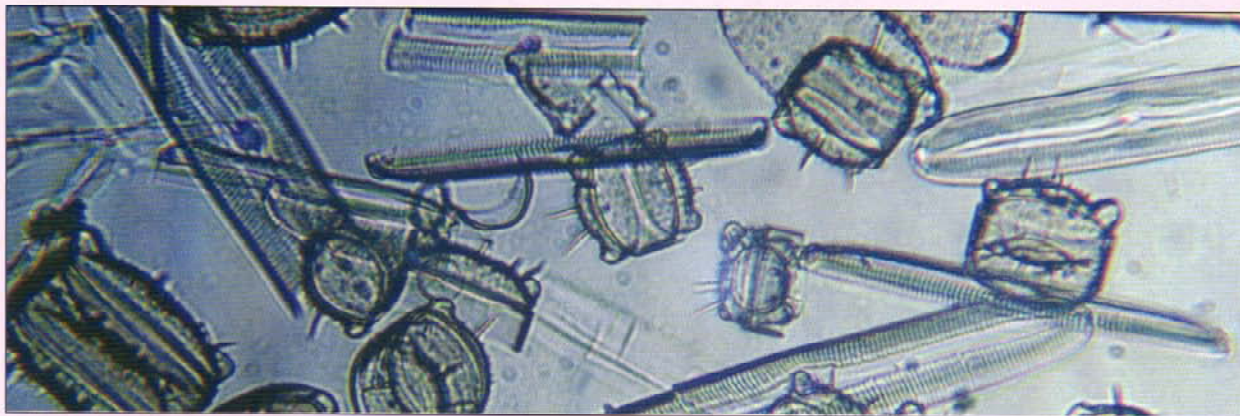


The Future of the Life Sciences Industry



The life sciences are now entering the maturity phase, with emphasis placed on critical thinking and innovation

Eamonn O'Raghallaigh from Life Science Recruitment looks at recent trends in employment and education within the life science industry.

Ireland has positioned itself as a strategic global player in the life sciences industry and has earned an impressive reputation among the scientific community as an attractive location for foreign investment. Ireland attracted more foreign direct investment (FDI) in the life sciences than any other European country from July 2006 to June 2007, accounting for 25 per cent of all FDI in the European Union. With continued investment, including FDI and university and government-funded projects, Ireland's strategic importance as a global centre of excellence in the life sciences is set to increase significantly well into the next decade.

The Life Sciences Sector in Ireland

The life sciences industry represents a significant source of wealth to the Irish economy, with exports in the pharmaceutical/chemical sector totalling €43.5 billion in 2007. This represents 49 per cent of total Irish exports and continues to make it the primary growth sector in

terms of exports. The medical devices/biotechnology sector saw a slight downturn, with exports falling by two per cent to €3 billion in 2007, due mainly to the closure of some low-tech manufacturing facilities. However, the sector is set for further growth in 2008 as major expansions in global product supply in the sector

per cent over the last 10 years, and there is currently over 24,500 employees within the sector. In the medical devices/biotechnology sector, some 140 companies employ over 26,000 employees. Some indicators point to a tough couple of years ahead in the global pharmaceutical industry, as key players 'hit a wall' in terms of

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were announced, coupled with significant investment in the sector by the government announced in January.

Current Trends in Employment

Employment in the pharmaceutical/chemical sector has increased by 56

new products coming to market combined with the expiration of current patents. Some companies have announced plans to 'streamline' their workforce, with estimates in the region of 10 per cent. It is uncertain how this will affect the employment market in Ireland. However, significant job creation in the life sciences sector

is expected in 2008, with recent announcements from Wyeth, Genzyme, Merck, Teva, GSK, Integra and Enfer. Ireland's biotechnology sector is primed for growth, and this success is due in part to the significant R&D investment in the sector in recent years. Irish bioscience will benefit from a combined funding of more than \$1.3 billion.

Current Skills Requirements

In the pharmaceutical sector, current trends in recruitment show an increased demand for experienced professionals in formulation chemistry, analytical and process development, industrial pharmacy and regulatory affairs. In the medical device and biotechnology sector, again quality and regulatory affairs crop up as ongoing requirements in the sector. Companies have started to consider the value of attracting foreign workers in certain highly specialised fields, and recently the Dublin Chamber of



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for Medical Device Manufacturing Excellence in the higher education system, the introduction of a Masters Course in regulatory affairs and a Graduate Diploma or Masters course in the design, management and conduct of clinical trials.

Emphasis was also placed on the continuous ongoing development of skills in specific sectors such as regulatory affairs and clinical trials

research and development global centre, in conjunction with our current standards of excellence in manufacturing. The highly skilled and educated local human capital market is already in place; the number of PhD's graduating in 2008 is expected to be in excess of 1,000, double the number that graduated ten years ago. Furthermore, significant funding has been earmarked for the development of further Centres for Science, Engineering & Technology (CSETs). The overall picture shows a definite trend towards a more R&D focused life science sector, which will future-proof Ireland's strategic position as a global life sciences centre.

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Moving Forward

The future of the life sciences industry in Ireland remains optimistic, albeit the next couple of years have been described by some as 'potentially challenging'. Expected growth in the biotechnology and medical devices sectors is strong, particularly in indigenous university-based start-ups, which will bolster Ireland's position as a centre of excellence in R&D. Significant ongoing investment and innovative public-private partnerships will ensure Ireland is ready for the next phase of its economic growth. We have successfully emerged from the 'teenage years' of sustained significant growth as a global leader in the life sciences, and are now entering the maturity phase, with emphasis placed on critical thinking and innovation. If our success up to this point is taken as an indicator, the future is very bright indeed for the life sciences in Ireland.

Commerce announced its 'Ten Point Plan' to make Dublin a global knowledge city, focusing on attracting the best talent in the world to Ireland. The Ten-Point Plan suggests key measures such as the introduction of short-term financial incentives and an expedited immigration application process to increase the attractiveness of Dublin to international candidates.

Future Skills Requirements

The Expert Group on Future Skills Needs (EGFSN) recently released a report on what actions are needed to ensure that the medical device sector is equipped with the right level of skills and expertise to meet the future challenges of a changing industry. The main recommendations of the report include the establishment of a Centre

management. In addition, more emphasis needs to be placed on industrial placements in degrees in the life sciences. Many life science graduates are pigeon-holed into specific career paths because of their lack of industry relevant experience.

The Future Importance of Research & Development

Ireland has experienced unprecedented success from the influx of foreign direct investment in the last 15 years, mainly in the areas of manufacturing and more recently in research and development. However, as emerging economies such as India and China now begin to gain a strategic foothold, Ireland's future success is integrally linked to our ability to create a knowledge-based