ANALYSIS OF THE LIFE SCIENCE LABOUR MARKET IN THE NORTH OF ENGLAND

An overview of the sector in terms of recruitment procedures; present and future employment opportunities and skills requirements.

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Abstract

Life science employers (employers who apply biology and technology to improve healthcare, Deloitte, 2018) in the north of England were surveyed in order to gain an overview of the sector in terms of their recruitment procedures; present and future employment opportunities; skills requirements and potential challenges foreseen in the sector. Results of the survey indicated that, although the UK life science sector faces major challenges such as Brexit, opportunities do exist, both for home and international applicants and companies felt generally positive about their future, in terms of staff growth.

A key university priority is to better prepare students for entry into the graduate labour market (Jackson, 2015). Institutions benefit directly from this by improving Destinations of Leavers from Higher Education survey (DLHE) outcomes (Office for Students, DLHE, 2018)(HESA, 2018a). The study indicates that developing work experience and technical skills are far more important than degrees, masters or PhDs. The lack of appropriately skilled applicants was highlighted as an issue. Around 45% of employers felt they had a lack of appropriately skilled applicants and a further 30% felt there were too few applicants. However although around half of science employers offered graduate level science and technology roles, only 25% of employers advertised their vacancies through university job sites and fewer than 17% advertised on traditional graduate careers websites.

Degree and higher degree apprenticeships (HDAs) have been seen as a way of bridging the gap between graduate level study and employment. With the introduction of the apprenticeships' levy, they have been seen as innovative competition to traditional degree programmes (gov.uk, 2018) (Hughes, 2017). Within the context of employers in the study (predominately small to medium sized enterprises (SMEs), potentially unaffected by the levy), although 13% of employers were employing and 23% of employers were considering implementing degree apprenticeships and HDAs they believed it would only slightly affect graduate and postgraduate recruitment (3.75% reduction) and undergraduate work experience opportunities (6.25% reduction).

The study concluded that to produce graduates with the required skills for the labour market and to support employers to develop their business productivity it is highly important to develop partnerships between universities and industries. Only by such collaborations can the skills deficit be reduced, firstly by structuring courses to match employers' needs; secondly by increasing opportunities to develop appropriate technical skills and work experience and thirdly by increasing the number of quality applicants, through improvement in recruitment. By working with employers to develop opportunities such as work shadowing; participation in networking events; vacancy advertising; final year industry based projects; short-term work experience, yearlong and summer placements and mentor support it will be possible to the develop the skilled and enthusiastic potential employees sought after by employers.

Background

Encouraging students to progress in science has been a national economic strategy, with the overriding aim of improving economic growth and the skills base (HM Government, 2017) (Hango, 2016). It has also been cited that a STEM (science, technology, engineering and maths) degree can lead to better prospects upon graduating (Ashford, 2017). However, with Brexit on the horizon; international competition; comparatively low levels of scientific UK entrepreneurs and the escalating costs of health and social care, economic forecasters have expressed concern for future UK scientific research (Ceurstemont, 2017)(House of Commons Science and Technology Committee, 2016).

Technological advances, government policies and internationalisation are all transforming the scientific sector and scientific careers (Government Office for Science, 2017). Opportunities exist but there is a need to consider the international, national and local scientific labour market to develop a futureproofed career in science (Gibney, 2016). With almost 40% of UK employers reporting difficulties recruiting staff with relevant STEM skills

(Deloitte, 2016), it is important to try to identify skills gaps, to help students, employers and the country develop a skills base to support growth (Gibney, 2016)(CBI/ Pearson Education and Skills Survey, 2016) (House of Commons Science and Technology Committee, 2017).

Aims of this study

The overall aim of this study is to help those involved in supporting students' progression into graduate scientific employment, by providing an insight into the life science sector. As economic growth and spending on health have a direct correlation on the growth of the life science sector, it will be interesting to look at the sector in relation to the current economic situation (NES Global Talent, 2016) (Deloitte, 2016).

Research has indicated that students are not as mobile as first thought in the jobs market, so opportunities can be limited according to localities (The Institute for Employment Studies, 2003). This study will focus on life science employers, specifically in the north of England; looking at local skills requirements and future indicators of growth areas. The aim is to identify skills gaps and highlight these areas for education providers and careers practitioners, to ensure courses are developing to meet the needs of students, employers and the wider economy.

Methodology

Scientific labour market survey

Life science employers in the North of England, identified in a Government study of the Life Science Sector (Gov.uk, 2016), were contacted by telephone by Sheffield Hallam University bioscience students who were employed and trained as science sector researchers.

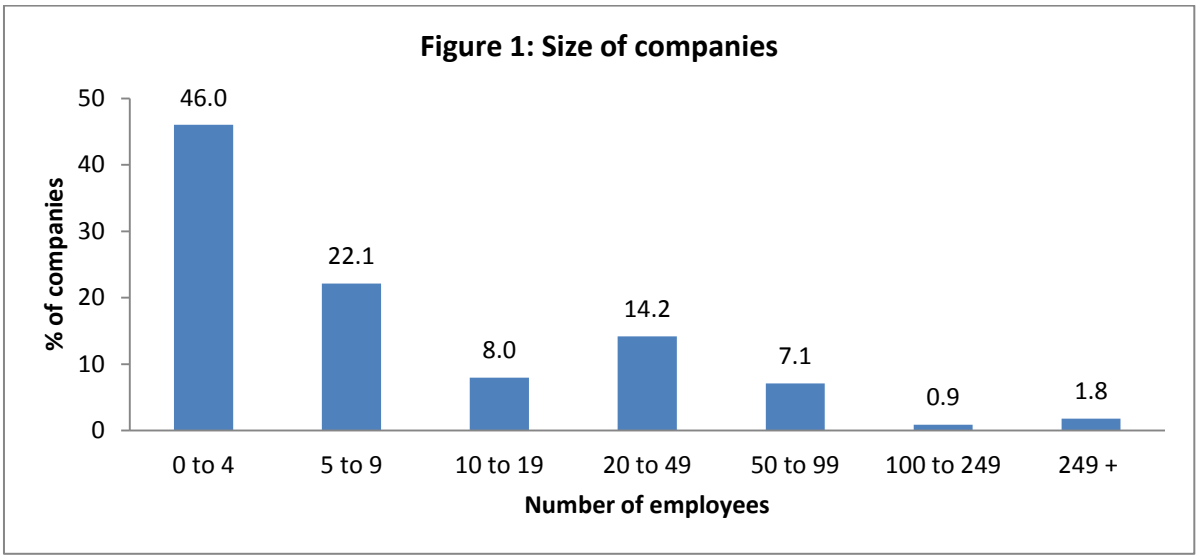
A phone based questionnaire survey method was chosen (Fricker, 2005) to maximise response rates; as rates have been shown to be higher in phone interviews compared to web based questionnaires (Baruch, 2008) (Kaplowitz, 2004). This method also enabled researchers to ensure the questionnaire was completed by the most relevant member of each company; as previous research indicated that pre-contacting individuals to be surveyed increased survey rates (Kaplowitz, 2004)(Baruch, 2008).

If happy to answer questions over the phone, employers were asked a pre-determined series of questions, looking at present employment opportunities, skills requirements, potential developments and employer needs in the future (Appendix). The questionnaire included knowledge based (true, false questions), Likert questions and open ended responses (Dillman, 1978). The questionnaire was completed during the phone call and took no more than 15 minutes. The questionnaire was filled in online (Employer questionnaire, 2017a) and results of the questionnaire were converted to an Excel spreadsheet for analysis.

If employers were unable to fill in the questionnaire over the phone an online questionnaire was sent directly to the employer, if agreed. The form was designed in such a way to be quick and easy to fill in by the employers with identical questions to the telephone based questionnaire (Employer questionnaire, 2017b).

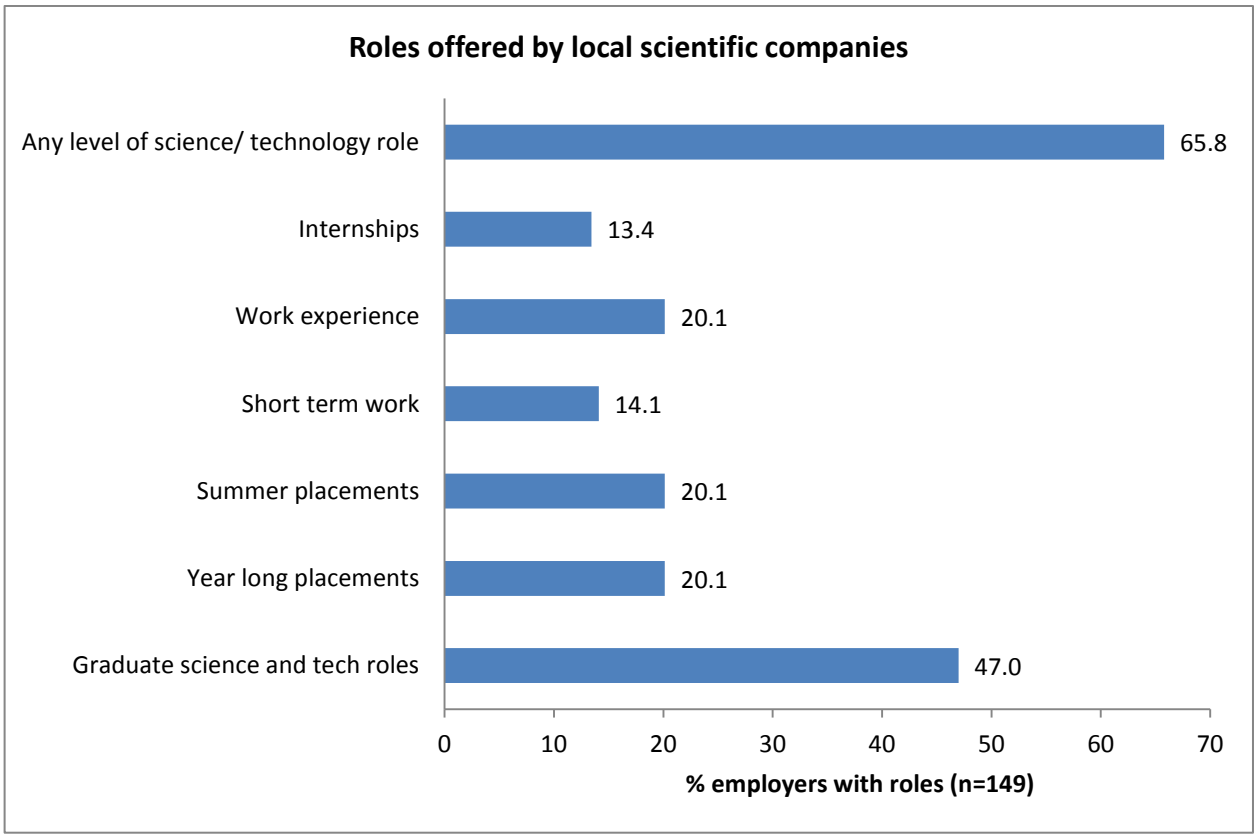
Results

In less than 150 hours of phoning, 698 employers were contacted and of those, 149 (21.3%) were happy to fill in the questionnaire. The vast majority were SMEs; with over 45% having less than 5 members of staff (Figure 1). 111 employers completed the form there and then by phone (15.9%) and 38 completed it after being sent a follow up email (8.6% of the 440 employers who, during the initial telephone call, asked to be emailed an online version of the questionnaire).

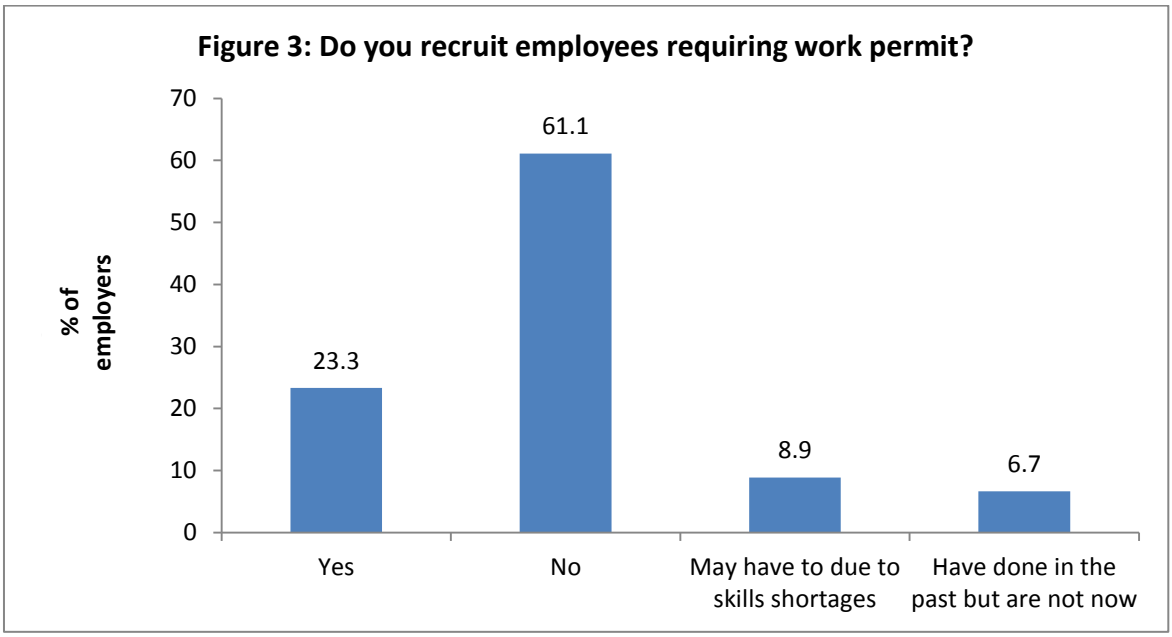


Scientific roles

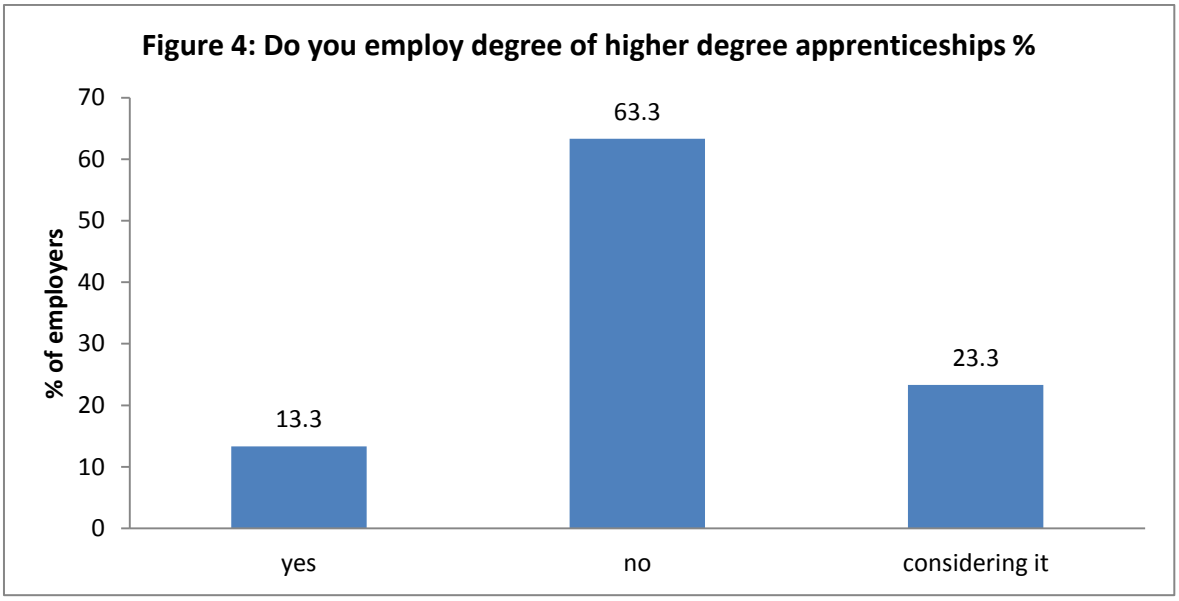
Of the 149 employers who filled in the form 98 (65.8%) recruited for any level of scientific or technical role. Graduate science and technology roles were offered by 47% of employers, while around 20% of employers offered work experience, summer placements or yearlong placements (Figure 2).



Employers were asked about their recruitment policy of international applicants requiring work permits. Over 20% of employers recruited employees requiring work permits, and another 8.9% were potentially considering it due to skills shortages (Figure 3).

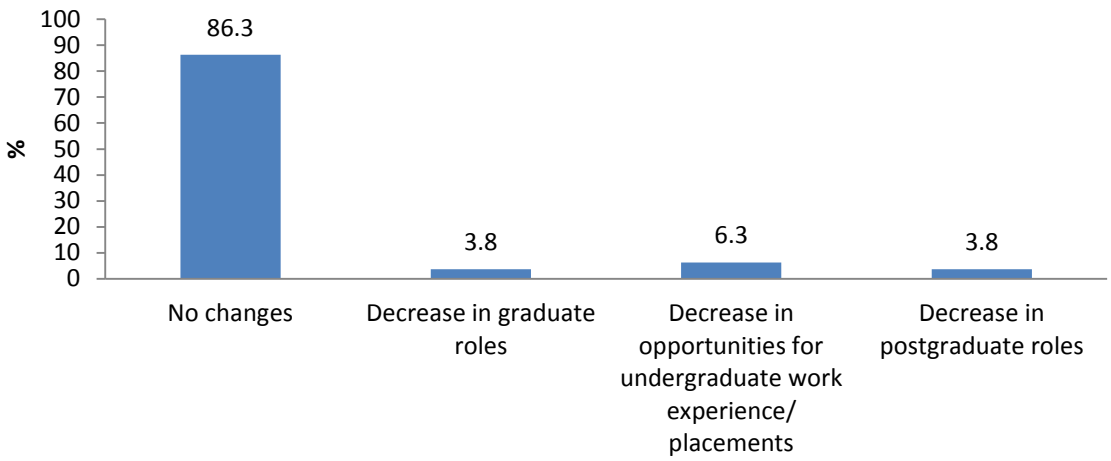


Employers were asked about their provision of degree and higher degree apprenticeships. Around 13% of employers were employing them and a further 23% were considering it (Figure 4).



Following on from this, companies were asked about whether they could foresee any changes to their scientific/ technology recruitment policy with the introduction of higher degree / degree apprenticeships. Of all the employers in the study, 86% said there would be no changes; just over 6% said there would be a decrease in undergraduate work experience while less than 4% said there would be a decrease in their graduate and postgraduate recruitment levels (Figure 5).

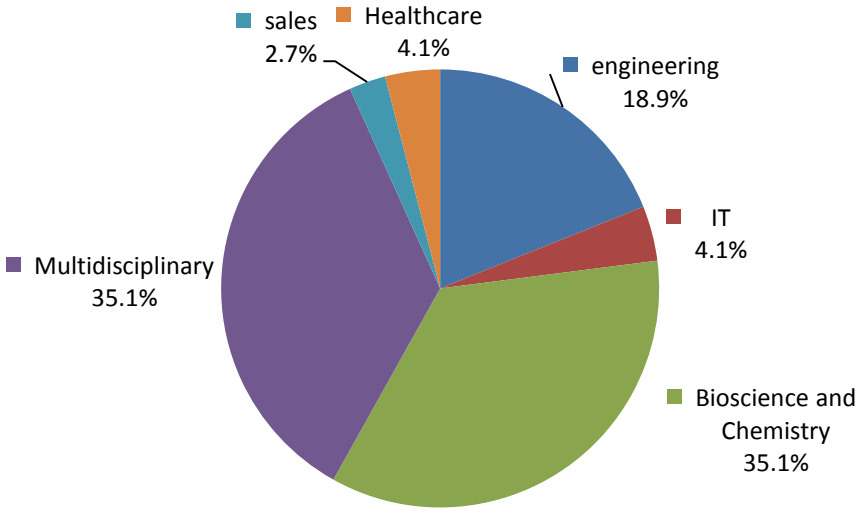
Figure 5: Have you seen/ do you foresee any changes to your scientific/ technology recruitment policy with the introduction of higher degree / degree apprenticeships?



What scientific/technical job areas do you recruit for?

Companies recruited for a wide variety of areas. Many firms had multidisciplinary recruitment (35%) while another 35% had vacancies within Bioscience and Chemistry. Other areas included IT, sales and engineering (Figure 6).

Figure 6: Scientific/technical areas recruited for



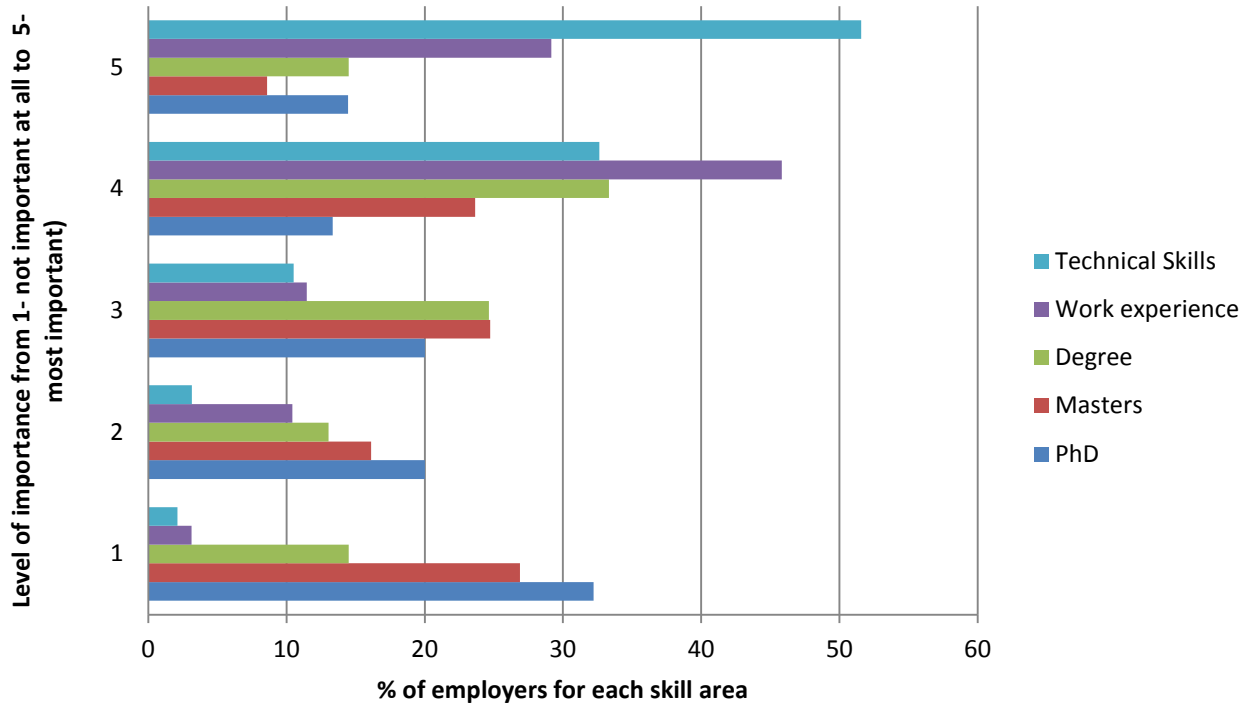
Specific job areas recruited for are highlighted in Table 1.

Table 1: Job areas recruited for
Multidisciplinary
Across whole sector
Analytical testing, BSc minimum + commercial staff, business development staff, technicians, team leaders, section heads, QA etc.
Applications specialists, technical sales, test and installation, Software, design
Biology, physics, possibly engineering
Business role. instrument testing
Chemistry, electronics, software
Clinical trial assistants, study coordinators, data coordinators, psychologists, doctors for research, project management
Clinical trials management and support. Pharmaceutical researchers. CMC and formulation experts. Regulatory specialists.
Communications, business manager areas, QC
Consultant/business psychologists, project support staff generally (admin & operations), focus on business and psychology area
Design Engineer, Production Engineer, Mechanical Engineer, Quality assurance, Regulatory assurance
Electronic device fabrication / physics, biosensor development, biology
Engineering background, manufacturing, computer competence
Engineering, marketing
Graduates having any scientific degree subject
Health economists and real world data scientists (healthcare)
Life sciences tech, electronics, software
Manufacturing engineering, Web Development, R&D Engineering, Procurement
Materials science, medical devices
Patent attorney - physics chemistry biology and engineering
Purely sales and marketing roles, or administrative.
Sales and marketing, business development, technicians, PhD level scientists or technicians.
Sales, research
Scientific illustrations for publications, pharmacology
Software development, biochemistry, molecular biology
Technicians and clinicians
Bioscience and Chemistry
Analytical Chemist. Technical Manager.
Analytical Chemistry
Analytical chemistry - in particular chromatography and mass spectrometry
Biological science background, some chemists
Biomedical research positions
Chemist lab assistant production
Chemistry, organic synthesis chemist
Genetic toxicology, toxicology, life-science, cytogeneticist, biology, biotechnology
In vitro or cell based technologies
Lab based research scientists and skilled toxicologists
Lab technicians
Lab work, biological, cancer research.
Lab work, chemists, biochemistry

Lab work, research
Laboratory Technicians, Laboratory Analysts, Quality roles - various
Life Sciences
Metallurgy lab position
Microbiologists lab technician
Microbiology
Microbiology laboratory work
R&D technicians, bio scientists, formulation scientist.
Short term research projects between industry and university in scientific areas particularly polymers
Technical copywriters with Life sciences and industrial backgrounds
Technician up to post doctorate... all levels.
Technicians predominantly
Technicians, scientist
Engineering
Control engineering
electrical engineering
Electrical or mechanical engineers
Electronics
4 Engineers
Engineering and manufacturing
Engineering/ design
Product development team, engineering department on site
Stair lift engineers
Supply Med Devices - process engineering
Tech: service engineers, installation, mechanical
IT
2 Software development
Software engineering, AI, video analytics, algorithm design
Sales
2 Technical sales
Healthcare
Dental technology
Health and Safety and Environmental Monitoring Consultants
Audiologists

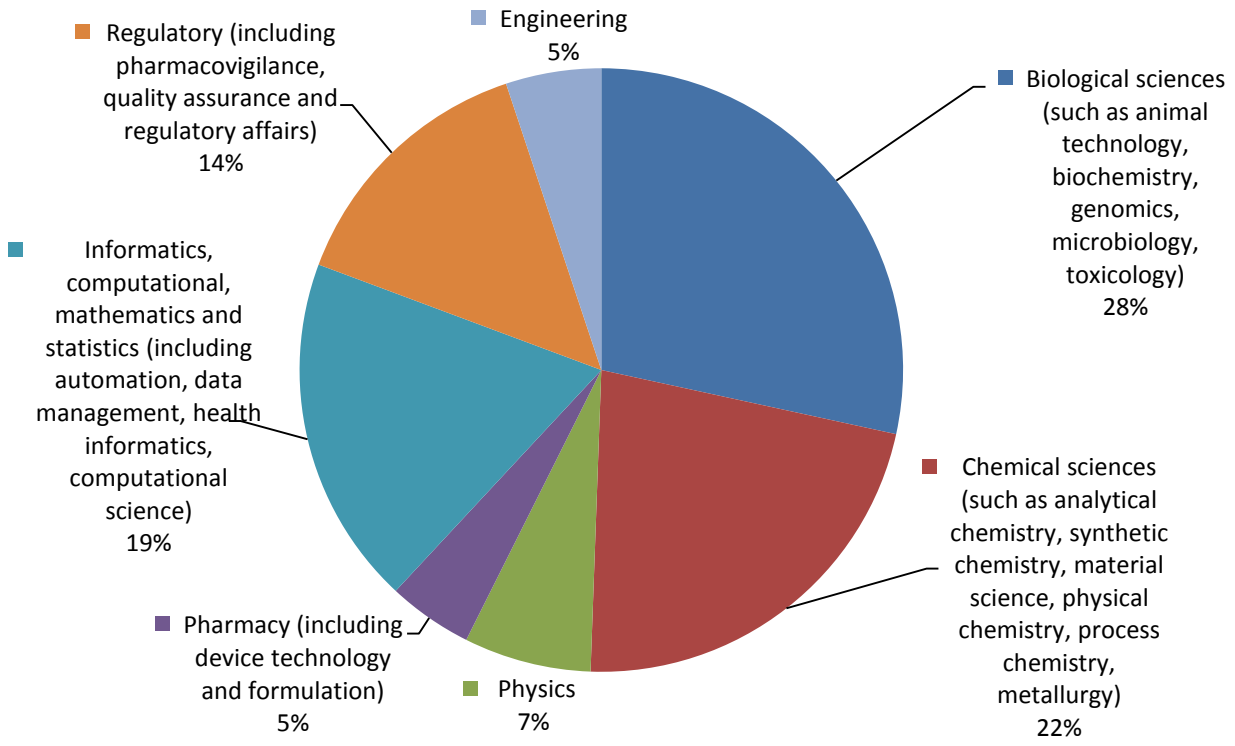
Employers were asked to rate the importance of skills and qualifications on a scale of 1-5 (from 1- not important at all to 5- most important) (Figure 7). Technical skills were seen as key by employers with 52% of employers citing this as most important; followed by a degree (38.5%) and work experience (29.2%). Postgraduate qualifications were seen as least important by employers; but this varied according to employer- in 15% of roles, for example, a PhD was most important. In fact 84.3% and 75% of employers cited technical skills and work experience respectively as most important or second most important skills, compared to only 27.7% for PhD's; 32.3% for masters and 47.8% for a degree.

Figure 7: How important are the following for scientific/technical roles?



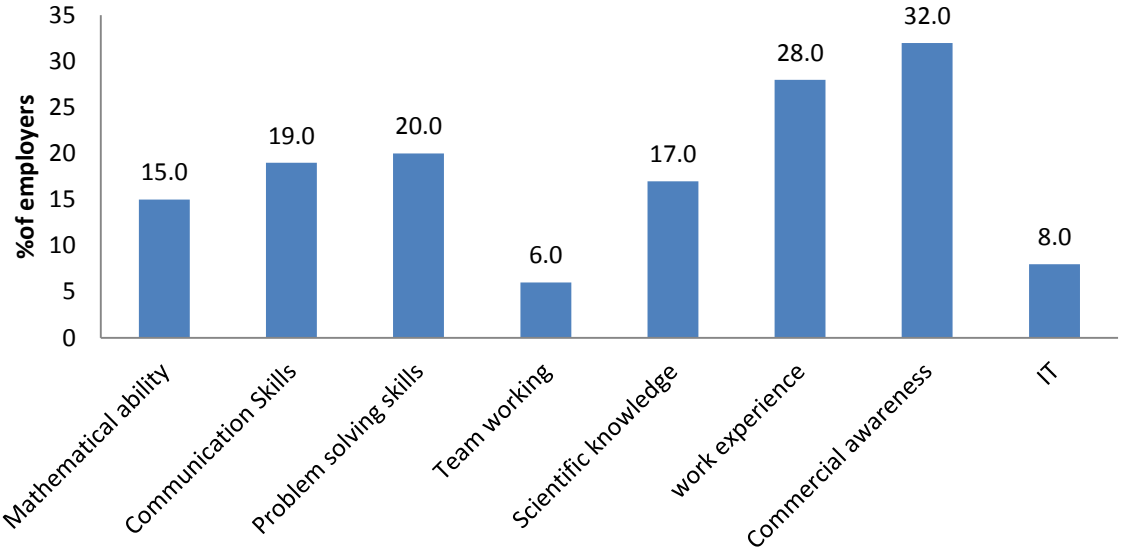
Employers were asked which science/ technical skills their company found most valuable in their scientific staff. Biological and chemical sciences came out on top with 28% and 22% respectively. Informatics, computational, mathematics and statistics were also highly sort after (19%) (Figure 8).

Figure 8: What science/ technical skills do your company find are most valuable in your scientific staff?



Employers were asked about the key employability skills they found lacking in scientific and technology applicants. Commercial awareness came top with over 30% of employers highlighting it; work experience was another key area lacking, with 28% of employers highlighting it as an issue. At least 15% of employers also cited mathematical ability, communication skills and problem solving skills as lacking (Figure 9).

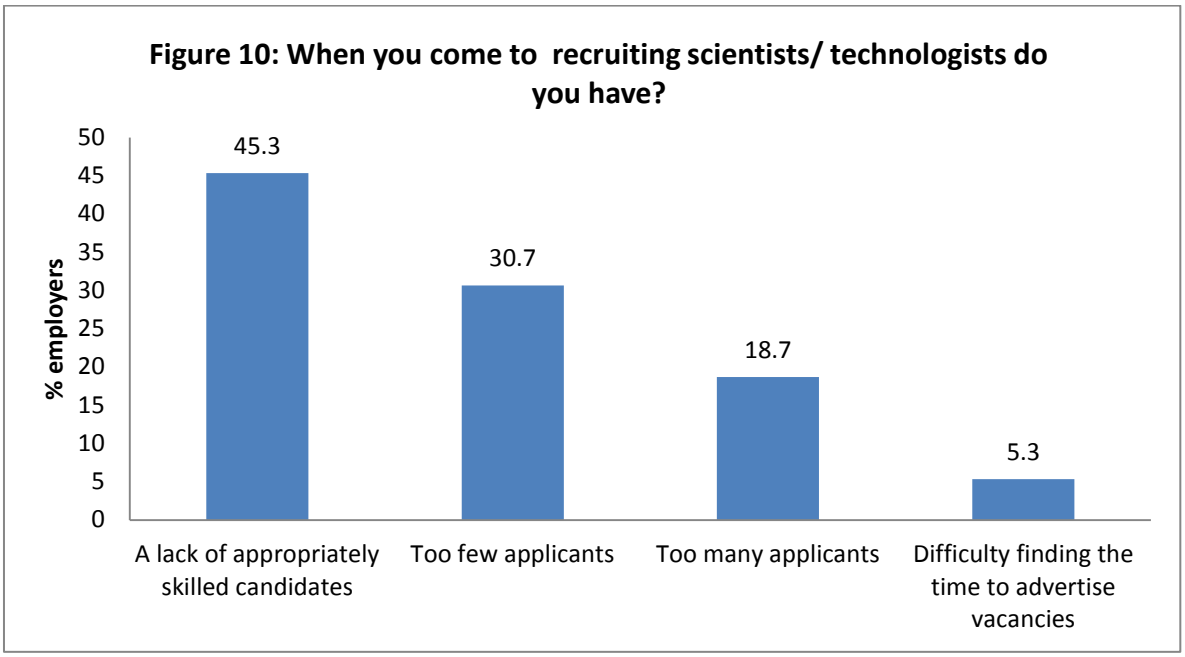
Figure 9: Skills lacking in scientific and technology applicants



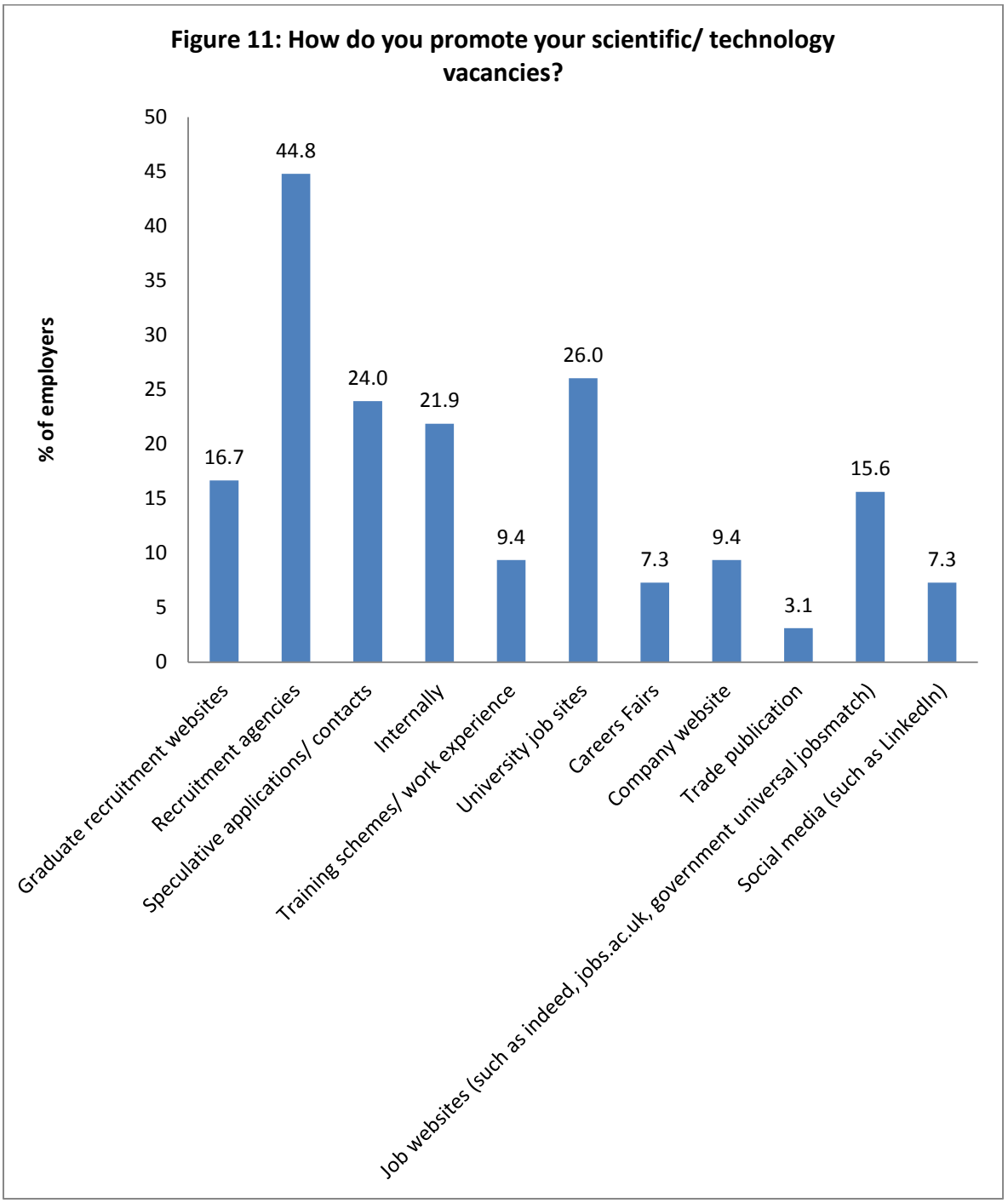
Employers were given a free text box to expand on any specific areas they had problems recruiting for. Skills and areas varied from specific technical skills such as toxicology and engineering to softer skills such as the ability to speak languages, empathy and a general enthusiasm (Table 2).

Table 2: Are there any specific areas or skills that you have problems recruiting for?
Personal/ employability skills
Positive attitude/ personal demeanour/ willingness to learn and listen
Enthusiasm
Ability to see the bigger picture, excellent communication, empathy, application
Statistical skills
Language speaking
Communication skills
Applicants that get the jobs usually exceed job requirements
Natural people skills, interaction skills, comfortable talking to strangers and customers
People don't prepare for interviews properly - prepare questions
Commercial skills in the lab
A combination of the appropriate academic qualifications in conjunction with commercial/industrial skills
Business development
Commercial skills in the lab
Initiative and commercial awareness are issues regardless of role
Technical Skills
Analytical experience
Basic engineering skills
Clinical research experience
IT
Control engineering
Engineering
Everything to an extent, degrees are broad based, need to teach how to calibrate equipment etc. to be useful when beginning a post
Experience as having to train graduates with little experience. However it's a lot of effort to commit to putting on a degree apprenticeship
Flow cytometer and microscope skills
Lab techniques, basic chemistry
Laboratory analyst
Machine and artificial intelligence
Relevant industrial experience
Orthopaedic design
People with cross-disciplinary skills, people with regulatory knowledge
People with GxP experience. Primarily GMP.
Precision engineering and mechanical engineering with experience in our specific field
Quality and regulatory graduates
Sales staff
Toxicology / toxicologists - simply aren't enough graduate courses worldwide.
Welding

Employers were asked about their recruitment and key issues faced when recruiting scientists/ technologists. Around 45% felt they had a lack of appropriately skilled applicants and a further 30% felt there were too few applicants (Figure 10).



Employers were asked how they promoted their scientific/ technology vacancies. A variety of methods were utilised, the most common being recruitment agencies (by 45% of employers). Networking was also key, be it speculative applications; internal recruitment or through training schemes and work experience. Only around 15% of employers used graduate recruitment websites (such as such as prospects, target jobs and Milkround) although university job sites were used more- but still by only 25% of employers (Figure 11).



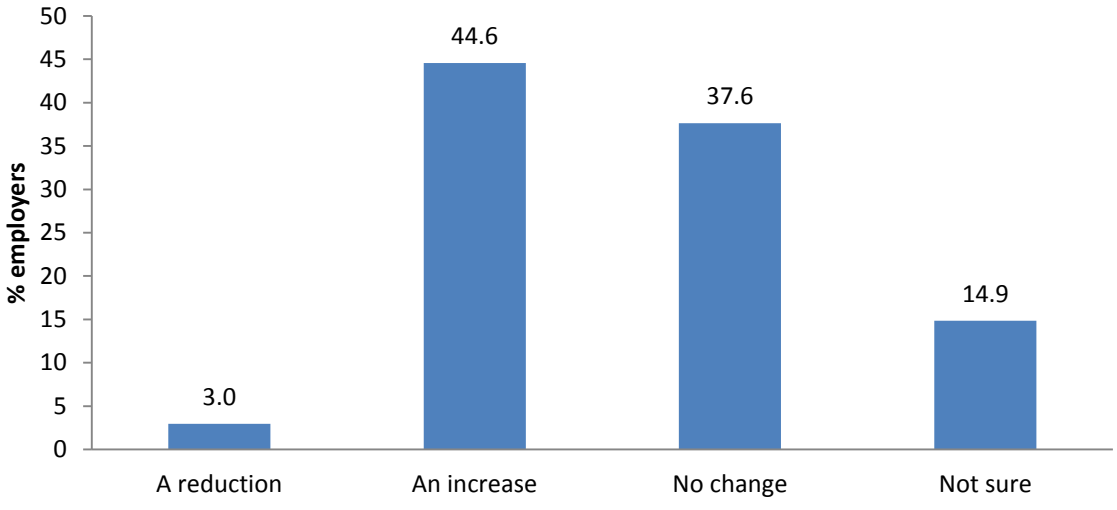
Employers were given a free text box to highlight the scientific/ technology skills they felt would be most valuable for potential applicants to develop in the coming years. Skills varied from personal skills such as empathy, a drive and ability to see the bigger picture; communication skills and a desire to learn. Commercial awareness was cited by numerous employers, along with work experience. IT skills such as AI and data analysis skills were additional areas believed valuable to develop (Table 3).

Table 3: What scientific/ technology skills do you think will be most valuable for potential applicants to develop in the coming years?
Personal skills
Ability to see the bigger picture, excellent communication, business development and empathy application
Attitude, do they have drive? Anyone with a degree has adequate knowledge but do they want to achieve their best? Are they competitive?
Common courtesy i.e. promise and perseverance, effective communication in professional manner
Grammar, written word, face to face communication
Good communication, on the job training
Communication
Communication & teamwork, interpersonal skills, desire to learn!
Communication, work experience, presenting, conveying information
Degrees and masters, life skills from these that are applicable to a work environment, work ethic, interpersonal skills, open talking and interaction, eye contact
numeracy, better communication and interview skills
Person not qualifications
Team working
Desire to learn
Commercial Skills
Application of knowledge in business
Commercial awareness in an industrial lab
Commercial awareness, career path awareness
Commercial awareness of industry
Commercial skills, i.e. selling, commerce transactions. This means a lot of the learning is on the job, which has its merit, but these skills are very important, and no one seems to be teaching them.
Commercial awareness
Problem solving
Problem solving skills
Awareness of IP; regulatory requirements
Relevance to industry, being able to simplify or navigate the regulatory frameworks in place
Relevant work experience. Internships leading to a full time job
We need practical , technical and scientific knowledge that address our product application areas
Work experience, degree apprenticeships can enhance this and bridge the gap also placement years
Work experience. Trial regulations
Year out in industry to gain industrial experience
IT and data analysis
Coding (IT) small level manufacturing, 3D printing
Innovation
Digital
Data handling, General ICT ability
Data science, AI
Integration of IT and AI with all scientific areas
Keep up with tech
Knowledge of new technology
IT, database and literature searching.
Practical experience of interpreting results, statistics

Computer/digital skills
Software
Software and hardware skills
Data analysis
Statistics
Biostatistics / bioanalytics - increasingly needed in all science areas
Understanding A.I., deep learning
Understanding wireless Bluetooth radiowave technology
Laboratory skills
Experience in lab
For us specifically GMP awareness and working within a Quality Management System
Graduates with competent laboratory skills - practical sessions need to be more about learning how to perform experiments, rather just than generating data and interpreting it
Analytical chemistry; HPLC machine use
Basic laboratory preparation i.e. calibration of equipment,
Scientific method and mind set, ability to analyse data/ interpret data
Scientific method
Trained to a higher standard (GLP) for working in a laboratory environment
Engineering Skills
Mechanical engineering
Control engineering
Additional Skills
Specific health experience to supplement an economics education
Working in regulated environments (legislation) , troubleshooting

Employers were asked about whether they could foresee any change in the number of scientific/ technology staff employed over the coming year. Employers appeared positive about their company's recruitment with over 45% foreseeing an increase in the number of staff employers, and only 3% foreseeing a reduction (Figure 12).

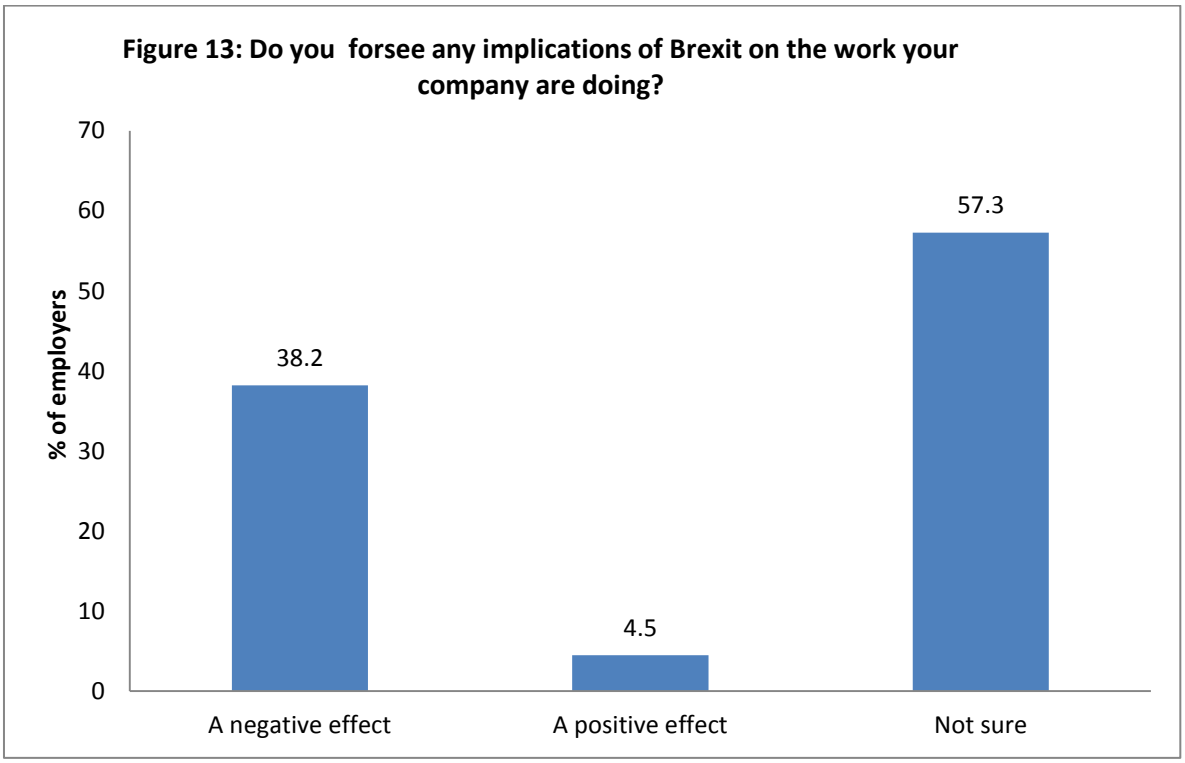
Figure 12: Do you foresee any change in the number of scientific/ technology staff you employ over the coming year?



Companies were given a free text box to discuss any issues or difficulties faced by working in the scientific/ technology sector in the region. There were a number of reoccurring issues cited by employers- the implication of Brexit; the financial climate and the skills deficit within the region (Table 4).

Table 4: Are there any issues or difficulties you have seen for companies working in the scientific/ technology sector in the region?
Brexit
Brexit could be a problem as we sell 50% of our products to Europe. It depends what the final trade deal is.
Brexit might cause a decrease in funding
Busier since the fall of the pound (Brexit)
Market stood still from Brexit, people making massive compromises from this and not making investments.
Reducing the number of staff as a result of Brexit, less sales
Uncertainty of Brexit
Funding
Financial only and market competition
Available funding for area (financial distribution)
Financial, economic climate
Maintaining a profitability - suppliers put prices up so prices go up for customers unfavourably
Funding for R&D, funding for capital investment, lack of appropriate incubator facilities
Is generally hard to find employees with the right skillsets
The availability of grant funding for research projects
Graduate scientists expect too much money
UK growth
Skills Deficit
Issues with lack of skills in specific area
Lack of candidates
Lack of scientists wanting to go into a sales role
Shortage of high quality graduates, with laboratory experience.
Shortage of candidates
The potential draw of London and the South East on the talent pool pulling bright new talent away from the area. Perception that there are not long-term careers to be had outside of this area
There aren't a lot of similar firms so there isn't a hot bed of scientists moving around to different companies. We have done well with the last couple of rounds of recruitments but Sheffield isn't a lab hub just yet!
Too few skilled PhDs in our area (toxicology)
Location
Communication between international contacts, biggest difficulties for small biosciences companies to access larger industries for procurement. Little access to opportunities due to gap between large and small businesses (i.e. pharma)
Location (i.e. not London/Cambridge) but the trend is changing

Following up on the previous question, employers were asked about the potential implication of Brexit on their company. Almost 40% felt Brexit would have a negative effect on the work their company was doing (Figure 13).



Conclusion

In conclusion, although the UK life science sector faces major challenges, opportunities do exist, both for home and international applicants. The study also indicates that life science companies in the north of England feel generally positive about their future. However, for both universities and individuals wanting to apply to the sector, there is a need to consider the international, national and local scientific labour market (Department of Health, Department for Business, Energy & Industrial Strategy, 2017) to develop a futureproofed scientific sector, skilled employees and a career in science (HM Government, 2017).

Skills requirement

Skills shortages were highlighted as an issue. It is therefore important for applicants, and staff supporting students' career development, to look at the skills, experiences and qualifications required by potential employers, identify gaps and develop the required portfolio of skills and experiences to fill those gaps. Universities need to create opportunities for engagement in activities to develop these (Universities UK and NUS, 2015). Potential experiences could include short and long term work placements; employer mentor support; work shadowing; volunteering; field work; employer visits; employer led projects and employer based simulations (Universities UK and NUS, 2015)(von Treuer, 2010)(SecEd, 2015)(Wilson, 2012)(Jackson, 2015).

The study indicates high levels of multidisciplinary working within individual companies. Consequently individuals who have developed cross disciplinary knowledge and skills are at an advantage. Health, food, living, transport and energy have all been cited as important areas that would benefit from collaboration between disciplines (Government Office for Science, 2017). (Government Office for Science, 2017) (Deloitte, 2018)

Recruitment

Perhaps linked to the skills deficit highlighted, a limited talent pool was seen as an issue by employers surveyed. The vast majority of employers in this study were very small enterprises; many of which outsourced their recruitment. Networking or internal applications were also seen as key recruitment mechanisms. It is therefore important to highlight to potential applicants, the wide variety of recruitment methods used by companies to maximise job search potential and extend the pool of talent applying to employers. Currently only 25% of

employers advertise their vacancies through university job sites; however with around half of science employers offering graduate level science and technology roles and around a fifth providing opportunities to partake in work experience, opportunities exist for students. It is therefore highly important to develop partnerships between universities and industries to increase high quality experiences; produce graduates with the required skills for the labour market; to support employers to develop their business productivity, increase the advertising of vacancies and to provide the skilled employees required to enable regional development (Abeysekera, 2016).

Final thoughts

Graduate employability is high on the agenda for Higher Education Institutions (HEI's). A key university priority is to better prepare students for entry into the graduate labour market (Jackson, 2015). Institutions benefit directly from providing quality placement opportunities by improving Destinations of Leavers from Higher Education survey (DLHE) outcomes (Office for Students, DLHE, 2018)(HESA, 2018a) and the National Student Survey (NSS) student satisfaction scores (National Student Survey, 2018) (National Centre for University and Business, 2011). Employer work is key to this.

Appendix

Science Sector Employer Research Questionnaire

We are contacting scientific/ technology employers in the region to help universities and higher education career services develop an understanding of developments and skills needs in the scientific sector. The research is part of a HECSU funded project. The research has been carried out by Nikki Abbott, Bioscience and Chemistry Employability Adviser, based at Sheffield Hallam University. Please feel free to contact her for additional information on N.Abbott@shu.ac.uk

1. Company Name

2. Company Address

3. Size of organisation

- 0-4
- 5-9
- 10-19
- 20-49
- 50-99
- 100-249
- 250+

4. Telephone number

5. Email address

6. Contact Name

First Name Last Name

7. Does your company recruit scientific/ technology graduates?

- Yes
- No

8. Do you take on undergraduate students for?

- Year long placements

- [ ] Summer placements
- [ ] Short term work
- [ ] Work experience
- [ ] Internships
- [ ] Other

9. Do you recruit international applicants requiring a work permit?

- [ ] Yes
- [ ] No
- [ ] May have to due to skills shortages
- [ ] Have done in the past but are not now
- [ ] Other

10. Do you employ degree or higher degree apprenticeships?

- ○ Yes
- ○ No
- ○ We are considering it
- ○ Other

11. What scientific/ technical job areas do you recruit for?

12. On a scale of 1-5 how important are the following for scientific/ technology roles?
1- not important at all 5- most important

	1	2	3	4	5
PhD	○	○	○	○	○
Masters	○	○	○	○	○
Degree	○	○	○	○	○
Work experience	○	○	○	○	○
Technical skills	○	○	○	○	○

13. What science/ technical skills do your company find are most valuable in your scientific staff?

Please tick any that apply and/ or add additional information in the box below

- ☐ Biological sciences (such as animal technology, biochemistry, genomics, microbiology)
- ☐ Chemical sciences (such as analytical chemistry, material science, physical chemistry, process chemistry)
- ☐ Physics
- ☐ Pharmacy (including device technology and formulation)
- ☐ Informatics, computational, mathematics and statistics (including automation, data management, health informatics, computational science)
- ☐ Regulatory (including pharmacovigilance, quality assurance and regulatory affairs)
- ☐ Other

14. Are there any specific areas or skills that you have problems recruiting for?
Add details in the box below.

14. When you come to recruiting scientists/ technology specialists do you have:
Tick any of the boxes that apply

- ☐ A lack of appropriately skilled candidates
- ☐ Too few applicants
- ☐ Too many applicants
- ☐ Difficulty finding the time to advertise vacancies
- ☐ Other

15. Are there any core skills you find lacking in scientific/ technology applicants?

- ☐ Mathematical ability
- ☐ Communication Skills
- ☐ Problem solving skills
- ☐ Team working
- ☐ Scientific knowledge
- ☐ Work experience
- ☐ Commercial awareness
- ☐ IT
- ☐ Other

16. Have you seen/ do you foresee any changes to your scientific/ technology recruitment policy with the introduction of higher degree / degree apprenticeships?
Tick any boxes that apply

- [ ] No changes
- [ ] Decrease in graduate roles
- [ ] Decrease in opportunities for undergraduate work experience/ placements
- [ ] Decrease in postgraduate roles
- [ ] Other

17. How do you promote your scientific/ technology vacancies?
Tick any boxes that apply and/ or add your own below

- [ ] Graduate recruitment websites such as prospects, target jobs and milkround
- [ ] Recruitment agencies
- [ ] Speculative applications/ contacts
- [ ] Internally
- [ ] Training schemes/ work experience
- [ ] University job sites
- [ ] Careers Fairs
- [ ] Other

18. What scientific/ technology skills do you think will be most valuable for potential applicants to develop the coming years?

19. Do you foresee any change in the number of scientific/ technology staff you employ over the coming year?

- [ ] A reduction
- [ ] An increase
- [ ] No change
- [ ] Not sure

20. Do you foresee any change in the number of postgraduate scientific/ technology staff you employ over the coming year?

- [ ] A reduction
- [ ] An increase
- [ ] No change

☐ Not sure

21. Do you foresee any implications of Brexit on the work your company are doing?

○ A positive effect

○ No effect

○ A negative effect

○ Not sure

22. Are there any issues or difficulties you have seen for companies working in the scientific/ technology sector in the region?

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