

Life Sciences: An Industry Poised for Growth



The COVID-19 pandemic required life sciences organizations to innovate and generate solutions rapidly amid intense worldwide concern about public health and the financial impact of illness. With that backdrop, NTT DATA surveyed 1,000 business and IT executives across economic sectors to better understand their views on business strategy, digital investment and the use of innovation to create value. This Innovation Index snapshot focuses specifically on the responses of life sciences executives.

Survey results demonstrate that technological innovation is most important to life science organizations as a means of executing growth agendas and solving their most pressing challenges. Going forward, the focus will be on accelerating innovation through digital tools, knowledge management, interoperability of data and security.

Growth has been rapid and is expected to continue

For many life sciences organizations, the pandemic led to rapid revenue and business growth — growth that is unlikely to slow down over the near term. Executives in the sector expect external factors, such as the need to respond to increasingly frequent natural disasters and the need to support rapidly evolving data-driven biotechnology and pharmaceutical therapies, to continue to fuel demand for their products and services.

Over half of life science respondents (59%) have seen revenue growth of more than 10% in the past two years, compared to a survey average of 38%. And business growth remains the top priority (64%) for life sciences executives — much more so than for all survey respondents (40%). Increasing operating efficiency (49%) is also a top agenda item (see Figure 1).

Figure 1: Top organizational priorities for life sciences companies for the next two years



Source: NTT DATA, Innovation Index, 2022

Companies are exploring how data technologies can drive innovation

Life sciences executives are looking to take advantage of a dynamic marketplace. Indeed, 64% say they are working to become more proactive in innovating and setting an agenda for the marketplace. To identify and respond to evolving trends, life sciences organizations will need access to current data, as well as the ability to draw insights from that deepening and broadening pool of information.

“There will be a convergence of key technologies in artificial intelligence (AI), edge computing and blockchain to eliminate data silos and facilitate interoperability across the life sciences and clinical value chains,” says Bhuvaneashwar Subramanian, director of Life Sciences Solution Strategy at NTT DATA. “This advancement will deliver insights-driven therapies and cures for patients.”

A majority of the industry has a basic foundation in place to enable digital transformation: Nearly 8 in 10 respondents are using enterprise resource planning (ERP) tools in all or most functions, compared to an industry average of 60%; and about the same (79%) are using customer relationship management (CRM) compared to an industry average of 71% to keep tabs on customer needs.

However, many organizations are struggling with data management and lack the ability to tease actionable intelligence from disparate pools of data distributed across research, clinical, regulatory and operational functions. For many, the next key step in the process will be to establish a data infrastructure that enables sophisticated analysis. And the step after that would be investing in the analysis itself, leveraging AI tools to draw out patterns and insights.

Currently, life sciences organizations are still exploring investments and building capabilities in these areas. Only 2 in 10 (21%) use edge computing in most or all functions. Only 21% currently use AI-enabled technology for machine learning for most or all functions. Moreover, just a third (33%) of life sciences companies are using AI-enabled technologies for predictive analytics in most or all functions and just 3 in 10 (29%) are using AI-enabled technologies for internet of things (IoT) in that way.

“Patient-centric digital life sciences enterprises of the future will be data rich, insights driven, and intelligent-infrastructure enabled.”

Bhuvaneashwar Subramanian
Director, Life Sciences Solution Strategy, NTT DATA

Comprehensive digital technology solutions create data capabilities

Change is on the way, however: Nearly all companies (95%) plan to have AI-enabled technology in place within the next five years.

Respondents in this industry see these technologies as more beneficial to their organizations’ performance, growth and return on investment goals than executives in other industries, particularly with regard to IoT (52% versus 29%) and advanced automation (48% versus 27%). More than 5 in 10 (55%) see meaningful value from IoT in accelerating innovation, compared to fewer than 4 in 10 (38%) for all respondents.

“Life sciences enterprises are at a tipping point of digital transformation,” Subramanian says. “Patient-centric digital life sciences enterprises of the future will be data rich, insights driven, and intelligent-infrastructure enabled.”

Funding allows for digital technology investment – with the right partners

Life sciences organizations have the resources to invest in digital technology. Survey respondents are significantly less likely (62%) to say that digital technology investment is constrained by budgetary concerns than other sectors (74%).

Having the right strategic partners to help identify and amplify their core strengths will help optimize and maximize digital technology investments and help organizations become proactive about driving insights and innovation throughout the industry.

Moving forward

- Life science organizations have laid a foundation for a data-driven strategy, but they still have significant work to do before they will be able to leverage that data fully.
- Eliminating data silos and improving data interoperability will be a critical first step toward a more data-driven strategy.
- Organizations that put the right data infrastructure in place to draw timely insights from their data will be better positioned to innovate and lead in a dynamic marketplace.

[Download the Innovation Index](#) to learn how North American organizations across industries are prioritizing business strategies, digital investments and innovation to create value.

[Learn how life sciences](#) organizations can accelerate their digital journey to become patient-centric and data-driven.

Methodology

To create the Innovation Index, NTT DATA and Oxford Economics surveyed 1,000 business and IT executives across 16 industries about progress toward digital transformation, including organizational priorities, technology investments, data strategies, customer experience and workforce decisions. The survey was conducted via a computer-assisted telephone interviewing (CATI) methodology in 2022.

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