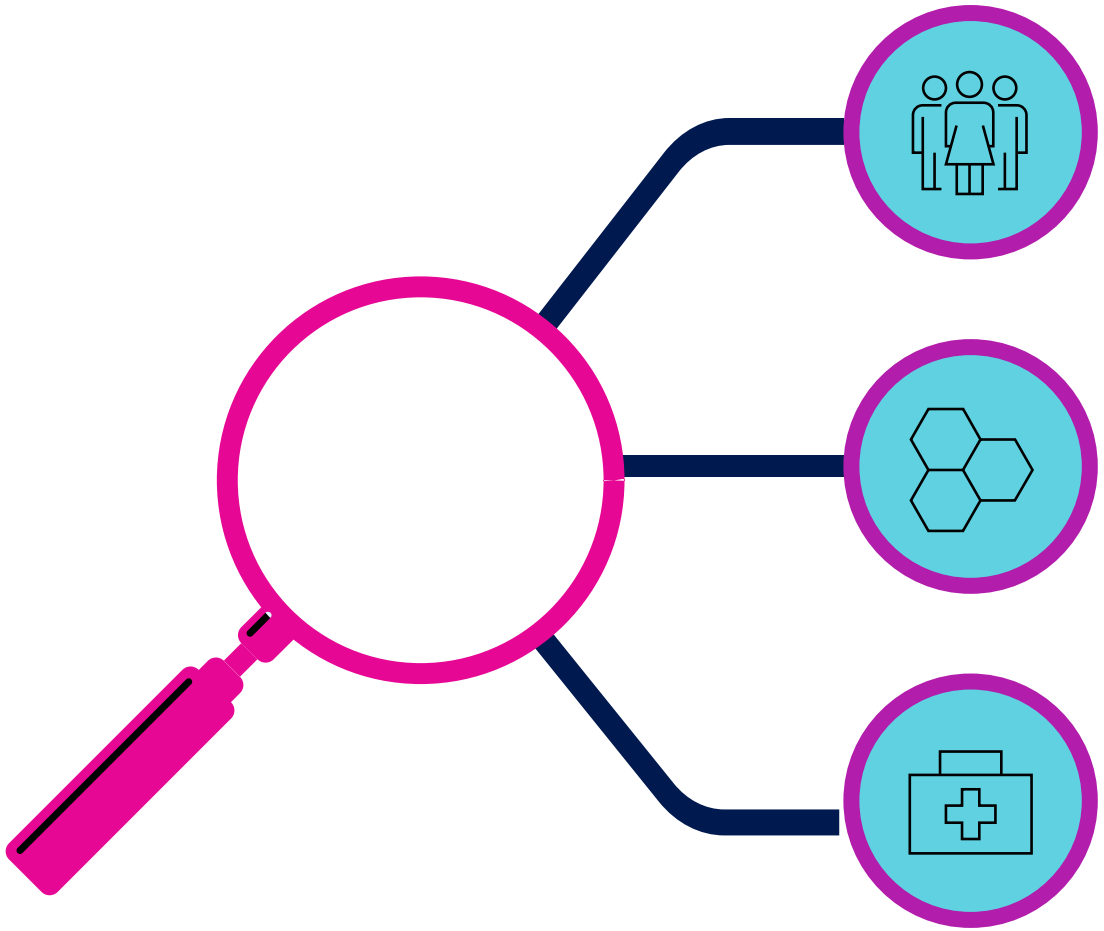
Assess current level of maturity

Prioritise Digital Investment

Prioritise investment to create 2-3 investment roadmap:

- Quantify investment required to achieve Foundational and Aspirational
- Match available funding sources to required investment and determine gap
- Make priority calls on investment

Opportunities for improvement and priorities identified via a systematic method



Citizen Cohorts

Mapped the opportunities for improvement and outcomes for four illustrative cohorts

Service Transformation Areas

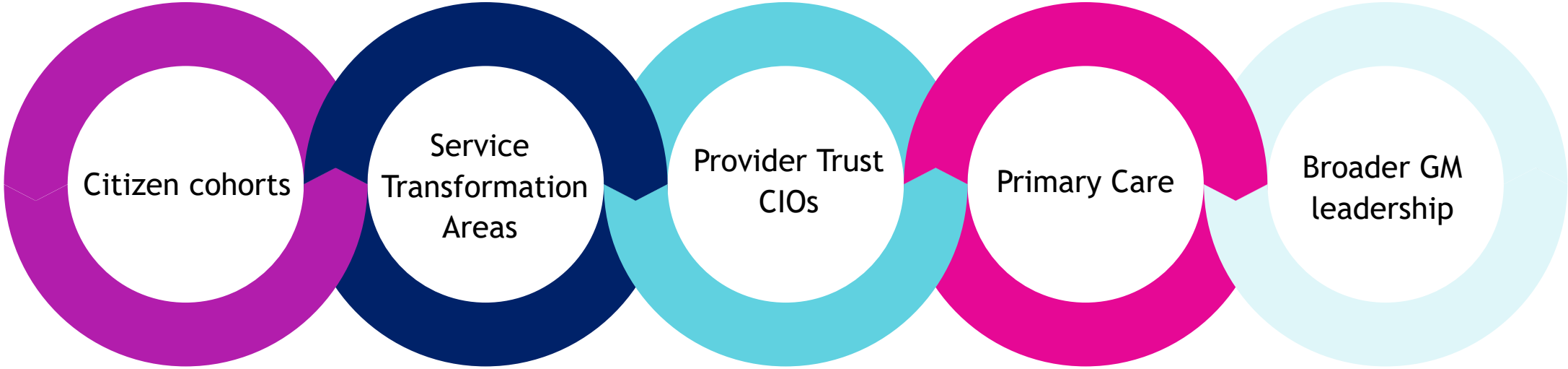
Identified the changes in the model of care for STAs to identify national/local

Settings of Care

Engaged across settings of care to understand investment needs

Developing a system-wide digital investment plan

We have developed a digital investment plan based on user insights and engagement with 120+ GM clinical and leadership stakeholders

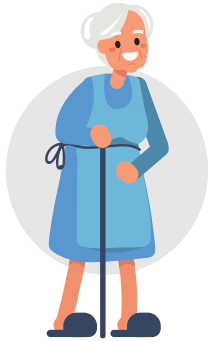


The work was framed from the perspective of four illustrative citizen cohorts with different needs

% of GM population[1]

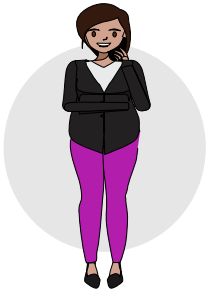
A Elderly, frail and housebound

~8%



B Mostly well, with occasional elective intervention

~35%



C Middle-aged, multiple health needs, lifestyle challenges

~10%

D Family, with young children and wide-ranging needs

~25%

Four citizen cohorts were developed to understand the opportunities for improvement and how digital could address these

Develop archetypes

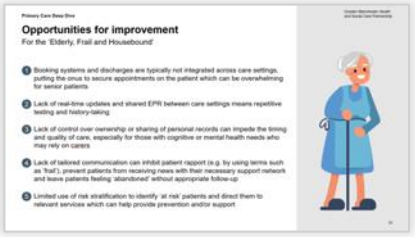
Map the ‘as is’ journey to identify pain points

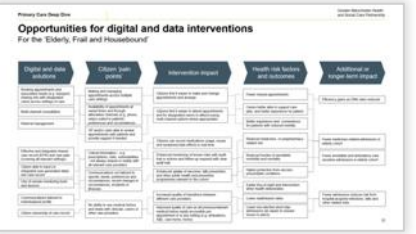
Identify improvement opportunities from journey

Connecting improvement opportunities to outcomes

Reimagine the future state journey

Prioritise digital and data capabilities based on impact

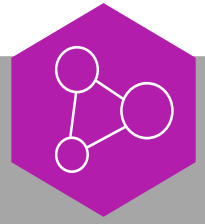




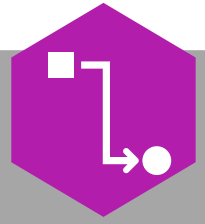
Digital and data capabilities required for an ICS and underlying technical systems and enablers

Digital and Data capabilities

Understand and plan for population health needs



Provide coordinated & integrated care



Operate efficiently and productively

Empowering the citizen

Accelerate research and innovation

Technical systems and enablers

Security & Governance

Data Ecosystem & Analytics

Underpinning enablers of integrations

Core Clinical Systems

Support Services

Digital Infrastructure

Digital and data capabilities required for an ICS and underlying technical systems and enablers

Digital and Data capabilities | Technical systems and enablers

Digital and Data capabilities

Understand and plan for population health needs

Understand population health needs and inequalities using analytics to allocate resources and tailor care programs

- Understand and predict population health need
- Decide and design care interventions

Provide coordinated & integrated care

Services which support, integrate and place equal emphasis on physical, emotional and social needs

- Integrated shared care record
- Care coordination: inc complex high priority pathway management
- Eventing: sharing actions and alerts

Operate efficiently and productively

Optimize the allocation of people, time and tasks to where the impact and value is greatest

- Demand led management of capacity & scheduling
- Robotic process automation
- Supply chain automation
- System monitoring and transparency
- Workforce
- Real time staff, patient, equipment tracking

Empower the citizen

Person-centred care, tailored care services – which support patient autonomy, initiative, and ownership

- Targeted, tailored and personalised comms
- Digital front door and navigation
- Health record accessed by citizen
- Multi channel consultations
- Remote monitoring
- Personalised care apps
- AI enabled self help triage
- Booking appointments across settings of care

Accelerate research and innovation

Bring health and care data together to enable future innovations and future outcome improvements

- Research data
- Innovation hub

Technical systems and enablers

Data Security and governance

- Single sign on (SSO)
- Identity and access mgmt.
- Security: network & cyber
- Information governance

Data Ecosystem and Analytics

- Data warehouse & data Lake
- Collecting and managing multisource data
- Analytics and reporting models and tools

Underpinning enablers of integration

- Integration engine
- Healthcare interoperability standards
- Internal / external API

Core Clinical Systems

- EPR for each care setting
- PAS
- Specialist systems
- Imaging
- LIMS
- e-prescribing
- Order comms
- e-refferals
- Multi-resource scheduling

Support Services[1]

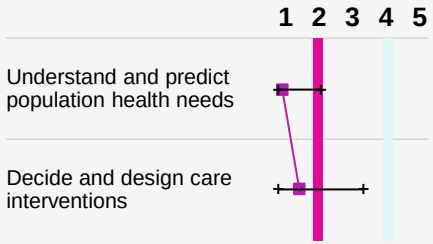
- IT service mgmt.
- Asset mgt. & tracking
- System for communication (any type)

Digital Infrastructure

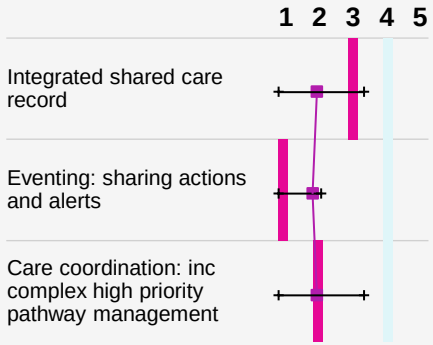
- Unified communications (email, phone, smart device)
- Minimum standards for computers (PC, Laptop, VID)
- Networking (WAN/LAN/WiFi/Beacons – GM wide area network)
- Network estates (incl. cloud)

Example NHS Trust digital maturity mapping

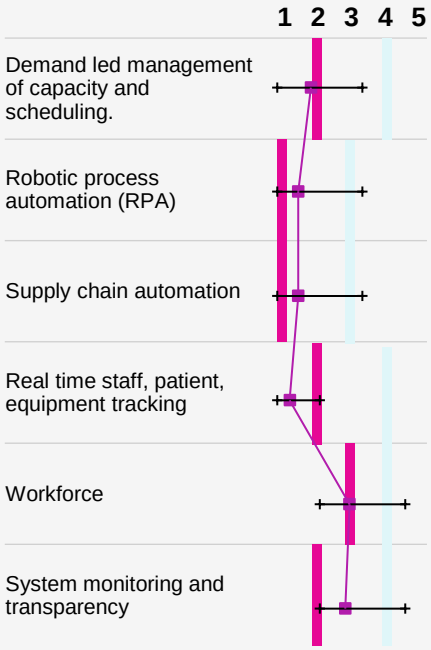
Understand and plan for population health needs



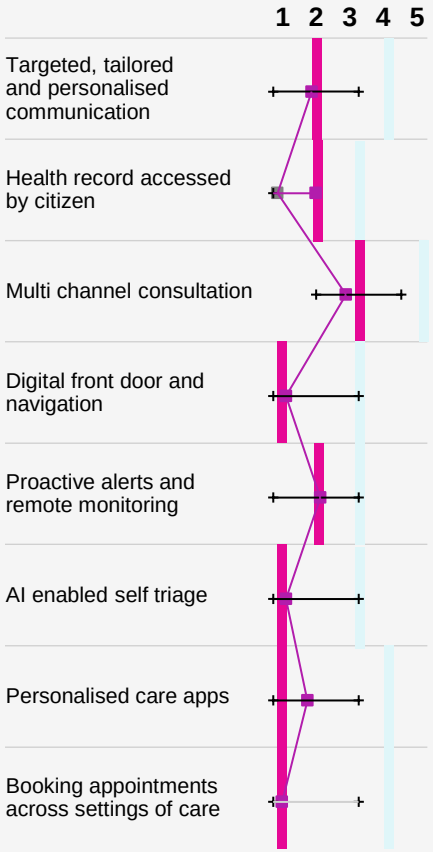
Provide coordinated and integrated care



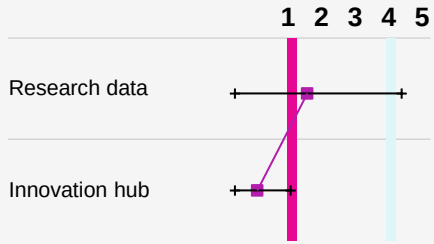
Operate effectively and productively



Empower the citizen



Accelerate research and innovation



Source: GM Digital Maturity Self-Assessment v.4.0

1 GM results for digital and data capabilities formed from 10 Trusts and 2 GP practices

Foundational | Aspirational | GM Low — GM Average — GM High

Example: GM Care Record – benefits realisation project

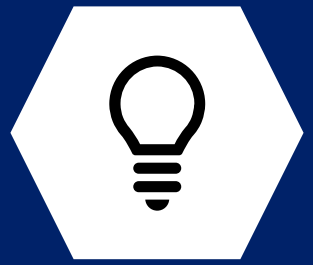
1 Understand

Undertake a diagnostic of current usage of GMCR across care settings

Scope of work:

- Understand who, uses the record, where and why
- Map usage to current feeds and functionality
- Understand locality GMCR roll-out plans
- Undertake a rapid evidence synthesis of shared care records in the NHS to understand what drives up usage
- To understand current practice and challenges with
  - MDT care planning, remote monitoring and PHRs
  - Cohort ID and case finding

2 Reimagine



Define opportunities for improvement, driven by outcomes, including improving usability.

Scope of work:

- Gap analysis that identifies any feeds or functionality missing, or sectors without access
- Develop a workforce-persona based view of the reimagined experience of the GMCR
- To develop targeted training and comms plans to drive up usage
- To align on multi-agency care planning strategy and care plan rollout
- To respond to the remote monitoring strategy and optimize capabilities
- To design the functionality of a single shared analytics pipeline
- To develop a roadmap for proposed analytical use cases supporting secondary care

3 Implement

Increase usage based on insights across GM care settings

Scope of work:

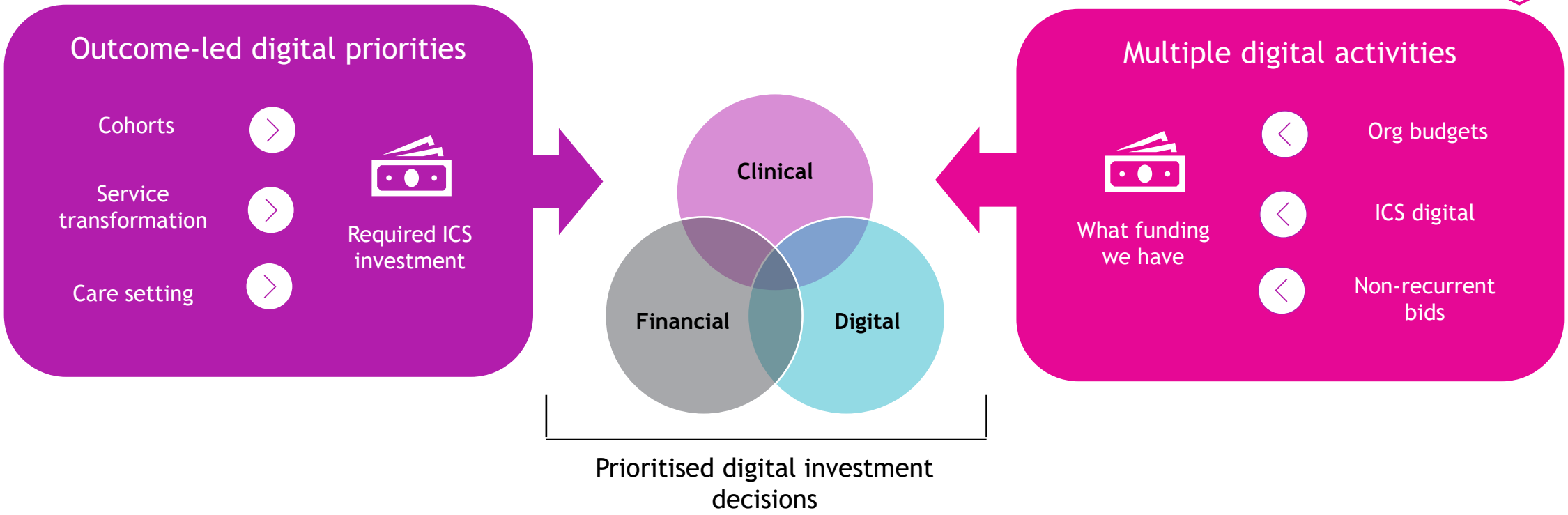
GM level:

- To deliver the detailed feeds, functionality and sector-onboarding roadmap to each persona group with supporting materials
- To deliver a targeted training and comms campaign in Secondary Care and Pre-hospital services for increasing usage and benefits, training in basics and new functionality, based on the insights gathered

Local level:

- Empower local clinical champions to run the training on the ground

We need to make evidence-based decisions on digital investment to deliver maximum benefits for patients, services and the ICS




Thank you
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