



The key to success in Pharma digitalisation





Working alongside industry experts, innovators, regulators and supply chain partners, XpertRule regularly shares 'state of the sector' opinion pieces on where we believe things are going and how our partners can best capitalise on the opportunities, here's our latest take – made easily digestible in threes!

PharmaTech in three keywords

- 1. Pace** - The acceleration that the pharma industry is seeing in terms of innovation, driven largely by AI and digital technologies. Deep tech innovation is reshaping the pharma industry, offering unprecedented possibilities to revolutionize the things that matter: drug development, treatment approaches, and patient care. And while we may not quite be at the peak levels of 2020 and 2021 in terms of investment, \$57bn in 2022 is nothing to sniff at.
- 2. Responsibility** - The consensus from those within the industry is that we have a responsibility in bringing down the cost of key treatments and medicines for patients, and increasing fairness - for example, removing the disparity across geographies on how much people are paying for medicines. And we agree that innovation and digital tech can be the driving force in making the industry fairer. In other words, innovation in pharma isn't just a nice-to-have or a flight-of-fancy: it's a responsibility to patients everywhere.
- 3. Excitement**
But innovation isn't just a sullen duty, either - it's exciting! There's a buzz in the air in the Pharma sector about what is possible and what the level of innovation and advances being made mean for the future, both within the pharma industry and those impacted by it – all of us. And so there should be, major reports by **Deloitte, PwC, KPMG, Boston Consulting Group (BCG) and World Economic Forum** have all outlined that we are at the cusp of a new Pharma Era fuelled by cutting-edge technologies.



Three key challenges facing pharma innovation

There are some major obstacles to successful digitalisation that must be acknowledged and addressed to deliver on the pace, responsibility and excitement that summarise where we are:

1. Is the juice worth the squeeze?

However much excitement and acceleration there may be about PharmaTech innovation, the problem still remains that many large digital initiatives are not delivering the returns to justify the investments made - despite 2020 and 2021 being boom years in terms of investment. Data remains a significant issue, particularly the challenge of getting organisations to share data across the supply chain for mutual benefit. The global pharma industry has grown more than sixfold in the last decade and part of this growth has seen supply chains become increasingly global, complex and opaque. Can technology overcome these data concerns and increase trust and transparency across the supply chain? Can data solution services provided by organisations such as the [Global Value Web](#) connect the dots and improve value chains? We believe they can.

2. Regulatory costs on the rise

As we move towards widespread personalised medicine, there is plenty of concern around the cost of regulation. For example, in Gene Therapy there is a critical case of the treated genes being returned to the original gene owner and most of the regulatory trail is paper. This means that the cost for one treatment is the same as a pharmaceutical dose for 200,000. Automating audit trails and risk mitigation therefore presents a huge opportunity for cost reduction when it comes to handling regulatory obligations. Crucially, this can help manufacturers batch release with ease. There is a huge amount of paper and manual effort associated with meeting compliance standards and mitigating the risk of poor quality, particularly when manufacturing a batch release. [Decision Intelligence](#) can both digitise and automate these complex workflows. Doing so can bring down the cost of production in key areas such as drug development and gene therapy - which ultimately benefits the patient.



3. Beware of super-optimisation

It may sound appealing but super-optimisation comes with baggage. If you super-optimize a process, then it can become more fragile. This is particularly true in critical supply chain processes that are now running too 'lean': if one element fails, then the entire process can break. Equally, minor changes to inputs can have a far reaching impact on the overall output or end product. Potential solutions to the super-optimisation problem include modelling and simulation. The question is, can simulation be used to stress-test the fragility of the supply chain and proactively identify risks, which can then be addressed to improve the robustness of the process? Again, we believe they can.

Three keys to successful digitalisation

Let's finish on another three, because - as previously stated - good things come in threes.

According to XpertRule's [Professor Iain Crosley](#), successful digitalisation in pharma depends on three key steps:

1. Start with the business problem, not the technology
2. Figure out the best approach to solve the problem, and then breaking down silos to deliver effectively
3. Ensure adequate quality and consistency of data

Whether you're a Pharmaceutical supplier, integrator or manufacturer, [talk to us](#) about working together to make your and our vision of a faster, fairer and more robust pharma sector a reality.