

Digital Transformation in the Pharmaceutical Industry



Digital transformation in the pharmaceutical industry involves digitalising processes in your laboratory and manufacturing operations. It is about more than digitising elements of a process to enable work on a screen rather than on paper. That is part of it, but digital transformation also involves optimising, automating, and semi-automating processes, as well as integrating systems as you transition to data-driven ways of working.

Digital transformation as a strategy and priority is not restricted to manufacturing and laboratory operations, nor is it something that only applies to the pharmaceutical industry. In fact, companies in all industries are implementing digital transformation strategies across just about every business unit and function you can imagine.

In the pharmaceutical industry, however, there are unique, interconnected challenges that mean progress is often less advanced than in other industries. Compliance, patient safety, and protecting intellectual property are some of the reasons for the slower adoption of digital transformation in the pharmaceutical industry, but this is changing too.

[Pharmaceutical digital transformation](#) is now more important than ever as companies modernise operations, streamline compliance processes, and maximise operational agility to stay competitive and deliver on the needs and expectations of customers.

Digital Transformation:

Digital transformation involves using digital technologies to improve processes and workflows through automation, the integration of systems, and data.



Essential Objectives of Pharmaceutical Digital Transformation

Decisions on implementing digital transformation strategies and/or projects in the pharmaceutical industry are influenced by a range of factors. Examples include the need to upgrade or implement a production line, mitigate skills availability risks, comply with changing regulations, or increase the profitability of a process or entire facility.

Regardless of the driver behind a digital transformation strategy or project, it is always important to define success. We have identified seven key areas to focus on when implementing digital transformation initiatives:

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Essential Objectives

- 01 Process Efficiency
- 02 Data-Driven Operations
- 03 Product Quality
- 04 Compliance & Patient Safety
- 05 Operational Agility
- 06 Productivity
- 07 Risk Mitigation



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- Process efficiency – optimising processes through better use of data, automation, and modern technologies.
- Data-driven operations – improving oversight and enabling data-driven decision-making.
- Product quality – minimising defects, reducing batch changeover times, optimising CAPA processes (corrective and preventative actions), and more.
- Compliance – regulators are embracing new technologies while implementing modern systems and guidelines that make it possible to streamline and improve compliance processes.
- Flexibility and agility – developing the ability to quickly react to changing market conditions, customer demands, and global events.
- Productivity – improving output and throughput, minimising downtime, and utilising resources on value-adding tasks rather than manual and repetitive tasks.

- Risks – reducing risks ranging from product quality and patient safety risks to unplanned downtime and scalability risks.

Steps to Digital Transformation Success in the Pharmaceutical Industry

Step 1: Digital Transformation Assessment

An important first step is to get a full understanding of your digital and technological maturity. Fully understanding laboratory and manufacturing processes is also important, as is a complete knowledge of the software applications and equipment that are used in your facility, including the strengths and weaknesses of both.

Part of this step typically also involves assessing processes, skills, resource utilisation, and how data is used in the facility.

Step 2: Define Goals

Digital transformation in the pharmaceutical industry can be complex making it challenging to, for example, fully define the scope of a project. It is possible, however, to identify the goals you want to achieve, including how you will measure success.

Step 3: Develop a Strategy

Developing a strategy involves looking at what **could** be achieved with the technologies currently available and what **should** be achieved based on business priorities, operational realities, and maximising return on investment. The distinction between “could” and “should” is important as just because something is possible doesn’t mean it is the right option for your facility. A focus on what should be achieved is the best approach.

The development of a digital transformation strategy will consider your technology stack, the internal and external support that you will need, and the priority areas, i.e., what are the projects that will deliver the best and most reliable returns. Cybersecurity is another essential consideration to ensure all risks are identified and mitigated.

Step 4: Project Implementation

Implementing digital transformation projects involves working with your team at all levels to ensure new processes, procedures, technologies, and equipment are aligned with production realities and the needs of your business. Iterative development and

implementation is almost always the best approach. Comprehensive support and training are also essential.

Our Pharmaceutical Digital Transformation Expertise at Westbourne

We have extensive experience in digital transformation in the pharmaceutical industry here at Westbourne. This includes projects that evolve from long-standing business relationships and the delivery of aligned services, as well as specifically focused digital transformation projects.

Key elements of our approach include:

- We are people and process-focused, so we are not obsessed with technology. We are, however, obsessed with cybersecurity and minimising cybersecurity risks.
- Project creep and scope changes are a reality, so we are flexible, embracing both.
- Technology and/or process implementation are not reliable measurements of success, so we focus on operational and business benefits.
- Digital transformation projects can be implemented in isolation, but they can't be considered in isolation, so we continuously look ahead to the future.

To discuss digital transformation in your pharmaceutical laboratory or manufacturing facility and to get advice from our team, please [get in touch with us at Westbourne](#) today.