

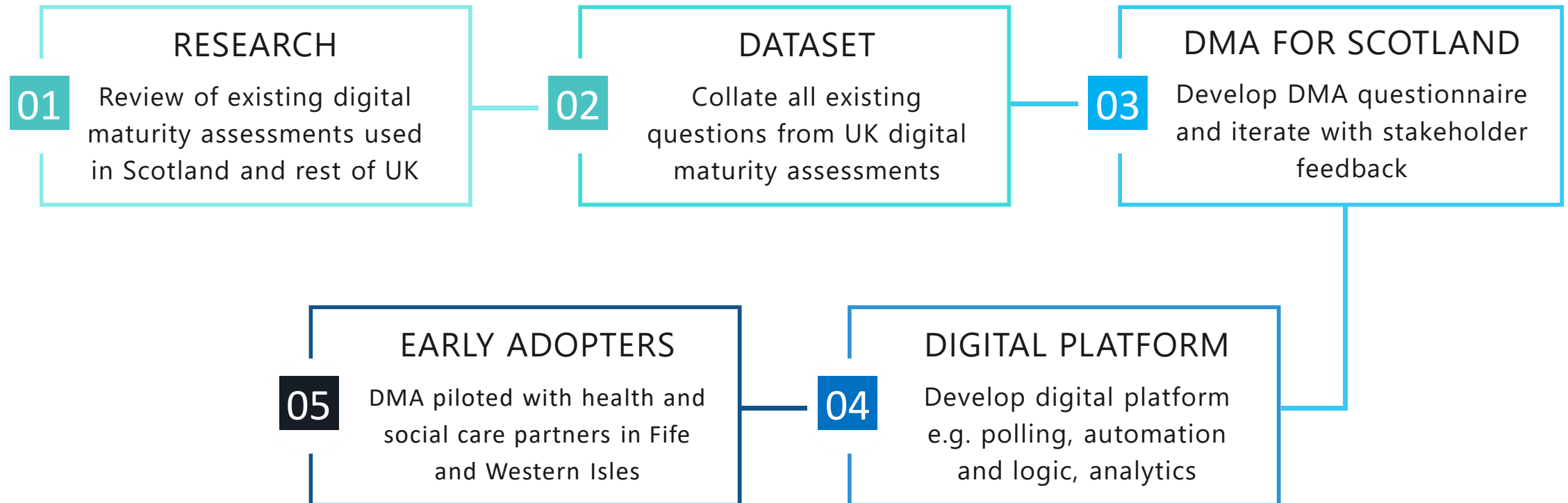
DHCS Digital Maturity Assessment Results Summary

Objectives

- Understand digital maturity of services across the sectors to better support local, regional and national planning, integration, collaboration and improvement
- Target future support and investment to ensure that the necessary leadership, culture, skills, capability and infrastructure are in place to enable progress and improvement
- Intended to complement other digital maturity assessments developed by Scottish Government Digital Directorate, Local Government Digital Office, SCVO and other parties
- Need to consider digital maturity in the context of health and social integration while recognising that delivery of digital services is currently the separate responsibility of NHS Boards and Local Authorities



DMA DEVELOPMENT METHODOLOGY

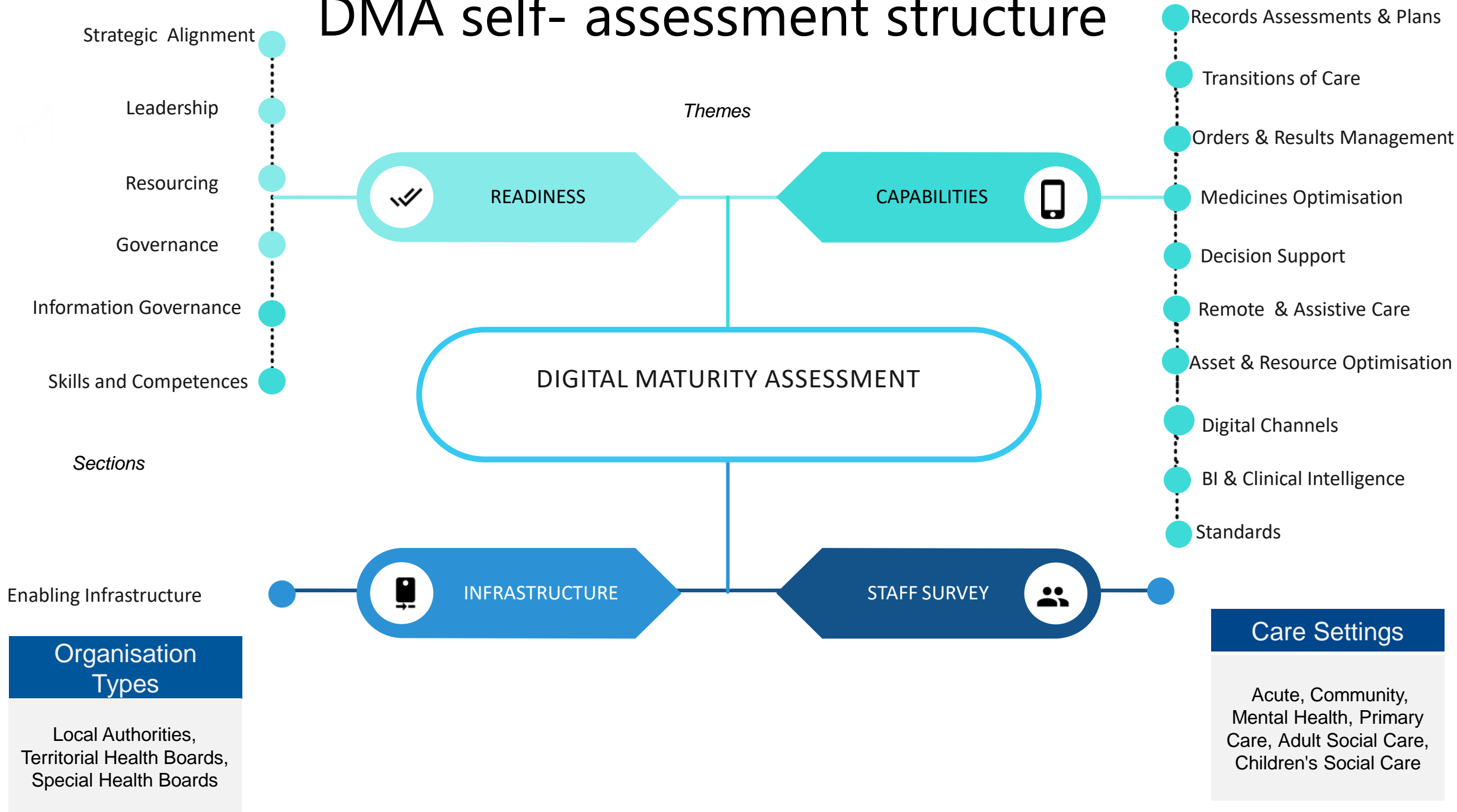


Background & Methodology

- Local Authorities and Health Boards, working with their Health and Social Care Partnerships, were invited to take part in Scottish Government & COSLA's Digital Maturity Self Assessment in April 2019 with a view of completing the assessment by the end of August 2019.
- The assessment was completed using a dedicated online data collection platform customised to accommodate the needs of Scottish health and care organisations.
- Organisations were encouraged to engage with their leadership teams and health and care stakeholders via tools provided by the platform, and in workshops, in order to give the assessment a solid informational basis.
- The questions presented to each organisation were organised in 17 sections, which in turn were grouped into three distinct themes. For some capability sections, questions were asked separately by care setting.
- In order to present a relevant question set to each participating organisation, a share of sections and questions were omitted for each organisation type, and some question wording was adjusted to correspond to the specific environment of each organisation type. Moreover, some questions were shown depending on answers given to previous questions.
- All organisations had access to the platform's staff survey feature, allowing them to query responses from a wider staff group on a short selection of key questions from the DMA.
- A follow up exercise was undertaken with 19 Health Boards to gather feedback about the DMA process, to understand the degree of stakeholder engagement in the process, to discuss preliminary results and to gather additional information relating to the responses given as part of the assessment.
- Feedback was also gathered about current ways of working with other Health Boards, Local Authorities and Health and Social Care Partnerships, in addition to discussing successes, challenges and opportunities for improvement, as part of the follow up meetings.



DMA self- assessment structure

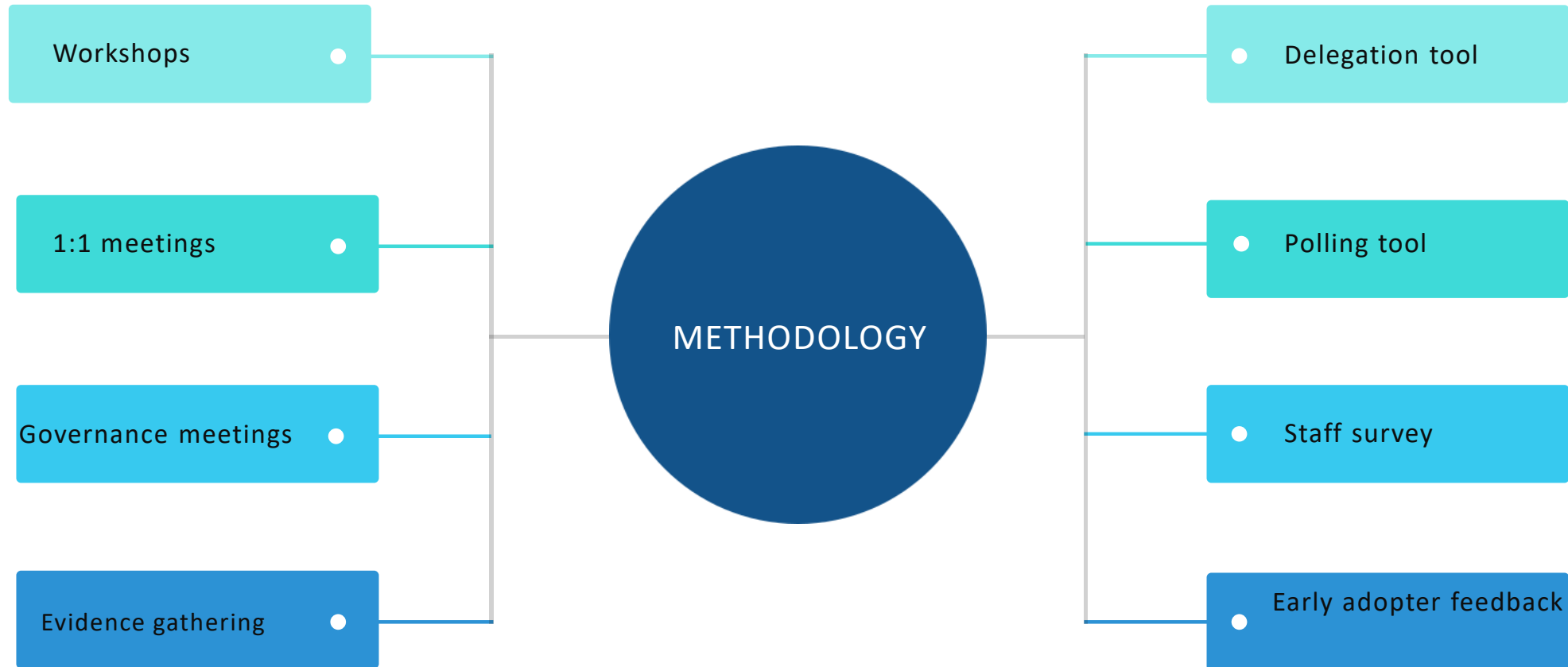


Implementation Timescales



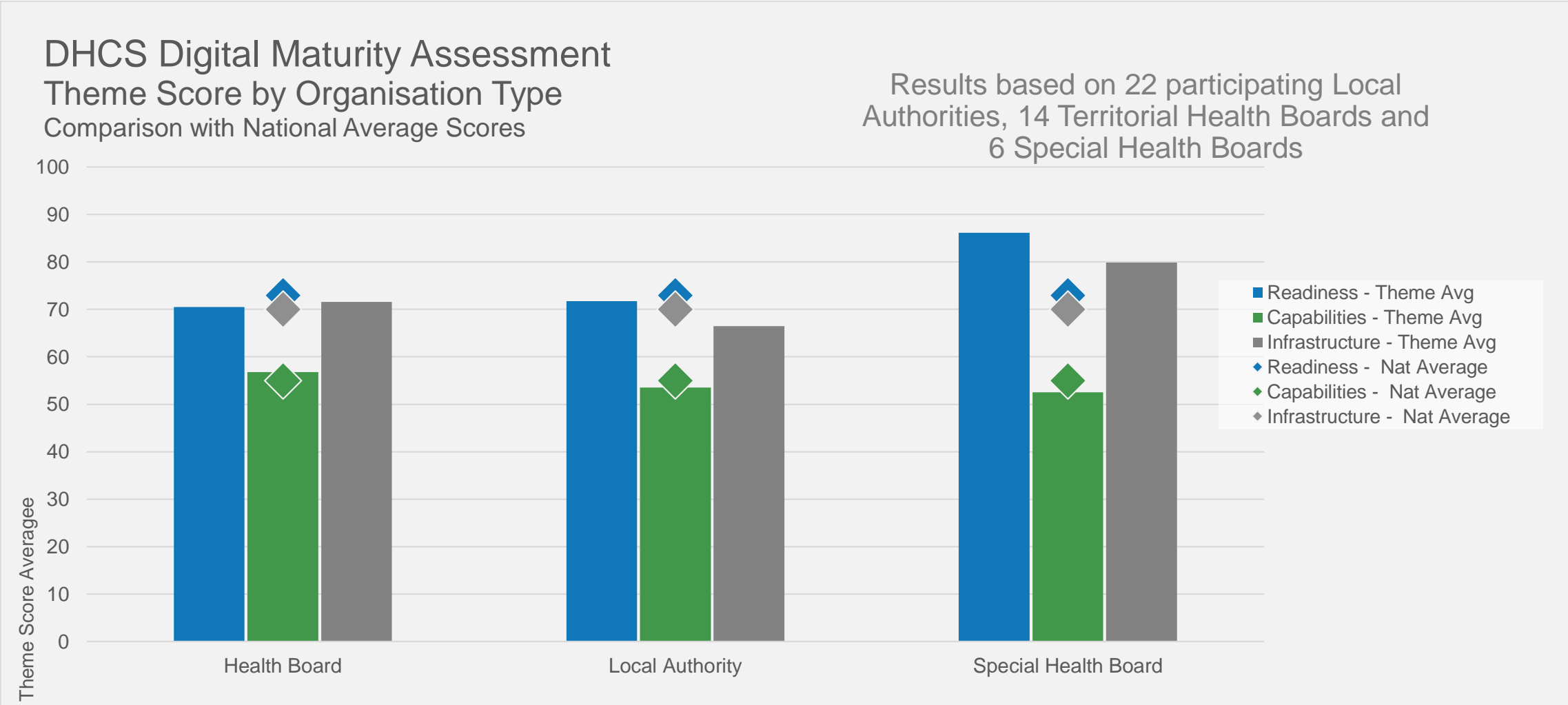
Health Board DMA methodology

One Territorial Board had limited stakeholder engagement when completing the assessment. Two Territorial Boards and one Special Board found it challenging to get clinical engagement. The same Special Board and two different Territorial Boards were unable to get any senior leadership input to the process.



Analysis by Organisation Type and Theme

All organisations had higher self-assessed scores for readiness and infrastructure themes than for digital capabilities.



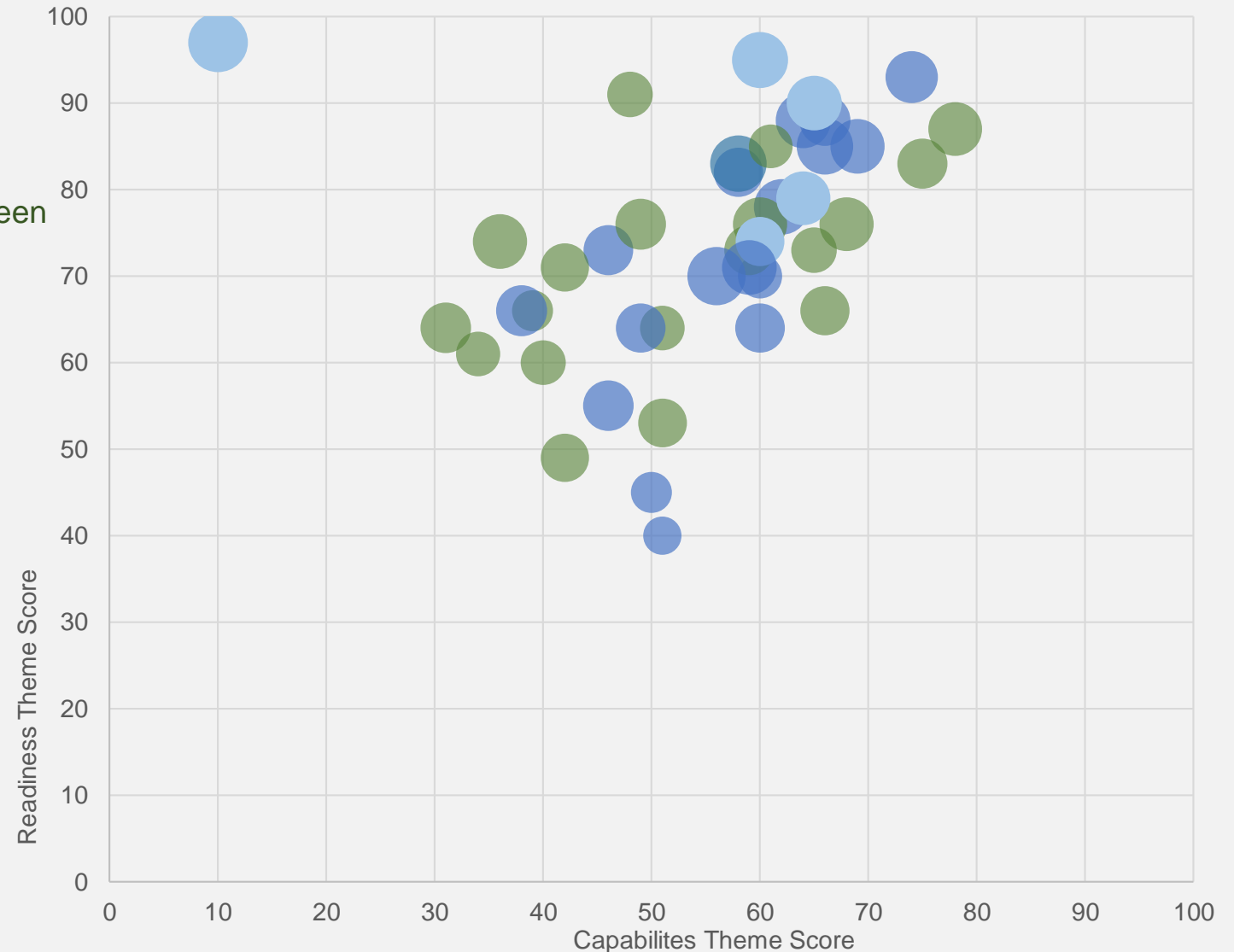
Distribution of Organisations by Theme

DHCS Digital Maturity Assessment Theme Scores by Organisation

Bubble size indicates Infrastructure score; Territorial Health Boards shown in **dark blue**, Special Health Boards in **light blue**, Local Authorities in **green**

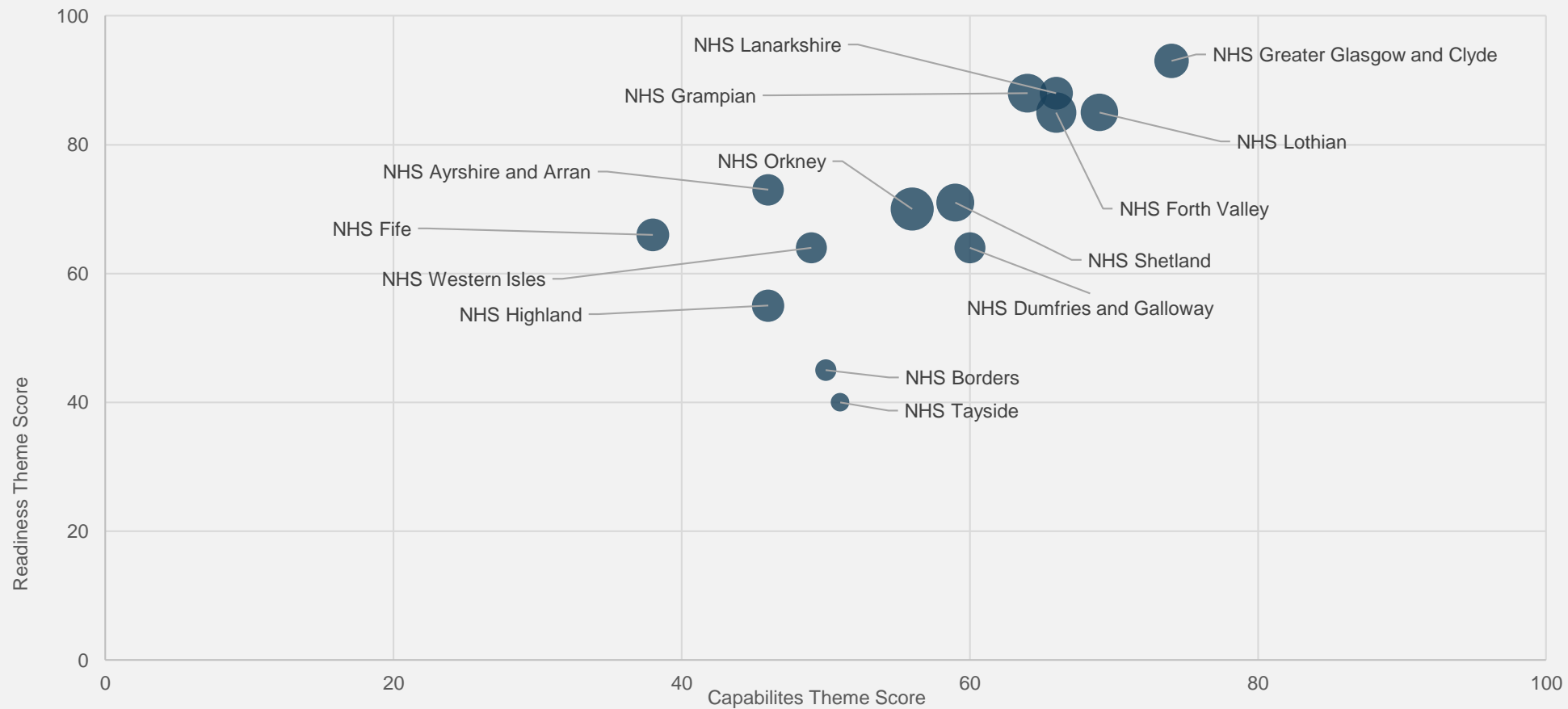
Territorial Health Boards and Local Authorities have a similar distribution based on theme scores.

Special Health Boards have disproportionately higher scores. Several of the Capability sections were not relevant to some of the Special Boards which accounts for one of the significant outliers.



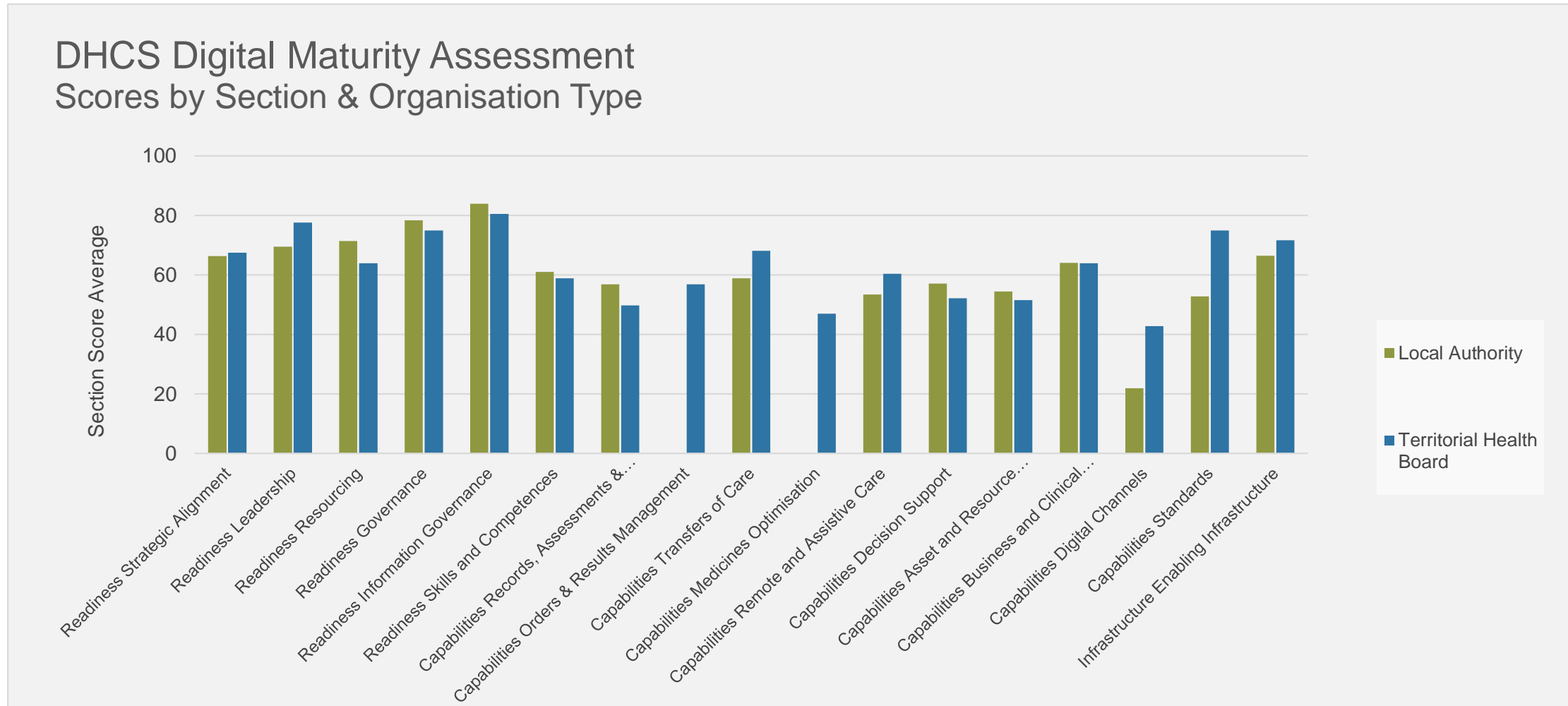
Distribution of Territorial Health Boards by Theme

DHCS Digital Maturity Assessment:
Theme Score by Organisation Type: Territorial Health Board
Bubble size indicates Infrastructure theme score.



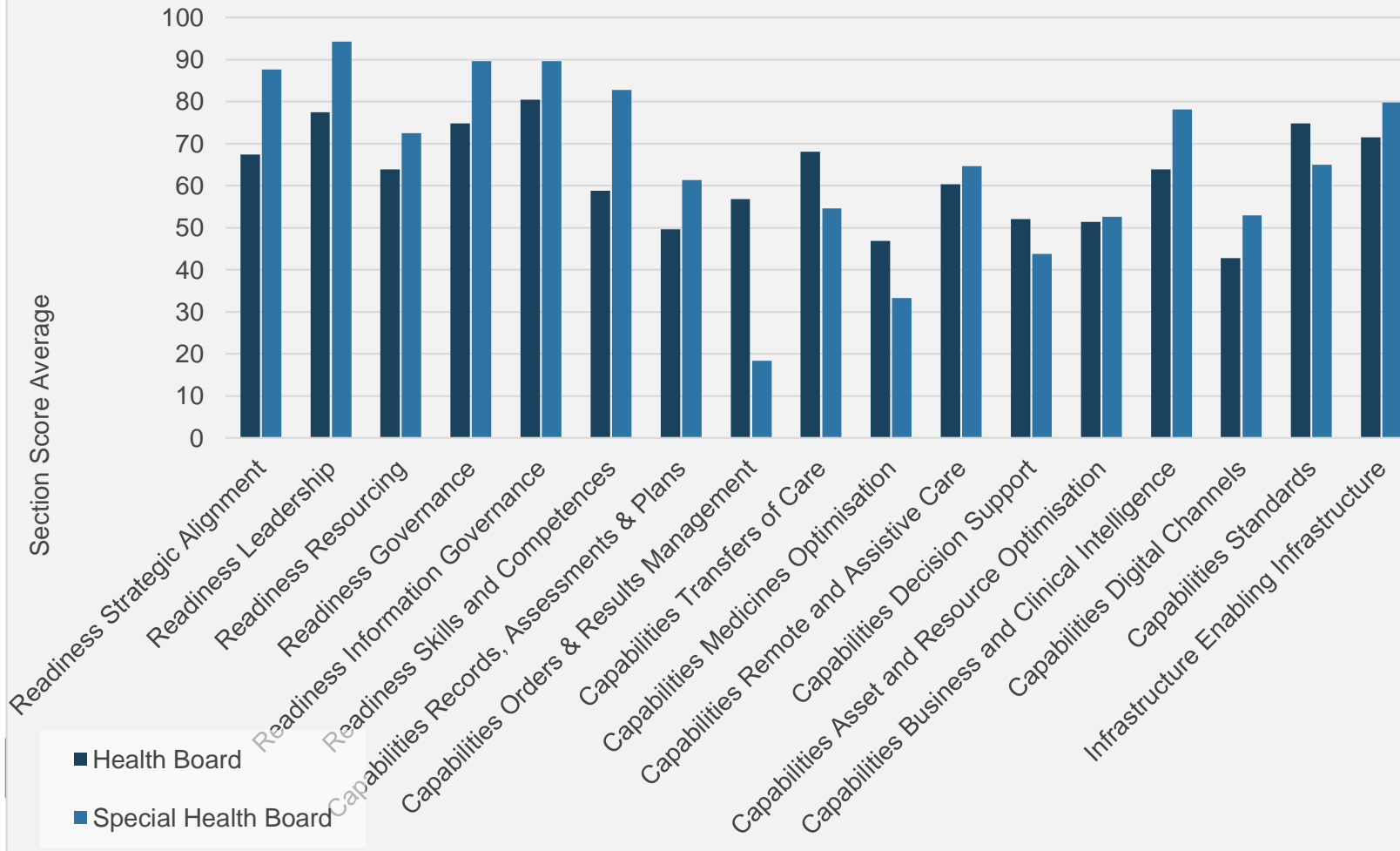
Analysis by Organisation Type and Section

Local Authorities and Territorial Health Boards showed similar results trends with the exception of Digital Channels which had a significantly lower self-assessed score by Local Authorities.



Analysis by Organisation Type and Section

DHCS Digital Maturity Assessment Scores by Section & Organisation Type



- Special Health Boards tended to have higher self-assessed scores for Readiness and Infrastructure sections than Territorial Health Boards.
- A large proportion of the DMA is not applicable to NHS NES, NHS NSS and NHS 24 and is only partially applicable to The State Hospital and Golden Jubilee.
- The DMA questionnaire for the Scottish Ambulance Service was based on the same assessment undertaken with Ambulance Trusts by NHS England.
- Each Special Health Board offers a unique service therefore it was deemed appropriate to group these organisations together for peer comparison or to use as a comparator group for Territorial Health Boards.

Key messages - Readiness

01

STRATEGIC ALIGNMENT

- Health and social care partnerships at different stages of development of digital strategies.
- Digital strategies are often separate from transformation plans.
- Digital often viewed as “back office IT” in health boards.
- Social care often not strategic priority for Councils.

02

LEADERSHIP

- Organisations score themselves highly.
- Only one territorial health board CIO at Board level.
- eHealth leads generally not executive leads for digital.
- Clinical eHealth leads have limited strategic influence.
- Social care professionals engaged in projects.
- Limited patient/client engagement in digital plans.

03

RESOURCING

- Resources inadequate to implement digital projects effectively in many organisations.
- Difficult to plan long term as limited clarity about funding.
- Challenging to recruit or retain staff with relevant skills and expertise as competing with private sector.
- Health boards struggling to progress transformational agenda with existing resources.

04

GOVERNANCE

- Local Authorities confident processes are in place to support successful project delivery.
- Limited benefits realisation and lessons learned.
- Clinical service teams expect eHealth to accept total cost of system ownership.
- Limited project governance in some health boards due to lack of resources.

Key messages - Readiness

05

INFORMATION GOVERNANCE

- High level of confidence that structures are in place to oversee and manage cyber risk.
- Some gaps in supplier contracts to provide assurance that digital assets are secure.
- IG seen as barrier to information sharing by many health boards.
- Frustration that IG framework to facilitate GP data sharing is still unresolved.

06

SKILLS AND COMPETENCES

- Work required to upskill health and social care staff to be confident using digital technologies.
- Need for ongoing assessment of digital skills training requirements.
- Several health boards have no training resource therefore no ongoing end user support or facilitation after digital system implementation.



Key messages – Capabilities

RECORDS ASSESSMENTS & PLANS

01

- Both health and social care still have a dependency on paper-based documentation.
- Social care professionals are often unable to update systems at the point of care in clients' homes resulting in the need for staff to have to record information on paper and update digital systems later.
- Current systems do not support new models of community-based care.

- Duplication of data entry by social care professionals working as part of integrated care teams is common due to lack of health and social care system interoperability.
- Health Boards clinicians often have to access multiple applications to view or update information.
- Social care staff have limited access to healthcare information.
- Healthcare professionals have limited access to GP and social care information.
- Different versions and configurations of the same healthcare applications.

TRANSFERS OF CARE

02

- Most health boards share discharge and clinic letters digitally with GPs.
- Transitions of care from child to adult social care services are well supported by digital systems.
- There are a large number of inter Health Board transfers of care but no joined up systems to support this.

03

ORDERS & RESULTS MANAGEMENT

- Most health boards have implemented digital ordering.
- Healthcare staff have digital access to diagnostic test results but may have to log into different systems to view.
- Limited governance processes in place to ensure digital results have been viewed and actioned.

Key messages – Capabilities

04

MEDICINES OPTIMISATION

- A small number of health boards have implemented electronic prescribing and medicines administration in hospitals although some have yet to implement more complex prescriptions, such as variable dose infusions or anaesthetics.
- North of Scotland Boards are planning on implementing a single instance of a HEPMA system.

05

DECISION SUPPORT

- Except for alerts about specific patient/client risks digital health and social care systems offer limited decision support.

06

REMOTE AND ASSISTIVE CARE

- A minority of health and social care professionals are able to use digital technologies to collaborate with colleagues as part of integrated or multidisciplinary care teams.
 - Over two thirds of Local Authorities are supporting people to live independently at home using a variety of technology enabled care services.
 - Local Authorities appear more willing to invest in technologies that deliver benefits.
- Health Board implementation of TEC solutions, such as Attend Anywhere and FLORENCE, is highly variable.
 - Health Boards still predominantly view technology enabled care projects as short-term pilots, which are not built into longer term strategic digital plans and have no sustainable sources of funding.
 - The benefits of technology enabled care will not be realised until data from assistive devices is integrated within existing digital health and social systems.

Key messages – Capabilities

07

ASSET & RESOURCE OPTIMISATION

- Most Local Authorities and some Health Boards have implemented electronic staff rostering systems.
- There is very little use of RFID tracking of assets in Health Boards.
- Half of Local Authorities uses some form of location tracking to support community-based staff working processes.

08

BUSINESS & CLINICAL INTELLIGENCE

- Most health and social care staff have digital access to information about their caseload and patients/clients under their care.
- Some health and care staff have access to reports or dashboards showing performance metrics.
- There are very few examples of integrated health and social care metrics which are accessible to front line health and care professionals.

09

DIGITAL CHANNELS

- Patients and clients are provided with digital access to information about services offered.
- Clients have limited ability to digitally access information about their care, complete online referrals, self-assessments or manage self-directed support budgets.
- Online repeat prescription requests and GP appointment booking is highly variable across the country.
- Clarity about NDS deliverables is required to enable boards to plan effectively.

10

STANDARDS

- A third of organisations have a high level of social care client matching to Community Health Index (CHI) numbers, particularly for adults receiving care.
- Adoption of standards to support interoperability is limited.

Key messages - Infrastructure

ENABLING INFRASTRUCTURE

01

- Business continuity and disaster recovery processes are in place for business-critical systems but not all of these have been tested.
- Some organisations are using unsupported software or systems that are several versions out of date.
- Very few organisations offer a bring your own device policy with most Local Authorities preferring to provide staff with smart phones or hybrid tablet devices, which has significant cost implications.
- Health Boards are investing in laptops and mobile devices to facilitate new and more efficient ways of working.
- No Territorial Health Board has a Bring Your Own Device (BYOD) policy.
- Exploration of some Health Board shared services is underway e.g. service desk.
- Health Boards are considering use of externally managed cloud services to ensure sustainability, resilience and cyber security but will require change to the current funding model to achieve this.
- Several Local Authorities already have a managed service arrangement in place with a third party supplier.
- Funding for replacement of end user hardware and resources to support, or develop, existing digital social care systems was noted to be a challenge for some organisations.
- There are several legacy healthcare systems built on outdated technology which need to be replaced.

Staff Survey results

499
Social Care Professionals

2411
Nurses & Midwives

994
Allied Health Professionals

2149
Acute Care staff

630
Mental Health Care staff

84
Care Workers

931
Doctors

441
Adult Social Care staff

1169
Community Care staff

839
Local Authority Responses

148
Pharmacists

123
Dental staff

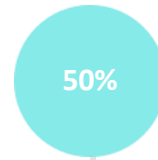
161
Children's Social Care staff

659
Primary Care staff

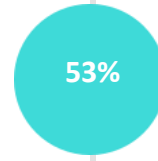
4241
Health Board Responses



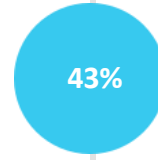
Staff Survey Results



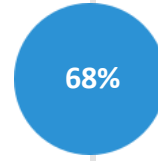
Health and social care staff agree that digital systems help them deliver care safely and effectively



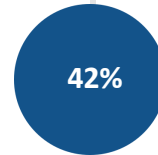
Social care staff agree they only need to enter information into systems once



Healthcare staff agree they rely on digital records at the point of care



Social care staff disagree they can use digital technologies to enable multidisciplinary discussions with health or social care colleagues

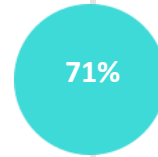


Health and social care staff agree they are aware of key digital projects taking place

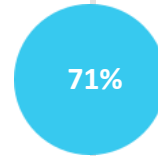
Staff Survey Results



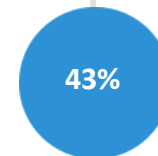
Health and social care staff agree that they are provided with training about their duties relating to confidentiality and data sharing



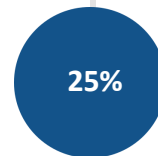
Healthcare professionals agree they have digital access to diagnostic test results



Healthcare professionals disagree they can use digital technologies for remote consultations



Social care staff agree that their organisation makes time for digital skills training



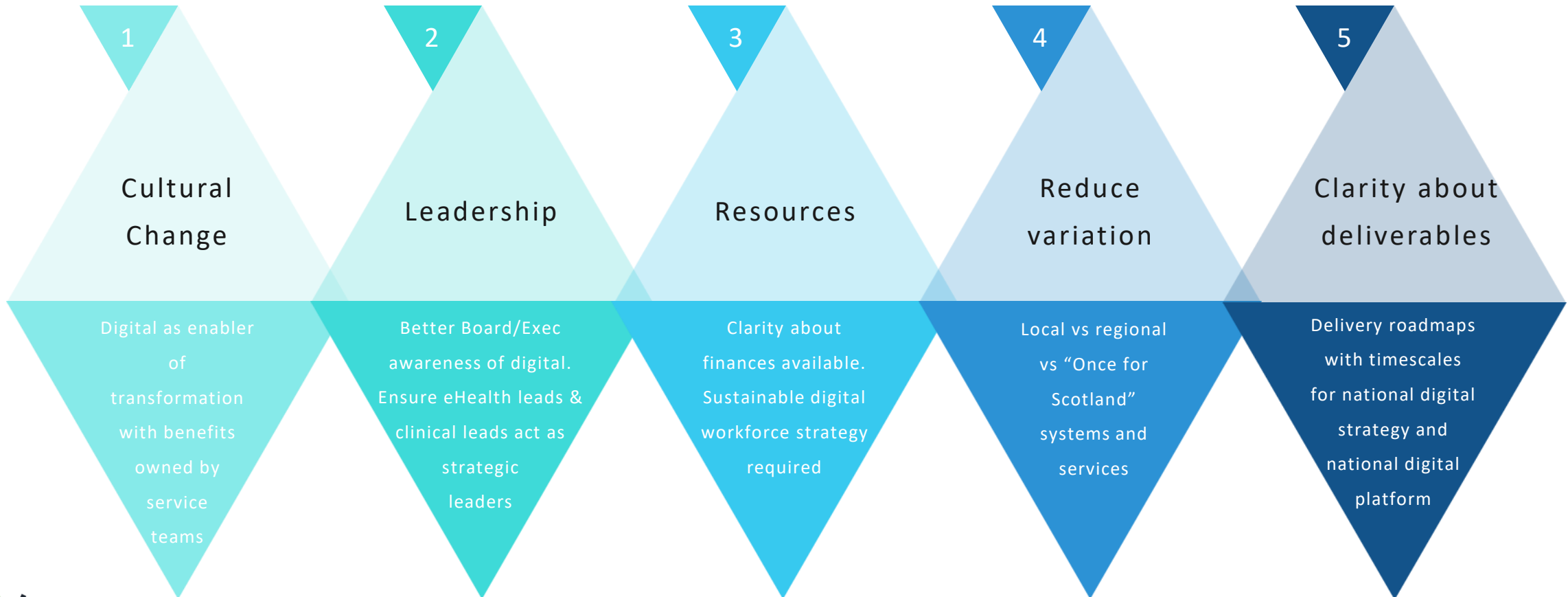
Health and social care staff agree they can provide feedback about digital systems and how well they meet their requirements

Integrated health and social care services

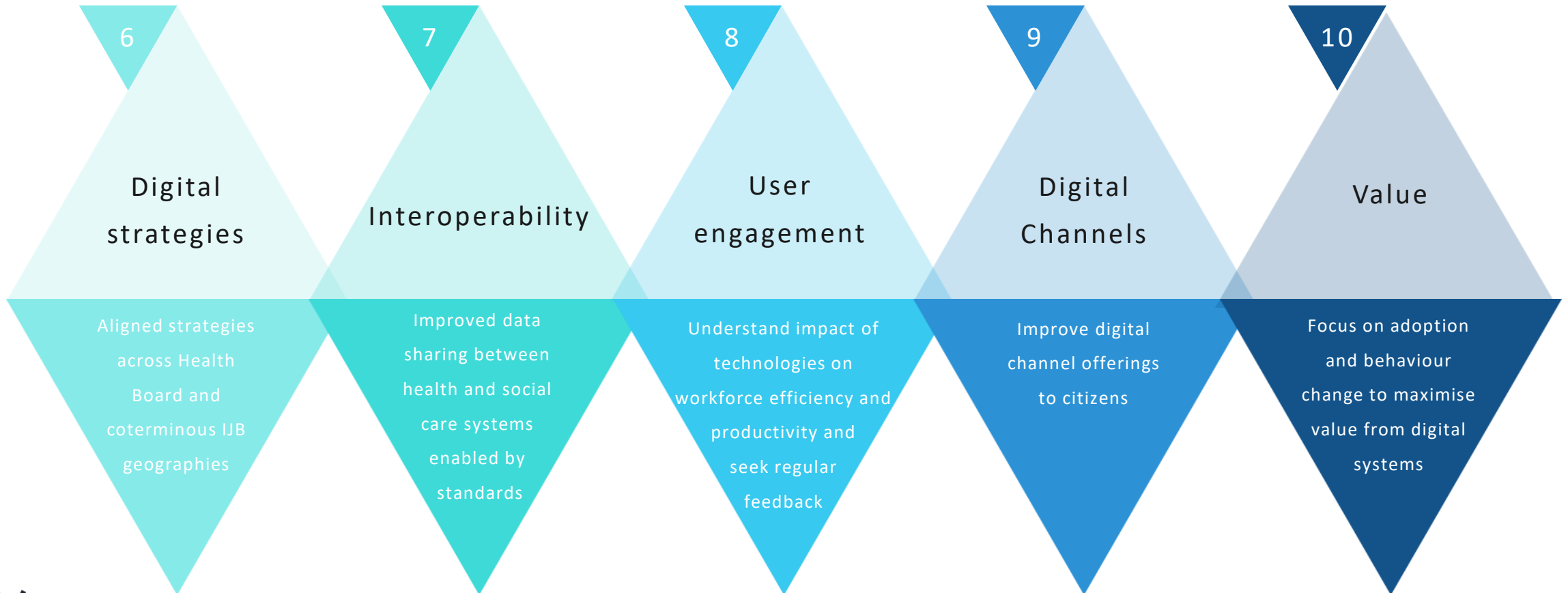
- There is a need to develop better vision and support, including resources, at a national level to support the integration of health and social care systems.
- There is variation in the degree of joint work and digital collaboration between Health Boards, Local Authorities and associated Health and Social Care Partnerships across different parts of the country.
- It is challenging for Health Boards to align digital strategies with Health and Social Care Partnerships where they are not coterminous unless all organisations collaborate effectively.
- In some areas of the country where several Health and Social Care Partnerships operate independently from each other in terms of digital strategy, but are aligned to a single Health Board geography, there is evidence of a detrimental impact on joined up care and creation of more siloed data sources.
- Several Local Authorities have outsourced managed digital services whereas Health Boards tend to manage services in-house. This can lead to challenges collaborating on projects as availability of resources and timescales to deliver are often not aligned.
- Health Boards and Local Authorities often have different strategies and priorities making it challenging to operate effectively together.



Opportunities for improvement



Opportunities for improvement



Participating Organisations

Local Authorities

- Aberdeen City Council
- Aberdeenshire Council
- Angus Council
- Clackmannanshire Council
- Comhairle nan Eilean Siar
- Dumfries and Galloway Council
- East Ayrshire Council
- East Dunbartonshire Council
- Edinburgh City Council
- Glasgow City Council
- Highland Council
- Inverclyde Council
- Midlothian Council
- Moray Council
- North Ayrshire Council
- Perth and Kinross Council
- Renfrewshire Council
- Scottish Borders Council
- South Ayrshire Council
- South Lanarkshire Council
- West Dunbartonshire Council
- West Lothian Council

Health Boards

- Golden Jubilee National Hospital
- NHS Ayrshire and Arran
- NHS Borders
- NHS Dumfries and Galloway
- NHS Education Scotland (NES)
- NHS Fife
- NHS Forth Valley
- NHS Grampian
- NHS Greater Glasgow and Clyde
- NHS Highland
- NHS Lanarkshire
- NHS Lothian
- NHS NSS
- NHS Orkney
- NHS Shetland
- NHS Tayside
- NHS Western Isles
- NHS24
- Scottish Ambulance Service
- The State Hospital



Project Team

- Dr Catherine Kelly (Project lead) Chief Clinical Information Officer
UCLH/North London Partners STP
(Secondment to Scottish Government DHSC)
- Calum Cockburn Policy Officer
Scottish Government DHSC
- Henrik Moeller Director
Meisterworks

For further information please contact HSCDigitalMaturity@gov.scot

