



**A world-leading
platform for early
detection and
prevention research**

In the UK we face an increasing burden in treating late-stage chronic disease

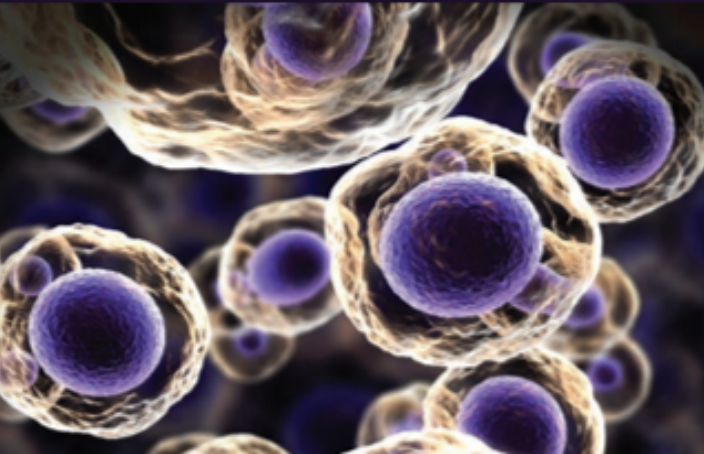
Increases in healthy life expectancy have stalled despite advances in healthcare

A new world-leading resource for early detection & prevention research

- A collaboration between charities, academics, the NHS and the life sciences industry
- “Enhancing the UK’s capabilities for discovery and development of new medicines, creating new diagnostics and med tech capabilities”

**Life Sciences
Industrial Strategy**

– A report to the Government from the life sciences sector



Our Future Health will power the shift towards sustaining health & preventing disease

New
capability

Increasing availability of data and new AI and analytic techniques, plus novel interventions (diagnostic, behavioural and therapeutic) with the ability to identify diseases at their earliest stage

Better
targeting

Our Future Health creates the opportunity to identify people with pre/early disease and those who would benefit from early intervention, targeting new tests for those particular diseases

Improved
outcomes

Sustaining health and preventing disease, rather than treating late-stage patients with symptomatic & advanced disease. Part of a learning healthcare system with potential to transform pathways & treatment cost-effectiveness



We will enhance the power of
health data to detect life-changing
diseases at the earliest possible stage

Our Future Health will recruit 5 million people into a prospective cohort, representative of the UK population

Diversity, scale and long term engagement opportunities

- Deep links to NHS clinical data
 - Significant scale, diversity and breadth of participation
 - Fast and cost effective recontact of participants
 - Genetic info related to common disease areas
- Adults who represent the full diversity of the UK population
 - Biological samples and health data on enrolment
 - Consent to link with NHS records and additional data sources
 - Stored samples that enable the application of newly available diagnostic tests
 - Polygenic risk scores (PRS) on everyone
 - Consent for health related feedback to participants
 - Consent to invite to additional data collection, samples, or take part in new clinical studies
 - Repeat sampling to observe the transitions from health to diagnosable disease

Our Future Health will be underpinned by a comprehensive and lasting programme of public engagement and involvement

Our outreach & engagement programme is ensuring inclusion across a range of backgrounds, including:

- Black & minority ethnic groups
- UK regions & devolved nations
- People with low incomes/resources

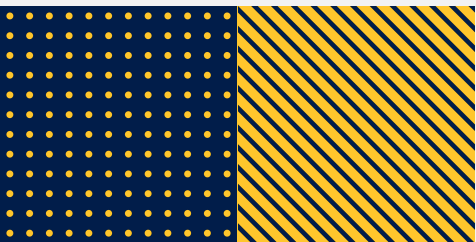
Public involvement to date

120 members of the public have been involved to date:

- **4 focus groups, 2 co-design meetings, 21 interviews** with the public to develop the protocol
- **18 focus groups, 9 co-design meetings, 21 interviews** with the public to develop the information sheet, consent form & other public-facing videos & materials
- **Interviews with stakeholders** from charities and existing cohort studies and focus groups with NHS primary care staff

Public involvement plans

- Co-design groups to review REC feedback and develop additional materials
- Interviews with NHS staff & stakeholders supporting pilots
- Diversity & Inclusion and public & participant advisory groups
- Community outreach and network programme
- Ongoing qualitative and quantitative research



To achieve the ambition of recruiting 5 million individuals we need to have a diverse and inclusive approach to recruitment

Routine NHS Interactions

- NHS Health Check: routine 5 yearly screen for 40-74 year olds; diverse representation
- NHS Blood & Transfusion: existing infrastructure and previous experience
- Routine primary care blood tests
- Secondary care outpatient referrals requiring blood tests

Aim to minimise participant burden and offer opportunity to capture biological sample in parallel to routine sample

Direct Invitations

- Existing research study participants e.g. NIHR Bioresource can be contacted and invited to join Our Future Health potentially as part of a routine follow-up
- Direct invitation to members of the public (e.g. via NHS Master Patient Service)

Direct recruitment routes require more active participation, either through home sampling saliva or visiting pop-up clinics

Our Future Health will deliver a resource to support research that will power the shift towards sustaining health and preventing disease

Researchers will be able to use the resource to **discover** and **test** more effective ways to predict, detect and treat diseases

Earlier detection

Identifying new signals to detect diseases much earlier than is possible now



More effective screening and prevention programmes and earlier treatment

Improved prediction

Developing new ways to predict with accuracy those at higher risk of disease



Faster access to screening or prevention options for those at higher risk

Better interventions

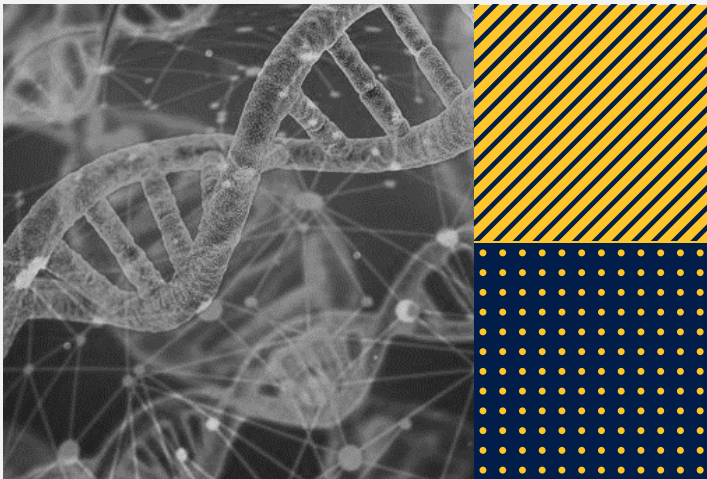
More effective tools, treatments & technologies...



...to delay the onset, or slow the progression of disease after it has been detected

...to reduce risks, or to investigate diseases for those at higher risk

Our Future Health is a key component of the National Genomics Strategy helping understand the use of genomics in common disease prevention

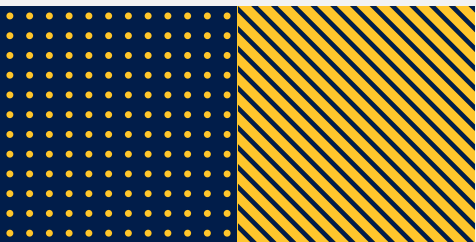
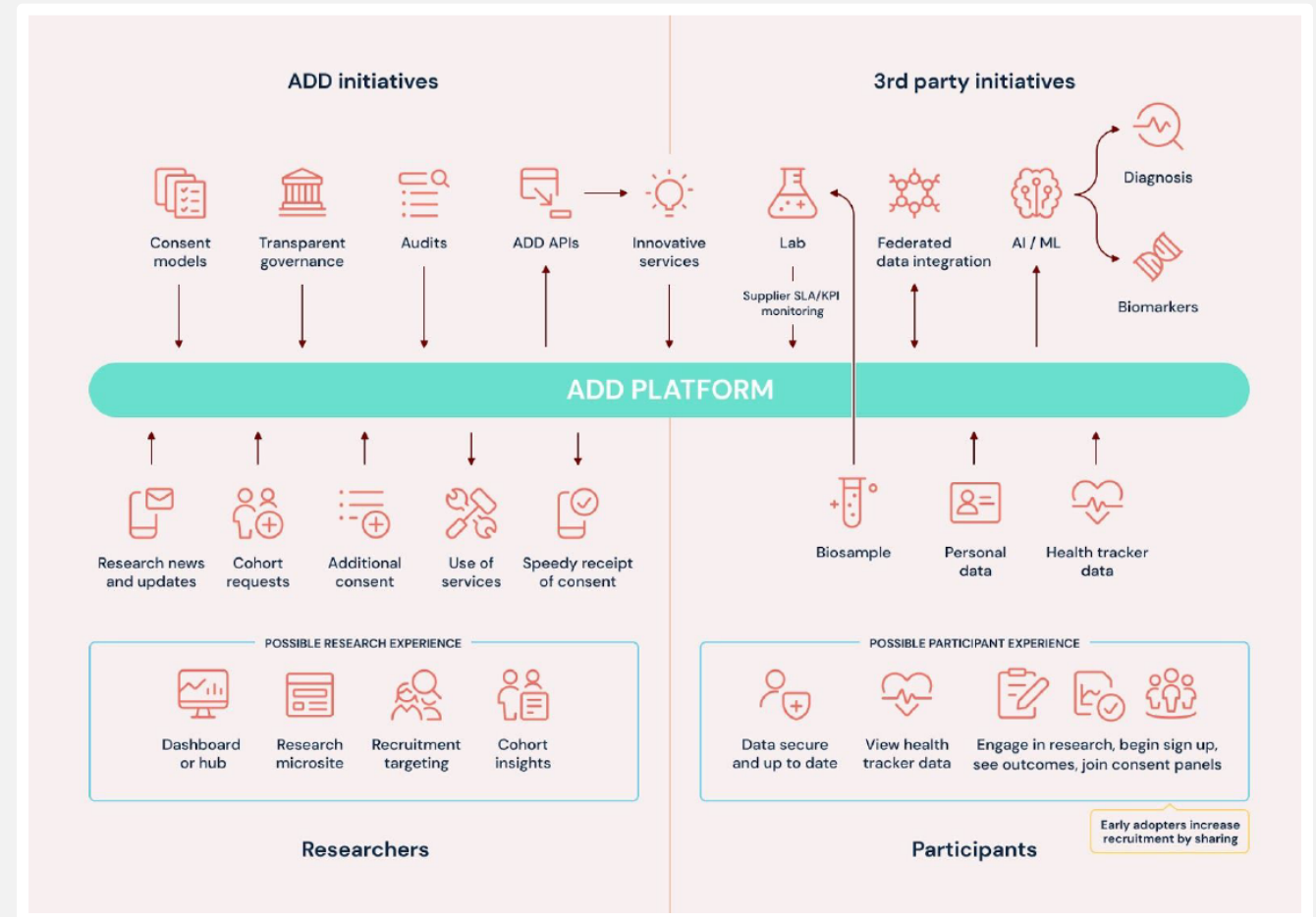


We are:

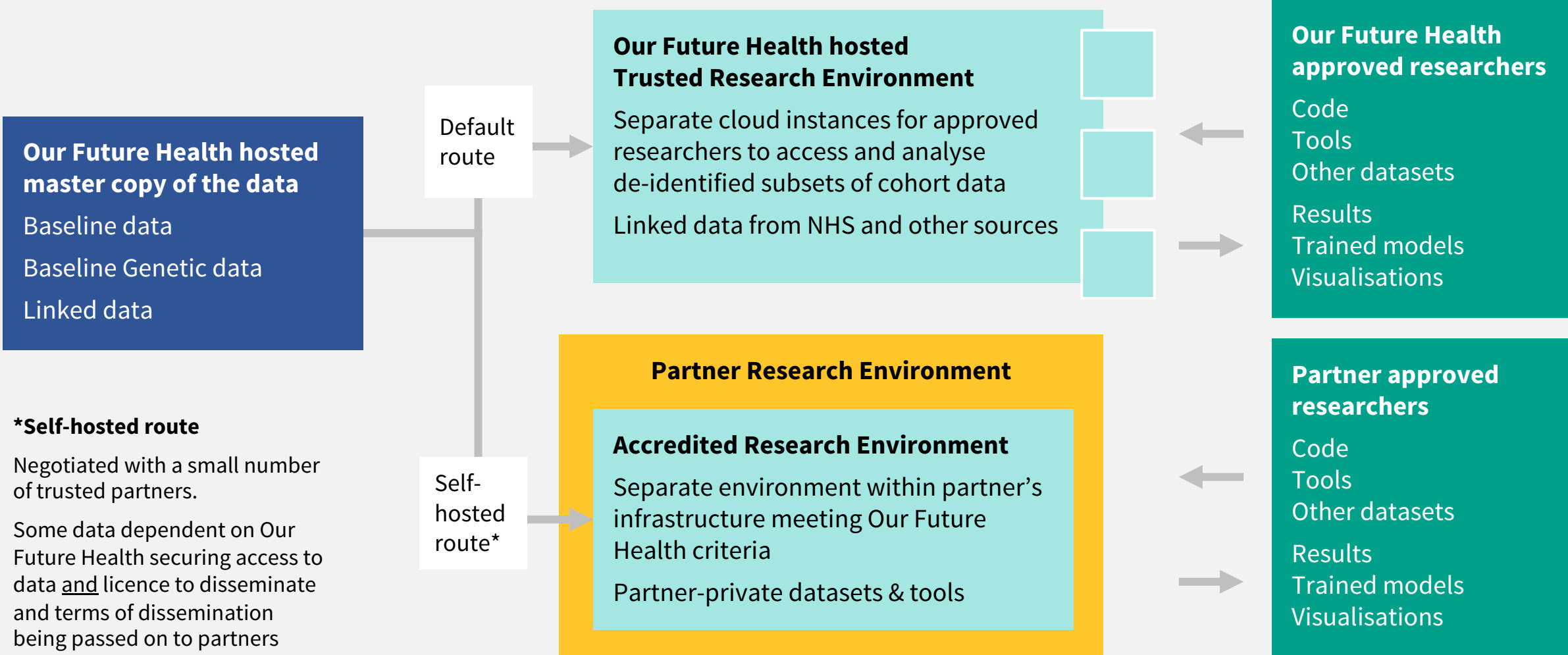
- Designing a custom SNP chip which will contain the latest discoveries around SNPs contributing to polygenic risk scores (PRS)
- All participants will have their DNA analyzed shortly after recruitment and PRS calculated
- The scores will be made available to researchers, while participants will be given the option of receiving personalised risk assessments incorporating their polygenic risk score results
- This will contribute to decisions on whether and how polygenic risk scores should be implemented at scale in the health service

A study on this scale means Our Future Health will build the best possible systems and high quality engagement tools

- Digital tools that enable rapid and scalable enrolment and consent in the most cost efficient way
- A platform that can link to many different data sources through open standards
- Securing privacy and embedding transparency & ethical standards alongside accountability and auditability
- Ensuring ongoing engagement with participants through well-designed approaches to maintain connections

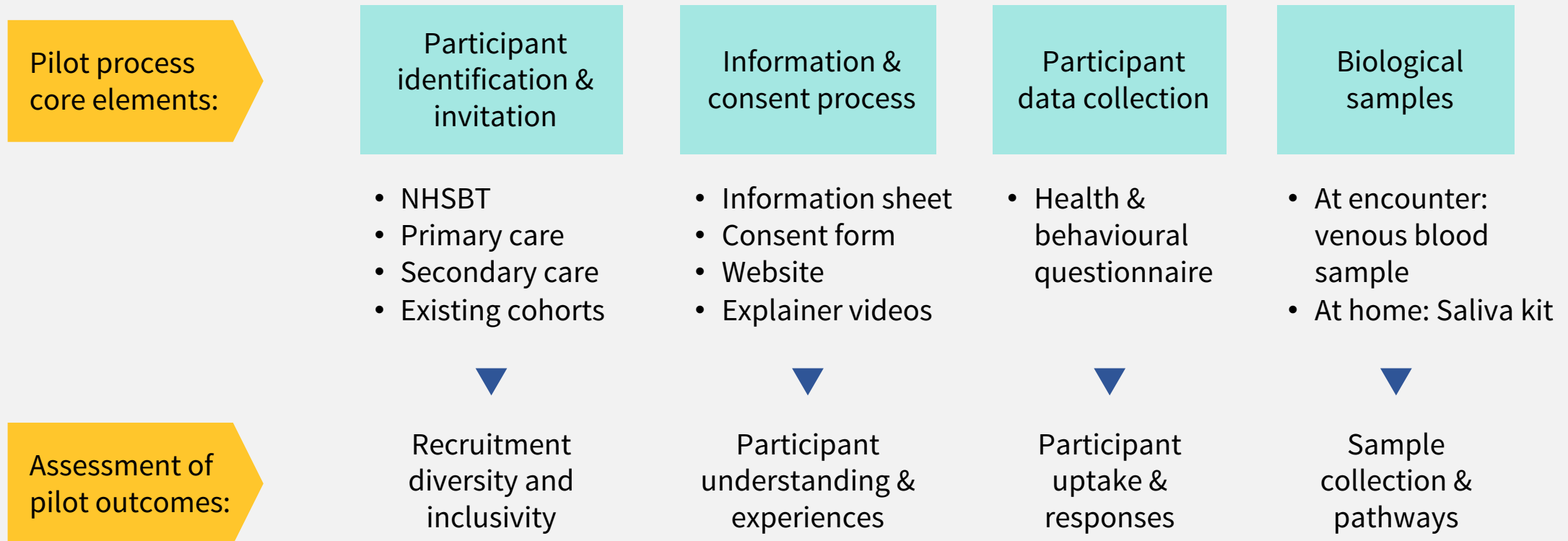


Data High Level Overview

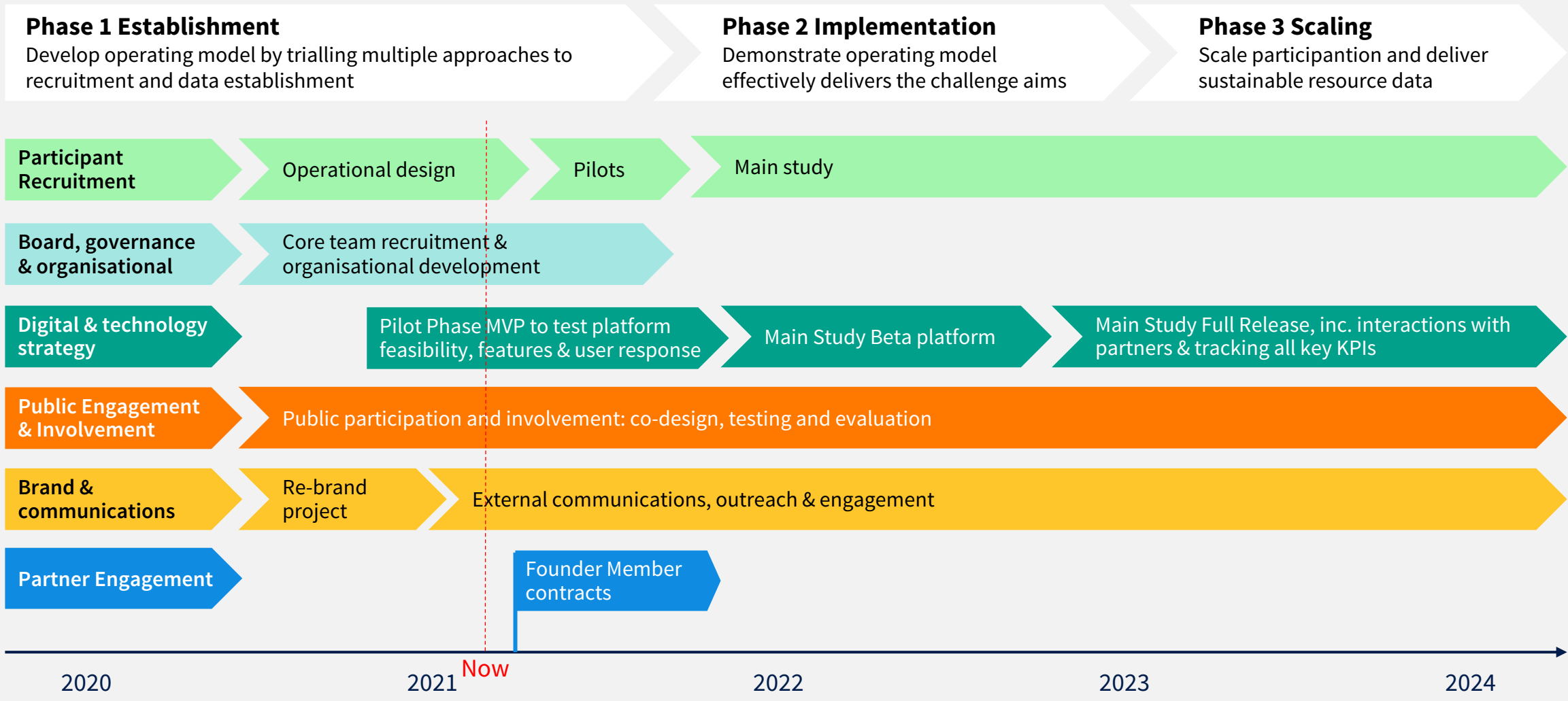


***Self-hosted route**
Negotiated with a small number of trusted partners.
Some data dependent on Our Future Health securing access to data and licence to disseminate and terms of dissemination being passed on to partners

We will be piloting in multiple UK locations to test the process of recruitment, consent, data collection & sampling



Timeline to establish, implement and scale the platform



What are the opportunities for collaboration?



Building Our Future Health

- Opportunities to partner on either new or established initiatives which will help achieve our aims of a longitudinal study that reflects the diversity of the UK population
- Collaborating on the challenges we are going to face:
 - Ethical aspects & models of consent
 - Feedback approach and recontact studies
 - Risk communication
 - Digital and data technologies
 - Data linkages beyond routine health data

In the future, we believe Our Future Health will become a platform for a range of research studies across multiple disciplines

Thank you

Our Future Health is a company limited by guarantee registered in England and Wales (number 12212468) and a charity registered with the Charity Commission for England and Wales (charity number 1189681).
Registered office: 2 Redman Place, London E20 1JQ