



Public Sector Funding

Prof. Michael Lewis

Joint Programme Director for NIHR i4i and SBRI Healthcare

Improving the health and wealth of the nation through research





We fund or part-fund over 10,000 front-line research delivery staff throughout the NHS



We're funding more than 1,000 active health and social care research projects

NIHR funds, enables and delivers world-leading health and social care research



More than 2,000 researchers hold our career development awards



More than a million participants take part in research supported by the NIHR each year

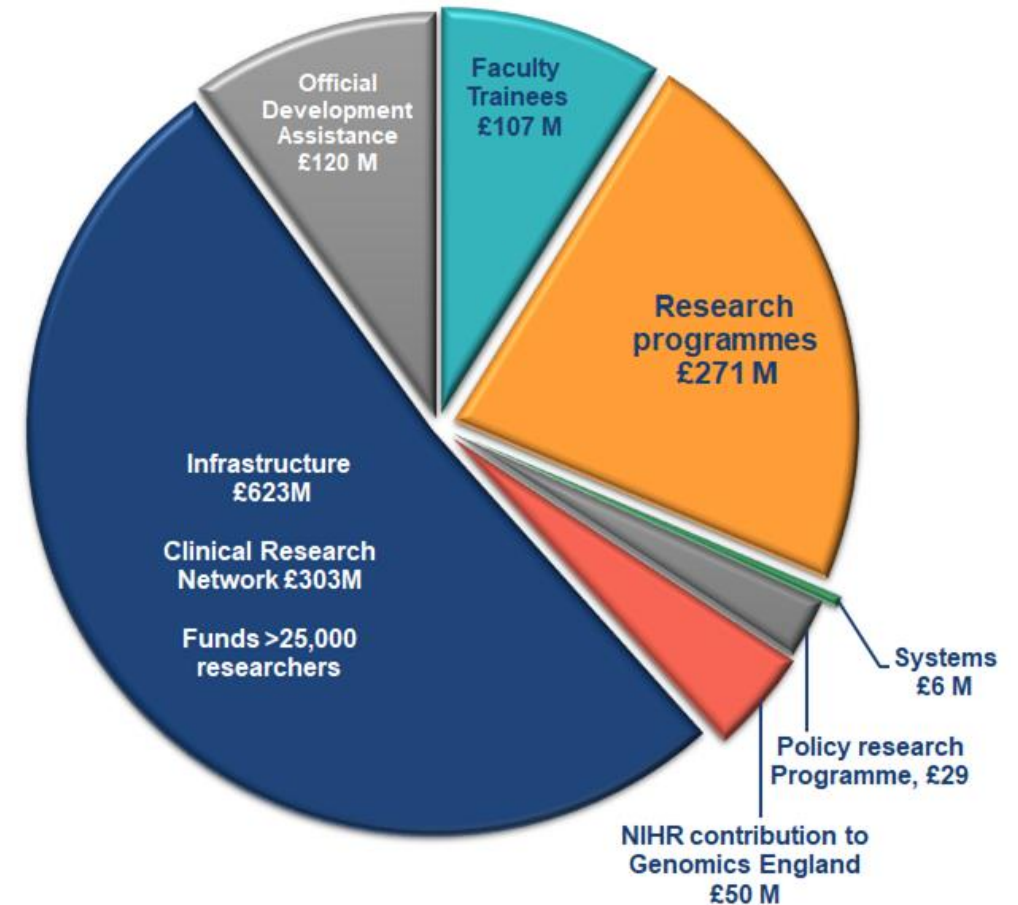
NIHR

‘Improve the health and wealth of the nation through research’

Largest funder of health and care research in the UK

Virtual Organisation to support clinical research and management of clinical trials across the NHS and partner universities.

Supports collaborative projects between industry, charities, academia, other funders and the NHS, supporting the development of therapeutics, medical devices, IVDs and digital technologies.



Total: £1,205.4m 2019/20

NIHR offer to Industry

NIHR supports life science companies to translate their new therapeutics, medical devices, diagnostics and digital technologies into the clinic and then onto market.

We provide a full range of support to innovators throughout their clinical pathway, from early stage translational research through to later stage clinical trials in the NHS and social care settings.



NIHR services for innovation

**Access to
expertise and
facilities**



**Support to set up
and deliver trials
in the NHS**



**Funding for
research**



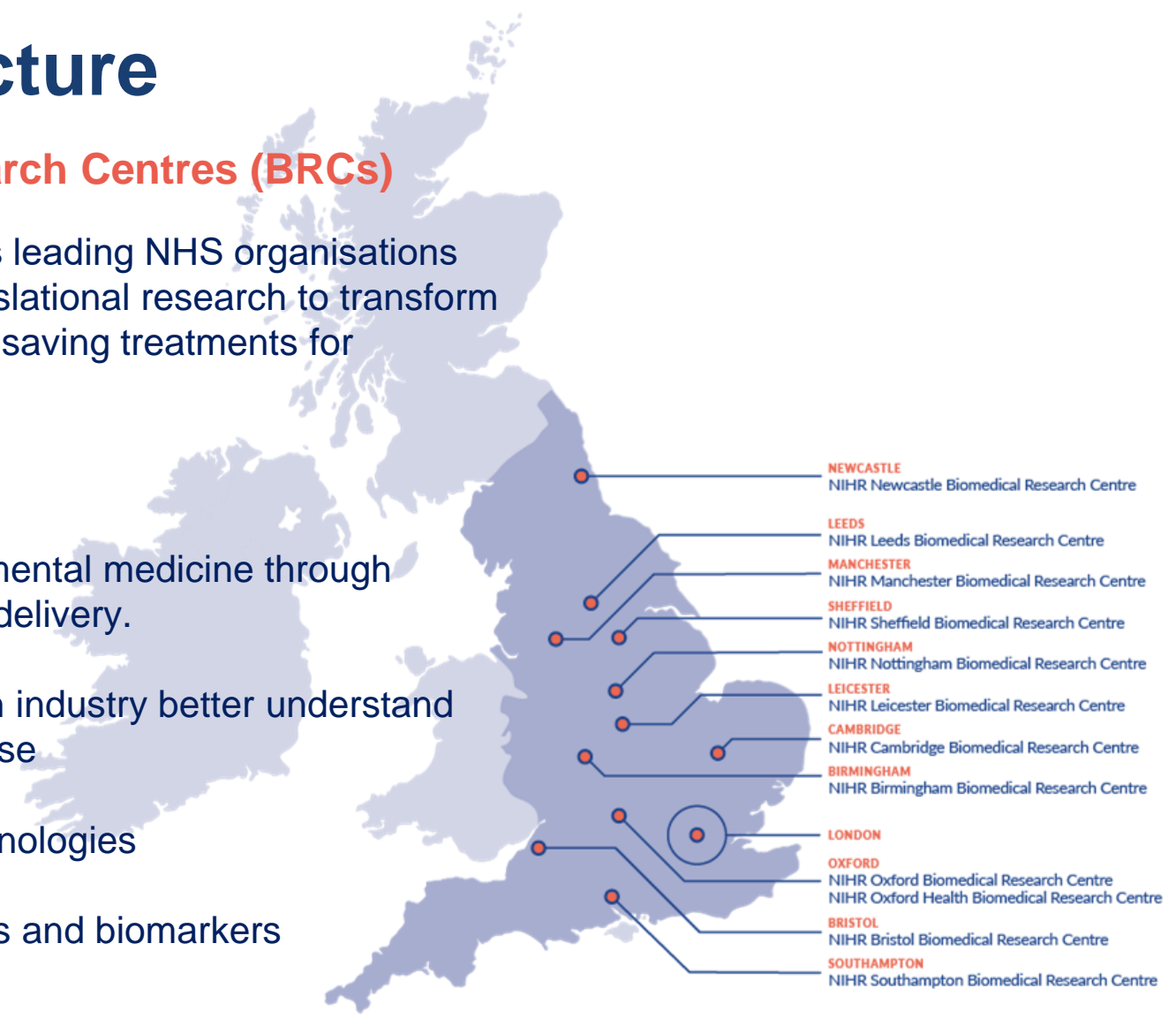
NIHR Infrastructure

20 NIHR Biomedical Research Centres (BRCs)

Partnerships between England's leading NHS organisations and universities conducting translational research to transform scientific breakthroughs into life-saving treatments for patients.

Industry support:

- setup and deliver experimental medicine through collaboration or contract delivery.
- experts keen to work with industry better understand the mechanisms of disease
- evaluate new health technologies
- discover new drug targets and biomarkers



- 1 - NIHR Barts Biomedical Research Centre
- 2 - NIHR Great Ormond Street Hospital Biomedical Research Centre
- 3 - NIHR Guy's and St Thomas' Biomedical Research Centre
- 4 - NIHR Imperial Biomedical Research Centre
- 5 - NIHR Maudsley Biomedical Research Centre
- 6 - NIHR Moorfields Biomedical Research Centre
- 7 - NIHR Royal Marsden Biomedical Research Centre
- 8 - NIHR University College London Hospitals Biomedical Research Centre

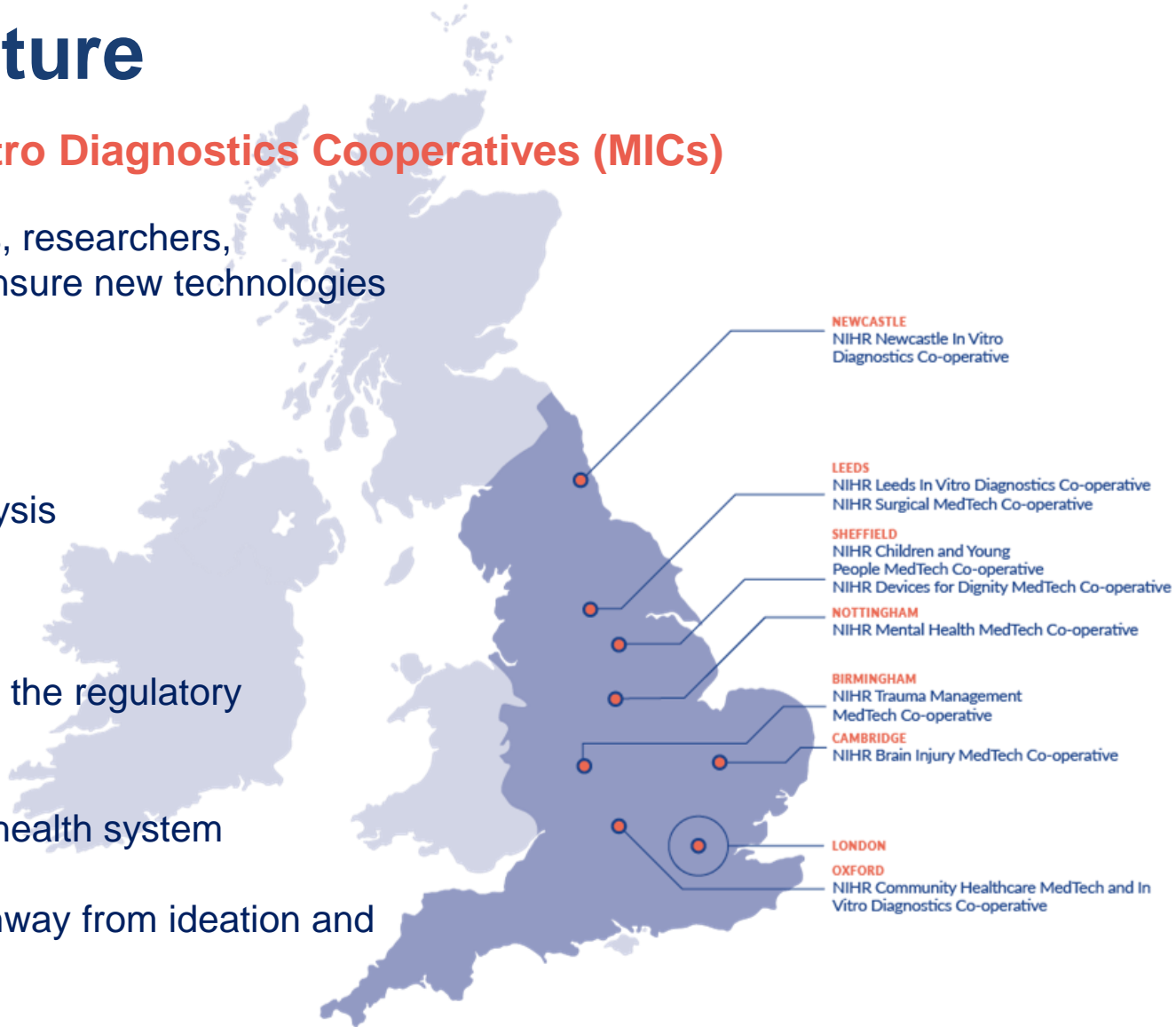
NIHR Infrastructure

11 NIHR MedTech and In vitro Diagnostics Cooperatives (MICs)

Bring together patients, clinicians, researchers, commissioners and industry to ensure new technologies are rigorously evaluated.

Industry support:

- care pathway impact analysis
- human factor assessment
- evidence required to meet the regulatory requirements
- demonstrate value to the health system
- across the innovation pathway from ideation and prototyping to adoption



1 - NIHR Cardiovascular MedTech Co-operative
2 - NIHR London In Vitro Diagnostics Co-operative

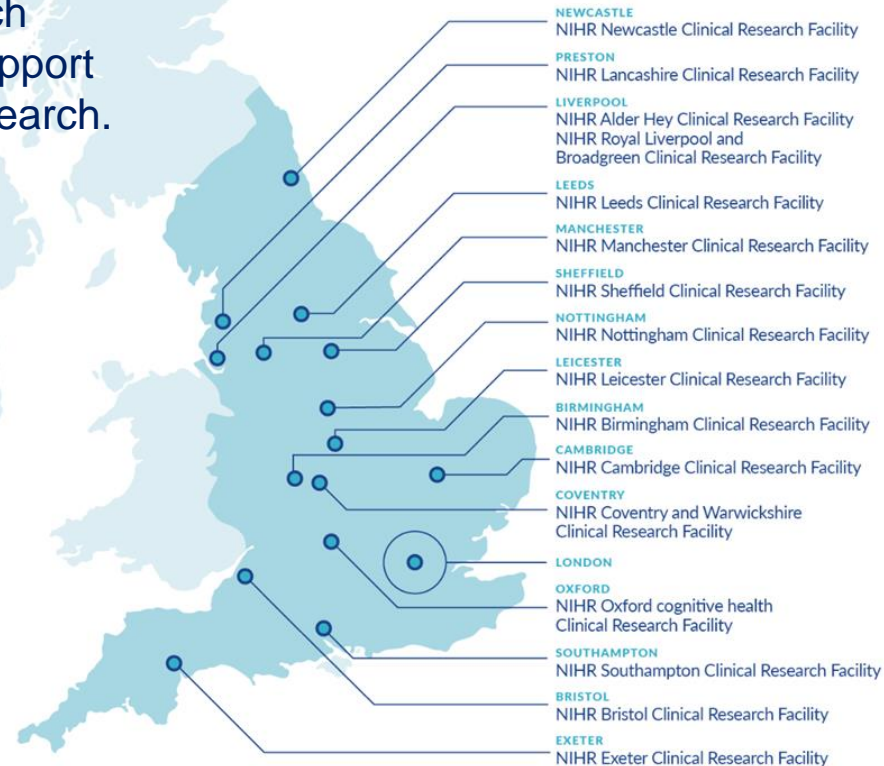
NIHR early phase infrastructure

Clinical Research Facilities & UK CRF Network

The UK CRF Network brings together Clinical Research Facilities (CRFs) from across the UK and Ireland to support the delivery of early phase, experimental medicine research.

Industry Support:

- Purpose build dedicated research facilities
- Specialist clinical research and support staff
- High-intensity studies and overnight stays
- Phase 1 capabilities
- Throughout the research process: study design, data collection and trial management



- 1 - NIHR Great Ormond Street Hospital Clinical Research Facility
- 2 - NIHR Guy's and St Thomas' Clinical Research Facility
- 3 - NIHR Imperial Clinical Research Facility
- 4 - NIHR King's Clinical Research Facility
- 5 - NIHR Moorfields Clinical Research Facility
- 6 - NIHR Royal Marsden Clinical Research Facility
- 7 - NIHR University College London Hospitals Clinical Research Facility

Partnering with the life sciences industry

Each year the NIHR



supports
around **1,500**
commercial sponsored
research studies

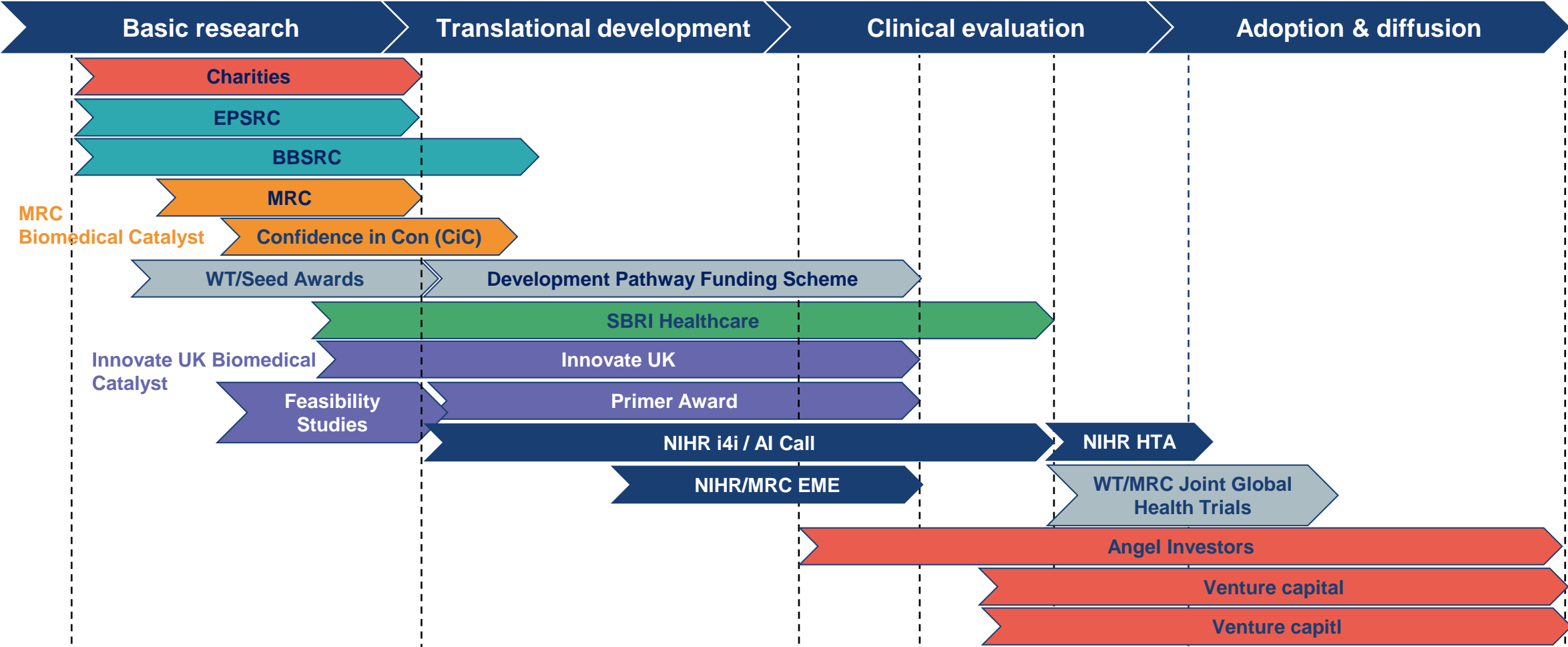


and **recruits**
close to **50,000**
participants to
these studies

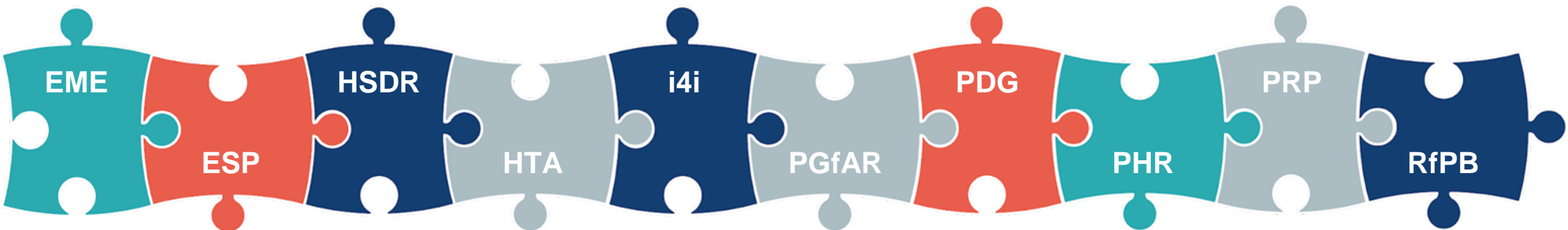


including some
first patients
in the world

Funding landscape



Our research programmes



We have ten research programmes that fund multi-disciplinary health and social care research in both clinical and non-clinical settings to meet a range of evidence priorities, including:

- Clinical evaluation and translation
- Health services and organisation
- Technology development
- Public health
- Social care

UK national context

- UK Industrial Strategy
- Life Science Vision
- Life Sciences Industrial Strategy & Life Sciences Sector Deal: AI, genomics, diagnostics and precision medicine
- Accelerated Access Review & Collaborative
- NHS Long Term Plan
- New EU regulations for medical devices (MDR) and in vitro diagnostic medical devices (IVDR)



Review of innovative medicines and medical technologies supported by Wellcome Trust



i4i value proposition

Dedicated medtech funding programme

Uncapped awards, 100% funding

Academic, clinical or SME lead

Assessment by technical, clinical & commercial experts

Thorough due diligence throughout assessment process

Risk- and impact-focused award monitoring

Exposure to early-stage investor community

i4i funding streams

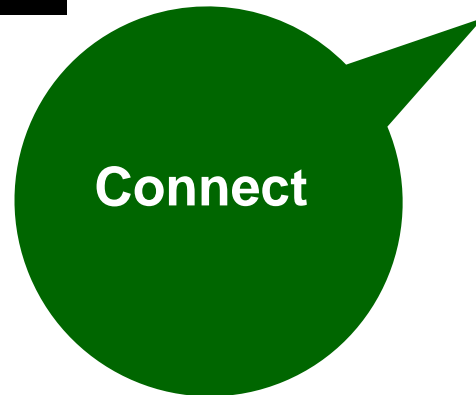
Product Development Awards:

- Funding for HEI, NHS Trusts, SMEs
- No upper limit
- Up to 36 months
- Collaborative



Challenge Awards:

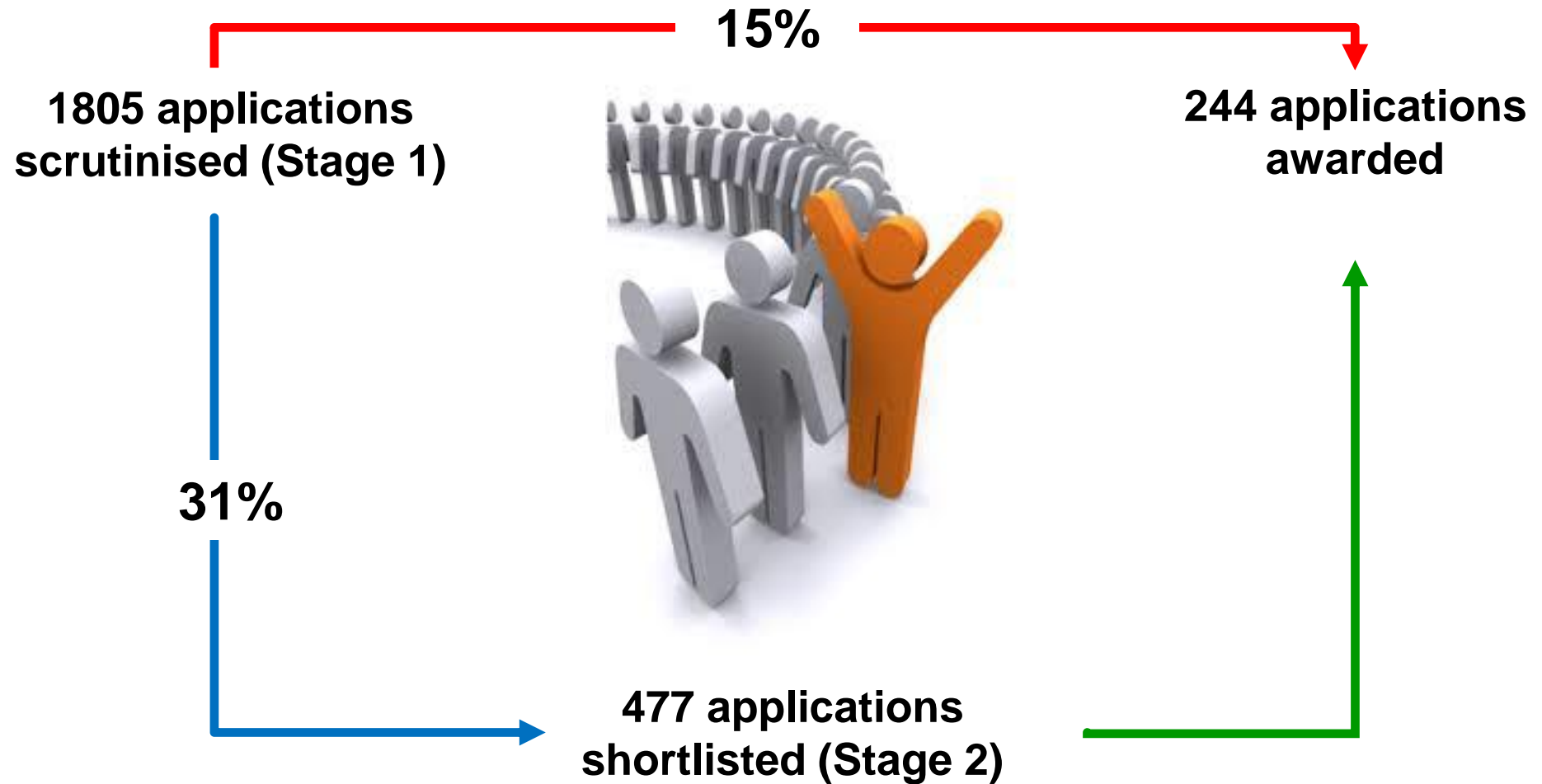
- Funding for HEI, NHS Trusts, SMEs
- No upper limits
- Up to 36 months
- Collaborative



Connect

- Funding for SMEs
- HEI/NHS Trust can be collaborator
- Up to £150,000
- 6-12 months

i4i success rates



Highlights

Medisieve

Magnetic blood filtration system to treat blood-borne conditions. i4i Connect funded first in man study



Creo Medical

Smart endoscopic resector for removal of pre-cancerous lesions; IPO at AIM in 2016, now over 65 staff, recently £48.5m raised



STOpFrac

AI-based detection of vertebral fractures, commercialised through Optasia Medical



Therapy Box

Speech rehabilitation app, recieved i4i Connect funding to prove principle



Quanta

Home dialysis machine, £2.4m i4i funding, estimated cost savings of £15k per patient, secured £45m VC funding



OxSight

Smart Glasses for the blind and partially sighted, spun out, second i4i award for AMD



Mira Rehab

Gamifying physiotherapy and helping treat musculoskeletal disorders

QuantumDx

POC DNA diagnostic platform, now over 90 staff, £50m investment



Upcoming calls for funding

Product Development Awards Call 23		Challenge Awards Call 13	
Stage 1 opens	20 October 2021	Stage 1 opens	04 November 2021
Stage 1 deadline	08 December 2021	Stage 1 deadline	12 January 2022
Shortlisting outcome	17 February 2022	Shortlisting outcome	23 March 2022
Stage 2 deadline	13 April 2022	Stage 2 deadline	11 May 2022
Committee decision	July 2022	Committee decision	July 2022
Digital Biomarkers for Dementia		Connect Call 6	
Stage 1 opens	10 th November 2021	Eol opens	TBC
Stage 1 deadline	26 January 2022		
Stage 2 deadline	25 th May 2022		
Committee decision	Mid-July 2022		

i4i Dementia: digital approaches for early detection and stratification

Entry Point



Digital biomarkers with Proof of Concept

e.g. sleep patterns, cognitive processing, motor function, etc.

Early diagnostic/prognostic models

e.g. statistical/AI/ML/DL to predict the onset of dementia and/or classify dementia type and progression

- SMEs
- Healthcare service providers
- Higher Education Institutions
- Charities and other not-for-profit



What we fund

- Large scale validations of digital biomarkers for dementia detection in the real world
- Product development of diagnostic or prognostic technologies
- Clinical studies to test efficacy/effectiveness



Stage 1 launch:
10 November 2021
Stage 1 close:
26 January 2022

Funding Committee meeting:
Mid July 2022

Project start:
From October 2022

SBRI Healthcare – Competition 19 (Phase 3)

Mental Health Inequalities in Children and Young People

- Mental health service/support improvement
- Equity of mental health service access/support for disadvantaged, marginalised, or BAME communities

NHS Reset and Recovery and New Ways of Working

- Reducing NHS workforce pressure
- Improving NHS effectiveness



Innovations portfolio

500+
Projects
awarded

£320m+
Total
invested

Innovations portfolio

6.6 m+

patients had access
to technologies

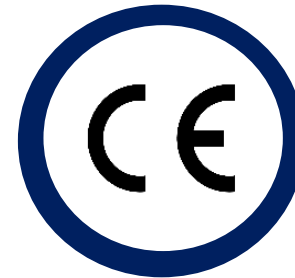


5 average jobs
created/safeguarded
per project



28+

products
exported



37%

projects achieve CE
mark/ is available to
buy

£780m+

funding leveraged



3 IPOs

£210m+ raised





Questions?

Michael Lewis

 m.g.lewis@bham.ac.uk

 [@Michael_g_lewis](https://twitter.com/@Michael_g_lewis)

 [michael-lewis-b22938b](https://www.linkedin.com/in/michael-lewis-b22938b)

