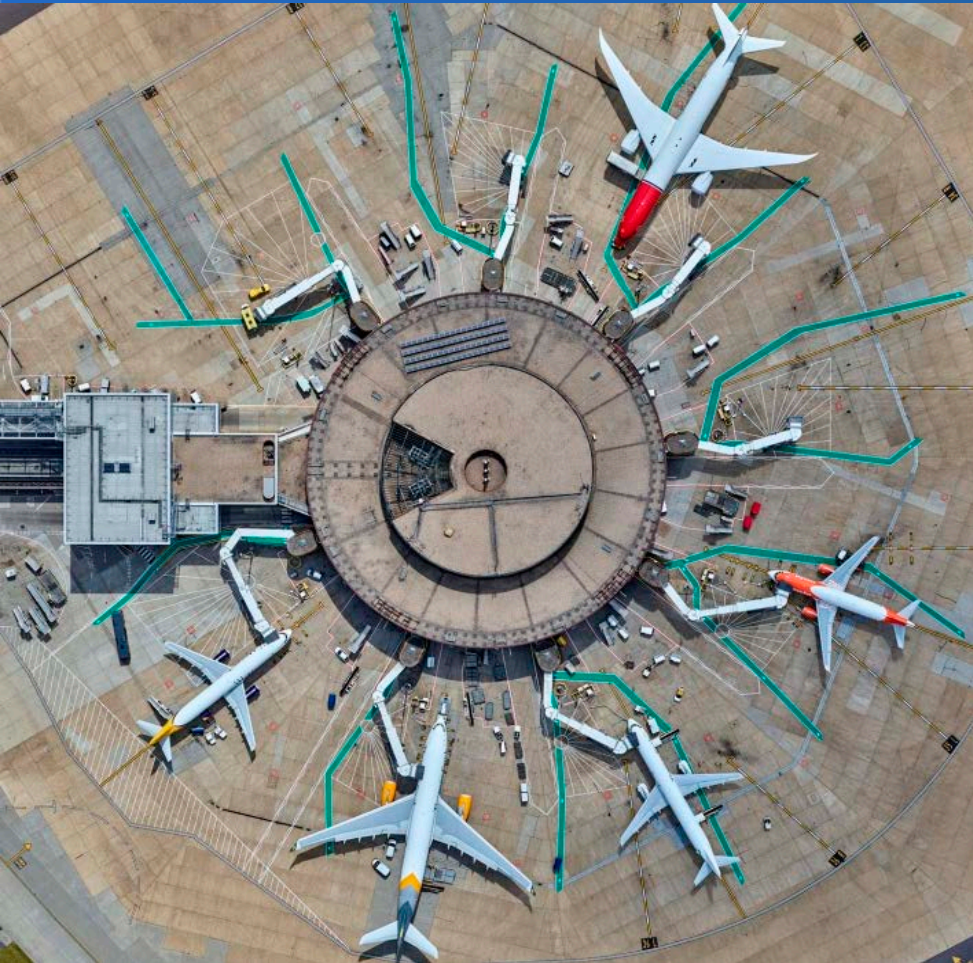




# Coast to Capital LEP



76.8%

employment rate

20%

of SE economy

6th

Most prosperous region in the UK

1.9

million people

£61,000

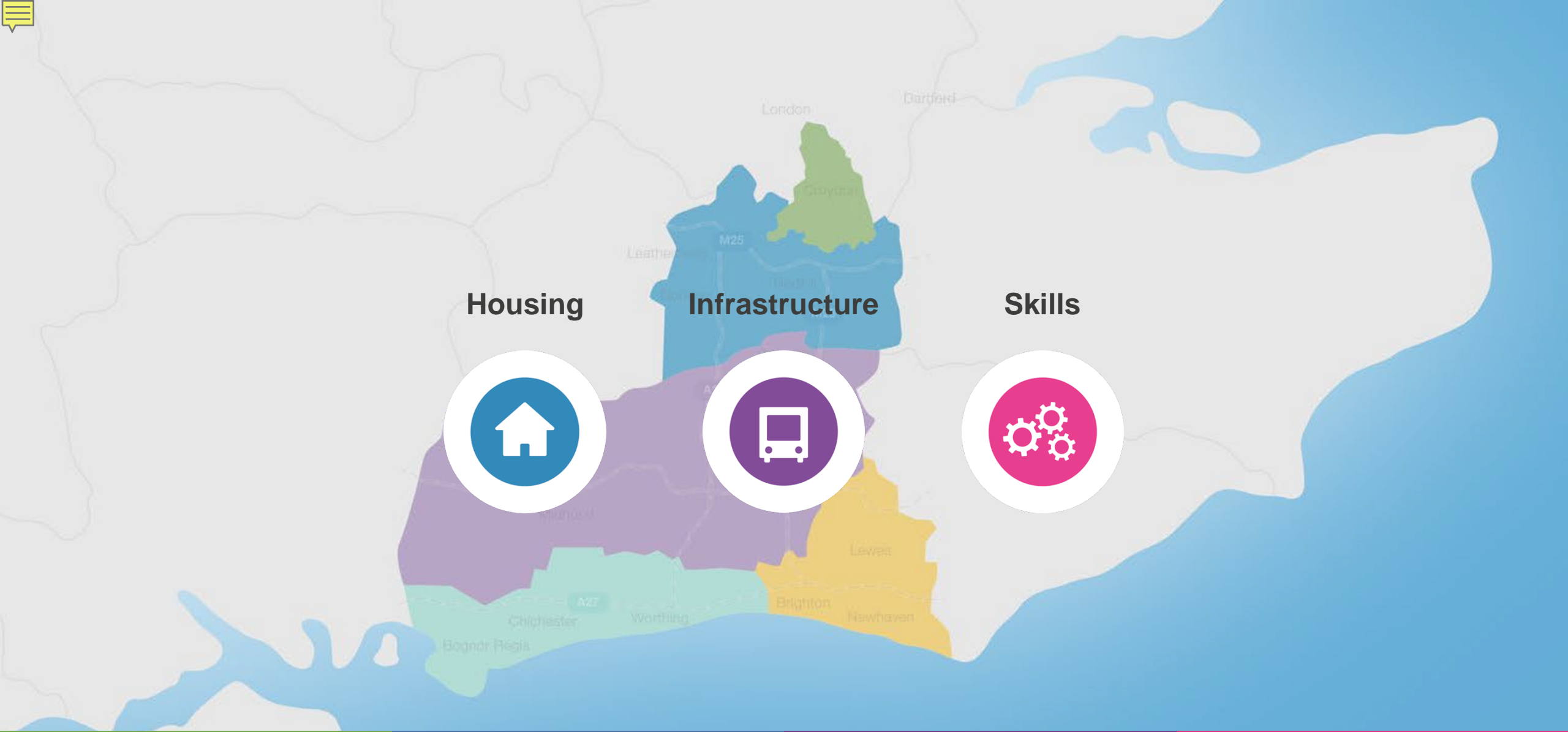
Average GVA per employee

£48.5 bn

GVA

84,000

SME businesses in the area



**Housing**

**Infrastructure**

**Skills**



# Priority Sectors

## Sectors targeted for growth

- Advanced manufacturing and engineering
- Creative, digital and IT
- Environmental technologies
- Financial and business services
- Health and life sciences

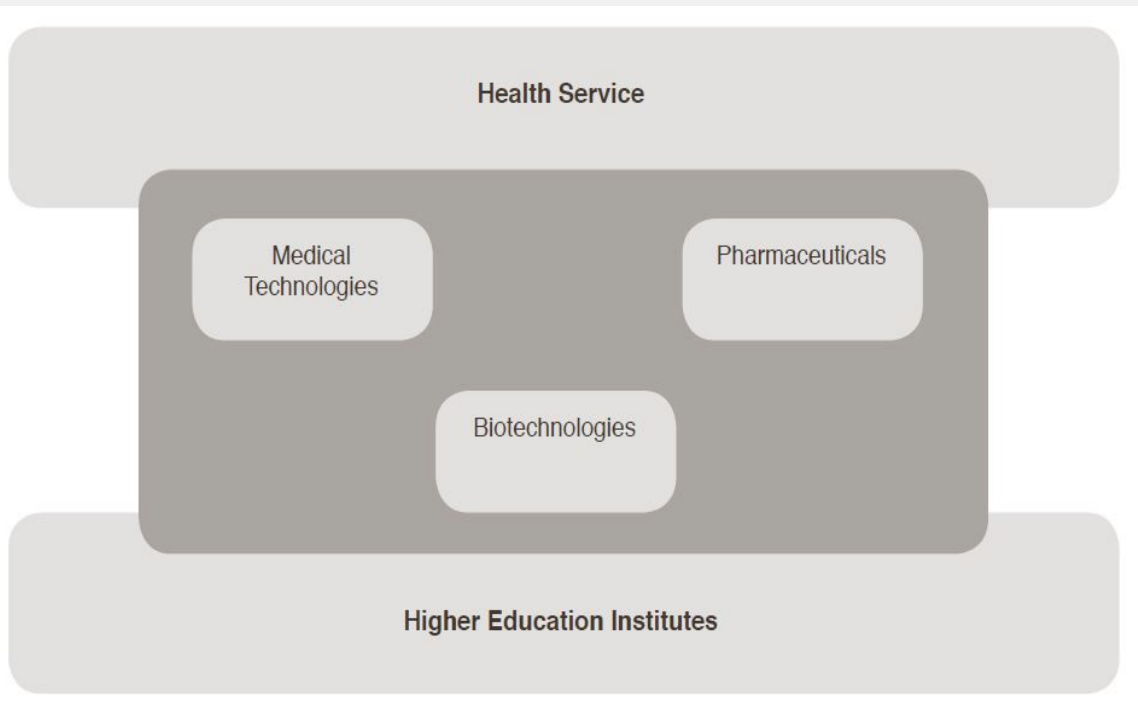
## High employment sectors

- Care
- Construction
- Visitor economy



# Health and Life Sciences

## Sector definitions



- 21 : Manufacture of basic pharmaceutical products and pharmaceutical preparations
- 266: Manufacture of irradiation, electromedical and electrotherapeutic equipment
- 267: Manufacture of optical instruments and photographic equipment
- 325 : Manufacture of medical and dental instruments and supplies
- 721 : Research and experimental development on natural sciences and engineering
- 2013 : Manufacture of other inorganic basic chemicals
- 2014 : Manufacture of other organic basic chemicals
- 4646 : Wholesale of pharmaceutical goods
- 4675 : Wholesale of chemical products
- 4774 : Retail sale of medical and orthopaedic goods in specialised stores

# Health and Life Sciences

## Economic Contribution

### Nationally:

- Medical Technology – £18.1bn turnover
- Medical Biotechnology – £4.8bn turnover
- Pharmaceuticals - £32.4bn turnover
- R&D worth £28.9bn in 2013 – equal to 1.7% of UK GDP
- Pharmaceuticals makes up £4.1bn of R&D (22%) – twice as much as any other area

### Locally:

- Pharmaceuticals - £1bn GVA (1.3% of total) – 37% growth 2009-2014
- Accounts for 7.7% of national GVA in industry





# Health and Life Sciences

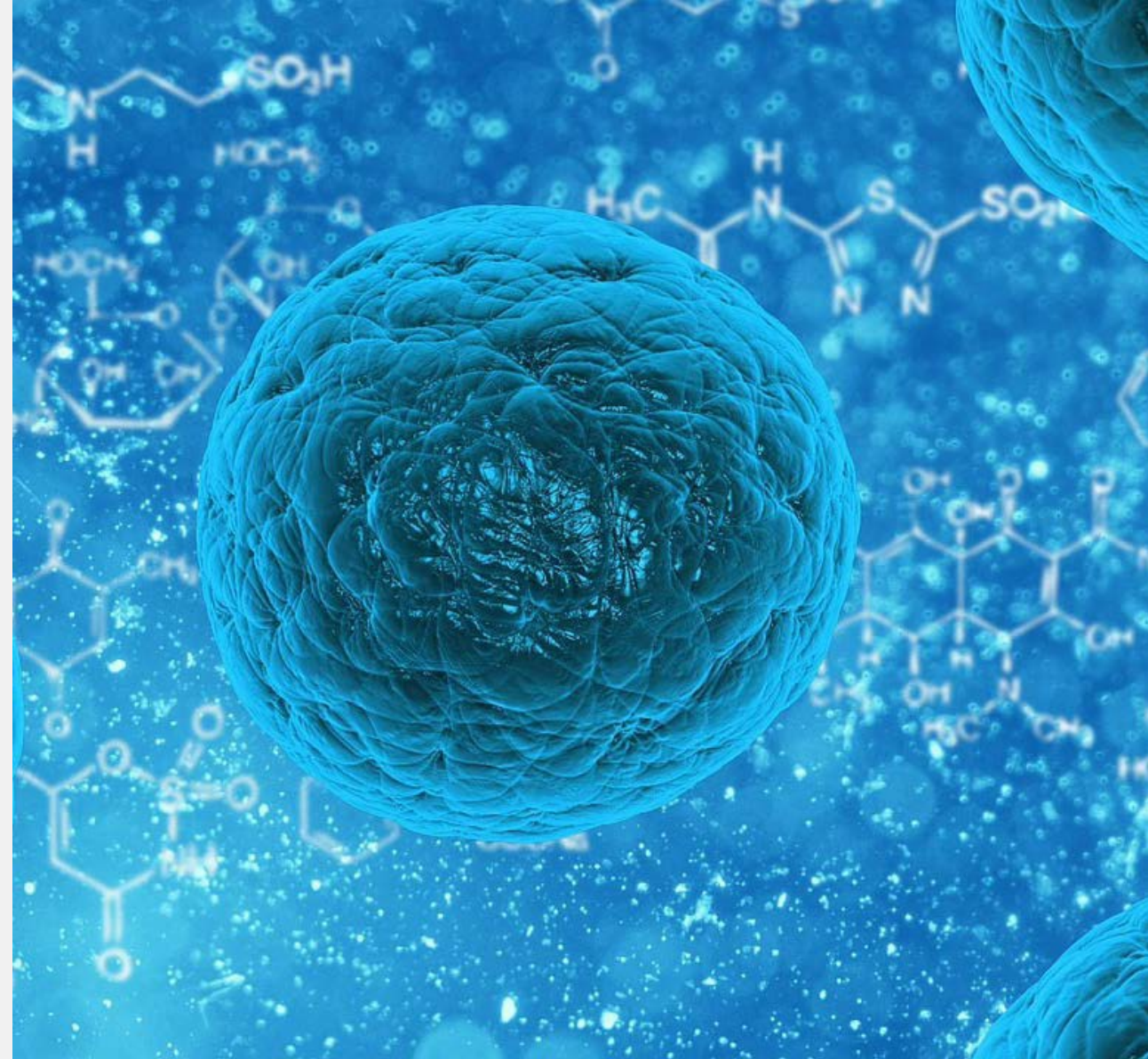
## The Local Sector

- 460 Businesses in Coast to Capital
- The sector makes up 0.6% of total businesses in Coast to Capital
  - 0.5% of England's total businesses
  - 0.7% of South East's total businesses
- Grown 7.5% in last five years
  - 9.8% growth in England
  - 9.1% growth in the South East
- 11,000 Employees in Coast to Capital
- The sector makes up 1.4% of total employees
  - 1.1% of England's total employees
  - 1.8% of South East's total employees
- Grown 7% in last five years
  - England growth 0.7%
  - South East Growth 2.1%

# Health and Life Sciences

## Key Employers

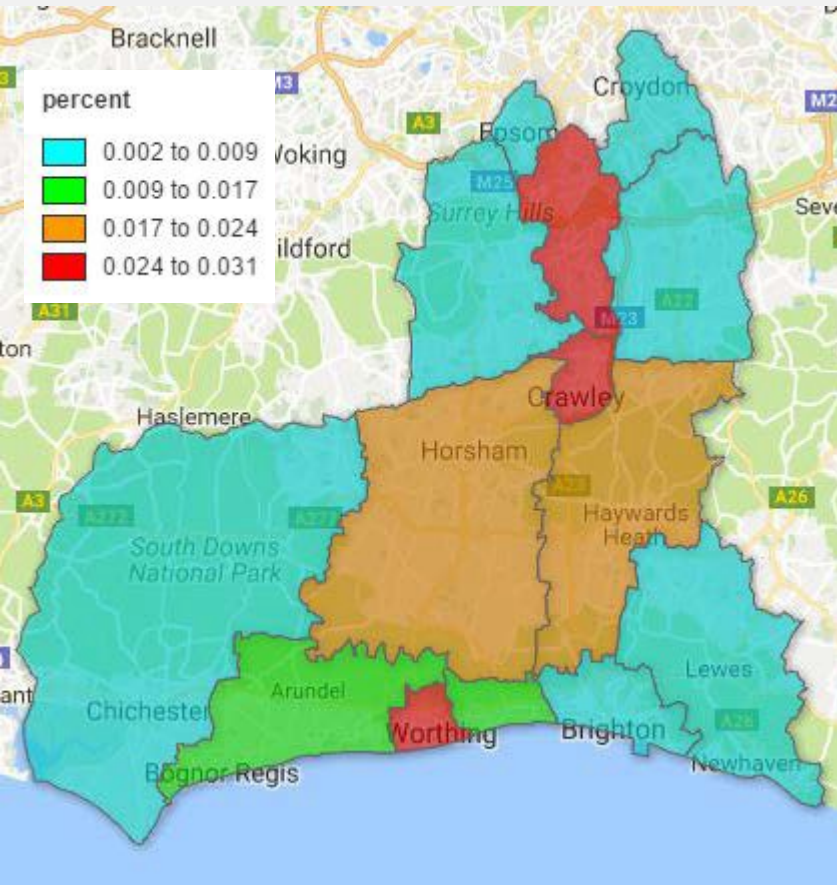
- Elekta
- Varian
- GSK
- Roche Diagnostics
- Novo Nordisk
- Toshiba Medical Systems
- Allergy Therapeutics
- Custom Pharmaceuticals
- Bard Medical – Rochester Medical





# Health and Life Sciences

## Labour Market Characteristics



50% of employment in Pharmaceuticals

20% of employment in Medical Technologies

30% of employment in R&D

65% of Pharmaceutical employees in top 3 occupations

54% of Medical Technology employees in top 3 occupations

80% of R&D employees in top 3 occupations

Key Employment Locations:

Crawley

Reigate and Banstead

Worthing

Mid Sussex

36% of England's jobs in the Manufacturing of irradiation, electromedical and electrotherapeutic equipment are in the Coast to Capital area



# Health and Life Sciences

## Drivers of Growth

- An older population will increase health care spending, with a focus on managing or curing diseases linked with old age (e.g. dementia, cancer) and chronic diseases (e.g. diabetes, arthritis), as well as orthopaedic implants which will be in place longer than their planned self life
- Increasingly personalised drug therapies and bio -pharmaceuticals will open up opportunities for small scale pharmaceutical manufacturers where cost considerations are lower and large companies do not see sufficient gains to be made
- There is a shift to biomaterials that allow finely tuned chemical and molecular design of drugs, versus the current chemical which is intensive and multi staged. It has been dubbed the science of the 21st century. The use of such biomaterials is expected to drive the industry in the medium to long term
- Growing pressure on public health services and the number of hospital bed available will push the merging of medical technologies and drug therapies so that these courses can be administered from a distance (e.g. portable monitoring devices, tele-medicine, remote data sharing)
- Increased healthcare spending in developing countries will open up new market potential, however these markets will have less to spend per head than domestic markets
- Technological innovations (e.g. bio -pharmaceuticals, personalised medicine, diagnostic devices, nanotechnology)

# Health and Life Sciences

## Barriers to Growth

- 
- ❏ The NHS makes up an estimated 80% of spending on healthcare, in the current climate of reduced spending this represents a large issue for the sector. Similar patterns has emerged in other developed countries after the financial crisis.
  - ❏ R&D of new drugs is increasingly expensive and time consuming, and the number of new drugs coming to market is declining. Few companies can afford to make the kind of commitments required.
  - ❏ Linked to this is the increase of generic drug makers entering the market as drug patents expire (this is good for the consumer however). Exclusive rights on drugs allow companies to recoup the cost of developing new drugs.
  - ❏ This is also driving consumer expectations for lower prices
  - ❏ The outsourcing of R&D and manufacturing represents potential growth for the industry as a whole (through reduced costs and access to new markets) but represents a barrier to growth in the local industry should they chose to move away.
  - ❏ There have been stories of UK based researchers unable to find partners in the EU to collaborate on research due to concerns about the UK's ability to access EU funding for research in the medium to long term.

# Health and Life Sciences

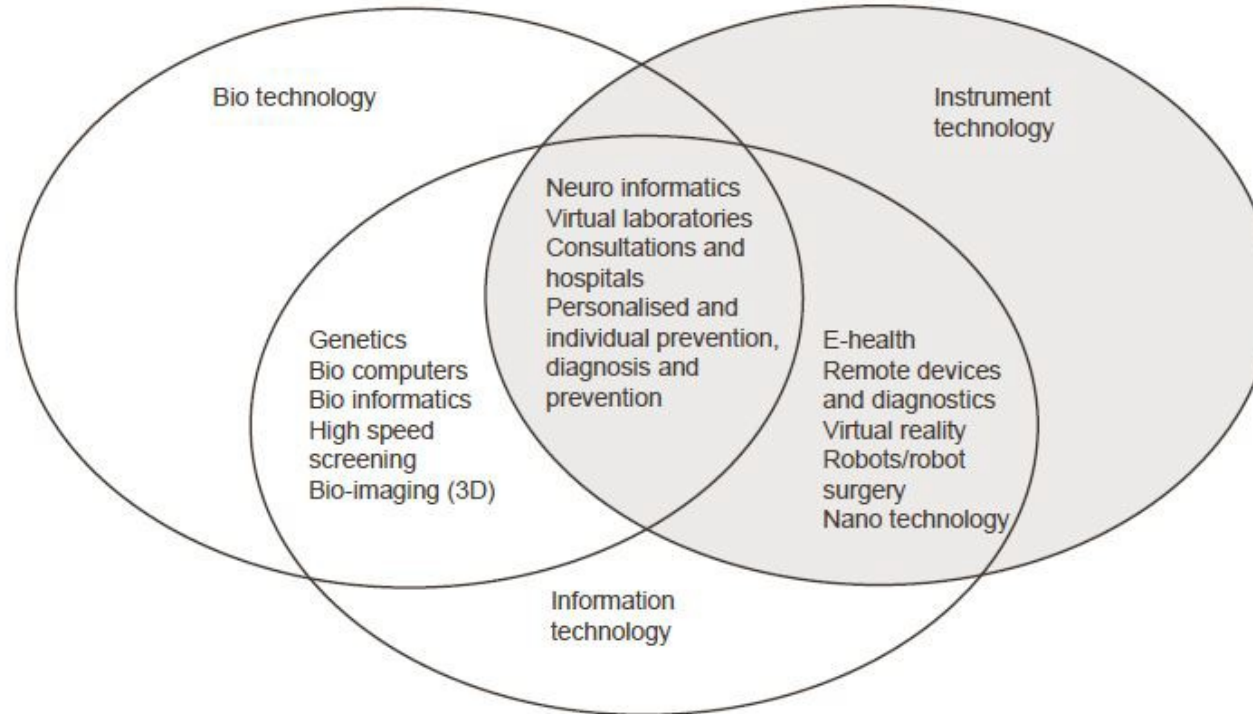
## Future Skills Needs

- Overall the sector is well qualified and is set to become more so, particularly in Pharmaceuticals and R&D where there is expected to be more demand for post graduates working on cutting edge science. From 2014 to 2024:
  - Increase from 30% to 40% degree holders in Pharmaceuticals
  - Increase from 57% to 65% degree holders in R&D
  - Increase from 27% to 35% degree holders in Medical Technology
- Skilled trade workers and technicians are needed in the manufacturing process across the sector
- Post graduate degrees increasingly needed in Science and Biology
- Advanced STEM skills including statistics, mathematics, modelling, biology, chemistry
- Chemical engineering
- Many skills needs cross over between pharmaceuticals and medical technologies, particularly in biotechnologies which is expected to fundamentally change how drugs are made and represent a new skill set required for pharmaceuticals
- Non-sector specific skills needs include strategic management and leadership, and manufacturing process and efficiency skills (driven by the need for lower costs)
- Many skills needs are linked to emerging technologies and currently the quantity of skills needs is unknown

# Health and Life Sciences

## Future Skills Needs

Figure 5.7 Inter-industry linkages in Medical Technologies and Associated Skill Needs





# Thank you for listening

