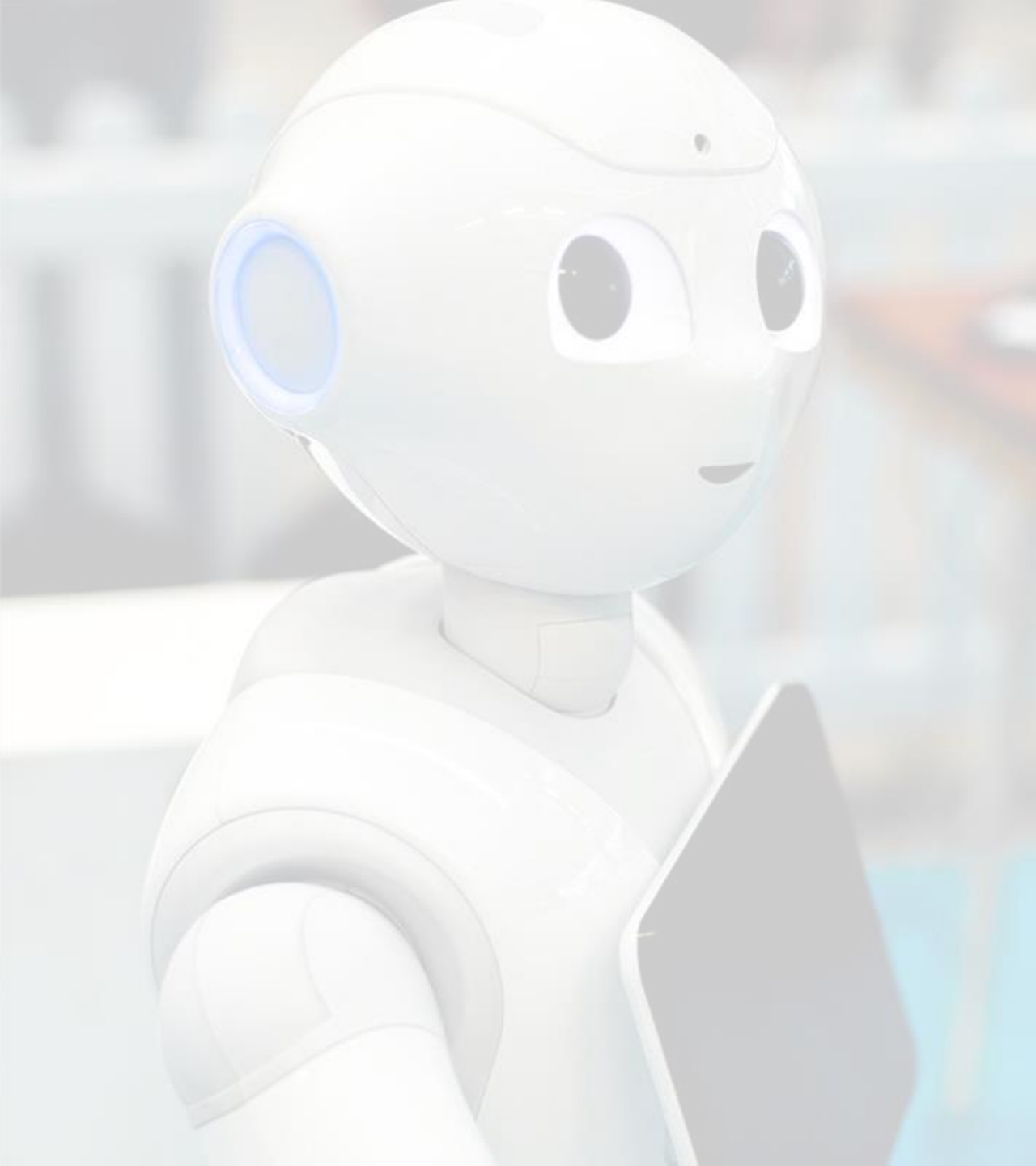




THE NATIONAL
ROBOTARIUM
PEOPLE CENTRED :: INTELLIGENCE DRIVEN

Robotics for Health



The National Robotarium Vision and Mission

For the National Robotarium to be recognised as globally significant.

Through its collaborative approach to creating valuable solutions for businesses and society using AI and Robotics.

Thereby making a positive impact by accelerating growth, attracting investment and benefiting society.

The National Robotarium

Achievements in first 24 months of operation

- Employs a team of 32 permanent employees
- Hosts 12 resident companies with over 60 employed
- Home to 30 + researchers
- Every day over 120 people working on Robotics
- £11m of attributable Research grants
- Over 20,000 school age students engaged with in events
- The National Robotarium represented at over 40 events
- Launched a manifesto for a UK wide network of Robotariums
- Designed and built 3 robotic systems (concept to working Robot) in-house
- £500K of private investment into new research projects
- £4+M of commercial income from projects
- 7500+ followers on social media

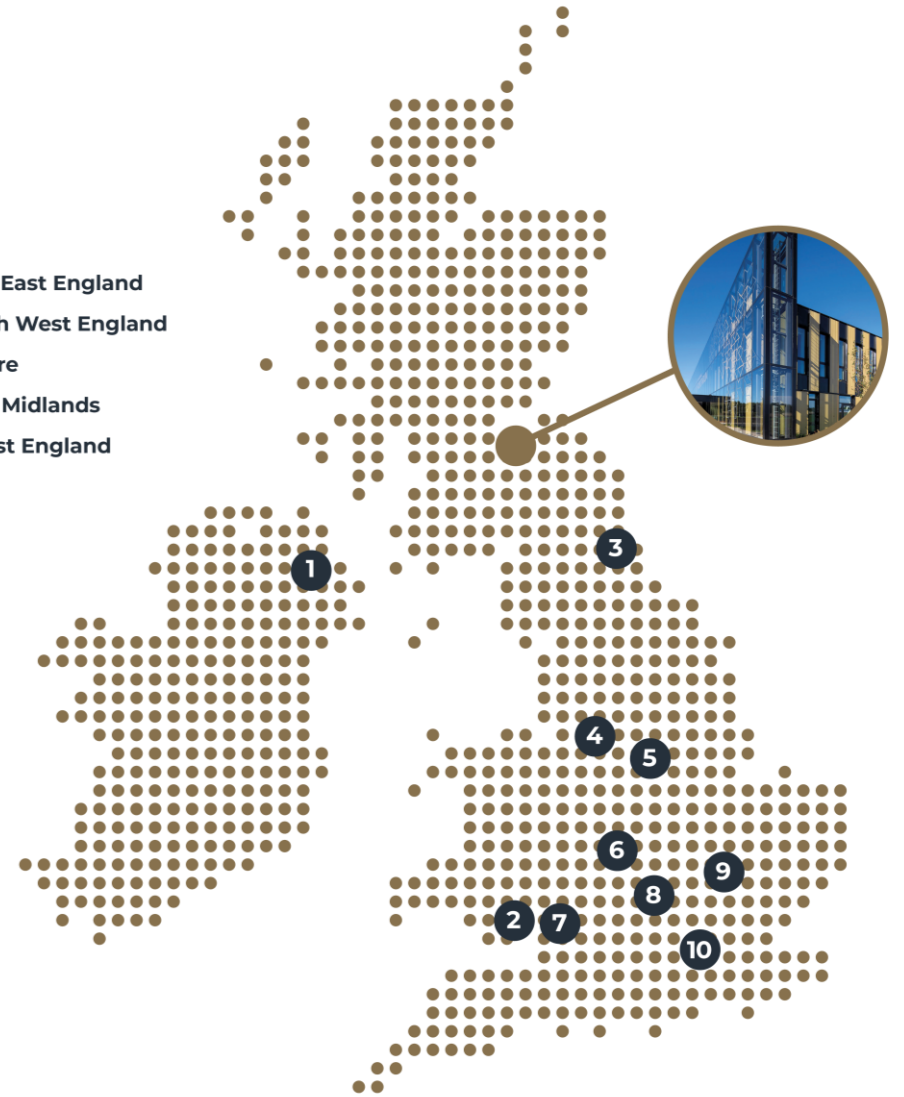


A Robotics Revolution

Based on the metrics for the existing National Robotarium

- 10 new builds with equipment = £250M
- 18 months to construct
- Running costs: covered by commercial income
- Potential for private sector partnerships

- 1 Belfast
- 2 Cardiff
- 3 Newcastle, North East England
- 4 Manchester, North West England
- 5 Sheffield, Yorkshire
- 6 Birmingham, The Midlands
- 7 Bristol, South West England
- 8 Oxford
- 9 Cambridge
- 10 London



What would it create

- 500 direct jobs
- 150 new companies
- 1500 new company jobs
- £90M research investment
- 30 new robots
- 60,000 children introduced to robotics

EVERY
YEAR

<https://thenationalrobotarium.com/wp-content/uploads/The-National-Robotarium-Manifesto-Digital-Spreads-8-3-24.pdf>

A National Health Robotarium

- Drive the adoption and spread of intelligent, automated technologies in health and life sciences
- Deliver growth and productivity for a manufacturing sector and provide high value, skilled jobs
- Create a regional robotics cluster that will attract further inward investment and new industry collaborations
- Deliver user-centred design and co-production to inspire and nurture careers in this field and upskill the regional workforce.




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HEALTH INNOVATION
North West Coast

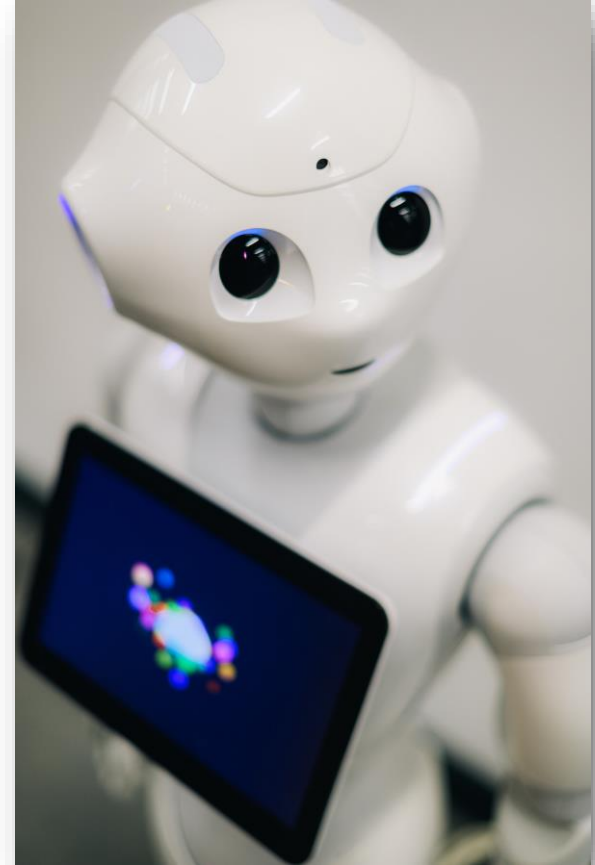
A “National Robotarium: health, social care and life sciences”

Building on the achievements of the National Robotarium in Edinburgh, which is the UK's centre for robotics and artificial intelligence (AI), the ambition is to create the National Robotarium: health, social care and life sciences using the North West Coast's innovation infrastructure, capabilities and partnerships to take this technology to the next level.

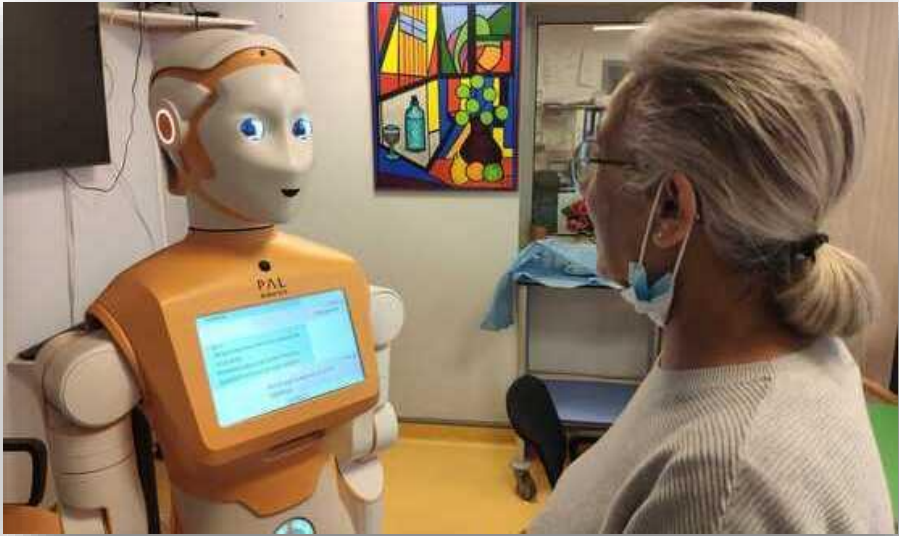
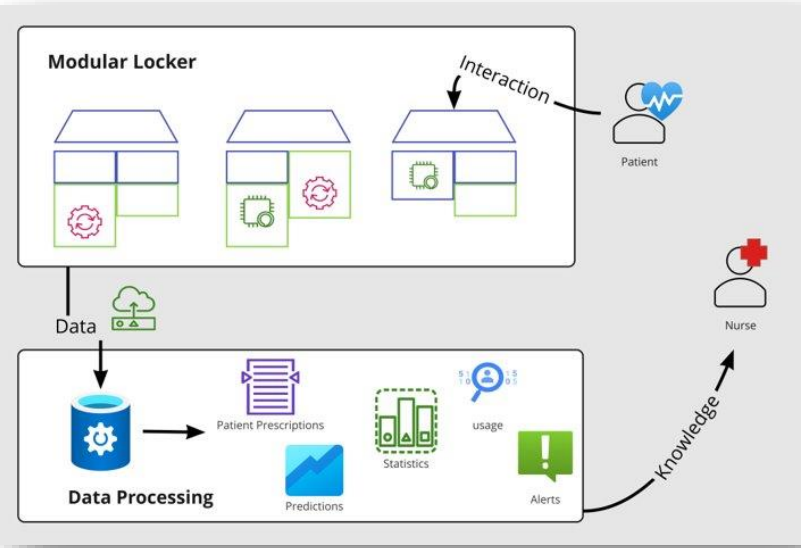


Robotics for Health: Objectives

- 1 Enhance Patient Care
- 2 Increase Efficiency
- 3 Promote Innovation
- 4 Support Workforce
- 5 Care for an Ageing Population
- 6 Drive Economic Development
- 7 Informed Procurement



However...



Barriers

- 1 Funding
- 2 Procurement
- 3 Facilities



Robotics for Health: Our Vision

The National Robotarium will work with NHS leadership to deliver **a vehicle for adoption and use of robotics solutions** into the NHS. By working shoulder to shoulder, not only will businesses understand the de-risked pathway to involvement in the NHS, but current employees will have a central hub to test out new ideas and disseminate findings of robotics pilot projects. Procurement of robotics could happen quickly and efficiently, in an informed manner and **across trusts and boards**, thus reaping economies of scale.



The National Robotarium



NHS Leadership



Intrapreneur Gateway- NHS employees with ideas; triaged, piloted, administered



Attraction, vetting and oversight of industry sponsored pilots and purchases



Tailored Test and certification



'Which best buy' and horizon scanning, links to research base



Training, skills development and recruitment

Intrapreneur Gateway

NHS and robotics expert panel assess innovations

Establish pot of funding for pilots, through to implementation.

NHS employees wanting to implement trials from industrial partners would have a trusted, independent 'critical friend' to assess veracity of outcomes and business cases.

Industry gateway:

Current suppliers and innovative companies of all sizes would have a facilitated pathway to test and develop solutions specific to NHS needs.

Innovative start-ups would have a viable future within the UK, with domestic talent answering domestic needs.

The NHS would act as an economic enabler of a robust robotics sector.

Horizon Scanning

The most innovative and impactful technology- regardless of geography or current application- could be transferred into the health care service efficiently.

Impartial advice on best technology and support systems for the task.

Access to early stage, blue-skies research.

People

Training, re-training and recruiting personnel to adopt and work alongside robotics.

Stakeholders across clinical and non-clinical teams, as well as the future workforce.

Outreach programme and embeddedness in higher education

Tailored test and certification

Dedicated resource for necessary test and checks for new technologies and services

Stakeholder engagement and acceptability testing

Economics and business case support for efficient deployment

Suppliers to NHS challenged to innovate to win tenders

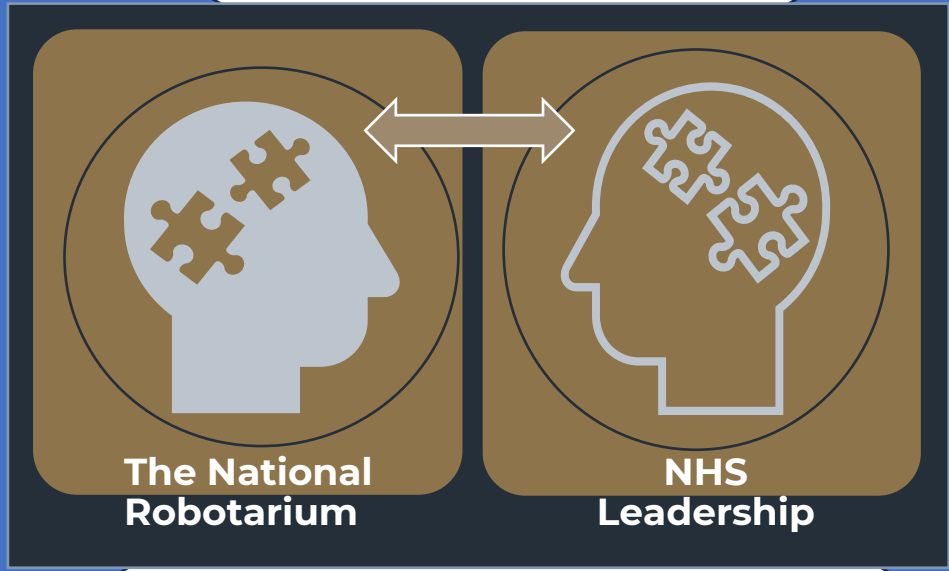
Disruptive start ups fast tracked into NHS

Robotic and AI companies access test bed

NHS intrapreneurs pushing innovations

University research access to NHS

SUPPLY



DEMAND

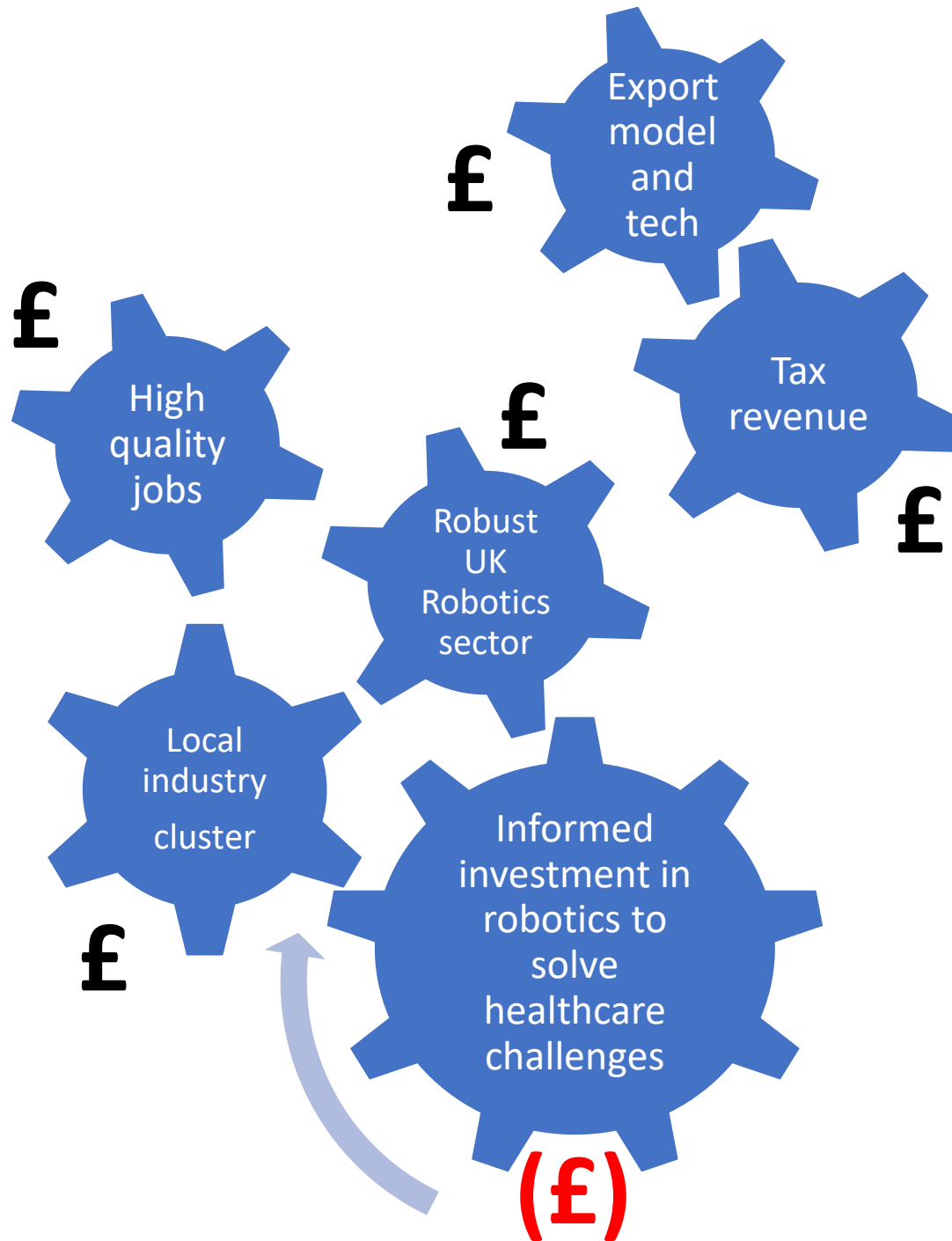
Health care challenges addressed

Ageing population and comorbidities addressed

Workforce retention and recruitment, shortages plugged

Intrapreneurs engaged

Preparedness for potential pandemics



£

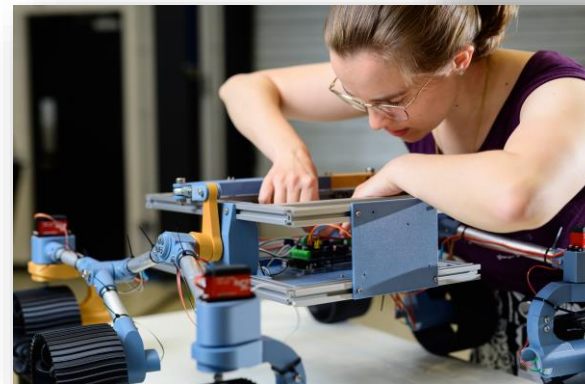
Potential for Tax revenue reinvested in robotics for healthcare

NHS goes from cost centre to economic driver



Our way of working: Co-production and Roadmapping

- 1 Engagement of a range of stakeholders, from finance to frontline (desirability)
- 2 On-site visits with robotics engineers (feasibility)
- 3 Scoring matrix (viability)



People Centred: Intelligence Driven



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