Industry Forum
Business Excellence Through Inspired People

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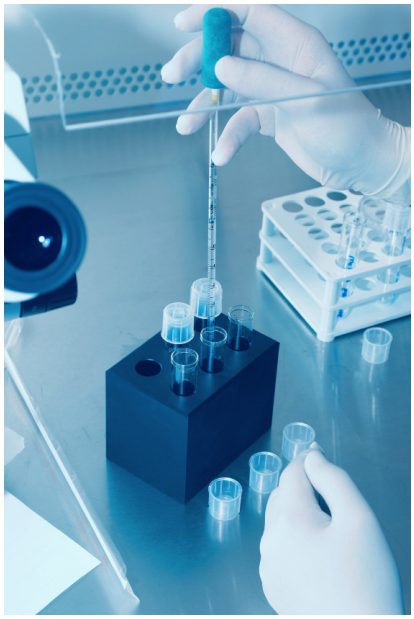
Skills for the future competitiveness of the UK Pharmaceutical Industry



The pharmaceutical industry is a major UK manufacturing sector with an exemplary export record generating gross value added the same order of magnitude as the aerospace sector. The NHS is a major domestic customer of the sector. UK pharmaceuticals are also important in terms of business funded research and development in the UK. Many European, Japanese and American owned pharmaceutical companies fund major research groups in the UK. About a fifth of the top 100 medicines in use worldwide today originated from research in the UK – a record second only to that of the United States. Regions with a high concentration in the industry are the South East, the North West, and the East of England. Manufacturing and research in the UK are intricately linked and strengthened by the local skills supply, the proximity of a significant supply-chain chemical industry and the national demand from the NHS. Employment has been stable over the past decade.

The progress of globalisation is bringing major challenges to the UK pharmaceutical sector. Large multi-national pharmaceutical companies are restructuring their business models to a significant degree and this has led to a number of site closures and redundancies. Many multifunction sites are being rationalised into more focused operational units. There is increased outsourcing and collaboration with supply chain companies. There is a shift to 'generics' as the patent lifetimes of the 'blockbuster' drugs of the twentieth century expire opening up competition from low-cost manufacturers. The competitive response is to invest in assimilating new technology and fast-track knowledge transfer into new products.

The Government reaction has been to develop and publish a national life sciences strategy at the end of 2011. This includes a number of important actions, for example:

- Increasing the speed and efficiency of routes to market approval for innovative, breakthrough therapies
- Developing a regulatory environment for the adoption of innovative manufacturing technology
- Major funding commitments such as £130m for Stratified Medicine and £180m for a Biomedical Catalyst Fund

The broader industry employs approximately 150,000 people, 70,000 in pharmaceuticals, 50,000 in medical technologies and 30,000 in medical biotechnologies. In the pharmaceuticals industry over 70% of the workforce are at the Technical/Process Operator level or above. A large higher skilled workforce is supported by a significant Technical workforce, and manufacture requires significant Process Operator workforce. The sector

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currently mainly recruits graduates even for jobs that do not require graduate skills. Many are not motivated long term to work in, for example, laboratories. The sector wants graduates who have the employability skills required for a long-term career with increased collaboration with Academia for research and knowledge transfer. The sector is also moving away from traditional set "job roles" to multi-skilling and a diversification of workforce skills. This move has increased the demand for business skills combined with academic skills to allow the UK life sciences sector to complete globally. The future development of the industry means that skills will change with increasing interdisciplinarity and the change in manufacturing processes will stimulate a requirement for significant workforce development.

The most critical, and hardest-to-fill occupations, are those of the scientific and technical variety. Up to 25% of graduate entrants may be directed to occupations that are lower than the indicative level of their qualification. The significant numbers of the graduates recruited each year are just a tiny fraction of the supply from Higher Education in a given year. Simply raising the numbers of graduates in shortage or hard-to-fill disciplines would be a poor method of improving supply, given the low gearing of supply to demand. Other interventions are necessary to improve security and quality of supply. In the future, a large proportion of the Technical workforce will be at graduate level and some Process Operators will also be highly skilled. Jobs requiring graduate skills in the workforce of today will become increasingly postgraduate in the industry of tomorrow.

Cogent, the sector skills council that covers the pharmaceutical industry has launched its Skills Action Plan for Growth in UK Life Sciences. The Skills Action Plan sets out four key actions for immediate progression:

ACTION 1: Resolve actions on skills signals across employers and universities, ensuring that information on skills for the bioeconomy is up-to-date and published periodically. Use the evidence to drive a two-way communication between employers and universities and colleges to seek skills solutions.

ACTION 2: Seek new ways to meet urgent highly specialised skills gaps

ACTION 3: Deliver exemplar vocational pathways to higher education by widening the talent pool and establishing alternative pathways to the degree route via apprenticeships

ACTION 4: Broker a laboratory placements scheme. There is a lack of opportunities available to encourage the exchange of talent and ideas between academia and industry. To strengthen the science base across the sector, a brokerage solution is needed to facilitate laboratory placements with particular consideration of how to engage SMEs.

A report on progress with these actions has just been published and can be sourced at www.cogent-ssc.com/general/news/04_04_12_LSAR.php

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