

National Competency Framework for Data Professionals - Intro to National Rollout

*Better Insights. Better Decisions.
Better Health.*

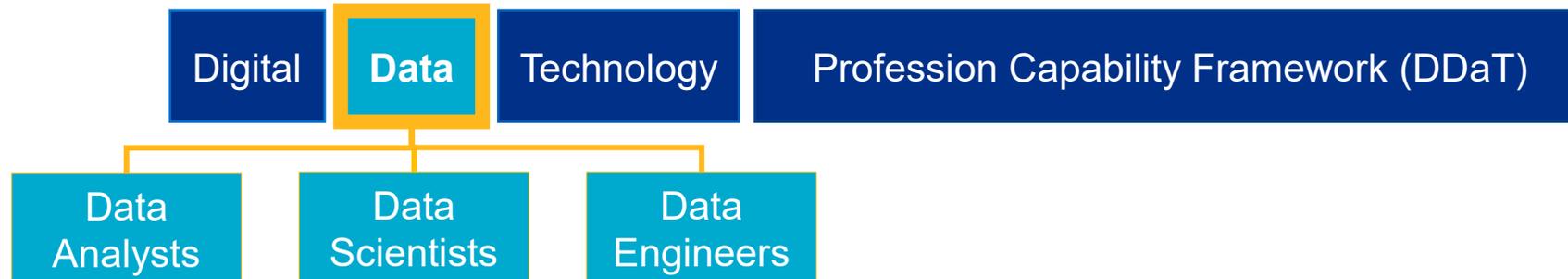


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Vision for Data & Analytics Workforce



Vision	Health and Care recognised as being one of the best places to work as a data professional
Mission	To professionalise the data and analytics workforce within health and care and create a vibrant data culture within the wider workforce
Strategic Goal	Working collaboratively to standardise what data professionals are, what they do and how they develop



Data family is a key part of the digital workforce and a core component of successful digital transformation

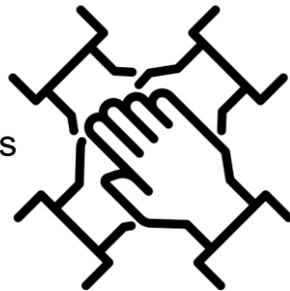
Why start with a competency framework?

Creation of new Training & CPD to reflect the needs of the workforce and support them towards professional registration

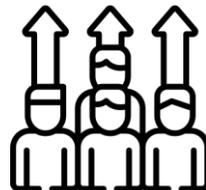


Consistent standards and language across the system, to streamline career pathways and recruitment

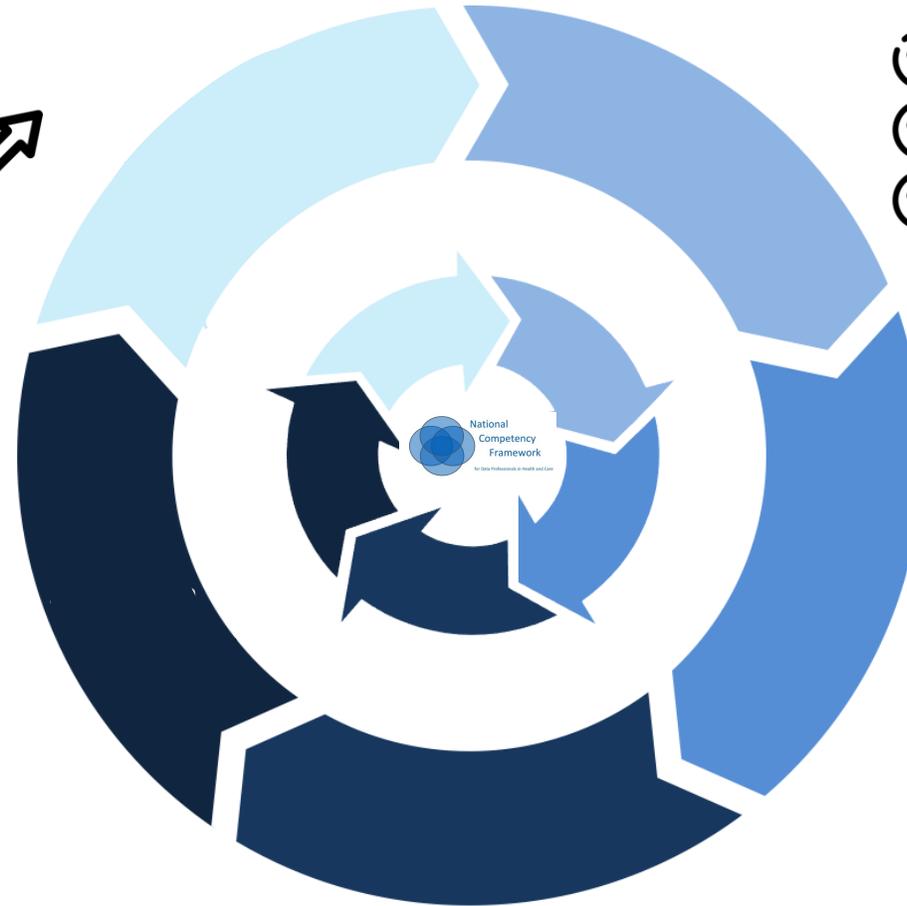
Partnership working across organisations



What good looks like is more easily recognisable and transferable across the system



Workforce succession and development planning across teams and organisations becomes easier



Our framework development roadmap was open, transparent and collaborative



November 2020 - April 2021

- Literature search and desktop review;
- Semi-structured interview with selected analytical leaders;
- Online survey of the analytical community

September 2021 – March 2022

- Modular framework approach;
- Core Competency & Specialism definition development;
- Surveys and Interviews with testing sites

May 2022 – March 2023

- Onsite testing for use in recruitment, staff development and supporting registration
- Expansion of the framework to include Leadership & Management, Behaviours and Working in projects

May 2023 – August 2023

- Early adopter sites onboarded via 2x ½ day workshops



Iterative

development through system

collaboration and ownership



Discovery

Found there was **no uniformly recognised competency framework for healthcare analysts in the UK** and there are no international examples which can be pressed into service.

Alpha

100% of testers found it useful
96% found it better than any framework they had used before **and 97% would support national rollout after adjustments.**

Beta

Feedback from testing sites, 123 staff members participated in at least one weekly survey and 26 staff were interviewed. All parties agreed that **the framework is required to the point of necessity for the professionalisation agenda.**

Early Adopters

Organisations have developed their own vision, mission, goals and objectives for the rollout of the NCF. **With short, medium and long term actions to support professionalisation.**

Who has taken part in its development?



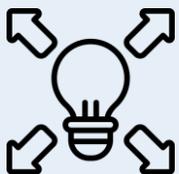
- 32 key people interviews;
- 207 respondents participated in the survey;
- A range of organisational types;



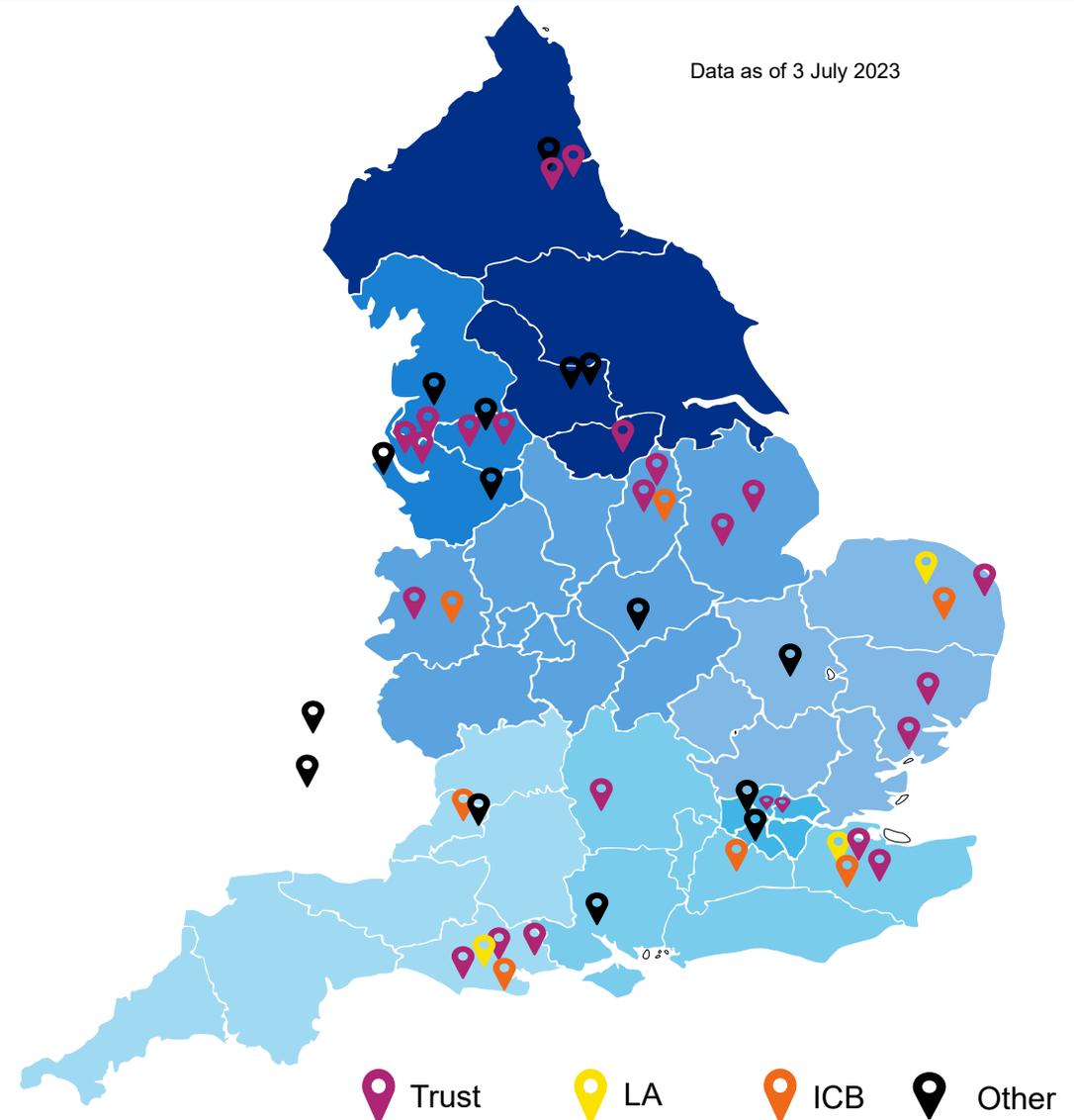
- 20 organisations;
- All regions included;
- A range of organisational types;
- 69 survey respondents;



- 44 organisations/ 170+ Testers;
- All regions included;
- A range of organisational types, and where possible clusters of organisations within the same ICS;



- 8 organisations;
- A range of organisational types;



What does the framework look like?



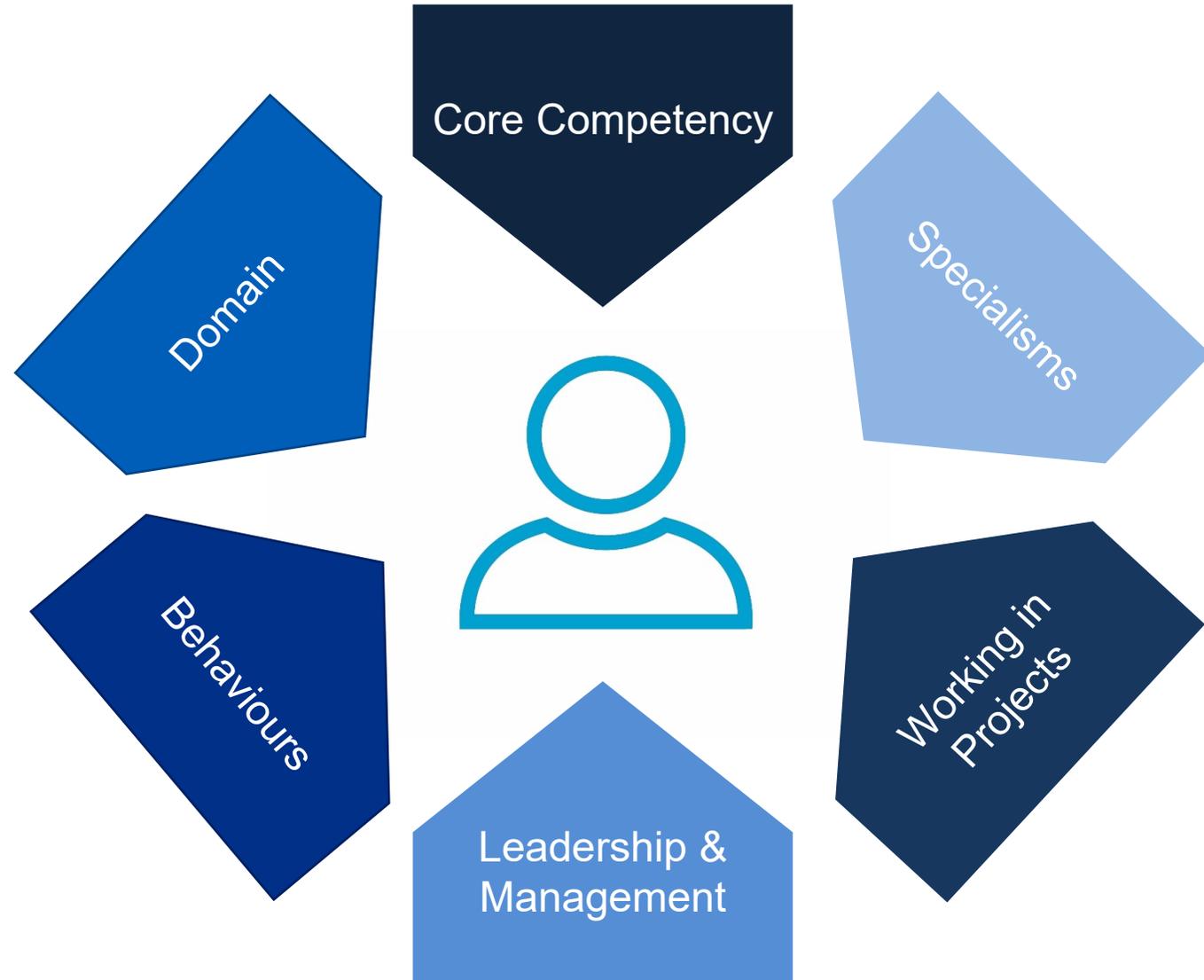
Data Analyst 6 core
competencies L1 to L5



Data Scientist 6 core
competencies L2 to L5



Data Engineer 7 core
competencies L2 to L5



What does the framework look like?

Describes the competencies and skills required to work and progress in these roles, developing abilities across five levels

- **Level 1:** Associate Practitioner/Awareness
- **Level 2:** Practitioner/Working Knowledge
- **Level 3:** Senior Practitioner
- **Level 4:** Advanced Practitioner/Expert
- **Level 5:** Leading Practitioner/Strategic



Building from the basics

1

Domain: You define the Domain (the understanding of a specific sector, discipline or activity)



2

Core Competency: Select the appropriate CC definitions that apply to your skill level/role



3

Additional Skills: Include any relevant Specialist and Ancillary Skills

Example 1

Population Health Domain

Urgent Care Health Domain



Level 2 Practitioner Level Data Analyst Core Competencies



GIS Mapping Specialism

Statistical Process Control Specialism



Population Health
GIS Analyst

Urgent Care BI
Analyst

Example 2

Mental Health Health Domain

Public Health



Level 4 Advanced Practitioner Level Data Analyst Core Competencies



Evaluation Specialism

Leadership & Management



Mental Health Evaluation
Lead Analyst

Head of Public
Health Analytics

Core Competencies



Data Analyst

DAC1, Analyse data for information and/or performance measurement within the context of the relevant health & care environment

DAC2, Employ applicable data sources to produce valid, verifiable and replicable analyses

DAC3, Apply relevant software and numeracy skills with a range of analytical techniques

DAC4, Deploy problem-solving skills to define requirements for analytical work

DAC5, Generate and communicate insight verbally, visually and in writing to a variety of information consumers

DAC6, Engage in continuous skills development, exhibit professionalism and seek out and share emerging best practice

Data Science

DSC1, Analysis Skills

DSC2, Professional Standards, Quality & Ethics

DSC3, Communicating Data Science for Impact

DSC4, Innovation

DSC5, Data

Preparation/Wrangling

DSC6, Computer Programming

Data Engineering

DEC1, Communication Skills

DEC2, Data Analysis & Analytics

DEC3, Data Modelling

DEC4, Data Ingestion

DEC5, Metadata management

DEC6, Programming

DEC7, Technical understanding & innovation

Ancillary Frameworks



Behaviours

B1, Influencing Skills

B2, Equality, Diversity, Inclusion & Values

B3, Communication

B4, Collaboration

B5, Patient & Customer Service

Leadership & Management

LM1, Leading with Compassion, Understanding, and Teamwork

LM2, Motivation, Innovation, and Sharing Success

LM3, Developing Capability and Holding To Account

LM4, Finance and Budgets

LM5, Recruitment, Retention, Training, and Continued Professional Development

Working in Projects

WP1 Project Concepts, Context, QA & Governance

WP2, Project Planning

WP3, Resource Planning & Management

WP4, Project Delivery

WP5, Business Change & Benefits Management

Specialisms



- SA1 Data Visualisation (using Tableau, PowerBI, Qlik etc)
- SA2 Geographical Data Mapping
- SA3 Statistical Process Control
- SA4 Descriptive & Explicative Analytics
- SA5 Predictive & Prescriptive Analytics
- SA6 Evaluative Analytics
- SA7 Advanced Statistics
- SA8 Population Segmentation & Stratification
- SA9 Data Modelling
- SA10 Information Governance
- SA11 Longitudinal Analysis
- SA12 Machine Learning
- SA13 Technological Specialisms (such as R, Python, Excel, SQL, Tableau etc.)
- SA14 Data Automation
- SA15 Business Analysis
- SA16 Hypothesis Testing
- SA17 Behavioural Science
- SA18 Social Research
- SA19 Economics
- SA20 Operational Research

How can the NCF be used?

Development

- Personal (e.g. Career Path/ PDP)
- Staff (e.g. Skills Assessment/ Team training)

Recruitment

- Advertising (e.g. Job Advert)
- Job Description
- Interview question topics

Our plan for National Rollout

Familiarise

To raise awareness of the National Competency Framework, through an active marketing campaign, national and regional launch events, an online tool and library of resources and local ICS training sessions.

Role Profiles

Online
assessment
tool

Library of
resources

Launch events
& conferences

Guidance
documents

Workshop
resource pack

Plan

To support organisations as they plan for implementing the framework, training champions to run strategy setting workshops. Sharing the action plans and lessons learned from early adopter sites.

Exemplar
Action Plans

Exemplar
Case Studies

Training NCF
Champions

Coaching

Webinars

Planning
workshop

Q&A Forum &
FAQ

Implement

To monitor the implementation of the framework across the system, to rollout out additions to the online tool, and set up a system to maintain and update the NCF.

National
Network NCF
Champions

National
Curator

Development
framework

Evaluation of
rollout

Reporting

Maintenance
process

NCF Organisational Champions

Professionalisation of data and analytical workforce team

How we are going to achieve this

Securing Effective Implementation

- Clear action plan for delivery
- Reduce any unnecessary overlaps or potential duplications with other national initiatives
- Development of train the trainer programme
- NCF Champions to streamline delivery arrangements to work with local partners availability
- Simplify and rationalise administration efforts for sites

Fostering Partnership and Collaboration

- Comms & engagement plan
- Launch events and conferences
- National NCF Champions Forum

Implementation

Data Gathering, Reporting and Evaluation

- Building evidence to maximise impact of the NCF approach to competency framework development
- A robust evaluation of implementation
- Defining metrics, with known sources and published targets to monitor progress, outputs, and outcomes
- Public reporting on progress throughout implementation with annual follow up

Strengthening Governance and Developing the Business

- Online tool development, testing and delivery and maintenance
- Building capacity for development and delivery through better use of available resources
- Governance during NCF implementation
- Governance post implementation (Caretaker)
- National Curator

How we are going to report on progress

Activity

This will commence a month before the national launch and will continue during roll out until March 2024. The different activity metrics will be publicly reported on though AnalystX and the National Competency Framework LinkedIn page.

Launch Event
Attendance

Social Media
Impressions

NCF
Champions
Trained

Webinar
Attendance

Document
Downloads

Online
Assesments

Outcomes

This will be undertaken through questions and data captured as part of the AnalystX Observatory survey, which will be promoted to all data leaders who take part in the survey.

Awareness of
NCF

Individual
Adoption NCF

Team
Adoption NCF

Organisation
Adoption NCF

Evaluation

Current data would allow us to evaluate the correlation between the maturity of implementation of the NCF and “improved recruitment and retention of data professionals”. The impact on system change will be captured via qualitative focus groups.

NCF adoption/
maturity vs
vacancy rate

NCF adoption/
maturity vs
length of time
in team

Quarterly
Survey NCF
Champions

Focus Groups
12 months
post rollout

NCF Organisational Champions

Professionalisation of data and analytical workforce team

Timeline for delivery

August 2023 - September 2023

- Development of the NCF Champion training programme
- Final testing of Online tool
- Conferences and comms outreach activities
- Populating of the Library of resources

October 2023 – November 2023

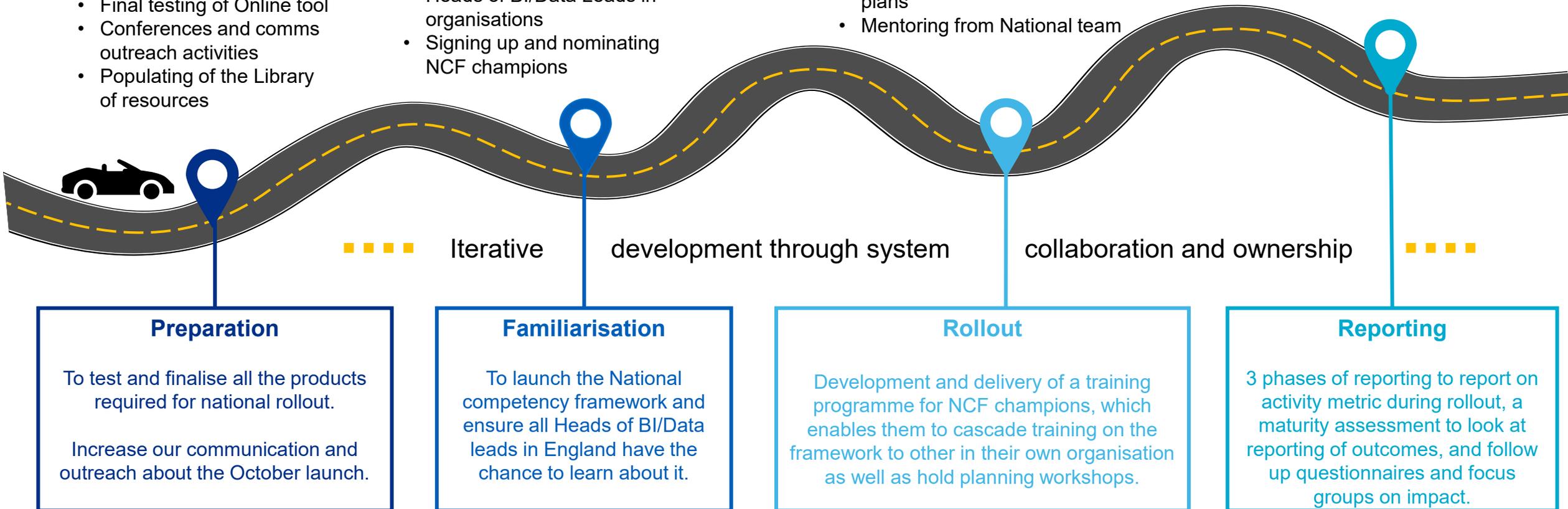
- National and regional launch events
- Proactive comms out to all Heads of BI/Data Leads in organisations
- Signing up and nominating NCF champions

November 2023 – March 2024

- Training rolled out to NCF champions across all 42 ICS's
- Internal cascade of training and development of implementation plans
- Mentoring from National team

April 2023 – April 2025

- Activity reporting
- Maturity assessment
- Evaluation



Recap

- The competencies have been designed to be as flexible as possible whilst enabling a standardisation of the profession throughout the industry.
- Each of the competencies (C1 to C6) are the core skills and abilities you would expect for someone to be able to do at their respective practitioner level (L1 to L5).
- Practitioner levels (L1 to L5) are used to align with the professional registration standards as set out by the Federation of Informatics Professionals (FedIP) and the Association of Professional Healthcare Analysts (AphA).
- The more senior the practitioner level, the more likely it becomes that the role will move away from the hands-on core skills and include Leadership & Management and Working in Project Skills.
- Core competencies are designed to represent a standard that individuals can benchmark themselves against.
- National rollout of the competency framework begins in October this year



Next Steps for Prospective Adopters



- Attend the national launch/L&D event 2nd October in Stoke [The National Competency Framework Launch Conference 2023 Tickets, Mon 2 Oct 2023 at 09:00 | Eventbrite](#)
- Register your interest in attending a launch event <https://forms.office.com/e/DdesJbD4z6>
- Check out the existing content on the NCF [Competency framework development - Data and Analytics Partnership Gateway - NHS Transformation Directorate \(england.nhs.uk\)](#)
- Follow us on Linked in to ensure you don't miss out on updates on the Early Adopters programme [National Competency Framework: Overview | LinkedIn](#)

Register for 2nd October



Register interest for regional launch events for the National Competency Framework

