The Ultimate Guide to Finding a Job in Pharma
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Introduction

Are you thinking of a career change?

Do you want to know more about finding a job in Ireland’s highly successful pharmaceutical and medical device manufacturing industries?

GetReSkilled wrote this eBook for those of you considering a mid-career change into this sector. You will be able to find out the types of jobs and salaries that are available and what you’ll need to do to successfully switch into these industries, based on your qualifications and experience.

As a matter of fact, if you already have a technical background, you probably have far more relevant knowledge and experience that you realise. The key is identifying that experience, filling your knowledge gaps and having the courage to make the change.

Let’s begin with an overview of this sector.
Part 1: Ireland’s Pharma Industries - Why You Should Reskill

“I would highly recommend this course to everyone! Before taking this course I didn’t know anything about pharmaceutical industry. I wanted to try something different and never regretted choosing this one. It helped me not only to enhance my knowledge, but also boosted my confidence and faith to find employment again. I found that pace of course was good, lecturers were very good and professional, overall very good experience.”

Vesna Dimitrijevic - BioPharmaChem
(Graduated November 2012)
Chapter 1 - Why consider pharma?

Ireland is home to a highly successful Pharmaceutical Manufacturing Industry, attracting businesses from overseas as well as supporting local enterprises.

The industry has performed impressively in spite of the tough economic environment over the last few years, proving its stability despite the cyclical up and downs of the economy. Here’s a quick overview;

Ireland’s Pharmaceutical Industry

- 9 out of 10 of the world’s largest pharmaceutical companies have a presence in Ireland

- The sector employs over 25,000 people directly and a further 25,000 people indirectly

- 50% of all Ireland’s exports are now pharmaceutical related

- Within the EU, Ireland is the largest net exporter of pharmaceuticals

- 33% of the world’s contact lenses are made in Ireland

- 24,000 people directly employed in Med Device

- 150,000 people employed in supporting industries

- Pharma accounts for 35 billion euro per annum of Ireland’s GDP

- Med Device accounts for 7-10 billion euro per annum of Ireland’s GDP
And if you are looking for a mid-career change, there are five reasons in particular you should consider this sector.

1. The industry is growing

Since the 1960s, Ireland’s pharmaceutical and medical device industries have undergone massive change. There’s only one thing that hasn’t changed - their exponential growth. Here is a quick look at the Industry’s growth over the last few decades.

- In 1988, the pharmaceutical industry directly employed 5,200 people; today, over 25,000 people are employed directly and a further 25,000 people are employed in roles supporting and servicing this industry. In recent years, job growth has averaged out at 1,000 per year.

- The pharmaceutical industry has invested more than €7 billion in Ireland over the last decade. Between 2011 and 2013 (when many industries were still struggling with recovery from the global financial crisis), over €7 billion was invested, leading to 1500 new jobs.

- In 2011 alone, medical technology companies based in Ireland committed €170 million in investments, this was estimated to lead to 875 jobs in the field. Since 2012, a further €300 million of investment has been announced within the medical device sector, this is associated with over 2000 new jobs.

- Figures from the Central Statistics Office show that exports of medical and pharmaceutical products totaled €21.3 billion in 2013. In 2014, that figure had increased to €22.3 billion. Monthly figures so far released for 2015 have shown a continuation in this trend of growth.
2. It supplies well paying jobs

Jobs in the pharmaceutical and medical device sector pay extremely well. For example, the Central Statistics Office reports that people working in the industry earn approximately 30% more than Ireland’s national average, and the IPHA (the Irish Pharmaceutical Healthcare Association) suggest that salaries are higher when compared against other manufacturing roles.

Pharmacareers Ireland report typical salaries of €40,000 – 50,000 for employees with four or more years experience. The important thing about the well paying jobs within this sector is that they are throughout the career ladder – from entry level positions onwards – so it’s never too late for you to reskill into this area and take advantage of its numerous benefits.

3. It doesn’t suffer from cyclical ups and downs

Before committing to a change of career though, it is important that you consider the security of your new role. Whilst nothing can ever be guaranteed, the medical device and pharmaceutical industries in Ireland have not faced the same historical ups and downs of other industries. It’s important to remember that growth has been sustained over many years – this industry has performed well throughout many dips in other sectors.

Many manufacturing sectors showed decline after 2002, the pharmaceutical and medical device sectors did not, they have continued to grow year-on-year. There are two main factors at play here:

- High level of foreign direct investment - new overseas companies are investing as well as more established ones expanding.

- The amount of final product which is exported - Ireland’s Pharmaceutical industries are not only reliant on ‘local’ markets.

The pharmaceutical industry is of great importance to the economy of Ireland. The country has not been without its financial struggles, and the stability of the pharmaceutical and medical device industries has been important in its recovery.
4. It offers rich opportunities for career growth

One of the main draws of Ireland for medical device and pharmaceutical companies is the talented workforce that exists in the country. However, with the industry growing at its current rate, the talent pool is becoming increasingly sparse.

In 2014, the body who advises the Irish government on current/future skills needs of the country, the Expert Group on Future Skills Needs (EGFSN), specifically singled out a few job roles where skills to work in the “fast-growing biopharmaceutical manufacturing sector” are identified as an acute need for the country, these were:

- Technicians
- Senior process scientists
- Engineers

Other groups have also reported recruitment troubles in areas including:

- Lab technicians
- Engineers
- Production specialists
- Quality specialists

All of these employment areas are expected to remain “in demand” for quite some time. If you have experience in any of these areas, it’s a particularly good time for you to consider reskilling.

The other good news is that the Irish recruitment agency Brightwater has reported a “steady expansion at VP, director, and CxO level” within both the pharmaceutical and medical device sectors, so opportunities are increasing all the way up the career ladder – once you’re in, there is excellent scope for progression.

Many of the the world’s top medical device and pharmaceutical companies are based in Ireland, meaning it is a great place to launch your new career.
5. Host of new innovations

Ireland’s past successes have not only come from growth of existing business, but also from embracing new technologies and innovations. Ireland continues to strive to be a centre of excellence for innovation within the sector.

A significant amount of investment was used to develop research centres, and this investment has ensured that Ireland is building its own future in innovation. Examples include the Biomedical Diagnostics Institute, which is developing next generation medical devices, and the Shannon Applied Biotechnology Centre, which is working with natural resources to develop molecules as targets for drug development.

Moving forward, Enterprise Ireland has outlined the following areas as opportunities for growth over the next five years:

- Value added generic pharmaceuticals
- Early stage pharmaceutical research
- Contract services for the pharmaceutical industry
- Gastrointestinal disorders
- Products bringing together technologies from different platforms in collaborations

IMDA (the Irish Medical Devices Association) estimates that over 80% of Irish medical device companies are “innovative active”, meaning they are currently involved with research and development. This process is increasingly integrating different sectors (e.g. biotech, devices, software, etc.) to produce truly innovative medical products. With so many like-minded companies in the same area, Ireland is the perfect place for companies to be collaborating in this progressive way.

Having attracted thirteen of the world’s top fifteen medical technology companies, Ireland is already a well-respected centre of excellence for manufacturing. It is now striving to be seen as a centre for innovation as well.
Chapter 2 - Over 3,000 Jobs are Available

At the start of May 2015, there were more than 3,000 open positions in Ireland’s bio-pharma industry alone. In addition, there is a skills shortage that is making it difficult for employers to find suitable candidates for vacancies.

There have been several big job announcements over the last year which have contributed greatly to the number of open positions. These included:

- **Abbvie announced 175 jobs** at their pharmaceutical manufacturing site in Sligo.
- **ABEC announced 100 jobs** in an expansion of their global operations in Fermoy, where engineered process equipment for bio-pharma manufacturing will be produced.
- **Alexion announced 200 jobs** in Dublin and Athlone as they create their first ever biologics manufacturing plant outside of the USA.
- **BioMarin announced 90 jobs** across Dublin and Cork as they expand their Global Commercial Operation Hub and biopharma manufacturing facility.
- **BMS announced 400 jobs** as they open a new biologic manufacturing plant in Dublin.
- **ClearStream Technologies Limited announced 200 jobs** in Enniscorthy following expansion of their medical device manufacturing plant.
- **Lilly announced 100 jobs** in an expansion of their Cork-based biopharmaceutical facility to include manufacturing and commercialisation.
- **Ethicon Biosurgery announced 270 jobs** at a new medical device manufacturing facility in Limerick.
- **Horizon announced 60 jobs** in their new Dublin headquarters.
• **ICON announced 200 jobs** at their clinical research facility in Dublin.

• **Jazz Pharmaceuticals announced 50 jobs** for a new manufacturing and development facility in Athlone.

• **Randox announced 470 jobs** at a new manufacturing and research facility for medical tests and diagnostic devices in Donegal.

• **Teleflex announced 100 jobs** in medical device research and development in Athlone.

• **West Pharmaceutical announced 150 jobs** in pharmaceutical component manufacturing in Waterford.

• **Zimmer announced 250 jobs** at their new medical device hub in Galway.

With this level of new opportunities, there really has never been a better time for you to reskill into pharma or medical devices. If you’ve got a technical background, your skills are needed - now!
Chapter 3 - What is the future of the industry in Ireland?

It may seem like a simple conclusion, but the world has always and will always need medicines and medical devices that are made safely, cost effectively and time efficiently. More so than in any other era, the World has an increasing life expectancy and a growing elderly population. The need for effective, safe, and cost effective healthcare has never been greater, and Ireland is focussed on being the country of choice to provide these.

At the end of 2014, the medical device industry body, the Irish Medical Device Association, announced results of a sentiment survey of its members:

- 77% expect to see a rise in sales
- 44% expect to be hiring new employees
- 35% expect an increase in the spending across research and development

The IDA and Enterprise Ireland also continue in their efforts to attract new talent. This means there is an active and determined effort to increase the numbers of both local and foreign companies setting up or expanding in Ireland.
“The courses are delivered to a very high professional standard with both the tutors & administration staff being very helpful & encouraging along the journey, the course videos & notes were very easily followed along with weekly webinars in which we could engage with the tutors & tap further into their knowledge & experience. Studying online gives you the time to do the course in your own time yet with assignment deadlines this made you disciplined to meet the deadlines set. I would have no hesitation in recommending these courses to anyone wishing to gain an education in the pharmaceutical sector.”

Ronan Balfe - BioPharmaChem (Graduated November 2012); eValidation (Graduated June 2014)
Chapter 4 - What kind of training will I need?

The amount and type of training you require will depend upon:

• Your previous work experience. Do you have work related experience in a manufacturing environment?

• Your academic qualifications. Do you have a technical qualification in a science or engineering discipline?

• Your career goals and aspirations. Are you looking for an entry-level role in manufacturing, science, quality, engineering/manufacturing or a logistics role? Are you looking for a validation role or an automation role? Are you looking for a more advanced career track in manufacturing, quality or engineering/maintenance?

We have broken down the different types of academic degrees and certificate programmes we offer in reference to the types of jobs you could potentially apply for once you have completed them.

Certificate in e(Bio) PharmaChem (DT 698)

This e(Bio) PharmaChem Certificate is academically accredited by the Dublin Institute of Technology and will prepare you to transition into an operator or technician role within the pharmaceutical and medical device manufacturing industry.

• You will develop an understanding of the Knowledge, Skills and Behavior necessary to manufacture safe medicines for the public.

• You will also learn about GMP Enforcement in this highly regulated industry sector, why it is so strict and why it is so important.
**Academic Qualification:** Level 7 Certificate from Dublin Institute of Technology

The program consists of 3 modules and takes about 5 months full-time, or 8 months part-time, to complete.

**Career Opportunities**

You will be able to apply for entry-level roles *(contingent on your previous work experience)* in the following areas when you get halfway through this course - as you’ll have enough technical knowledge to impress employers at an interview.

<table>
<thead>
<tr>
<th>Entry Level Roles</th>
<th>Science</th>
<th>Quality</th>
</tr>
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<tbody>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing Technical Specialist</td>
<td>Laboratory Analyst</td>
<td>Quality Assurance (QA) Specialist</td>
</tr>
<tr>
<td>Manufacturing Operations Associate</td>
<td>Laboratory Technician</td>
<td>Quality Control (QC) Specialist</td>
</tr>
<tr>
<td>Technician (Manufacturing/ Production)</td>
<td></td>
<td>Project Quality Engineer</td>
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<tr>
<td>Assembler</td>
<td></td>
<td>Quality Engineer</td>
</tr>
<tr>
<td>Chemical Process Technician</td>
<td></td>
<td>Associate Quality Engineer</td>
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<tr>
<td>Food Processing Technician</td>
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<tr>
<td>Packing Machine Operator</td>
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</table>
## Entry Level Roles

<table>
<thead>
<tr>
<th>Engineering/ Maintenance</th>
<th>Logistics</th>
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<tbody>
<tr>
<td>Process Engineer</td>
<td>Procurement Specialist</td>
</tr>
<tr>
<td>Engineer (Projects)</td>
<td>Logistics Specialist</td>
</tr>
<tr>
<td>Engineer (Production/Chemical)</td>
<td></td>
</tr>
<tr>
<td>Associate Engineer</td>
<td></td>
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<tr>
<td>Electrician</td>
<td></td>
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<tr>
<td>Electronic Technician</td>
<td></td>
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<tr>
<td>HVAC Supervisor</td>
<td></td>
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<tr>
<td>HVAC Technician</td>
<td></td>
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<tr>
<td>Industrial Engineer</td>
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<tr>
<td>Instrumentation Engineer</td>
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<tr>
<td>Maintenance Supervisor</td>
<td></td>
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<tr>
<td>Maintenance Technician</td>
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</table>

See Chapter 13 for more details on job roles and salaries.
Certificate in e-Validation (DT 758A)

This e-Validation Certificate is academically accredited by the Dublin Institute of Technology and will prepare you for a validation role within the pharmaceutical and medical device manufacturing industry.

- You will develop an understanding of how to write a Validation Master Plan, prepare a Process Validation protocol and develop a Performance Qualification test script based on the key process measurements of a URS (User Requirement Specification)

- You will also learn about clean air and purified water systems, so as to ensure that these critical systems are fit-for-purpose.

**Academic Qualification:** Level 7 Certificate from Dublin Institute of Technology

Certificate in e-Validation (DT 758A) + Computer System Validation Course

If you combine the e-Validation CPD Certificate with the 10-Week Part-Time Course on Computer System Validation, you will get a thorough understanding of how the CSV process fits into your Software Life Cycle and the purpose of each validation deliverable, which means you'll be able to apply for Automation Roles.

Career Opportunities in Validation and Automation

You will be able to apply for the following roles in validation and automation

<table>
<thead>
<tr>
<th>Technical Roles</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Validation</strong></td>
<td><strong>Automation</strong></td>
</tr>
<tr>
<td>Quality Coordinator</td>
<td>Automation Engineer</td>
</tr>
<tr>
<td>Validation Engineer</td>
<td>Systems Engineer</td>
</tr>
<tr>
<td>Quality Engineer</td>
<td>Applications Engineer</td>
</tr>
<tr>
<td>Document Management Specialist</td>
<td>Computer Operations Specialist</td>
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</tbody>
</table>

See Chapter 13 for more details on job roles and salaries.
Degree in Manufacture of Medicinal Products (DT 291)

The BSc in Manufacture of Medicinal Products is academically accredited by the Dublin Institute and was developed for those looking for a new job or seeking to expand their career opportunities in the pharmaceutical or medical device manufacturing industry. This professional qualification will prepare you for a specialist role within these sectors.

- You will learn the Knowledge, Skills and Behavior necessary to manufacture safe medicines and medical devices in the highly regulated pharmaceutical and medical device manufacturing sector.

- You will also learn about the science that underpins the manufacturing and regulatory framework, which defines this manufacturing industry.

**Academic Qualification:** Bachelor of Science from Dublin Institute of Technology

**Prerequisites:** You must have already completed e-BioPharmaChem and eValidation Certificates before proceeding to BSc in the Manufacture of Medicinal Products.

The program consists of 6 modules, which you can study part-time. Your final grade is calculated using continuous assessment and so you have written assignments to be completed every 6 to 8 weeks.

**Career Opportunities**
You will be able to apply for a more advanced role in the following areas:

<table>
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<tr>
<th>More Advanced Roles</th>
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<tbody>
<tr>
<td><strong>Manufacturing</strong></td>
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<tr>
<td>Operations Supervisor</td>
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<tr>
<td>Production Executive</td>
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<tr>
<td>Pharmacist</td>
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See Job Roles and Salaries for more details
“I have really enjoyed the course. The course content was very detailed and way surpassed my expectation. While the course was challenging, the online support and access was exceptional. I am really looking forward to progressing to the follow-on/specialization course”
Darren Deehan - BioPharmaChem (Graduated February 2014)
Chapter 5 - What is it like studying online?

Online Learning Done Differently
Or Why this is an Online Course you will finish!

- Each week, you’ll complete a series of videos, quizzes, interactive activities and projects through our online platform – available 24/7.

- Online courses can start off great, but staying motivated can be a challenge. So, you’ll get weekly feedback reports (and emails or phone calls if you fall behind!) to keep you on track until you finish the course.

- Because it’s online, there are no airfares, hotel fees or long commutes. Study at home after the kids have gone to bed.

Our Top Tips for Being a Good Online Student

- **Be realistic** - online classes take the same amount of work as classes you attend in person; you need to be just as serious about it. There are no shortcuts, so you need to be able to dedicate the time it needs; don’t underestimate it.

- **Set goals** - setting realistic goals is an important part of online study, ensuring that you’re keeping on top of the workload and keeping yourself motivated as you progress. Just make sure you stick to your goals or reassess them if you’re finding it hard to do so.

- **Make a plan** - schedule time for your ‘classes’, make this a time when you can focus with the least amount of distractions. Be realistic and try to keep to a routine. Make a study plan, divide your work into bite-sized chunks to make it more manageable. Schedule in regular breaks to ensure you’re keeping your attention at its highest and giving yourself time to process what you’re learning. Just ensure that you keep strict ‘back to work’ rules and don’t get sidetracked by something else whilst on your break.
• **Create a good work environment** - being in charge of your own work environment can be very beneficial to learning; you can do everything necessary to make yourself comfortable and create a space where you feel ready to work. It does also mean that you’re in charge of keeping out the distractions - try to be disciplined about leaving your phone to one side, leaving the housework alone and not getting distracted on the internet. Treat your assigned study time like you were in a classroom, and don’t do anything you wouldn’t do there.

• **Use all the resources available to you** - although you may study by yourself, you are certainly not alone on your course; get involved with the various support and discussion aspects of your program.

• **Self motivation is key** - keep the end goal in mind. If you find yourself struggling with procrastination or lacking in motivation on a given day, always keep your ultimate goals in mind. Remind yourself what improvement you’re looking to achieve by taking the course.

• **Every bit helps** - doing 5 minutes of study while waiting in the car to collect the kids from school is better than missing an entire day of study. Like exercise - study works best when it is repeated (even in small amounts) every day. Studying online is a marathon not a sprint, so pace yourself. Applaud yourself for doing small increments daily rather than 6 hours in a day once a week. You are much more likely to remember the materials.

• **Keep in touch** - it’s very easy to feel isolated while studying online, but remember you are not alone. You have a course coordinator who would love to hear from you. The most common reason for dropping off online courses is not staying in touch with your course coordinator. Course Coordinators can only help if you tell them you are having trouble either with the materials or with finding time to study. So stay in touch. Once you tell them, then plans can be put in place to help remedy the situation.
“The benefits of the series of Employment Coaching webinars were also a pivotal aspect of the courses I successfully completed.”

Noel O’Brien - BioPharmaChem (Graduated June 2013); eValidation (Graduated February 2014)
Chapter 6 - What kind of help will you give me to find a job?

Your Job Hunt is the most important part of your transition into the industry, and we are here to help. In a series of 10 workshops, we de-mystify the job hunting process. The course is written by recruiters and, therefore, it is all about getting you into the mindset of those who will be hiring you.

Here is a breakdown of what you will cover:

CV - Getting it Right:

- How to Format Your CV. What should you do?:
  - Make your audience’s job easy
  - Think about who is reading your CV
  - Never send the same CV twice
  - Remember this is a business document
  - Mirror the Language of the Ad
  - What is Your Best Friend? - Your Highlighter!

- Writing a Personal Profile:
  - How to write 8 lines about yourself - Who are you?
  - Why are you the perfect candidate for this job?
  - How to use their own language to your advantage

- Targeting Your CV to a Specific Role:
  - How to adapt Your Personal Profile
• Identifying Your Key Skills
  - How to complete a Skills Audit?
  - How do you reflect on your key skills and then match it to what people are looking for in the job role?
  - How Skills Auditing makes Interviewing Easy

• Crafting Bullet Point Achievements:
  - What did you do and How did you do it?

• Writing Your Cover Letter:
  - How to keep it brief
  - How to Mirror their language
  - Why this role interests you

• How to Directly Approach Companies

Interview - It’s All About that Preparation

• Targeted CV

• Research:
  - Where do I look to find out more about a company (Job Ad, Company Website, Job Board, Newspapers, Press Releases, Blogs, Business Publications, Google Searches, LinkedIn, YouTube, Twitter)

• Presentation:
  - How to show you have completed your research by asking intelligent questions
  - How to make sure you are not simply quoting statistics and actually having a conversation
• Personal Pitch:
  - How to show who you are in 90 seconds
  - Making sure to tailor your Personal Pitch
  - How to show your understanding of the specific role you are applying for

• Your Agenda for Getting this Job

• Why You?:
  - How to Answer Competency based Questions using the STAR Approach
    (Situation, Task, Action, Result)

• Day of the Interview
  - What to do on the day of the interview besides dressing formally, feeling fabulous and being early.

**Networking - How to Think Like a Recruiter:**

• Where are Jobs?

• Getting Your LinkedIn Profile Right

• How Big is Your Network?

• How do I Find Me?
“By upskilling I have dramatically increase my confidence as well as my qualifications. At interviews I now feel I have more to offer a potential employer. As well as having the courses as a reference to engage interviewers and showcase my knowledge and qualifications I have also utilized the employment coaching webinars and applied the skills I learned from these webinar into my interviews. I have been very fortunate to have recently secured an operation technician role with a multinational biopharmaceutical company. “
Edel Harkins - BioPharmaChem (Graduated June 2013)
Chapter 7 - How long will it take?

Anyone that has ever spent time job hunting knows that it’s not an overnight process - it usually takes longer than you’re expecting. If you then add in reskilling and a change of industry, the process really can take time, so it’s important to have realistic expectations going in.

Chances are that it will take several rounds of applying and getting feedback before you’ve really fine-tuned, selling yourself for the new role you want. Of course, there are things you can do to prepare, to make sure you’re not making avoidable mistakes, and to give yourself the best shot. In this next section, we look at how to go about job hunting, applying and interviewing.
Chapter 8 - How do I get started on my job search?

Here is our step by step guide to your pharmaceutical or medical device job hunt.

Decide what is the most relevant, most interesting and most attainable for you.

There are a wide variety of interesting roles that you can enter into, at both entry-level or higher, especially if you have skills that are transferable from other industries. See chapter 13 for a guide to job roles and salaries.

Before you start searching for jobs

Once you’ve got a rough idea about the sort of roles you want to aim towards, here are some things to consider:

- **What skills do you already have?** Write down your responsibilities and skills learned in previous jobs. List everything and then start to think about how each could be transferable to the job roles you’ve looked at.

- **Complete a rough draft of your CV.** With these skills in mind, complete a rough draft of your CV. You’re not sending it to anyone just yet, but by drafting one, you’ll start to see where your strengths and weaknesses are. (For more information on CVs, see the next chapter.)

- **What do you know about the industry?** It’s all well and good having transferable skills, but you need to show potential employers that you’re committed to a change of career and knowledgeable about their industry. Head on over to our blog section for more information about the pharmaceutical and medical device industries in Ireland, it’s a great place to start.
• **What about your network?** There’s nothing better than first-hand knowledge - do you know someone in the industry that you can talk to? Think of friends, extended family, former colleagues – anyone you can have a discussion with at this stage is of benefit.

You’ve talked to everyone in your network, assessed you own skills and written a draft CV – so where are the gaps? What are you missing? Acknowledge these gaps and begin to address them now.

**Where to look for vacancies**

Once you’re ready to start looking for vacancies, there are several online resources you can use for locating job openings. Ones that we recommend concentrating on are:

• [Jobs.ie](https://www.jobs.ie)
• [IrishJobs.ie](https://www.irishjobs.ie)
• [Pharmasolutions.ie](https://www.pharmasolutions.ie)
• [Pharmaceutical.ie](https://www.pharmaceutical.ie)

You can also have a look at our jobs page here on GetReskilled for a list of vacancies across both the pharmaceutical and medical device industries.

**Next steps**

• Update your CV and address any skills gaps. Now you’re ready to send it to employers.

• Start preparing for interviews – you don’t know how quickly you might land your first interview, don’t leave preparing until the last minute! Check out chapter 12 for information of how best to prepare.

• Start applying!
Chapter 9 - What are the mistakes to avoid when looking for a job?

There is an old saying in the recruitment industry, “It’s not the best person who gets the job, it’s the best prepared person”. At GetReskilled, we see a lot of extremely qualified, smart and capable people struggling to take the right steps and wasting precious time trying to make progress with their job search. To help you avoid some common mistakes, we’ve gathered together some great online resources.

Won’t many of the mistakes be rather obvious?

For experienced job hunters, yes. However, we have found that they are far from obvious to someone who has been out of the job search process for a while. It is our sincere hope you find the content useful.

1. Starting your job hunt without doing your homework!

So you have been thinking of changing careers? The worst thing you can do is dive straight into applying for jobs. There is really quite a lot to do before you get to that stage; don’t damage your chances before you even get started by rushing into applications.

GetReskilled Top Tips:

Check out this LinkedIn article on how to get started. It focuses on creating your LinkedIn profile, but many of the tips are equally applicable to CV writing.
2. Not having a clear idea of which role you are applying for

Sending out lots of applications and not getting anywhere can be demoralising – whilst it might seem like a good idea to apply for any job you see, spending more time on applying to jobs most suited to you will be more fruitful in the long run. The pharmaceutical and medical device manufacturing industries have a wide variety of roles and positions. For people new to the industry, it can be a challenge to identify relevant job roles to suit your skills and figure out your future career pathway.

GetReskilled Top Tips:

Take a look at Chapter 5 for an outline of different jobs available dependent on your background as well as guidance on salaries and long-term career prospects.

3. Having a poorly constructed or badly written CV.

First impressions really do last. Your CV is your advert, your window display, your sales pitch – it has to sell you when you aren’t there to sell yourself. A poorly written CV undermines the skills and achievements you’re trying to convey. Put yourself in the position of your potential employer, would you hire someone who couldn’t be bothered to put together a decent CV?

GetReskilled Top Tips:

Here is a link to an article on how to specifically craft your CV for the Pharmaceutical Manufacturing and Medical Device Industry to help you make that all-important first impression.

We also recommend you search online for sample CVs for your targeted role – this gives you an idea of the terminology, tone and wording that is most appropriate; try to incorporate that into your CV. There are lots more CV tips in our next chapter.
4. Leaving gaps in your work history on your CV.

Lots of people out there have gaps in their work history, and they are often at a loss as to how to best present this to any future employer without casting a shadow over their application. One thing’s for sure, you have to think about how you’ll explain your gaps at interview – if they’re obvious, then it’s something most interviewers will ask about.

GetReskilled Top Tips:
Here is a link to an article on how best to deal with those gaps in employment.

5. Using one standard application.

Most hiring managers are extremely busy and will have only a few minutes to look over your CV. You really do need to make an impression in the first few seconds, so the idea of a one size fits all CV is just not going to cut it these days – a standard generic application is very obvious. Your CV is your chance to sell yourself to this particular employer; the things of greatest importance will be different for every application.

GetReskilled Top Tips:
You need to tailor your CV as precisely as possible to each and every role that you apply for. One of the biggest objections to this is the amount of time this can take – a little time-saving technique might be to draft up three CV templates, each one with a different focus within your targeted area. When you come across a relevant position, use the most relevant CV template as a starting point to tailor your application.

6. Submitting a CV that only you have looked over

Apart from the very obvious typos that you may have missed, not having another pair of eyes critically assess your CV is perhaps one of the most common mistakes we come across. The importance and value of having an outside pair of eyes go over your CV really cannot be overstated! Having a friend or mentor do this is a great first step, but even better is to get honest feedback from a professional recruiter or industry specialist in your target industry, he or she will likely see things that you have completely overlooked.
GetReskilled Top Tips:

Identify at least three relevant people that you can show your CV to – these need to be people who’ll give you an honest appraisal and won’t just be nice! It can be difficult to ‘put yourself out there’ like this, but it’s better that someone like this spots your mistakes rather than a potential employer!

7. Sending a generic cover letter

Is the cover letter dead? We don’t think so. Having a well-crafted cover letter that complements your CV shows you have taken the time to research the company and aren’t just applying for any job going with one standard application. There are still plenty of companies (particularly those where the person doing the hiring will have to work directly with you) that will take the time to thoroughly read them. It’s important that you put the time and effort into putting a cover letter together that catches their attention and gets your CV read.

GetReskilled Top Tips:

Have a look at this article on crafting the perfect cover letter.

8. Waiting for the perfect job to come to you

It’s often said that many of the best jobs are never advertised. If there’s a role you feel that you have the ideal skill set for or a company where you’d just love to work, rather than waiting for a job to be posted, why not take a more proactive approach to your job hunt taking advantage of that fact.

GetReskilled Top Tips:

Build yourself a list of ‘target companies’, do some thorough research and then proactively send in your CV and cover letter or look to make connections. Check out this link to an article from LinkedIn on this.
9. Not making the most of your network

What network? You’d be surprised! If you can make your intentions about changing career known without harming your current employment then do so – speak to people. Ask for advice for a (completely made up) ‘friend’ if you have to. You might be surprised at the connections you currently have … or the connections they have. Look to expand your network too; have a look at using LinkedIn to connect to people within your industry.

GetReskilled Top Tips:

Here is a link to an article on how to find the key decision makers at your target companies.

Start sussing out your current network and their current networks!

10. Thinking you’ve done all the research you can

Chances are, there is always something else you could be researching to give yourself a better shot at a career change. Whether it’s job hunting skills, researching your chosen industry or practicing interview techniques, the internet has endless information for you. Focus on good content from credible resources to utilise your time best.

GetReskilled Top Tips:

Here are links to another couple of LinkedIn resource to help you on your way.

- Job Search Fundamentals Part 1
- Job Search Fundamentals Part 2

So now you’re prepared – start job hunting! Remember to head to our Job Vacancies page where we pull together pharmaceutical and medical device jobs from all over Ireland.
Chapter 10 - How should I structure my CV?

1. **Keep it concise** - two pages is optimal unless you’re told otherwise.

2. **Stick to a basic format** - personal details, academic background, work experience, professional/industry qualifications, other interests.

3. **Chronological order** - within each of these headings, lead the employer through your history. The idea is to show that you’ve gradually been gaining the skills and experience that is needed to be able to do this job. Don’t leave any gaps in time (if you’ve got gaps, see chapter 10 for more tips on how to deal with them on a CV).

4. **Be specific** - outline specific duties, responsibilities or experiences you’ve had if they relate to the job in question. You can’t assume that an employer in a new industry knows what your old job involved, you’ve really got to spell out the similarities. Also be sure to use their language when tailoring your CV - if they ask for a certain skill in a job advert then make sure you use their phrase when discussing the skill, you may think a different phrase means exactly the same thing... they might not.

5. **Keep it relevant** - in terms of jobs, they should all be listed, but if there really are a limited number of transferable skills (are you sure you’ve considered everything?) then keep it brief and leave yourself the room to expand in other areas.

6. **Jargon & Abbreviations** - you’ve got to remember you’re changing industries, don’t use too much jargon or the message might get lost.

7. **Don’t just list your jobs** - list responsibilities, measurable successes, targets you met and key achievements. If possible, keep note for interviews as to how this is transferrable to the new job and industry you’re applying for.
8. **Keep it legible** - there’s a temptation when you feel restricted by space to just make the font smaller and reduce the spacing of your document. Don’t do it! You want your CV to be easy to read, you don’t want the employer put off before they’ve even read about you!

9. **Be clear** - take time to consider the key points and make sure they stand out once on paper, use formatting (such as **bold** and **underlining**) to make key points obvious on the page.

10. **Print it out** - when you think you’re done, print a copy. There is a good chance this is how the employer will view it, so it’s important that everything looks good on paper. Put it down, do something else and come back to re-read it with a clear head and fresh eyes. Still happy? Then you’re probably ready to send it out!

If you’re still having trouble getting started, we’ve included some sample CVs in Part 5 to give you an idea of what’s expected. But remember that there are no hard and fast rules, make your CV work for you - it’s your big chance to show someone why you’re right for their job, so make the most of it.
"When I got interviews after that the companies were very interested in my course, I felt like I had gained an advantage again, and fortunately I am now employed by one of the biggest BioPharmaceutical companies in the World that is why I’d say continuing education can only be good for your career."
Denis Mehigan - BioPharmaChem
Chapter 11 - How should I prepare for an interview?

Interview preparation should fall into 3 categories:

**Yourself**

You have to know yourself inside out. This sounds like common sense, but it’s often harder than it first seems. You have to be able to line yourself up against the job specification and critically analyse where your strengths and weaknesses are. Take time to think and practice clear and concise answers to address each.

You also have to make sure you can comfortably talk through your work history - when you’re changing industry, it’s important that you not only tell the interviewer what your roles have been before, but how they relate to the position you’re applying for. You may think it’s obvious, but there’s the chance your interviewer knows very little about your previous role, so spell out the similarities. Don’t leave them guessing.

Additionally, you should be able to give a confident overview of yourself in 5 minutes, many interviewers use this as a way of beginning an interview and letting you settle down - be aware of what your key points are.

**The Company**

Before you set off for an interview, you need to gather as much information as possible. You have to be able to show that even though you’ve not done this specific role in this industry before, you have a good idea of what it is and what it involves.

Have a look at the company’s website, social media (Facebook, LinkedIn, etc.) and talk to anyone who knows something about the company. What you’re after is a well-rounded view of the company, what they do and how they function. Not only does this help you look prepared and confident to the employer, it also helps you decide that this is a company you would enjoy working for.
Asking what you know about the company is often one of the opening questions in an interview - take the opportunity to do more than just relay a list of facts. Tell them why knowing this makes you want to work for them, what makes you a good fit or what can you add to the pursuit of their company goals. You can easily use this question to get an excellent start to your interview.

**The Interview Process**

Don’t be afraid to ask about the process - you’ve got to know what you’re preparing for.

- Are you only meeting one interviewer?
- What is their position within the company?
- Is there a set structure to the interview?
- Will there be any assessments or psychometric tests within this interview?
- How long is the interview scheduled to last?

Preparing effectively will give you confidence going into that all important interview. Even if you’ve asked all the above questions, expect the unexpected! Remember that no two interviews are ever the same and you can’t guarantee any part of it. So be sure make the most of every opportunity given to you throughout the process and be clear on the key things you want someone to know about you.

Also ask about the rest of the process

- Are they making a selection based on these interviews alone?
- Is there a second stage of interviewing?
- Are there tests/assessments to do on a separate occasion?

These are all things you are perfectly entitled to ask and should be – having a clear idea of the process lets you confidently focus best on each task in turn with no surprises.
Chapter 12 - What are the mistakes to avoid during the interview?

So all your hard work has finally paid off and you have a number of job interviews lined up over the next few weeks. However, for some of you it may have been a long time since you last did a formal job interview. So what shouldn’t you do? Let us take you through the most common job interview mistakes and our tips for avoiding them.

1. Being Unprepared for Interview Questions

There are many different ways that companies conduct interviews – there are lots of ways they can ask you about your past work experiences and your reasons for wanting their job. Some questions can be a little tricky if you’re unprepared – by preempting these difficult questions you can prepare for how you might answer them. This way, your answers will sound more confident. There is a huge amount of material out there on how to best prepare for a job interview.

GetReskilled Top Tips:

Here is one particular link we like, but there are many others.

How to answer the 64 toughest interview questions

The key is to read about different types of questions as well as considering specific things you might get asked.

If at any point you are unsure about a question, don’t be afraid to ask for some clarification. It’s MUCH better to do that before you begin an answer.

One thing you’ll almost certainly be asked is if you have any questions of your own; make sure you’ve thought of a few relevant, insightful questions to create a good impression and show your genuine interest in the role.
2. Dressing Inappropriately

When you interview for a job, it’s imperative to look professional and polished. Although your everyday working attire may vary based on the position you’re applying for, it’s important to look well-dressed and put together for an interview, no matter what the company.

GetReskilled Top Tips:

In the pharmaceutical and medical device industries, always go with professional attire.

3. Arriving Late

Everyone knows that first impressions are very important; make sure you don’t make a bad first impression before you even arrive. Running late not only suggests poor time management skills, but it shows a lack of respect for the company, the position and even your interviewer.

GetReskilled Top Tips:

Go the extra length to make sure that you aren’t late – in fact, aim to be early. Plan your time so you make it to the interview location about 15 minutes before the scheduled start time. That way, if something unforeseen comes up on your way, you have some time in hand. It’s always good to give yourself a little time waiting at the location to calm any nerves and focus your thoughts towards all that preparation you’ve been doing.

4. Being Distracted

Once you’re in that interview room, the only thing you should be thinking about are the questions being asked and your answers. Distractions come in many forms – there are some you can control and some you can’t. It is your responsibility to ensure you’ve dealt with all the ones you can control, both before you enter the room and throughout your time with the interviewer.
GetReskilled Top Tips:

Before you go in, deal with any outside distractions – switch off your mobile phone (or at the very least ensure it’s silenced). Once in the room – keep your focus on the interviewer. It can be really easy to anticipate what you think they’re going to ask or what you want them to ask and answer that. Really listen to the question; take a second if you need to consider your answer and give it, making sure you address all parts of the question.

If you’re finding it difficult to stop your mind from racing and distracting you, try sitting forward in your chair and employ some good ‘active listening’ techniques.

If you find that your interviewer is the one who seems distracted or disorganised then it’s even more important that you focus on making your ‘key facts’ heard and remembered.

5. Fuzzy Resume Facts

Even if you submitted a resume when you applied for the job, you may also be asked to fill out a job application. Stumbling to remember your own past doesn’t make a great impression and may even lead people to wonder how honest you’ve been. Make sure you know the information you will need to complete an application, including dates of prior employment, graduation dates, and employer contact information.

GetReskilled Top Tips:

It’s understandable that some of your older experiences may be hard to recall, so review the facts before going into your interview. It can be helpful to keep a copy of your resume for yourself to refer to during your interview, just be careful not to use it as a crutch.

Everything written on your resume should be the truth, but areas such as gaps in your career history can be especially tricky; make sure you’ve read Chapter 10 if you have any.

6. Talking Too Much

Of course, your interview is a time to talk ... appropriately. You may feel like you’ve got a lot to say and not much time to say it in, but talking too much really can harm your chances. Rambling can make you look disorganised. Keeping talking can make you look like you’re not paying attention or not able to respond to social cues. Talking about your personal life can make you look unprofessional. Having said all that, saying too
little can be just as damaging as saying too much – it’s more about being personally aware than anything else. Here are our tips ...

**GetReskilled Top Tips:**

Listen to each question carefully and consider your answer – it’s better to take a second before you answer than to start an answer and realise you’ve misinterpreted the question or not used your best example.

When giving long and detailed answers, be sure to keep looking to your interviewer for clues that they’re looking to move on (e.g. Do they keep taking a breath to start to speak? Are they watching a clock?). Don’t feel rushed, just be aware when they are trying to move things along.

Don’t ever get sidetracked and start talking about your personal life. Your spouse, your home life or your children are not topics you should delve into, no matter how warm and welcoming your interviewer may be.

### 7. Badmouthing Past Employers

When you’re asked hard questions, like “Tell me about a time that you didn’t work well with a supervisor. What was the outcome and how would you have changed the outcome?” or “Have you worked with someone you didn’t like? If so, how did you handle it?” never fall into the trap of bad mouthing other people. It’s sometimes a smaller world than you think, and you just never know who your interviewer might know. You also don’t want the interviewer to think that you might speak that way about his or her company if you leave on terms that aren’t the best. And, most importantly, it’s just not professional. Instead, review how to answer difficult questions.

**GetReskilled Top Tips:**

You want your interviewer to know that you can work well with other people and handle conflicts in a mature and effective way.

If you have to explain a situation, keep it factual. Keep the explanation as succinct as possible and focus more of your answer on explaining how you went about finding a solution. Keep it positive.

The best advice really is to only speak about people like they are in the room.
8. Sitting back and waiting ... indefinitely

Sometimes things really do just take time, especially in recruitment – there are many things that can hold the process up. But if you’ve had your interview and not heard anything back, you shouldn’t just sit back and wait indefinitely. It can be difficult to know what’s for the best, you’ve got to be careful that you don’t ruin all your chances by being seen as annoying with continued, unsolicited contact.

GetReskilled Top Tips:

Do try to avoid this headache altogether by agreeing a plan for follow up whilst you’re still in the interview – ask when you should expect to hear, suggest that you’ll call on a certain day for an update if you’ve not heard.

If you’re still left unsure, whether it’s after your initial application or after an interview, have a look at this article for some great advice.

If you’ve still not managed to land yourself an interview for your dream job, have a look at our up to date vacancies page where you’ll find jobs in the pharmaceutical and medical device industries from all across Ireland.
Part 5: Jobs & Opportunities

“The reasons I would recommend the course are:
1. The professionalism and passion of the lecturers comes across in the tutorials which gives the student confidence and encouragement to keep on top of the course.
2. The course content material is concise and interesting.
3. The timing of the release of the lessons is perfect; the student moves at a comfortable pace, one step at a time."

John Ryan - BioPharmaChem (Graduated February 2014)
Chapter 13 - Jobs roles and salaries by background and experience

Starting to look for a job feels a bit like treading water in the middle of an ocean with no idea which way to swim. To help you figure out what types of jobs there are in the Pharma Industry, we’ve taken some example jobs from across the pharmaceutical and medical device industries and organised them by background and experience level.

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Entry Level Roles

Manufacturing Roles – Entry Level

Manufacturing Technical Specialist

Job description – Monitors production line for efficiency and productivity. Test products and assemblies for quality and functionality, involved in troubleshooting if issues found.

Salary ranges based on years of experience (€) –

- 0-3 years: 29,000 – 38,000
- 3-5 years: 38,000 – 47,000
- 5+ years: 47,000 – 56,000

Ideal background – Bachelor’s degree in science or engineering field, experience within manufacturing (or scientific) environment advantageous.

Career path from here – Group Leader > Technology Manager > Technology Director

Manufacturing Operations Associate

Job description – Works in daily operation of the manufacturing process, conducts duties in line with company, as well as external, protocols and procedures. Will be involved in set-up of smaller equipment as well as troubleshooting issues if they arise.

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 – 36,000
- 3-5 years: 36,000 – 42,000
- 5+ years: 42,000 – 52,000

Ideal background – Bachelor’s degree in science or engineering field, experience within manufacturing (or scientific) environment advantageous.

Career path from here – Supervisor > Manufacturing Manager > Manufacturing Director
Technician (Manufacturing/Production)

**Job description** – The Technician performs chemical operations, testing, inspection, and cleaning duties on a variety of equipment used in the manufacturing plant. In addition, this role will be involved in carrying out subdivision, solid charge, distillation, filtration and pack-off activities, in accordance with safety and cGMP requirements. Maintaining proper cGMP compliant documentation and good housekeeping are also integral to this role. Can be involved with quality control procedures.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 – 36,000
- 3-5 years: 36,000 – 42,000
- 5+ years: 42,000 – 52,000

**Ideal background** – Operations experience within a related field advantageous.

**Career path from here** – Senior Technician > Supervisor > Production Executive

Assembler

**Job description** – Assembling finished product into packaging in line with site specifications and policies.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 20,000 – 26,000
- 3-5 years: 26,000 – 30,000
- 5+ years: 30,000 – 34,000

**Ideal background** – Previous experience in a manufacturing environment is advantageous.

**Career path from here** – Senior Assembler > Production Supervisor > Production Manager
**Chemical Process Technician**

**Job description** – Performs chemical process testing to ensure chemical balance maintained for operations, mixings solutions and materials in line with company standards. Operation and maintenance of chemical mixing equipment.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 32,000 - 38,000
- 3-5 years: 38,000 - 44,000
- 5+ years: 44,000 - 55,000

**Ideal background** – Relevant third level qualification, previous experience within chemical processing setting highly desirable.

**Career path from here** – Senior Chemical Process Technician

**Packing Machine Operator**

**Job description** – Operating an automated packing machine. Ensures product is correctly packaged, in line with site specification and procedures and ensures efficient ongoing line production.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 20,000 – 26,000
- 3-5 years: 26,000 – 30,000
- 5+ years: 30,000 – 34,000

**Ideal background** – Previous machine operator experience highly desirable.

**Career path from here** – Senior Operator > Production Supervisor > Production Manager
Science Roles – Entry Level

Chemist

**Job description** – Will plan, organise and execute experimental work relevant to improvement of manufacturing processes as well as testing of materials at many stages (i.e. raw materials, intermediaries, etc.). Have direct input in scaling-up processes from laboratory to plant-size manufacture.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 30,000 – 38,000
- 3-5 years: 38,000 – 45,000
- 5+ years: 45,000 – 55,000

**Ideal background** – Honours degree in chemistry, laboratory work experience, good awareness of working protocols and procedures within the industry.

**Career path from here** – Senior Chemist > Laboratory Manager > Quality Director

Laboratory Analyst

**Job description** – Duties include sampling, testing and analysing of materials from all stages of manufacture process within a laboratory environment. They may also have data input and laboratory equipment calibration and maintenance responsibilities.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 40,000
- 5+ years: 45,000 – 50,000

**Ideal background** – Qualification in chemical process technology/bio-process technology or similar, previous experience in chemical/microbiological techniques, good working knowledge of relevant protocols and regulations.

**Career path from here** – Senior Laboratory Analyst > Supervisor > Assistant Chemist
Laboratory Technician

**Job description** – Provide all technical support for functioning of the lab to ensure that a quality product is produced within a controlled environment. Assists in handling and maintaining lab equipment, collecting and analyzing data, and performing routine laboratory work. This role is engaged in different testing methodologies, ranging from microbiology and molecular biology to the latest analytical chemistry techniques. Adherence to protocols and procedures is extremely important, responsible for documentation and logbooks. Often carrying out routine tasks, but must be to a very high standard.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 20,000 – 25,000
- 3-5 years: 25,000 – 35,000
- 5+ years: 35,000 – 38,000

**Ideal background** – Relevant third level science qualification. Prior lab experience extremely beneficial.

**Career path from here** – Senior Laboratory Technician > Team Leader Technician > Laboratory Manager

Quality Roles – Entry Level

**Quality Assurance (QA) Specialist**

**Job description** – This role can have a broad job specification. QA specialists can be engaged in different testing methodologies as well as environmental and raw material sampling in accordance with cGMP (Current Good Manufacturing Practices). They can also be involved in updating SOPs, reviewing GMP documentation and auditing. The role further requires monitoring of process outputs, reporting on performance and giving advice.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 35,000
- 5+ years: 35,000 – 38,000

**Ideal background** – Bachelor’s degree (ideally in manufacturing, engineering or science), entry with HND possible with relevant experience.
Career path from here – Senior QA Specialist > QA Manager > QA Director

Employment outlook – QA Specialist was named number 1 ‘most in-demand position’ in scientific field in 2015, expected to remain in high demand.

Quality Control (QC) Specialist

Job description – Carry out lab testing of products prior to lot release, also tasked with calibration and maintenance of lab equipment

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 35,000
- 5+ years: 35,000 – 38,000

Ideal background – Bachelor’s degree in scientific discipline (ideally biology, biotechnology or microbiology), working knowledge of relevant protocols and regulations.

Career path from here – Senior QC Specialist > Quality Control (QC) Manager > QC Director

Employment outlook – QC chemist named number 3 ‘most in-demand position’ in scientific field in 2015, expected to remain in high demand.

Project Quality Engineer

Job description – Develops systems and system documentation to ensure manufacturing meets all internal and external quality quality requirements. This involves reviewing of contractual documentation to highlight quality requirements. In addition, reviews systems and documentation regularly to analyse effectiveness and review or rewrite where necessary.

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 35,000
- 5+ years: 35,000 – 40,000
Ideal background – Bachelor’s degree in engineering, previous experience as a Quality Engineer is highly desirable.

Career path from here – Senior Project Quality Engineer

Quality Engineer

Job description – Provides quality assurance support, ensuring that the operations continue in accordance with quality requirements while maintaining efficiency.

Salary ranges based on years of experience (€) –

- 0-3 years: 28,000 - 35,000
- 3-5 years: 35,000 - 45,000
- 5+ years: 45,000 +

Ideal background – Degree in engineering and good knowledge of quality systems - previous experience in quality engineering advantageous

Career path from here – Senior Quality Engineer

Associate Quality Engineer

Job description – Provision of Quality Assurance support to manufacturing process to ensure that all quality requirements are met whilst production is efficient, supplies suggestions of strategy improvement. Also involved in extensive testing of final product to ensure standards prior to distribution. Likely to work in supervision of several teams.

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 – 33,000
- 3-5 years: 33,000 – 42,000
- 5+ years: 42,000 +

Ideal background – Bachelor’s degree in engineering or lower level engineering qualification with work experience in technician role.

Career path from here – Quality Engineer
**Engineering/Maintenance Roles – Entry Level**

**Process Engineer**

**Job description** – Process Engineers develop, manage, and improve manufacturing processes that produce Active Pharmaceutical ingredients. The Process engineer starts with a chemical synthesis and utilizing their understanding of Chemical Processing Unit Operations will develop a manufacturing process that ensures that high quality products are produced in a safe and efficient manner. The manufacturing process will then be automated by the process engineer and finally run in the production facility.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 35,000 – 44,000
- 3-5 years: 44,000 – 54,000
- 5+ years: 54,000 – 60,000

**Ideal background** – Bachelor’s degree in scientific field or chemical engineering, previous experience within a manufacturing environment is advantageous.

**Career path from here** – Senior Engineer > Engineering Manager > Engineering Director

**Employment outlook** – Process Engineers roles are expected to remain in high demand.

**Engineer (Projects)**

**Job description** – Project engineer reviews and consults on project plans before taking on the day to day running of a project to install equipment for new processes and upgrades in a large scale manufacturing plant. Tasks will include budget and scheduling as well safety and legal considerations. Once the process is operational, responsibilities shift to assessment and further optimization.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 30,000 - 44,000
- 3-5 years: 44,000 – 54,000
- 5+ years: 54,000 – 60,000
Ideal background – Bachelor’s degree in scientific field or chemical engineering, previous experience within a manufacturing environment is advantageous.

Career path from here – Senior Engineer > Engineering Manager > Engineering Director

Employment outlook – Project Engineer was named the number 1 ‘most in-demand position’ in engineering in 2015, expected to remain in high demand.

Engineer (Production/Chemical)

Job description – Have input at all stages of the industrial production process (design, developing, installing and operating). They may be involved in researching new products and technologies as well as maximising efficiency and productivity of working plants.

Salary ranges based on years of experience (€) –

- 0-3 years: 26,000 - 40,000
- 3-5 years: 35,000 - 55,000
- 5+ years: 55,000 +

Ideal background – Bachelor’s degree in engineering or scientific field, relevant work experience advantageous

Career path from here – Senior Engineer > Manufacturing Lead/Manager > Production Director

Associate Engineer

Job description – Usually involved in supervision of multiple teams. Work in oversight of engineering processes, analysing effectiveness and suggesting improvements.

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 45,000
- 5+ years: 45,000 +
Ideal background – Bachelor’s degree in Engineering and experience in appropriate engineering role.

Career path from here – Engineer

Electrician

Job description – Full support of the electrical systems within the manufacturing process including installation, maintenance and repair.

Average Irish salary (€) - 36,000

Ideal background – Successful completion of apprenticeship and fully licensed. Experience in a manufacturing setting highly desirable.

Career path from here – Senior Electrician > Facilities Supervisor > Facilities Manager

Electronic Technician

Job description – Calibration, maintenance and repair of electronic instruments used within the manufacture process.

Salary ranges based on years of experience (€)

- 0-3 years: 25,000 - 30,000
- 3-5 years: 30,000 - 34,000
- 5+ years: 34,000 - 44,000

Ideal background – Relevant third level qualification. Experience within a manufacture setting highly desirable.

Career path from here – Senior Technician > Supervisor

HVAC Supervisor

Job description – Planning, organising and directing of employees involved with all aspects of the heating and air conditioning systems. This includes installation, maintenance and repair and may involve supervision of contract staff. Responsible
for inspection of work to ensure it meets all internal and external safety and quality requirements.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 34,000
- 5+ years: 34,000 – 44,000

**Ideal background** – Bachelor’s degree in Facilities Management or similar. Previous role as HVAC Technician highly desirable and previous supervisory experience advantageous.

**Career path from here** – HVAC Manager > Facilities Manager

**HVAC Technician**

**Job description** – Involved with all aspects of installation, maintenance and repair of air conditioning and heating systems, ensuring all work meets necessary requirements

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 – 30,000
- 3-5 years: 30,000 – 35,000
- 5+ years: 35,000 +

**Ideal background** – Secondary school level qualification and HVAC experience highly desirable.

**Career path from here** – HVAC Mechanic > HVAC Supervisor > HVAC Manager

**Industrial Engineer**

**Job description** – Designs, develops and installs components to produce high-quality output in line with regulations and in a cost-effective manner. May be involved with supervision of Technicians.
Salary ranges based on years of experience (€) –

- 0-3 years: 28,000 - 38,000
- 3-5 years: 38,000 - 48,000
- 5+ years: 48,000 +

Ideal background – Bachelor’s degree in mechanical, industrial or electrical engineering. Previous experience as an engineer in an industrial setting is advantageous.

Career path from here – Senior Industrial Engineer > Production Manager > Operations Manager

Instrumentation Engineer

Job description – Provision of computer programming and instrumentation support as well as designing and developing specialised instrumentation and equipment as required.

Salary ranges based on years of experience (€) –

- 0-3 years: 28,000 - 38,000
- 3-5 years: 38,000 - 48,000
- 5+ years: 48,000 - 58,000

Ideal background – Bachelor’s degree in Electrical Engineering. Experience with instrumentation in a manufacture setting advantageous.

Career path from here – Senior Instrumentation Engineer

Maintenance Supervisor

Job description – Coordination of safety, maintenance and equipment needs across the entire manufacturing site. Involved in development of staff training procedures in these areas also.
Salary ranges based on years of experience (€) –

- 0-3 years: 26,000 - 40,000
- 3-5 years: 36,000 - 50,000
- 5+ years: 50,000 +

Ideal background – Bachelor’s degree in a related field or a bachelor’s degree supplemented with relevant maintenance experience. Supervisory experience advantageous.

Career path from here – Maintenance Manager > Facilities Manager

**Maintenance Technician**

**Job description** – Assists in maintenance procedures, testing and adjustment. May be tasked with specific set of machines for which responsibility is given for set-up, adjustment and maintenance as required. Must keep accurate records of testing and quality assessments. Assesses delays in the production process as well as any change in standards of output, correcting accordingly.

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 - 35,000
- 3-5 years: 36,000 - 42,000
- 5+ years: 42,000 +

Ideal background – Maintenance operations experience advantageous.

Career path from here – Senior Technician > Supervisor > Production Executive

**Logistics Roles**

**Procurement Executive**

**Job description** – Duties include purchasing equipment, material, goods and services as required for the manufacture process. They are tasked with ensuring quality alongside cost effectiveness. This may involve monitoring of sales and stock as well as performance against competitors.
Salary ranges based on years of experience (€) –

- 0-3 years: 40,000 – 45,000
- 3-5 years: 45,000 – 50,000
- 5+ years: 50,000 – 60,000

Ideal background – Bachelor’s degree in business, science or engineering

Career path from here – Senior Procurement Executive > Procurement Manager > Procurement Director

Logistics Specialist

Job description – Tasked with logistical coordination across the whole life cycle of a product from ensuring supply of raw materials to distribution of final product in line with customer demand (including minimising storage and transportation costs).

Salary ranges based on years of experience (€) –

- 0-3 years: 25,000 - 30,000
- 3-5 years: 30,000 - 35,000
- 5+ years: 35,000 - 40,000

Ideal background – Bachelor’s degree in logistics, supply chain management or industrial engineering. Previous experience as logistics coordinator.

Career path from here – Senior Logistics Executive > Logistics Manager > Logistics Director
Validation and Automation Roles

Validation

Quality Coordinator

Job description – Develops, implements and evaluates the quality program - looks to improve efficiency whilst maintaining standards. Will investigate incident reports and make recommendations for improvements.

Salary ranges based on years of experience (€) –

- 0-3 years: 30,000 – 40,000
- 3-5 years: 40,000 – 55,000
- 5+ years: 55,000 +

Ideal background – Experience with quality procedures in a manufacturing setting is highly desirable.

Career path from here – Quality Assurance Specialist > Quality Manager

Validation Engineer

Job description – Designing process or equipment protocols to ensure output, internal and external safety and quality requirements.

Salary ranges based on years of experience (€) –

- 0-3 years: 30,000 - 40,000
- 3-5 years: 40,000 - 55,000
- 5+ years: 55,000 +

Ideal background – Bachelor's degree in engineering or scientific discipline.

Career path from here – Senior Validation Engineer
Quality Engineer

**Job description** – Provides quality assurance support, ensuring that the operations continue in accordance with quality requirements while maintaining efficiency.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 28,000 - 35,000
- 3-5 years: 35,000 - 45,000
- 5+ years: 45,000 +

**Ideal background** – Degree in engineering or science and good knowledge of quality systems - previous experience in quality engineering advantageous.

**Career path from here** – Senior Quality Engineer

Document Management Specialist

**Job description** – Plan and implement systems to span the manufacturing process that allow successful storage, retrieval and sharing of electronic records and documents across the site. Also involved in constructing documents and literature to be released.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 - 32,000
- 3-5 years: 32,000 - 36,000
- 5+ years: 36,000 - 40,000

**Ideal background** – Bachelor’s degree in a computer related field, experience within manufacturing setting advantageous.

**Career path from here** – Document Management Supervisor

Automation Roles

Engineer (Automation)

**Job description** – An Automation Engineer primarily supports manufacturing, utilities and facilities operations, as well as the operation and maintenance of the entire
plant’s automation and control systems. Responsible for the support and execution of automation qualification as well as the resolution of all automation-related issues; the Automation Engineer will also develop Standard Operating Procedures (SOPs) and implement maintenance programmes for the automation and control systems. In addition, managing vendor service contracts as well as preparing the operation and maintenance budget will also come under the purview of this role.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000 – 35,000
- 3-5 years: 35,000 – 50,000
- 5+ years: 50,000 – 70,000

**Ideal background** – Bachelor’s degree in engineering or science, knowledge of automated systems, previous experience of control/instrumentation in relevant industry.

**Career path from here** – Senior Engineer > Engineering Manager > Engineering Director

**Employment outlook** – Automation Engineer was named the 2nd ‘most in-demand position’ in engineering in 2015, expected to remain in high demand.

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**Systems Engineer**

**Job description** – Tasks include creation, fitting and monitoring equipment and assembly lines within the manufacturing process. Aiming to integrate the entire process, the role covers both hardware and software components.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 33,000 – 38,000
- 3-5 years: 34,000 – 55,000
- 5+ years: 55,000 – 70,000 (chartered)

**Ideal background** – Bachelor’s degree in engineering, mathematics or similar, experience in industrial environment advantageous.

**Career path from here** – Senior Systems Engineer > IT Manager > IT Director
Applications Engineer

**Job description** – Design, implement and maintain applications and software used within the manufacturing process. Involved with ongoing testing and analysis.

**Average Ireland salary** (€) - 36,000 per annum

**Ideal background** – Bachelor’s degree in engineering, science, computing or information technology. Relevant experience in manufacturing environment highly desirable.

**Career path from here** – Senior Applications Engineer

Computer Operations Specialist

**Job description** – Oversees coordination of computer processing systems and procedures. Plans, tests and analyses updates to systems. Focus is on producing efficient systems while maintaining user satisfaction.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 33,000 – 38,000
- 3-5 years: 34,000 – 55,000
- 5+ years: 55,000 – 70,000 +

**Ideal background** – Previous experience in computer systems within manufacturing operations highly desirable.

**Career path** – Senior Computer Operations Specialist
More Advanced Roles

Manufacturing Roles

Operations Supervisor

**Job description** – Responsible for management of an operation shift. Directly responsible for shift personnel, equipment and for anticipating and/or resolving delays.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 32,000 - 38,000
- 3-5 years: 38,000 - 42,000
- 5+ years: 42,000 +

**Ideal background** – Background in mechanical technology or science, degree preferred and along with significant manufacturing experience.

**Career path from here** – Operations Manager > General Manager

Production Executive

**Job description** – Involved in planning, coordinating and controlling the manufacture process. Their team is tasked with ensuring cost effectiveness as well as oversight of all human and material resources.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 25,000+
- 3-5 years: 30,000+
- 5+ years: 35,000+

**Ideal background** – Bachelor's degree in science or engineering, previous experience in manufacturing environment advantageous.

**Career path from here** – Senior Production Executive > Manufacturing Lead > Production Director
Pharmacologist

**Job description** – Work depends upon the employer’s focus. Some will be involved in screening new compounds, others will be involved in testing later in the drug development process. Finally, some pharmacologists run ongoing clinical trials and lab experiments to ensure effective products.

**Average Ireland salary (€) -** 50,000 per annum

**Ideal background** – Bachelor’s degree in relevant discipline such as pharmacology, pharmacy, toxicology, etc. Previous lab work and/or a higher level degree are advantageous.

**Career path from here** – Senior Pharmacologist > Lab Manager

**Quality Roles - Advanced**

Regulatory Affairs Specialist

**Job description** – Input into product development and manufacturing to ensure that products (including labelling and packaging) meet international requirements.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 35,000 - 40,000
- 3-5 years: 40,000 - 50,000
- 5+ years: 50,000 +

**Ideal background** – Bachelor’s degree in biological sciences or related, experience within a regulatory environment.

**Career path from here** – Senior Regulatory Affairs Specialist > Regulatory Affairs Manager

**Employment outlook** - Regulatory Affairs Specialist was named the 2nd ‘most in-demand position’ in science in 2015, expected to remain in high demand.
Quality Coordinator

**Job description** – Develops, implements and evaluates the quality program - looks to improve efficiency whilst maintaining standards. Will investigate incident reports and make recommendations for improvements.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 35,000 - 40,000
- 3-5 years: 40,000 - 50,000
- 5+ years: 50,000 +

**Ideal background** – Experience with quality procedures in a manufacturing setting is highly desirable.

**Career path from here** – Quality Assurance Specialist > Quality Manager

Senior Quality Control Engineer

**Job description** – Provides leadership to Quality Assurance support. Ensuring that all manufacturing operations and products meet internal and external quality requirements.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 35,000 - 40,000
- 3-5 years: 40,000 - 50,000
- 5+ years: 50,000 +

**Ideal background** – Bachelor’s degree in engineering or science and significant experience as a quality engineer.

**Career path from here** – Quality Director
Engineering Roles - Advanced

Senior Industrial Engineer

**Job description** – Design, develop and install components for engineering projects to result in efficient and effective manufacturing processes. Supervision of technicians may be required.

**Salary ranges** based on years of experience (€) –

- 0-3 years: 35,000 - 40,000
- 3-5 years: 40,000 - 50,000
- 5+ years: 50,000 +

**Ideal background** – Bachelor’s degree in engineering and significant relevant experience within a manufacturing environment.

**Career path from here** – Industrial Engineering Director
References

- Sigmar Recruitment Technical Salary Guide 2015

- Sigmar Recruitment Supply Chain Salary Guide 2015

- Morgan McKinley Engineering Salary and Benefits Guide 2015

- Morgan McKinley Science Salary and Benefits Guide 2015

- Brightwater Salary Survey 2015

- Grafton Recruitment Salary Survey 2015

- CPL Recruitment Salary Guide 2015
Part 6: Resources
The Industries Explained

Pharmaceuticals

Pharmaceutical products are based upon active ingredients derived from chemical synthesis. In general, there are two main stages in pharmaceutical manufacturing: primary and secondary manufacturing. The former involves processing raw materials into active parts of the medicines while the latter involves mixing these active ingredients with pharmaceutical excipients to form the actual medicines, as well as product packaging.

Bio-Pharmaceuticals / Biologics

Biopharmaceuticals are any medicinal product manufactured in, extracted from, or semisynthesized from biological sources. These differ from the conventional chemically synthesised medicines in their more complex molecular structures and are expected to be more compatible with the human body, giving rise to fewer side effects. Manufacturing in this area is also extremely precise as these natural products can be heat sensitive and prone to contamination. Some of the most important discoveries using this technology were the creation of vaccines, proteins for the treatment of diabetes, as well as antibodies for anti-cancer treatment. Biologics are a high-growth area for the medtech sector and are expected to contribute to significant revenue in the years to come.

Medical Devices

‘Medical device’ is a wide encompassing term for any product, instrument or item which is used to diagnose, prevent, treat or cure health conditions without any chemical or pharmacological action on or within the body. Devices can be designed for external use (such as glucose meters for patients with diabetes) or internal use (such as implants used within surgery). Due to the variety of products within this industry, specific manufacturing processes vary but what always remains unchanged is the strict adherence to protocols to ensure the safety and reliability of the product.
**Nutritionals**

Nutritionals is a segment that involves the research, development and manufacturing of products such as milk powder for babies (i.e. infant formulas), young children, as well as infants with special nutritional needs. This segment plays an important role as it contributes to better quality of life through constant scientific innovation. Nutritional products are produced using the same high-quality manufacturing standards observed throughout the entire pharmaceutical industry.
Abbott Ireland Ltd

**Area/Products:** Diagnostics, medical devices, generic pharmaceuticals and nutritionals.

**Brief history:** Abbott worldwide was founded in 1888. Globally, Abbott employs almost 70,000 people, with a customer base across almost 130 countries. 2014 global sales were $22 billion. Abbott work in research, development, manufacture and marketing of a range of products. Their portfolio spans the breadth of healthcare including medical devices, diagnostics, branded generic pharmaceuticals and nutritionals.

**Presence in Ireland:** Abbott has had a presence in Ireland since 1946. Today they have six manufacturing sites across Ireland, and in total, they employ almost 3000 people across 11 Irish sites. They have manufacturing sites in Clonmel, Cootehill, Donegal, Longford and Sligo, with commercial support operations in Dublin and Westport.

**Website:** [www.abbott.ie](http://www.abbott.ie)

Abbvie

**Area/Products:** Biopharmaceuticals

**Brief history:** Originally a part of Abbott Ireland, AbbVie was established as a distinct company in early 2013. They describe themselves as having “the expertise and structure of a proven pharmaceutical leader, and the focus and passion of an entrepreneur and innovator”. Their work focusses on developing and manufacturing pharmaceuticals in fully integrated therapeutic areas including oncology, antiviral and renal/cardiovascular. Approximately 26000 people work for AbbVie worldwide and their products reach over 170 countries.
**Presence in Ireland:** AbbVie has a pharmaceutical manufacturing plant in Sligo. Initially opened in 2002, it manufactures the company’s active pharmaceutical ingredients.

**Website:** [www.abbvie.ie](http://www.abbvie.ie)

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**Actavis Ireland Ltd**

**Area/Products:** Generic and branded pharmaceuticals

**Brief history:** Actavis worldwide, with global headquarters in Dublin, works in the fields of both branded and generic pharmaceuticals, over the counter medications and biologics. Actavis worldwide is the largest generic pharmaceutical supplier globally; Actavis Ireland has a focus on the generic pharmaceutical product range. In July 2014, Actavis bought Forest Laboratories and most recently, in 2015, Actavis bought Allergan, the manufacturer of Botox.

**Presence in Ireland:** The Irish presence began after the 2013 acquisition of the Ireland’s Warner Chilcott plc; it was at this point that Actavis global headquarters were moved to Ireland. As well as these global headquarters, Actavis now has a manufacturing and R&D presence in Ireland.

**Website:** [www.actavis.ie](http://www.actavis.ie)

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**Alcon Labs**

**Area/Products:** Pharmaceutical, surgical and vision care products

**Brief history:** Alcon began as a Texas ophthalmic shop in 1945 and started creating speciality pharmaceutical products in 1947. The accompanying surgical division was formed in 1969, and today they offer a range of vision care products treating vision conditions and eye diseases. In 2011, Alcon merged with Novartis and became their third largest division. Their eye care products currently reach over 180 countries. 1800 research and development associates and approximately 14000 people are involved in manufacturing worldwide. They manufacture pharmaceutical products, contact lenses and lense care products as well as surgical equipment and devices.
**Presence in Ireland:** Alcon Ireland Ltd is responsible for the company’s Intraocular Lens (IOL) - this lens replaces the natural lens of the eye when it is removed during cataract surgery. Production of this is set to increase considerably over the next few years so there are opportunities available to those with the right skill set.

**Website:** [www.alcon.com](http://www.alcon.com)

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**Alexion**

**Area/Products:** Biopharmaceutical - focussed on rare diseases.

**Brief history:** Alexion’s European operations serve patients in more than 30 countries. The company focuses on efficiently bringing to market pharmaceutical treatments for orphan diseases. These diseases are all severe or life-threatening and rare. Alexion began as a bio-tech start-up in 1992 - in 2012, 2013 and 2014, it ranked number two on the Forbes “The world’s most innovative companies” list.

**Presence in Ireland:** Ireland is home to Alexion’s global supply chain and quality operations - supply chain, quality assurance, quality control, and logistics. In 2014, plans were announced for a new site in Roscommon which will be an aseptic vial fill-finish facility. Also in plans is a new plant in Dublin, which will serve as a new Global supply chain and operations facility. More recently, in May 2015, Alexion announced plans to open its first ever biologics manufacturing facility outside of the US, in Dublin. Once complete, these projects will bring Alexion’s Irish workforce to almost 500.

**Website:** [www.alexionpharma.eu](http://www.alexionpharma.eu)

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**Alkermes Plc**

**Area/Products:** Biopharmaceuticals

**Brief history:** Alkermes is a fully integrated biopharmaceutical company. Annual turnover is $500 million from a developed range of over 20 commercial products. Alkermes Inc and Elan Corporation plc merged in 2011 to become Alkermes plc.
**Presence in Ireland:** Alkermes have their corporate headquarters in Dublin and a development and a solid oral product manufacturing facility in Athlone, Westmeath. The company have had a presence in Ireland for over 40 years (first as part of Elan). In 2014, Alkermes promised investment of over $20 million over three years into its Athlone site in readiness for future growth and competitiveness.

**Website:** [www.alkermes.com](http://www.alkermes.com)

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**Allergan Pharmaceuticals Ireland**

**Area/Products:** Pharmaceutical and medical device multi-speciality health care company

**Brief history:** Allergan began in 1950 after its founder successfully developed anti-allergy nose and eye drops. The focus was novel treatments for speciality markets in response to feedback and information from health care professionals and patients. They currently have over 2700 employees, including over 800 at their Westport manufacturing site. Allergen is a multi-speciality provider in areas including eye care, neurosciences and dermatology. In March 2015, Allergan was bought by Actavis.

**Presence in Ireland:** The current Co. Mayo site is the largest in the company and was established in 1977. It is now home to both a Sterile Pharmaceutical Ophthalmic Plant and a Biologics Plant. There are 850 staff currently employed by Allergan across Ireland. The Mayo-based site production accounts for more than 50% of the company’s total revenue.

**Website:** [www.allergan.ie](http://www.allergan.ie)
Almac Group

Area/Products: Contract development and manufacturing organisation

Brief history: Almac was founded in 1968 as Galen. They offer a range of services including research and development through to product commercialisation. The group is comprised of five divisions - Almac Diagnostics, Sciences, Clinical Services, Clinical Technologies and Pharma Services. Over 600 companies worldwide - including many top pharmaceutical companies - use their services. The group remains privately owned and employs over 3000 staff globally.

Presence in Ireland: Almac’s global headquarters are in Northern Ireland. The Armagh site also conducts pharmaceutical, chemical and biomarker discovery and development. In August 2014, Almac group announced a $54 million investment to expand the site with the creation of a further 348 jobs over the subsequent five years.

Website: www.almacgroup.com

Amgen

Area/Products: Biotechnology

Brief history: Established in 1980, Amgen was one of the first companies to bring biotechnology based products to patients. They led the way in developing innovative products based on advances in recombinant DNA and molecular biology, and they were responsible for biotechnology’s first blockbuster medicines. Their portfolio today includes treatments in the therapy areas of oncology, rheumatoid arthritis and other autoimmune diseases.

Presence in Ireland: Amgen have a septic operations facility in Dublin which specialises in secondary manufacturing activities – formulation, fill and packaging. Acquired in 2011, the site includes bioprocessing suite, labs and warehouse/packaging capabilities. Amgen have announced future plans to move production of all parenteral products to this site.

Website: www.amgen.co.uk
**Astellas**

**Area/Products:** Pharmaceuticals

**Brief history:** Established in its current form in 2005 from the merger of two Japanese pharmaceutical companies, Astellas provides treatments in the areas of transplantation immunology, urology, cardiology, dermatology and infectious disease. The company employs approximately 17,000 people globally.

**Presence in Ireland:** Astellas has two manufacturing sites in Ireland - one in Dublin where they manufacture active pharmaceutical ingredients, and one in Co. Kerry where they manufacture and package a range of pharmaceutical treatments. These sites combined employ almost 400 people.

**Website:** www.astellas.ie

**Athlone Laboratories**

**Area/Products:** Pharmaceuticals

**Brief history:** Athlone Laboratories was established in Ireland in 1974. The company is a dedicated manufacturer and supplies of beta-lactam antibiotics. In 2013, Athlone Laboratories became part of DCC Vital.

**Presence in Ireland:** Based in Ireland, Athlone Laboratories employs around 140 people at their Roscommon manufacturing site.

**Website:** www.athlone-laboratories.com
**Baxter**

**Area/Products:** Medical devices, pharmaceuticals and biotechnology

**Brief history:** Baxter began in the 1930s by launching the first commercially prepared intravenous (IV) solutions; today Baxter operates as a global diversified healthcare company. Its products serve disease areas such as haemophilia, infectious diseases, kidney disease, immune disorders and trauma treatment. In 2014, Baxter International Inc. reported sales of $16.7 billion and employed approximately 65,500 people worldwide.

**Presence in Ireland:** Baxter moved into Ireland in the mid-1960s and built its first manufacturing site there in 1972. They currently have two manufacturing sites in Co. Mayo: one in Castlebar, where they produce renal dialysis solutions, pre-mixed IV solutions and several drug products; the other in Swinford, which produces devices for administration of these products. Between them they employ over 1000 people.

**Website:** [www.baxterhealthcare.ie](http://www.baxterhealthcare.ie)

**BD (Becton, Dickinson and Company)**

**Area/Products:** Medical Technology

**Brief history:** Started in 1897, BD now employs almost 30,000 people in over 50 countries. Their focus is on medical technology to improve drug delivery, diagnostic abilities and advancing drug discovery. They have a range of products including medical devices, laboratory instruments, reagents, medical supplies and diagnostic products. The company operates over three distinct segments - BD Medical, BD Diagnostics and BD Biosciences.

**Presence in Ireland:** BD Medical have had a presence in Ireland since 1969 and currently have two manufacturing sites. They operate one in Dun Laoghaire, which manufactures 11 different lines of pen needles for insulin injection, and a second in Louth, which manufactures a range of medical devices including a high-value pre-filled syringe.

**Website:** [www.bd.com](http://www.bd.com)
Boston Scientific

**Area/Products:** Medical devices

**Brief history:** Boston Scientific produces a large range of medical devices used to diagnose and treat patients with issues in the areas of cardiology, urology, endoscopy and many more. It was founded in 1979 with the aim of creating less invasive medical devices and procedures; they continue to innovate across expanding areas of medicine. They estimate that around 21 million people were treated with one of their products in 2014. Boston Scientific currently employs approximately 23,000 people across 40 countries.

**Presence in Ireland:** Boston Scientific have had a manufacturing presence in Ireland since 1994. There are currently three manufacturing sites - Galway, Cork and Clonmel. Established in 1994, the Galway site is the largest in the country providing research and development, manufacturing, regulatory affairs and new product development. The Cork site was opened in 1998 and manufactures a range of devices across several areas of the business. In Clonmel, they have a focus on development, manufacture and distribution of defibrillators and pacemakers - the Cardiac Rhythm Management area is an area of high potential and growth for the company. These sites export approximately 10 million devices every year. They currently have around 4500 employees across Ireland.

**Website:** [www.bostonscientific.com](http://www.bostonscientific.com)

Bristol-Myers Squibb (BMS)

**Area/Products:** Biopharmaceuticals

**Brief history:** BMS was founded in the US in 1858 and since then they’ve grown via pipeline development and acquisition. In 2014, they reported sales of $15.9 billion and employed around 28,000 people globally. BMS currently operate under a BioPharma strategy - combining the scope of a global pharmaceutical company with the ‘entrepreneurial spirit and agility’ of a biotech company. Over the last seven years, they have brought 12 new medicines to market with a current product range in disease areas including hepatitis, cardiovascular disease, cancer and HIV/AIDS.
**Presence in Ireland:** BMS began manufacturing in Ireland in 1964 with a bulk pharmaceutical plant in County Dublin. In 2004, they opened a second Dublin-based manufacturing site which is a highly automated bulk pharmaceutical production plant. They employ approximately 550 people across Ireland. In 2014, they announced plans for a new facility in Dublin that is expected to provide another 400 jobs.

**Website:** [www.bmsireland.ie](http://www.bmsireland.ie)

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**Cook Ireland**

**Area/Products:** Medical Devices

**Brief history:** Cook Ireland is part of the Cook Group of companies, which began manufacturing medical devices in 1963. The company's products diversified and now, the Cook Group is a range of companies, all with the focus of improvement of medical care through medical device innovation. The group employs over 11,000 people.

**Presence in Ireland:** Devices produced in Cook Ireland's Limerick facility are distributed throughout Europe, Africa and the Middle East, treating conditions in the areas of gastroenterology, urology, obstetrics and gynecology.

**Website:** [www.creganna.com](http://www.creganna.com)

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**Creganna Medical**

**Area/Products:** Medical Device Product and Service Provider

**Brief history:** Creganna is an Irish company that provides manufacturing and design services to over 400 medical device companies across 30 countries - they employ over 850 staff globally. With specific expertise in access and delivery devices that are minimally invasive (such as catheters), today Creganna ranks in the top three minimally invasive medical devices outsourcing companies in the world.
Presence in Ireland: Started in Ireland in 1980 to provide outsourced engineering solutions, they moved into medical devices in 1999. By 2003, their medical device offering was their sole focus. Creganna operates all their Irish activities from a campus in Galway - this site employs over 550 people.

Website: www.creganna.com

EirGen Pharma

Area/Products: Pharmaceuticals

Brief history: Irish company EirGen specialises in development, manufacture and distribution of high-potency and moisture sensitive pharmaceuticals and is a world leading supplier in this field. Founded in Ireland in 2005, to manufacture generic chemotherapy products, they now export a range of products to over 40 countries worldwide. EirGen offer services in clinical trial management, drug formulation management, generic formulation development and contract manufacturing.

Presence in Ireland: Their site in Waterford is home to state-of-the-art high containment facilities needed for high-potency and moisture sensitive pharmaceuticals and employs 100 people.

Website: www.eirgen.com

Genzyme Ireland Ltd

Area/Products: Biopharmaceuticals

Brief history: Genzyme Ireland was founded in 2001 as a highly automated state-of-the-art biopharmaceutical finishing facility. Genzyme was acquired by Sanofi in 2011 and operations continue to grow with more products being added to their portfolio - the operation is currently expanding to bring a Sanofi insulin product to the site.
Presence in Ireland: Genzyme activities are focussed on their Waterford site which currently employs over 550 people. Their manufacturing efforts are in sterile fill finishing and oral dose manufacturing. Products from this plant are distributed to over 70 countries.

Website: www.genzyme.ie

Gilead Sciences

Area/Products: Biopharmaceuticals

Brief history: Established in 1987, Gilead Sciences currently have over 7000 employees globally. They are a research-based company focussed on current unmet clinical needs. They currently market 19 products in the US and their annual revenues of 2014 were $24.9 billion.

Presence in Ireland: Gilead’s facility in Cork is responsible for manufacture, quality and distribution of their product range across the European Union as well as some other international destinations.

Website: www.gilead.com

GlaxoSmithKline (GSK)

Area/Products: Pharmaceuticals

Brief history: GlaxoSmithKline is one of the world’s biggest pharmaceutical companies, describing itself as a ‘science-led global healthcare company’. GSK took its current form in 2000 after a merger between SmithKline Beecham and Glaxo Wellcome, and in 2014 it ranked as the sixth-biggest pharmaceutical company worldwide. Their products fall into three main areas - vaccines, pharmaceuticals and consumer healthcare. It is estimated that one GSK vaccine is administered every minute across Ireland.
Presence in Ireland: GSK employs approximately 1500 people across Ireland. They have manufacturing in Cork, Dungarvan and Sligo. The Cork facility was opened in 1975 and focuses on research and development and active ingredient manufacturing for nine of GSK’s pharmaceutical products. Dungarvan has been a manufacturing site for GSK since 1981; it is concerned with consumer healthcare manufacturing with two distinct plants - one for ‘over the counter’ products and one for oral health care. The Dungarvan plants have an annual production of the equivalent of 8 billion tablets and almost 100 million tubes - these products are distributed to over 70 countries globally. Stiefel, a GSK company, has a manufacturing site in Sligo which produces about 40 skincare formulations.

Website: www.ie.gsk.com

Jazz Pharmaceutical

Area/Products: Biopharmaceuticals

Brief history: Jazz Pharmaceuticals is an international speciality biopharmaceutical company founded in 2003 with products in disease areas such as narcolepsy, pain, psychiatry and oncology. The focus on current efforts is to identify, develop and bring to market products that meet previously unmet clinical needs in focussed therapeutic areas.

Presence in Ireland: The company has their global headquarters in Dublin. In 2014, Jazz Pharmaceuticals announced the building of their first ever manufacturing and development site was to begin in Co. Roscommon. Completion is estimated for 2016.

Website: www.jazzpharma.com

Johnson & Johnson

Area/Products: Healthcare Products

Brief history: Founded in 1886 with the initial idea that wounds should be treated and dressed using sterile equipment - today’s Johnson and Johnson is one of the world’s
biggest healthcare companies. Johnson and Johnson operate three distinct divisions - medical devices, pharmaceuticals and consumer health. Both their medical device and pharmaceutical divisions have manufacturing sites in Ireland. Johnson and Johnson products are marketed in 57 countries via almost 250 operating companies - global personnel is approximately 120,000.

**Presence in Ireland:** Johnson and Johnson have had a presence in Ireland for over 70 years. Today, that presence is in the form of DePuy, Janssen (Biologics, Pharmaceuticals, R&D, Alzheimer Immunotherapy), Johnson & Johnson Ireland and Vistakon. Between them, they have several separate manufacturing operations in both Limerick and Cork.

**Website:** [www.jnj.com](http://www.jnj.com)

**Lake Region Medical**

**Area/Products:** Medical device industry supplier

**Brief history:** An OEM business established in the US in 1947, Lake Region Medical has grown steadily to become today’s biggest manufacturer and supplier of diagnostic guide wires to the medical device industry. They work primarily in the Cardio & Vascular as well as Advanced Surgical specialties. Lake Region Medical provide research and development as well as manufacturing and finishing capabilities to major medical device companies.

**Presence in Ireland:** Lake Region Medical has a manufacturing site in Wexford that opened in 1994. It employs over 750 staff in the production of the company’s product line, and products from this site are distributed to over 30 countries. In 2012, this facility became the first medical device manufacturing plant to be awarded the Shingo Accreditation Bronze Medallion - an award which recognises excellence in manufacturing. Lake Region Medical also operate a separate research and development facility in Galway.

**Website:** [www.lakeregionmedical.com](http://www.lakeregionmedical.com)
Lilly

**Area/Products:** Pharmaceuticals

**Brief history:** Lilly was founded in 1876 in the USA. Lilly currently markets products in multiple disease areas including cancer, diabetes, schizophrenia, depression and many more. Their products are available in 143 countries around the world, and they employ 41,000 people globally. Their NET sales in 2014 were over $19.6 billion.

**Presence in Ireland:** Lilly established manufacturing in Ireland with a site in Cork in 1978. This site still produces active pharmaceutical ingredients for products across the Lilly portfolio in three main areas: small molecule API manufacture and supply; small molecule commercialisation; biopharmaceutical commercialisation and supply. Lilly employs over 700 people in Ireland across several divisions, 400 of these are employed at the manufacturing site in Co. Cork.

**Website:** [www.lilly.ie](http://www.lilly.ie)

Medtronic (Covidien)

**Area/Products:** Medical devices

**Brief history:** Medtronic began as a medical supply repair shop in the US in 1949, and their first commercial product was a battery powered, wearable pacemaker. From then on, they have focussed on technology as a means of improving treatment. Today, there is a focus on using that technology to improve treatment and management of chronic conditions specifically - Medtronic claim that “every three seconds, another life is improved by a Medtronic product or therapy”. In 2014, Medtronic bought Irish company Covidien to further expand their scope. Globally, Medtronic employ over 85,000 people in over 160 countries.

**Presence in Ireland:** Medtronic moved into Ireland in 1999 and now operate two facilities - an office site in Dublin and a development and manufacture site in Galway which manufactures products in their cardiovascular range. This Galway site employs over 2500 people. The three Covidien manufacturing sites continue to operate in Galway, Westmeath and Offaly - employing over 1200 people in total.

**Website:** [www.medtronic.ie](http://www.medtronic.ie)
**Merck Millipore**

**Area/Products:** Life Sciences

**Brief history:** Merck Millipore began in 1954 as a filtration company. After becoming successful, the company was bought to become the life science division of Merck KGaA - the world’s oldest pharmaceutical and chemical company employing approximately 40,000 people across 64 countries. Merck Millipore has approximately 10,000 personnel with a portfolio of over 60,000 products. They offer research, development and manufacture solutions for biotechnology and pharmaceutical companies, often specialising in high growth and margin markets such as bio-production and bio-research.

**Presence in Ireland:** Merck Millipore has a research and development as well as filter membrane manufacturing site in Co. Cork.

**Website:** [www.merckmillipore.com](http://www.merckmillipore.com)

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**MSD**

**Area/Products:** Healthcare company

**Brief history:** Following their merger with Schering-Plough in 2009, MSD is the world’s second largest pharmaceutical company with operations in over 140 countries. They produce a wide range of products including vaccines and prescription medications for disease areas including diabetes, HIV, hepatitis C, oncology and osteoporosis.

**Presence in Ireland:** MSD began production in Ireland in 1976. Today, they employ over 2,000 across five sites in Ireland. The original facility in Co. Tipperary now employs in excess of 400 people in the production of active pharmaceutical ingredients. In Dublin, a range of pharmaceuticals are manufactured and packaged, as well as sites in animal health and the global financial services division. They also have an active pharmaceutical ingredient manufacturing plant in Co. Wicklow and a newer site in Carlow which specialises in human vaccine production. Finally, they support a BioPharma centre of excellence in Co. Cork. In April 2015, they announced plans for a further ...11.5 million in its Carlow site.

**Website:** [www.msd-ireland.com](http://www.msd-ireland.com)
**Mylan (McDermott Lab)**

**Area/Products:** Pharmaceuticals

**Brief history:** Beginning in 1961 as a pharmaceutical distributor in the US, it was 1966 before Mylan manufactured their first product - penicillin. From there, Mylan has grown to be one of the biggest generic and speciality pharmaceutical companies in the world. They have a staff of over 30,000 worldwide, and their products are distributed to over 140 countries.

**Presence in Ireland:** Mylan have a history of more than 25 years in Ireland. They are the largest generics manufacturer in Ireland - manufacturing as Gerard Laboratories in Dublin and as Bioniche in Galway, employing approximately 700 people. In 2012, they announced a major investment and expansion of these sites that would lead to a further 500 jobs by 2016.

**Website:** [www.mylan.com](http://www.mylan.com)

**Nestle Nutrition**

**Area/Products:** Nutritionals

**Brief history:** Globally, Nestle employs about 339,000 people in areas including food and nutrition. Nestle Nutrition is part of the Nestle Health Science brand. Announced in 2010, Nestle Health Science looks to develop science-based nutritional solutions to healthcare problems, particularly focussed on improving chronic disease management.

**Presence in Ireland:** Nestle made its return to manufacturing in Ireland in 2012 after the purchase of Pfizer’s Nutrition business. They currently have a site in Dublin and also the Wyeth Nutrition infant formula site in Limerick. Over 75% of the 40,000 tonnes of product from the Limerick site is exported to outside of the EU.

**Website:** [www.nestlehealthscience.co.uk](http://www.nestlehealthscience.co.uk)
Norbrook Laboratories

**Area/Products:** Pharmaceuticals

**Brief history:** Norbrook Laboratories was established in Northern Ireland in 1969 to produce veterinary pharmaceuticals; they subsequently included human pharmaceuticals into their portfolio. To date, they have developed and registered over 800 products in 120 countries. Norbrook are the only non-US company licensed by the FDA to produce veterinary sterile injections outside of the US and import them into the US market.

**Presence in Ireland:** Norbrook Laboratories currently employ over 1500 people at their site in Co. Down and another 1500 people globally.

**Website:** [www.norbrook.com](http://www.norbrook.com)

Novartis Ireland Ltd

**Area/Products:** Pharmaceuticals

**Brief history:** Parent company, Novartis AG, is a global healthcare company based in Switzerland, established in its current form in 1996 from the merger of Ciba-Geigy and Sandoz. They are seen as having one of the strongest pharmaceutical pipelines, currently reporting 140 treatments in clinical development. Their pharmaceuticals treat disease areas such as neurology, oncology, ophthalmology and metabolism along with many more. Novartis Ireland Limited is the Irish affiliate of this company; Novartis Ireland’s group sales in 2013 were reported as $327 million.

**Presence in Ireland:** Novartis was one of the first pharmaceutical companies to come to Ireland in the 1950s. Today, Novartis employ over 1300 people over four sites. The Novartis Pharmaceuticals manufacturing and development site is based in Co. Cork and has a focus on production of active pharmaceutical ingredients.

**Website:** [www.novartis.ie](http://www.novartis.ie)
Pinewood Healthcare

**Area/Products:** Pharmaceuticals

**Brief history:** Pinewood Healthcare began in 1976 and has become the leading and fastest growing branded generic company in Ireland. Their product ranges include liquids, ointments, creams and powders.

**Presence in Ireland:** From their Tipperary site, Pinewood Healthcare manufacture their own ranges as well as provide contract manufacturing solutions. They currently employ almost 400 members of staff, manufacturing products that are marketed in over 30 countries.

**Website:** www.pinewood.ie

Pfizer

**Area/Products:** Pharmaceuticals

**Brief history:** Pfizer was first established in 1849 as a fine-chemicals business in New York and has grown to become the world’s biggest bio-pharmaceutical company through both pipeline development and acquisition. Pfizer has treatments in many prominent disease areas and therapies in most high-growth markets. In 2014, Pfizer’s revenue was reported as $49.6 billion.

**Presence in Ireland:** Pfizer was one of the first pharmaceutical companies to move into Ireland, in 1969. Pfizer currently employ over 4000 people across sites in Cork, Dublin and Kildare. Their manufacturing operations are active pharmaceutical ingredients, solid dose pharmaceuticals, biopharmaceuticals, vaccines and nutritionals.

**Website:** www.pfizer.ie
Regeneron

**Area/Products:** Biologics

**Brief history:** Regeneron is a biologics company based in the USA that was established in 1988. Their product portfolio includes products to treat high LDL cholesterol, a rare inflammatory condition and eye disease.

**Presence in Ireland:** Regeneron opened their European business office in Dublin, in 2013. In 2015, they announced that Ireland would become the site for their first biologics manufacturing site outside of the US. The Limerick site is expected to provide 500 highly skilled jobs.

**Website:** [www.regeneron.com](http://www.regeneron.com)

Roche Ireland Ltd

**Area/Products:** Pharmaceutical and Diagnostics

**Brief history:** Roche began in Basel, Switzerland in 1896 with the intention of industrial manufacture of medicines. Roche employ over 80,000 people worldwide and their products are used in over 150 countries. They have products in disease areas including oncology, virology, transplantation and immunology. Roche is currently considered to be the world's biggest biotechnology company with 14 marketed biopharmaceuticals and a strong biopharma pipeline.

**Presence in Ireland:** As well as their pharmaceutical headquarters in Dublin, Roche has operated a pharmaceutical manufacturing plant in Co. Clare since 1994. The site was formerly part of Syntex Ireland and has been operational since 1974 - in 1994, Syntex Ireland became part of the Roche group. This site produces active pharmaceutical ingredients for use by the whole of the Roche group. Roche employs approximately 240 people across Ireland.

**Website:** [www.roche.ie](http://www.roche.ie)
Servier

**Area/Products:** Pharmaceuticals

**Brief history:** Established in 1954, Servier is a leading independent French research organisation. They employ over 21,000 people around the globe and market their products in over 140 countries. They have a strong research and development offering, employing almost 3,000 people in this area - in 2014, 28% of Servier’s €4 billion turnover was invested into research and development pursuits.

**Presence in Ireland:** Servier Laboratories and Servier Industries both have a presence in Ireland. The research site has been in Ireland since 1974 and focusses on key therapy areas. The industrial site has been open since 1989 and employs over 400 people. This site produces more than 120 million boxes of pharmaceuticals, which are then exported for use in 105 countries.

**Website:** [www.servier.ie](http://www.servier.ie)

Sigma-Aldrich

**Area/Products:** Life Science and Technology

**Brief history:** Sigma-Aldrich produce bio and organic chemical kits and products for use in a range of areas including research, disease diagnosis and pharmaceutical development and manufacturing. They also offer a range of contract services spanning research and development to manufacture. They have a presence in 35 countries and employ 8,000 staff globally.

**Presence in Ireland:** The Sigma-Aldrich site in Co. Wicklow is home to four production plants. The primary function of the site here is commercial scale production of generic and custom active pharmaceutical ingredients.

**Website:** [www.sigmaaldrich.com/ireland](http://www.sigmaaldrich.com/ireland)
Stryker

**Area/Products:** Medical devices

**Brief history:** Founded by an orthopaedic surgeon in the U.S in 1941, Dr Stryker was aiming to make products that met his patients' healthcare needs. Stryker continues in the field of medical technology with a focus on surgical devices and is now one of the biggest such companies in the world. They currently employ over 25,000 people worldwide.

**Presence in Ireland:** Stryker has three plants across Ireland - two in Cork and one in Limerick. The Cork Instruments plant develops surgical instruments and associated technology. The Stryker Orthopaedics sites in Cork and Limerick research and develop biomaterials as well as manufacturing knee and hip joints. Across these three sites, Stryker employs over 1,200 people.

**Website:** [www.stryker.com](http://www.stryker.com)

Takeda

**Area/Products:** Pharmaceuticals

**Brief history:** Takeda is a Japanese pharmaceutical company. It began in 1781 selling traditional Japanese and Chinese medicines. Almost a century later, the company began importing western medicines into Japan, and in 1895, they began medicinal manufacture. Takeda employs almost 16,000 people worldwide.

**Presence in Ireland:** Takeda has had a presence in Ireland since 1997 and currently employs over 400 people in the country. Their drug product site in Co. Wicklow is the main production site for solid oral dose finished pharmaceuticals, serving European and U.S markets. The active pharmaceutical ingredient site in Dublin was the first such site built by the company outside of Japan.

**Website:** [www.takeda.ie](http://www.takeda.ie)
Teva Pharmaceuticals

**Area/Products:** Generic Pharmaceuticals

**Brief history:** Teva began in 1901 in Jerusalem as a small wholesale drug distributor. Today, Teva is the world’s leading generic pharmaceutical company, working in development, manufacture and marketing of generic pharmaceuticals. They do also work in the areas of branded pharmaceutical and active pharmaceutical ingredients. Teva is ranked in the top 20 pharmaceutical companies across the world and employ more than 44,000 people.

**Presence in Ireland:** Teva Pharmaceutical Ireland has its commercial base in Louth and the manufacturing site is Waterford. This manufacturing site employs hundreds of staff across research, development and manufacturing activities of the company’s respiratory products.

**Website:** [www.teva.ie](http://www.teva.ie)

Zimmer Biomet

**Area/Products:** Medical devices

**Brief history:** Zimmer Biomet was established after the merger of Zimmer and Biomet in 2015 - they are now a leading manufacturer of orthopaedic surgical products. The company employ over 9,000 people and have a presence in over 100 countries worldwide.

**Presence in Ireland:** In 2007, Zimmer opened a manufacturing site in Co. Clare, employing 330 people in the production of their “NexGen” femoral knee system. In 2015, they announced a new site to be opened in Galway which is expected to create a further 250 jobs.

**Website:** [www.zimmer.com](http://www.zimmer.com)
## Jobs Near You - Manufacturing Sites by County

Here are list of manufacturing plants from our top medtech companies list organised by county.

<table>
<thead>
<tr>
<th>County</th>
<th>Company</th>
<th>Number of Employees</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armagh</td>
<td>Almac Group</td>
<td>2100+</td>
<td>Pharmaceutical, biomarker and chemical discovery and development.</td>
</tr>
<tr>
<td>Carlow</td>
<td>MSD</td>
<td>450</td>
<td>Vaccine and biologics manufacture.</td>
</tr>
<tr>
<td>Cavan</td>
<td>Abbott Ireland Nutritional Division</td>
<td></td>
<td>Manufacture of infant nutritional products for export.</td>
</tr>
<tr>
<td>Clare</td>
<td>Roche</td>
<td>400</td>
<td>Manufacture of active pharmaceutical ingredients.</td>
</tr>
<tr>
<td></td>
<td>Zimmer Biomet</td>
<td>330</td>
<td>Medical device manufacture.</td>
</tr>
<tr>
<td>Cork</td>
<td>AbbVie</td>
<td></td>
<td>Pharmaceutical manufacturing and development.</td>
</tr>
<tr>
<td></td>
<td>Alcon Laboratories Ireland Ltd</td>
<td>100+</td>
<td>Development and manufacture of vision care products.</td>
</tr>
<tr>
<td></td>
<td>Alcon Laboratories Ireland Ltd</td>
<td>400</td>
<td>Development and manufacture of vision care products.</td>
</tr>
<tr>
<td></td>
<td>Boston Scientific</td>
<td>860</td>
<td>Medical device manufacture.</td>
</tr>
<tr>
<td></td>
<td>DePuy</td>
<td>600</td>
<td>Manufacture of orthopaedic devices.</td>
</tr>
<tr>
<td></td>
<td>GlaxoSmithKline</td>
<td>400</td>
<td>R&amp;D and pharmaceutical manufacturing.</td>
</tr>
<tr>
<td></td>
<td>Janssen Biologics</td>
<td>200</td>
<td>Biomedicine production.</td>
</tr>
<tr>
<td></td>
<td>Janssen Pharmaceutical</td>
<td>200</td>
<td>Manufacturing of bulk active pharmaceutical ingredients.</td>
</tr>
<tr>
<td></td>
<td>Lilly</td>
<td>400</td>
<td>Active pharmaceutical ingredient manufacture.</td>
</tr>
<tr>
<td>County</td>
<td>Company</td>
<td>Number of Employees</td>
<td>Activities</td>
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<tr>
<td>------------</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Merck Millipore</td>
<td></td>
<td>Filter membrane manufacturing.</td>
</tr>
<tr>
<td>MSD</td>
<td>550</td>
<td></td>
<td>Biopharma development, filling and testing.</td>
</tr>
<tr>
<td>Novartis</td>
<td>680</td>
<td></td>
<td>Manufacture of active pharmaceutical ingredients.</td>
</tr>
<tr>
<td>Pfizer (3 sites)</td>
<td></td>
<td></td>
<td>Little Island / Ringaskiddy / Loughbeg: Manufacture and export of active pharmaceutical ingredients.</td>
</tr>
<tr>
<td>Stryker</td>
<td>700</td>
<td></td>
<td>Surgical device manufacture.</td>
</tr>
<tr>
<td>Donegal</td>
<td>Abbott Ireland Diabetes Care</td>
<td></td>
<td>Manufacture of test strips for use in blood glucose meters.</td>
</tr>
<tr>
<td>Dublin</td>
<td>Alexion</td>
<td>200</td>
<td>Pharmaceutical global supply chain and quality operations.</td>
</tr>
<tr>
<td></td>
<td>Abbott Ireland Nutritional Division</td>
<td></td>
<td>Manufacture of infant nutritional products for export. (Planned biologics manufacturing facility).</td>
</tr>
<tr>
<td>Amgen</td>
<td>380</td>
<td></td>
<td>Secondary manufacturing aseptic operations.</td>
</tr>
<tr>
<td>Astellas</td>
<td>70+</td>
<td></td>
<td>Manufacture of bulk active pharmaceutical ingredients.</td>
</tr>
<tr>
<td>BD Medical</td>
<td></td>
<td></td>
<td>Manufacturing pen needles for insulin injection.</td>
</tr>
<tr>
<td>Bristol-Myers Squibb</td>
<td>550</td>
<td>Two sites manufacturing bulk pharmaceuticals.</td>
<td></td>
</tr>
<tr>
<td>MSD</td>
<td></td>
<td></td>
<td>Pharmaceutical manufacture and packaging.</td>
</tr>
<tr>
<td>Mylan - Gerard Laboratories</td>
<td>300+</td>
<td>Manufacture of inhaled and oral dose product lines.</td>
<td></td>
</tr>
<tr>
<td>Nestle Nutrition</td>
<td></td>
<td></td>
<td>Product manufacture.</td>
</tr>
<tr>
<td>Pfizer</td>
<td>1250</td>
<td></td>
<td>Biotechnology facility.</td>
</tr>
<tr>
<td>Takeda</td>
<td>60</td>
<td></td>
<td>Active pharmaceutical ingredient development and manufacture.</td>
</tr>
<tr>
<td>County</td>
<td>Company</td>
<td>Number of Employees</td>
<td>Activities</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------</td>
<td>---------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Galway</td>
<td>Boston Scientific</td>
<td>2,600</td>
<td>Product manufacture.</td>
</tr>
<tr>
<td></td>
<td>Covidien</td>
<td>300</td>
<td>Respiratory medical device manufacture.</td>
</tr>
<tr>
<td></td>
<td>Creganna</td>
<td>550+</td>
<td>Minimally invasive medical device design and manufacture outsourcing.</td>
</tr>
<tr>
<td></td>
<td>Medtronic</td>
<td>2,000</td>
<td>Medical device manufacture and development.</td>
</tr>
<tr>
<td></td>
<td>Mylan - Bioniche Pharma</td>
<td></td>
<td>Pharmaceutical manufacturing and packaging.</td>
</tr>
<tr>
<td></td>
<td>Zimmer Biomet</td>
<td>250 (expected)</td>
<td>Medical device manufacture.</td>
</tr>
<tr>
<td>Kerry</td>
<td>Astellas</td>
<td>300+</td>
<td>Pharmaceutical manufacture and packaging.</td>
</tr>
<tr>
<td></td>
<td>Pfizer</td>
<td>550</td>
<td>Solid dose pharmaceutical manufacture.</td>
</tr>
<tr>
<td>Kildare</td>
<td>Cook Ireland</td>
<td>800</td>
<td>Medical device manufacture.</td>
</tr>
<tr>
<td></td>
<td>Johnson &amp; Johnson Vision Care</td>
<td>640+</td>
<td>Contact lense manufacture.</td>
</tr>
<tr>
<td></td>
<td>Regeneron</td>
<td>500 (expected)</td>
<td>Biologics.</td>
</tr>
<tr>
<td></td>
<td>Wyeth Nutritional</td>
<td>600</td>
<td>Infant formula production.</td>
</tr>
<tr>
<td></td>
<td>Stryker</td>
<td>500</td>
<td>Surgical device research, development and manufacture.</td>
</tr>
<tr>
<td></td>
<td>Abbott Ireland Diagnostic Division</td>
<td>300+</td>
<td>Manufacture of diagnostic reagent products.</td>
</tr>
<tr>
<td>Louth</td>
<td>BD Medical</td>
<td></td>
<td>Medical device manufacture.</td>
</tr>
<tr>
<td>Mayo</td>
<td>Allergan Pharmaceuticals Ireland</td>
<td>900</td>
<td>Manufacturing plants - Sterile Pharmaceutical Ophthalmics plant and Biologics plant.</td>
</tr>
<tr>
<td>Offaly</td>
<td>Covidien</td>
<td>400</td>
<td>Medical device manufacture.</td>
</tr>
<tr>
<td>Roscommon</td>
<td>Athlone Laboratories</td>
<td>140</td>
<td>Pharmaceutical manufacture.</td>
</tr>
<tr>
<td></td>
<td>Alexion</td>
<td></td>
<td>Planned vialling facility.</td>
</tr>
<tr>
<td></td>
<td>Jazz Pharmaceuticals</td>
<td>50 (expected)</td>
<td>Pharmaceutical manufacture and development facility.</td>
</tr>
<tr>
<td>County</td>
<td>Company</td>
<td>Number of Employees</td>
<td>Activities</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------</td>
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</tr>
<tr>
<td>Sligo</td>
<td>Abbott Ireland Diagnostics Division</td>
<td></td>
<td>Manufacture bulk reagents for use in Abbott diagnostic instruments.</td>
</tr>
<tr>
<td></td>
<td>Abbott Ireland Nutritional Division</td>
<td></td>
<td>Manufacture of feeding devices.</td>
</tr>
<tr>
<td></td>
<td>AbbVie</td>
<td>300</td>
<td>Manufacture of active pharmaceutical ingredients.</td>
</tr>
<tr>
<td></td>
<td>Stiefel (a GSK company)</td>
<td>120</td>
<td>Manufacturing.</td>
</tr>
<tr>
<td></td>
<td>Teva Pharmaceuticals</td>
<td>500</td>
<td>Research, development and manufacture of pharmaceutical products.</td>
</tr>
<tr>
<td>Tipperary</td>
<td>Abbott Ireland Vascular Division</td>
<td></td>
<td>Manufacture of broad range of vascular devices.</td>
</tr>
<tr>
<td></td>
<td>Boston Scientific</td>
<td>700+</td>
<td>Development, manufacture and distribution of defibrillators and pacemakers.</td>
</tr>
<tr>
<td></td>
<td>Pinewood Healthcare</td>
<td>350-400</td>
<td>Pharmaceutical manufacture.</td>
</tr>
<tr>
<td>Waterford</td>
<td>EirGen</td>
<td>100</td>
<td>Manufacture of high-potency pharmaceuticals.</td>
</tr>
<tr>
<td></td>
<td>Genzyme Ireland Ltd</td>
<td>550</td>
<td>Biopharmaceutical finishing facility.</td>
</tr>
<tr>
<td></td>
<td>GlaxoSmithKline</td>
<td>750</td>
<td>Consumer healthcare manufacturing.</td>
</tr>
<tr>
<td>Westmeath</td>
<td>Alkermes PLC</td>
<td></td>
<td>Pharmaceutical manufacture.</td>
</tr>
<tr>
<td></td>
<td>Covidien</td>
<td>500</td>
<td>Respiratory medical device manufacture.</td>
</tr>
<tr>
<td>Wexford</td>
<td>Lake Region Medical</td>
<td>750+</td>
<td>OEM development and manufacture to medical device companies.</td>
</tr>
<tr>
<td>Wicklow</td>
<td>MSD</td>
<td>270</td>
<td>Manufacture of active pharmaceutical ingredients.</td>
</tr>
<tr>
<td></td>
<td>Servier</td>
<td>400</td>
<td>Manufacture of finished pharmaceutical product.</td>
</tr>
<tr>
<td></td>
<td>Sigma-Aldrich</td>
<td></td>
<td>Manufacture of generic and custom active pharmaceutical ingredients.</td>
</tr>
<tr>
<td></td>
<td>Takeda</td>
<td>400</td>
<td>Drug product manufacture.</td>
</tr>
</tbody>
</table>
Organisations You Need to Know

National Organisations

The Irish Pharmaceutical Healthcare Association (IPHA) is the industry body of the research-based pharmaceutical industry of Ireland. Members are manufacturers of both prescription products and non-prescription and consumer healthcare medicines.

The Irish Medical Devices Association represents the medical device and diagnostics industries in Ireland. With key involvement of industry leaders, they are working towards an environment which supports and enables these sectors to develop and grow.

The Health Products Regulatory Authority (HPRA) is a state agency tasked with regulation of medicines, medical devices and other health products. Until 2014, this agency was known as the Irish Medicines Board. They are responsible for granting company licences, monitoring of health products (including taking action when concerns are raised) and inspecting manufacturing sites across the country.

International Organisations

The Food and Drug Administration (FDA or USFDA) is an agency of the United States Department of Health and Human Services and is responsible for protecting and promoting public health through the regulation and supervision of food safety, tobacco products, dietary supplements, prescription and over-the-counter pharmaceutical drugs (medications), vaccines, biopharmaceuticals, blood transfusions, medical devices, electromagnetic radiation, cosmetics, emitting devices (ERED), and veterinary products.

The International Society for Pharmaceutical Engineering (ISPE) is a not-for-profit industry trade group for pharmaceutical science and manufacturing professionals. It has 25,000 members in more than 90 countries. The ISPE provides pharmaceutical industry professionals with opportunities to develop technical knowledge, exchange practical experience, and collaborate with global regulatory agencies and industry leaders.
The Parenteral Drug Association (PDA) is an international non-profit industry trade group for pharmaceutical and biopharmaceutical manufacturers. Founded in 1946 as the Parenteral Drug Association by a small group of pharmaceutical manufacturers who recognised the need for an organisation to disseminate technical information within the industry, it now has more than 11,000 members worldwide. Today, coordinated through its headquarters and its Training & Research Institute in Bethesda, Maryland, PDA volunteers worldwide promote the exchange of rapidly evolving information on the latest technology and regulations concerning high-quality pharmaceutical production.

The World Health Organization (WHO) is a specialized global agency that is concerned with direction and coordination of international public health. It was established on 7 April 1948, with its headquarters in Geneva, Switzerland and an aim of providing leadership in public health globally. Today, more than 7,000 people from 150 countries work for WHO worldwide covering 194 member states. WHO affects public health by monitoring health trends, setting health standards, shaping the research agenda and providing leadership.

The European Medicines Agency (EMA) is an agency of the European Union that is based in the United Kingdom. They are responsible for scientifically evaluating pharmaceutical products that are manufactured for use in the European Union. The agency does this by through evaluation of new products applying for marketing licences in the EU as well as providing a centralised pharmacovigilance monitoring system. Part of their remit can involve coordinating the inspection of pharmaceutical manufacturing sites.
CV Templates for Pharmaceutical Jobs

So it’s been awhile since you had to put together a CV and you’re not sure on how to get started. Well, we put together two CV templates with a pharma focus to help you out with this.

Download them from this page on our website

http://www.getreskilled.com/pharmaceutical-jobs/cv-templates

Job Hunt Progress Form

Job hunting can involve a lot of applications and it can be easy to lose track. Print this form out and use it to keep track of the applications you’ve submitted. And on days when you’re feeling like you’re making slow progress, this also lets you see just how much you’re achieving in your job hunt.

Download here:

http://bit.ly/1OOhLdk

Interview Preparation Form

Interviews are a stressful time for everyone. To help take the stress out of interview day, we’ve compiled this sheet to print out, fill in and take with you on interview day. It means you’ve got all the company information in one place and gives you key points to look over if you get a few spare minutes before the interview.

Download here:

http://bit.ly/1OOhZ4n
"I would rate the course 10 out of 10 and would highly recommend to others, very interesting, informative and very well presented. Relevant totally to my needs and expectations. The most practical course I have ever attended.”

Andy Wnuk, MSc (Eng) MIEI
So there you have it. If you’re thinking about a change of career, those are the steps you need to take to give yourself the best chance at a successful change.

If you’ve worked in a technical role previously, then you’ll probably be surprised at how close you are to being an ideal candidate for the pharma and medical device industries. Reskilling wouldn’t be starting something from scratch, it would be starting something a few strides away from the finish line.

Contact us here at GetReskilled to talk through your options in more detail with an expert.

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