

# The Convergence of Science and Technology Expertise in the Pharmaceutical Industry



[Pharmaceutical laboratory and manufacturing operations](#) are changing. The implementation of business process automation solutions and digital transformation initiatives are contributing significantly to these changes. Changing regulatory requirements, market demands, and competitiveness pressures are also part of the ongoing evolution of the pharmaceutical industry.

All these changes are also altering the skills, capabilities, and expertise you need to work effectively and drive continuous improvements. As a result, today's pharmaceutical laboratory and manufacturing facilities require employees with a broader range of skills than in the past.

This is leading to the convergence of science and technology expertise in the pharmaceutical industry.

## Combining Science and Technology Expertise

In the past, it was common for skilled resources in pharmaceutical laboratories and manufacturing facilities to “stay in their lane”.

Chemists would look after scientific processes.

Technicians and engineers would install and maintain operational technologies on production lines and in the lab.

And IT specialists would support the IT infrastructure, from servers to endpoint devices.

Today, however, there is an increasing requirement for crossover skills as well as employees who are upskilled in different areas.

## Cross-Skilling and Upskilling Pharmaceutical Industry Talent

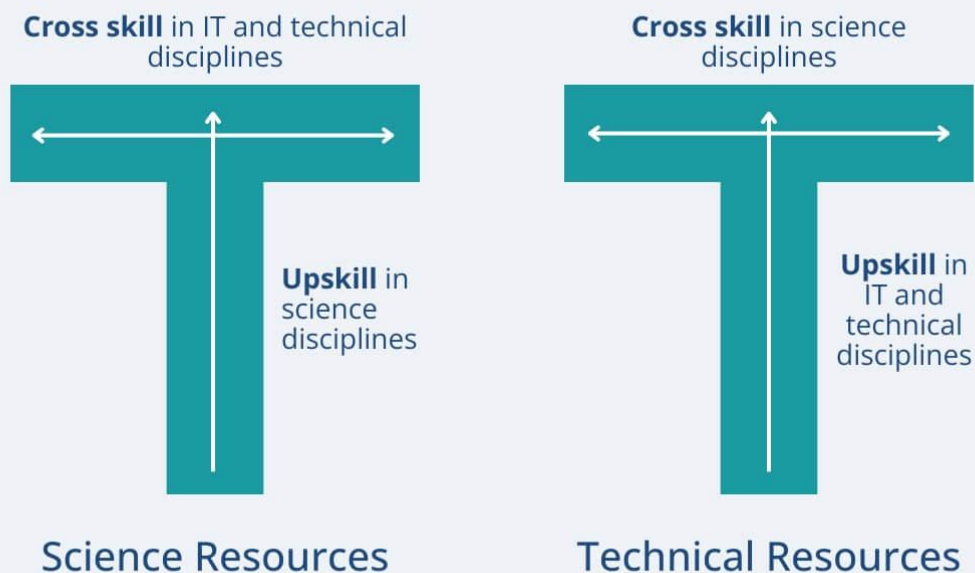
IT resources are at their most productive and effective if they have scientific expertise and experience. They need this knowledge and skills to understand how their decisions, recommendations, and actions impact scientific processes.

As a result, it is important for IT resources working in pharmaceutical facilities to not only continuously upskill in IT disciplines, but also cross-skill in scientific areas.

Similarly, chemists, quality assurance specialists, and validation engineers can operate at their most productive and effective if they also have advanced IT skills in addition to knowledge of operational technologies (OT).

A chemist or laboratory technician using a Chromatography Data System (CDS) or Laboratory Information Management System (LIMS) is a good example. The better the employee is at not only using these advanced tools but also optimising them, the more productive and value-adding they can be for the company.

## Science & Technology Skills Convergence in the Pharmaceutical Industry



- Upskilling – advancing an employee’s skills to meet new challenges and changing working practices.
- Cross-skilling – developing an employee’s skills outside their traditional areas of expertise.

### Talent Challenges in The Pharmaceutical Industry

The need for combined science and technology skills is an emerging trend in the pharmaceutical industry. This presents talent acquisition challenges, as the supply of ready-to-go resources is limited.

The fact that many pharmaceutical facilities have an immediate requirement for resources with a more diverse skillset is exacerbating these challenges.

What are the solutions? What are the steps you should take to [ensure your pharmaceutical facility has sufficient scientific resources](#) and technology resources with the right range of skills?

## Ensuring Your Pharmaceutical Facility Has the Science and Technology Resources It Needs

In many respects, skills are an industry-wide concern that requires industry-wide solutions. That said, there are steps you can take today to ensure you have the skills and expertise to deliver improvement projects, manage day-to-day operations, and everything in between.

### Training Initiatives

Training is an important part of the solution for companies in the pharmaceutical industry. Most importantly, there should be a focus on upskilling resources in science roles with IT skills.

### Break Down Silos

Silos are common in the pharmaceutical industry, i.e., where teams with science, OT, and IT responsibilities operate independently of each other. These silos are being broken down by improvement initiatives. One of the most prominent examples is the implementation of digital transformation solutions that enable the transfer of data from the factory floor through all levels of the technology stack.

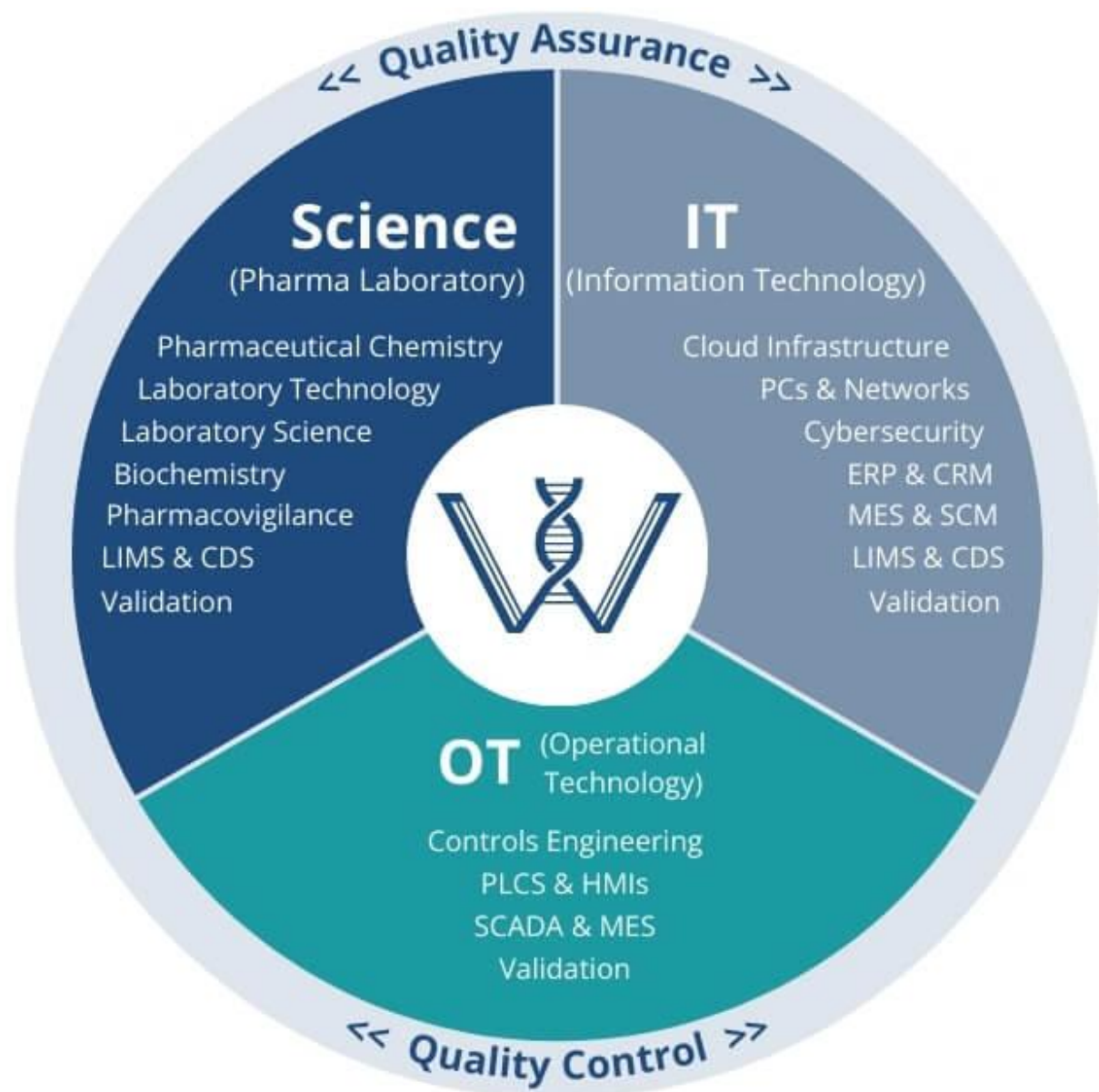
Breaking down traditional silos also helps solve skills challenges, especially if a culture of continuous and diverse learning can be established and nurtured.

### Work With the Right Partners

Working with the right partners is also essential, from consultancy services to project delivery partners to outsourcing suppliers. We have an interest in this area at Westbourne, so we can use our organisation as an example.

One aspect of our business is that we offer a broad range of IT services similar to other IT managed service providers. However, our point of difference is that our engineers also have scientific, validation, and similar pharmaceutical industry skills, capabilities, and experience. We even have a Pharma Lab Apprenticeship scheme to ensure our technical resources have the specific scientific skills our pharmaceutical industry clients need.

Similarly, we have science, validation, and quality resources on our team, and we continuously upskill them to develop their technical and IT skills. This enhances the value they can bring to the pharmaceutical operations where they are deployed.



## The Science and Technology Skills Convergence

Business process automation and digital transformation solutions are bringing considerable benefits to the pharmaceutical industry, from improved product quality and safety to increased productivity and profitability. To make the most of those benefits and maximise the improvements that can be achieved, you need in-house skills and third-party support with diverse skill sets where science and technology converge.

Get in touch with us today to learn how Westbourne can support your pharmaceutical operations with cross-disciplinary expertise. And don't forget to follow us on LinkedIn for more industry insights and updates: [Westbourne LinkedIn](#).