





The 21st Century Technology Revolution in Health and Life Sciences

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Healthcare Technology Revolution Delivering Smart Value at Many Healthcare Organisations

































Healthcare Technology Co-operative







NHS Trust





Devices for Dignity Healthcare Technology Co-operative













Gehry Technologies











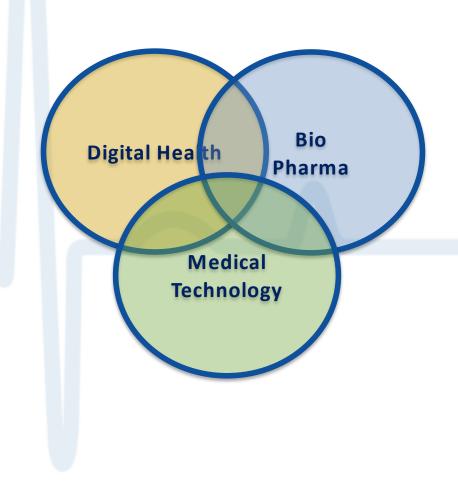






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Healthcare Technology & Life Sciences Segments



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Covering 7 Key Themes and recommendations

- 1. Health Advanced Research Programme (HARP)
- 2. Reinforcing the UK science offer
- 3. Growth and infrastructure
- 4. NHS collaboration
- 5. Data
- 6. Skills
- 7. Regulation

Life Sciences Industrial Strategy

– A report to the Government from the life sciences sector





Digital Health

Solutions & systems

Services

Artificial Intelligence

VR/AR

Genomics

IOT & Remote monitoring

Service design & transformation

Bespoke app dev

Electronic observations

Laboratory and Radiology systems Electronic Health Records

Electronic document management Digital Assessment and Screening

Operational efficiency

Big Data
Analytics &
Business
Intelligence

Health & wellbeing

Source: HealthcareUK

UK's Offering in Digital Health



The NHS is unique because it has evolved to meet the needs of local patients, whilst making best use of its vast estate of national assets and resources. The digital systems and solutions which support the NHS must take into account variations in local needs, whilst being able to link up at a national level.



The UK fosters collaboration and innovation. Academics and clinicians from world-renowned institutions work with policy makers and dynamic private sector technology companies to develop solutions that meet the needs of patients and clinicians alike.



By using tried and tested solutions from the UK, you can meet the needs of patients, clinicians and payers throughout the patient pathway.



The UK has the most efficient health system out of eleven countries studied in 2014 Commonwealth Fund. The widespread and effective use of health information technology (HIT) in the UK plays a large role in the country's high score on the chronic care management indicators, as well as its performance on system aspects of preventive care delivery.*

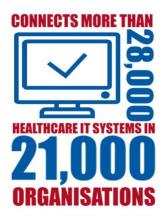
Source: HealthcareUK

^{*} Mirror, Mirror on the Wall: How the Performance of the US Health Care System Compares Internationally, The Commonwealth Fund, 18 June 2014

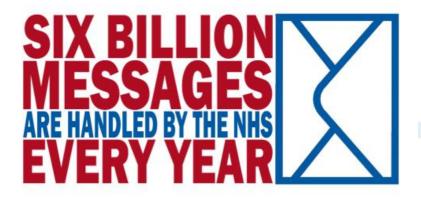
UK's National Systems

National Systems

The UK has been developing some of the world's most sophisticated systems for more than 30 years. The NHS is underpinned by a national architecture, at the heart of which is the NHS Spine, which:



TYPICALLY HAS 250,000 L
USERS ACCESSING THE SERVICE AT ANY ONE TIME





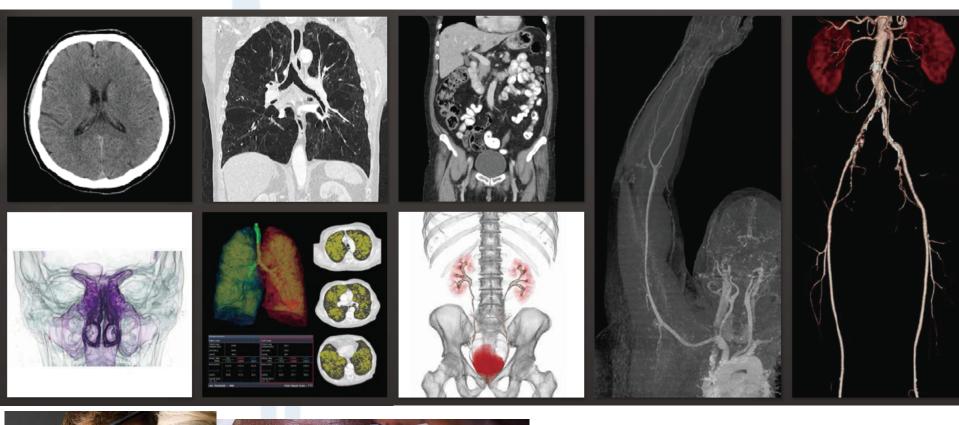
HOLDS MORE THAN 500 MILLION ECORDS AND DOCUMENTS



Source: NHS Digital & HealthcareUK

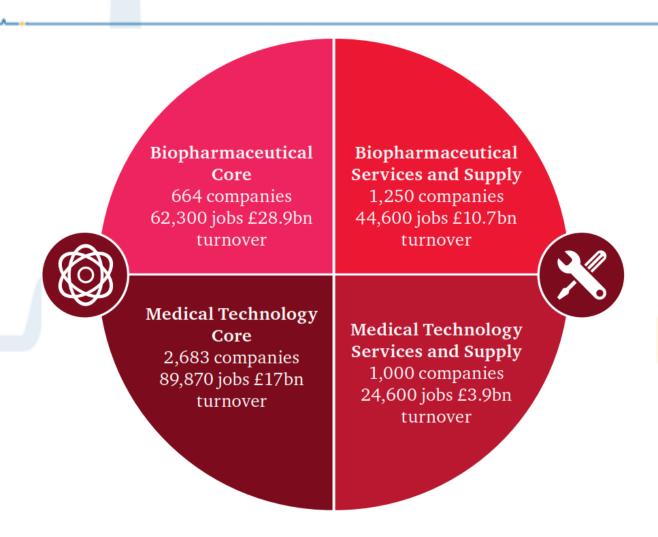


Medical Imaging Revolution





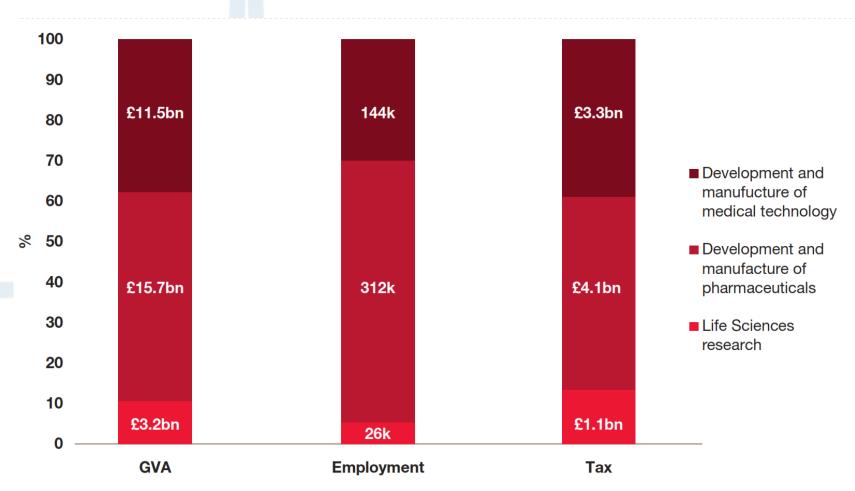
Life Sciences in the UK



Total turnover: £60.7bn Total direct employment: 222,000

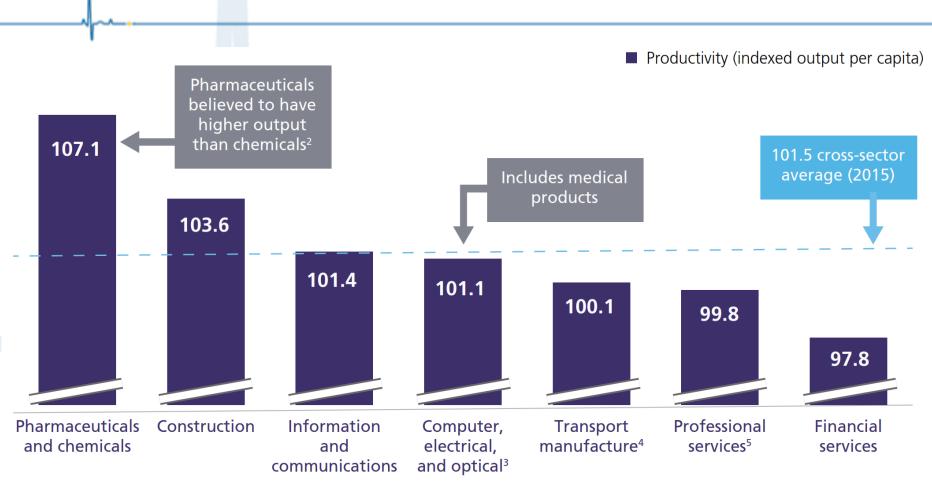
Source: Office for Life Sciences

Share of Life Sciences GVA, Employment and TAX by Segment



Sources: PwC analysis, FAME, Companies House.

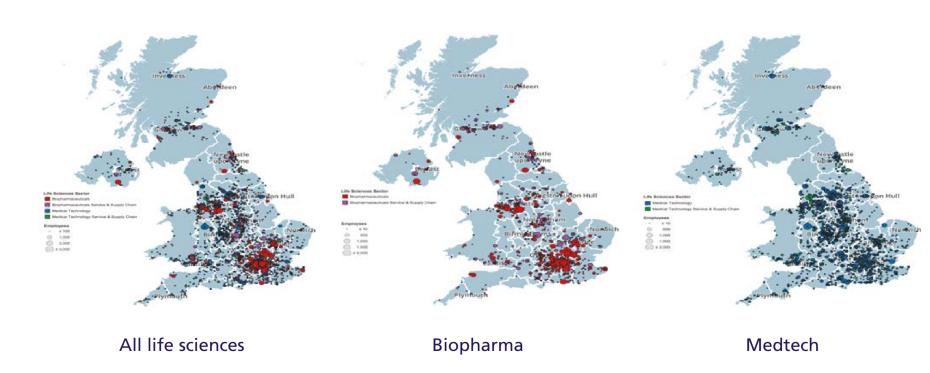
UK Productivity by Sector



- 1 Index of 100 represents 2013 UK average (i.e., comparator is UK output per hour averaged across all industries in 2013)
- 2 The Economist intelligence Unit (2015)
- 3 Includes medical devices
- 4 Includes automobiles and other transport equipment
- 5 Includes scientific R&D

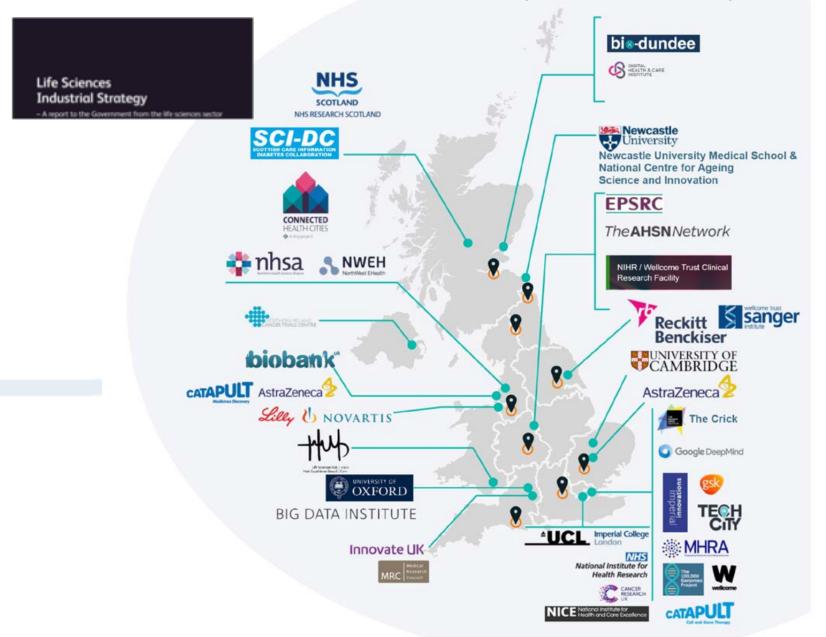
Source: ONS (2016)

UK Life Sciences Employment Map (2016)



Source: Strength and Opportunity 2016

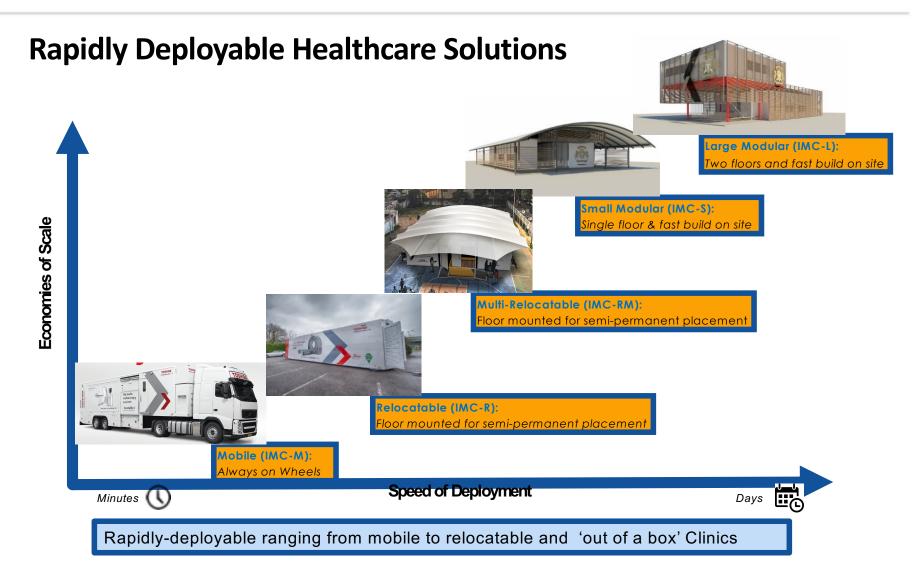
The UK Life Sciences Ecosystem – a snapshot



Innovative Med Tech Example: THOR



Instant Clinics







Instant Clinic: Outreach Facilities

Completely mobile diagnostics and Minor Ops units with instant AI diagnosis

- Imaging scanners
- Server and Satellite dish
- Artificial Intelligence receive server
- **Instant Diagnosis**
- **Instant Treatment**
- **Instant Inoculation**

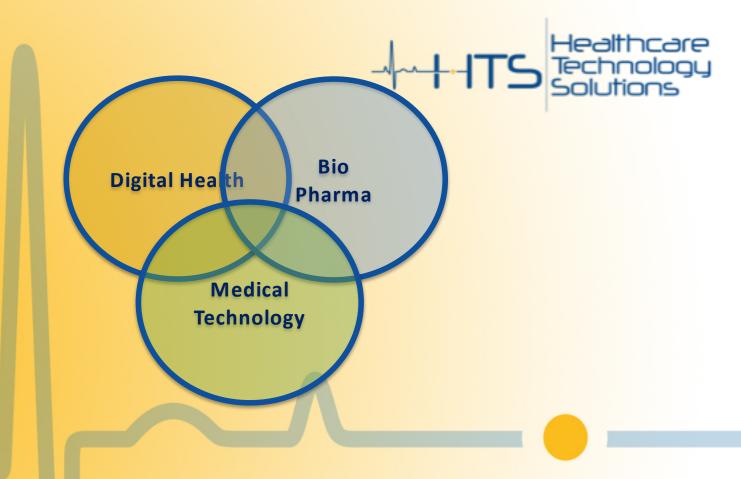








Instant Clinic in a Box



Thank You

Q&A