

A HR Guide to the Pharmaceutical Industry

Pharmaceutical Industry Overview

The pharmaceutical industry is key sector to the UK economy. [The Association for British Pharmaceutical Industry \(ABPI\)](#) estimates it contributes to approximately £8.4 billion to the UK's gross domestic product (GDP). Also, in terms of employment the sector contributes to approximately 73,000 people working in pharmaceuticals.

The main responsibility of the sector is to develop medicines, vaccines and innovations that contributes to the prevention of infectious disease and mortality.

In doing so, it is estimated that £3.9 billion is invested in research and development in the UK. Therefore, there is always a demand for talented scientists with 23,000 employed in research and development.

However, some pharmaceutical companies also specialise in business to consumer products that improve quality of life. Products such as:

- toothpaste,
- health and cosmetic ingredients,
- safer cleaning

are typical products these consumer groups develop and market.

So, you can see that the pharmaceutical industry is an umbrella term to various sub sectors. These can include:

- Drug and therapeutics research
- Drug and therapeutics manufacturing
- Drug Delivery
- Nutraceuticals
- Contract research and manufacturing
- Digital Health

Who are The Major Employers in the UK

GlaxoSmithKilne and AstraZeneca are UK based companies and are 5th and 6th respectively in the largest pharmaceutical companies globally.

However, other predominant global pharma companies also have a strong UK presence. These include:

- Pfizer
- Novartis
- Hoffmann–La Roche
- Eisai
- Johnson and Johnson

- Eli and Lilly
- Merck
- Sanofi Aventis

You can find yourself a comprehensive list of companies [here](#) with many of such have manufacturing operations in the UK.

London, Cambridge and Oxford are credited with having the largest concentration of Pharmaceutical companies. But many of varying sizes are based around the UK. Below we have outlined some example Pharma employers by different locations.

Birmingham and Midlands:

- Sterling Pharmaceuticals
- AAH Pharmaceuticals
- Ipharma Healthcare
- Biotest
- Fandex Pharmaceutical
- Synergy Pharmaceuticals
- Eurofins
- Fujifilm Diosynth
- Biofortuna

Bristol and West:

- GSK
- Tocris Bioscience
- Nanopharm
- Catelent Pharma Solutions
- Avara Pharmaceuticals
- Pertinax Pharma

Cambridge:

- AstraZeneca
- Cambridge Bioscience
- Cycle Pharmaecuticals
- Cytocell
- Metrion Biosciences
- DiagNodus
- Lonza
- Nann Therapuetics
- Nemesis Bioscience
- Storm Therapeutics
- Sybiosis
- Talisman Therapeutics

Cardiff and South Wales:

- Purolite
- BBI Solutions
- PCI Pharma Services
- BioMonde
- Reneuron
- TrakCell

London:

- Avillion
- BioMarin Pharmaceutical
- Biomoti
- Capella Bioscience
- HemoGenyx Pharmaceuticals
- Immodulon Therapeutics
- Nanomerics
- NextPharma
- Orchard Therapeutics
- Proctor and Gamble
- Proteum Sciences
- Senzer Pharmaceuticals
- Severn Bridges Genomics
- Trio Medicines
- Verona Pharma
- Virion Bioteherapeutics

Manchester and North West:

- Allergan
- Bell's Healthcare
- Cellular Therapeutics
- Epistem
- Incanthera
- Proctor and Gamble
- Proteintech
- Reckit Benckiser
- Unilever
- WorldCare Clinical

Oxford:

- Absolute Antibody
- Celentyx
- Celleron Therapeutics
- Cytos
- Evox Therapeutics
- Orbit Discovery
- OrganOx
- Oxford BioDynamics
- Oxford Biomedica
- Sanofi Genzyme
- Vaccitech
- Valo Therapeutics

Key Trends in The Pharmaceutical Industry

Below we have outlined trends that will have an impact on the type of job roles and key skills that will recruiters will need to focus on.

As with many companies based in a technical field or in STEM sectors there will be jobs that will no longer be required and there will be the emergence of new skills.

These trends will influence what recruiters and human resource departments will need to be planning for.

That said, challenges of finding talent with the necessary skills may prove difficult for Pharma companies. The [ABPI](#) found that [9 out of 10 pharma companies](#) stated that they have difficulty when it comes to recruiting for highly skilled roles.

- **Technological Advancement and Change**

Technology is bringing a requirement for new skills and expertise into the pharma world. In particular, manufacturers are witnessing rapid change due to three factors:

- Automation
- Digitization
- Advanced analytics

These trends are creating a major shift in the profile of the operational workforce. Many recruiters are now looking for stronger technology and data skills than before.

However, technology doesn't just bring a requirement to adapt and find new skills. It also presents a risk to what jobs may or may not exist in the future.

Automation, for example, might dramatically reduce the need for labour in some areas of the business. Particularly in operational areas such as manufacturing and research and development.

[Mckinsey](#) predict that there is potential to automate about 50 per cent of the work that is currently conducted today.

They have estimated that in 10 years more than 90,000 jobs could be lost due to the increase in automation technology. However, as with all trends shifts there is also potential upside and around 100,000 new jobs could be created due to the need to have skills that can utilise technological advancements effectively.

In areas such as gene editing and molecular engineering huge advancements in technology. Cutting edge technology such as AI and machine learning are helping scientists analyse large data sets and make faster and more accurate decisions.

Skills in understanding these new technologies and being able to work with data driven technologies is a key skill pharma recruiters are beginning to look for.

However, there is already a shortage of skills in these areas. [The International Society for Pharmaceutical Engineering \(ISPE\)](#) undertook a research with McKinsey to understand trends that are impacting the pharma workforce.

They found that there is a skill shortage for accommodating digitization and data analytics in more than 80 per cent of manufacturing companies in the pharmaceutical industry. Having said that, Pharma companies may have to look elsewhere to bridge the digital and data talent gap. For example, technology leaders such as Google, Apple and IBM are investing in AI to develop solutions that diagnose and treat disease.

Whilst traditional talent identification was usually found in Pharma and synergistic STEM industries there could be opportunity to attract the talent pool within these leading technology companies.

- **Disruption to Business Models**

As western civilisations are having to deal with aging populations, we are already witnessing the impact on health services.

Also, increasing pressure on costs is the prevalence of disease and inflation of labour and resource costs.

Due to these factors, we have been witnessing for some time a disruption to business models.

Pharma companies are increasing their investments in direct to consumer models. This places pressure on requiring new skills throughout the supply chain. For example, it

requires leaner and more efficient manufacturing and supply but also more creative and consumer focused sales and marketing expertise.

Having greater exposure to consumer audiences and advancements in research and development, there is also a growing trend for personalised medicine.

The prevalence of diseases and finding new and better ways to treat diseases based on the patients individual or genetic make-up can have far greater benefits than a one size fits all approach.

- **Speciality Pharma**

Not only are pharma adopting personalised approach to disease prevention and management but are also turning their attention to niche medical needs.

The industry historically would focus on disease that affected larger population groups. However, due to either market saturation or advancements in R&D companies see the potential for unmet clinical areas to create higher margin and lower competition.

Growth in this area will be welcome for scientists and engineers with specific interest areas. It will also create employment in the SME sector as new biopharma, therapeutics and specialised contract research organisations will emerge in this space.

Although, this is good news for highly trained scientists and engineers it may not be so for sales and marketing professionals. Specialist pharmaceuticals requires an in-depth knowledge of complex science.

It is also different to most medical sales in that they are typically higher value and lower sales volumes compared to traditional drug sales of lower priced and higher volumes.

This means that sales lead times can be longer but also due to NHS cost pressures can prove a harder sell.

- **Mergers and Acquisitions**

Over the next few years the industry will witness patents on top selling drugs expire. Companies will look at ways to protect their revenue and profits and acquisitions could be a strategy many will adopt.

Particularly, acquisition of smaller companies who have developed higher profit specialised therapies and medicines.

Data will also be key factor for companies who become acquired. As “data is the new oil” many companies will look to acquire companies who have developed a repository of data that can leverage competitive advantage.

This creates an importance in particularly smaller companies also being able to target the skill gaps as mentioned in technological advancement and change.

- **Changing Shape of Sales and Marketing Workforce**

This is largely driven by the cost pressures underpinning the NHS, accessibility to relevant NHS decision makers and a reduction in the number of primary care products.

If you combine this with the challenges of selling complex speciality products (as mentioned in Speciality Pharma) we are witnessing companies move to a key account management sales model.

This shift requires a different skill base to the direct sell and marketing to account managers who can cultivate relationships with relevant stakeholders but can also communicate complex science.

Marketing roles have become increasingly data driven to garner insights that can create powerful and impactful campaigns. It's not just about the narrative and creative or adopting a volume approach to engagement. In fact, the opposite is the case by being more targeted, focused and shotgun in communicating value.

Pharma companies are struggling to predict what talent gaps these trends will create. The companies that can act fast and plug the gaps through either upskilling or recruiting will generate a competitive edge.

Interestingly, back in 2015 the ABPI and Office for Life Sciences (OLS) stated that the lack of skilled professionals could hinder R&D of new drug innovations in the UK.

The OLS identified that compared to the US market, there was a potential gap of around 24,000 for skilled workers, particularly in the fledging genomics and bioinformatics sectors.

Key Skills In the Pharmaceutical Industry

As the industry evolves there is a need for a more diverse range of skill sets and backgrounds. However, there is a demand to fill skill shortages for highly skilled roles.

Most of these skilled roles will be filled by graduates of Science, Technology, Engineering, Manufacturing (STEM) degree and higher education.

Popular courses for the industry are:

- Biomedical Science
- Genetics and Engineering
- Chemical Engineering
- Pharmacy
- Pharmaceutical Sciences
- Mathematics

- Data and Analytics
- Marketing and Business Studies
- Food Science
- Geo Science
- Pharmacology and Toxicology
- Materials Science
- Mechanical and electrical engineering
- Software and IT

Recruiters also face competition from other sectors who promote a better work life balance and more incentives. Particularly when faced with recruiting millennials the Pharmaceutical industry needs to bridge the gap between the “old fashioned” working image and the demands of the millennial.

To attract highly skilled and educated employees the industry also faces competition from academia, industrial biotechnology, food technology and consultancies.

The issue that Pharma companies face is to identify where their talent gaps lies and predict what the workforce will need in the future.

Mckinsey found that only 40 per cent of companies in the industry know which skills are needed today. So predicting the impact over the next 5 to 10 years will prove challenging.

Mckinsey believe that an increased desire for stronger social and emotional skills in the workforce. Whilst that is the case, executives in Pharma do not yet see these skills as a priority.

In fact, they have put greater emphasis on the need to improve skills in advanced data analysis, critical thinking and decision making. They are identifying skills that can be taught and up-skilled in the workforce rather than skills that are either innate or developed through personal experience.

Despite the focus on up-skilling employees there is still relatively low investment into developing staff. Particularly, when you compare that leading technology vendors such as Amazon and Apple are allocating 10 times the budget to their staff.

How HR Managers Can Attract Top Pharma Talent

As you can see from the key trends in the sector there will be pressure on HR Managers to retain and attract top talent.

It is not only a balancing act of trying to find employees who meet today’s demands but can also provide skills that are likely to be required in the not too distant future.

If you combine this with a high level of competition not only from the pharmaceutical industry but other manufacturing and STEM industries a clear talent management strategy is of the utmost importance for companies to gain competitive advantage.

Below are some key considerations to put in place for a successful talent management programme.

- **Knowledge Transfer**

A shortage of experienced skilled workers places emphasis on knowledge transfer down the chain. As experienced workers near retirement, it is vitally important that companies encourage that knowledge is shared within the organisation and staff moving into senior roles.

Also, with the focus on speciality therapies and drug development it is key that specialised knowledge is cross shared between departments to elevate expertise and skill base throughout the organisation.

- **Value Creation and Employment Branding**

As previously mentioned, pharma companies are not only competing with their own industry for talent but other STEM and high-tech industries.

Pharma companies need to raise their brand as attractive employers. Communicating their forward-thinking business models and employee incentives.

This is vital as pharma companies battle it out with tech giants to become an attractive proposition to the millennial workforce.

- **Training and Development**

Attracting talent through value creation and branding maybe one thing but retaining them will be another challenge.

Millennial workers expect their companies to invest in their development. For example, we have previously compared the level of up-skilling investment between Pharma and Technology companies.

Therefore, essential to any talent management programme is developing talented staff to provide them with the appropriate skills to meet the demands of their jobs.

- **Incentivising Staff**

The last thing that any company would want is to spend large amounts of time and money in their staff only for them to leave to a competitor. To ensure that all staff investments are benefited by your own company it is important to keep staff happy.

Providing incentives to staff such as work life balance; promotion opportunities and staff well-being can help to improve overall job satisfaction.

Very often staff financial rewards are not the solution to retaining top talent. Increasingly, workers would choose to work in an enjoyable working culture over financial reward.

- **Digitizing the Talent Management Process**

We have discussed technology and the increase in use of data in Pharma throughout this guide. Well, HR is not different. With the rise of HR analytics tools, Pharma can adopt the use of analytics into their talent management strategy to garner insights that can help increase job satisfaction and well-being.

These tools make it easier for HR Managers to understand how effective their talent management programmes while also providing staff confidentiality.

The insights gained from analytics will help optimise HR programmes and identify areas that can be improved. This will remove guesswork and assumption from decision making and help to improve the overall employee experience.

How Sigma Recruitment Works with the Pharmaceutical Sector

Sigma Recruitment is a specialist Pharmaceutical Recruitment Agency that takes a consultative approach to finding top talent.

To find out more how we operate in this sector [click this link](#)