Enterprise digital transformation as a competitive necessity
The leadership imperative for life sciences
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A new competitive necessity

The life sciences industry is at an inflection point. While life sciences companies understand that the digitally enabled organization is the future of health, pre–COVID-19, many approached digital transformation in a more targeted and incremental way that lacked a holistic business transformation lens.

A confluence of events—COVID-19, the acceleration of digital health, economic uncertainty, ecosystem collaboration, new and different ways of working, and new competitive entrants—is fundamentally reshaping life sciences by both accelerating and elevating digital plays already underway and catalyzing those forecasted for the future of digital health. Companies that understand the impact of these events also understand that to thrive they need to change the way they approach digital transformation.

In an increasingly digital, patient-experience- and insight-driven health care world, a scattershot approach to digital transformation simply won't work any longer. Why? Because connected and enterprise digital transformations are not a technology fad; rather, they are a competitive imperative to amplify science, insights, productivity, and collaboration to succeed in a digital health ecosystem. Life sciences companies that grasp this concept will be positioned to move at speed and have a leg up on those that simply practice random acts of digital.
Digital transformation: The new leadership imperative

Starting now, executive leadership, not just the CIO or CDO, needs to tackle enterprisewide digital transformation head-on. A recent Deloitte survey, conducted in conjunction with *Fortune* magazine, indicated that 77% of companies are significantly accelerating their digital transformations.¹ Deloitte’s experience in life sciences has shown that 90% of enterprisewide digital transformations are led by new CXOs, who see more connected, enterprise digital transformations as their mandate to drive greater digital health care opportunities.² More holistic and enterprise digital transformation is no longer a question of if or when, but how—and how is dependent on dynamic CXO leadership.
Every life sciences company is doing random acts of digital—
evolving patient experiences, moving assets to the cloud—but
most are not being digital, i.e., they’re not taking a holistic,
connected, scalable approach to business digital adoption; they’re
not truly transforming. True enterprise digital transformations go
above function, brand, and market, and they are focused at the
value chain, business unit, therapeutic area, strategic focus (e.g.,
patient, therapy leadership), enterprise, or ecosystem level.

Enterprise digital transformation programs also challenge
traditional business models and abandon point digital capabilities
for end-to-end, connected digitization across interactions,
experiences, insights, and processes. They are not just tech
adoption or cost plays; rather, they drive the broader corporate
strategic objectives of being competitive in a digital health care
world, engaging in optimal patient experiences, driving predictive
and prescriptive insights, and executing intelligently and agilely to
thrive as business conditions change.
What does good look like?

In a common use case, companies leverage digital transformations to migrate from a highly transactional, targeted engagement and latent reporting company to an insight-driven, value-based experience and management-by-exception company. To achieve this state, life sciences companies should leverage enterprise digital transformation to connect and elevate existing digital efforts into a wider enterprise digital strategy and transformation to drive broader business value, as described in figure 1.

**Figure 1. Digital strategy objectives**

- **Customer-in-focus models:** Drive business strategies and operations from the patient and HCP
- **Always-on agility:** Rapid, nonlatent responses to planned or unforeseen environmental conditions
- **Fully connected community:** Enterprise insights from democratized data and a fully connected business
- **Intelligent optimization:** Management by exception and continually optimized processes enabled by more extensive data (e.g., IoT), intelligent workflow, and human-machine decision-making
- **Predictive, holistic, insight-driven analytics:** Accelerated and improved insights and decision-making across the enterprise
- **Flexible, virtual, unbounded workforce and workplace:** Leverage talent wherever it is
The path to enterprise digital transformation

No strategic business transformation is easy. While core enterprise transformation mantras hold for digital transformations (e.g., strategy-led, dynamic executive leadership and business-impact focus), there are five key questions life sciences executives should address to successfully define and structure their digital transformation:

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
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<tbody>
<tr>
<td>1</td>
<td>What is my holistic digital ambition?</td>
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<tr>
<td>2</td>
<td>How do I value and position a broader digital transformation?</td>
</tr>
<tr>
<td>3</td>
<td>How do I activate my ecosystem to accelerate digital value and realization?</td>
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<td>4</td>
<td>How do I structure, mobilize, and align my organization for success?</td>
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<tr>
<td>5</td>
<td>How do we future-proof our capabilities and become an adaptable organization?</td>
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Answering these questions forms a structured path to an enterprise, business-driven, digital transformation.
1. What is my holistic digital ambition?

The wider digital health care ecosystem is rapidly evolving. The strategic business question is not if, or when, to leverage digital for change, but what digital transformation strategy fits a company’s strategic objectives and financial and competitive needs. Life sciences companies need to forge a new path—a digital path forward that is defined across three areas: strategic intent, enterprise scope, and digital focus.

**Strategic intent**: Defines the primary desired outcome of an enterprise digital transformation and can be expressed across three paths (highlighted in figure 2):

1. **Optimize the business**
2. **Transform the business**
3. **Reimagine the business**

![Figure 2. The path to digital transformation](image)

**Digital archetypes**

- **Reimagine the business**: Deliver new, innovative digital products, services, and business models that enable growth through new revenue streams.

- **Transform the business**: Transform to a digital business model to enhance interoperability, insights, agility, and resiliency while increasing customer experience and expanding existing revenue streams.

- **Optimize the business**: Leverage digital and cloud technologies to modernize infrastructure, streamline capabilities, and build cash reserves to fund future investments.

**Digital outcomes**

- Margin
- Growth
- Portfolio mix

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**More complex, longer-term, greater return**
Enterprise digital transformation as a competitive necessity

Companies that have yet to fully leverage the cloud and need an influx of cash can start by modernizing their cloud infrastructure. Companies seeking a step change in performance (e.g., accelerating their pipeline, democratizing their data, or improving patient experience) should seek to transform the business. Those that are more forward-looking—that want to be a leader in bringing new digital therapies, experiences, and products to market—chart a course to reimagine their business. With strategic intent defined, a wider enterprise scope and digital focus can provide a more robust structure for success.

**Enterprise scope:** The scope of an organization should inform the strategic intent (e.g., at a value chain, business unit, therapeutic area, strategic focus, enterprise, or ecosystem level). Companies that are in the early stages of their digital journey tend to focus on functional or value chain components, while companies that are developing or maturing capabilities take an expansive focus (e.g., at the business unit or strategic focus level), both to elevate and connect more siloed functional and business-unit-specific initiatives, where digital has been tested and digital muscle built, to the enterprise.

**Digital focus:** The combination of people, experiences, processes, data, and insights, driven by digital technology and delivered in a connected manner for higher business value, is what we call a digital pillar. Digital pillars and their related pivots are a means to propel and focus an organization along its digital journey. The focus of a digital transformation should be defined by choices within, and across, five driving digital transformation pillars (as defined in figure 3):
### Figure 3. Five digital pillars

<table>
<thead>
<tr>
<th>Digital health</th>
<th>Digital engagement and experience</th>
<th>Data as a strategic asset</th>
<th>Digital at the core</th>
<th>Work rearchitected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage digital technologies to deliver new digital products, therapies, or services to connect more deeply with patients on the patient journey to improved health and wellness outcomes.</td>
<td>Drive increased customer, patient, HCP, and partner engagement, collaboration, and experience by meeting them where they are and delivering what they need, when they need it.</td>
<td>Drive advanced analytics and improved insights by applying new technologies such as machine learning, artificial intelligence, and streaming analytics to democratized data to move from descriptive (what happened) to predictive (what will happen) to prescriptive (what should be done) analytics.</td>
<td>Automate and integrate the entire operational core to deliver enterprise interconnectivity, intelligent operations, and management by exception.</td>
<td>Reimagine the work to be done, where the work is performed, and who does the work. A virtual digital workforce and workplace will require companies to rearchitect around a new digital enterprise where open networks of talent, AI and machines, and new roles will be the new norm.</td>
</tr>
</tbody>
</table>
Enterprise digital transformation as a competitive necessity

To help set the enterprise digital transformation scope, and thus the necessary digital pillars and pivots, companies should define a digital ambition across a digital strategic intent. Companies that choose to reimagine the business explore digital health and serving patient needs in truly differentiated ways, while companies that choose to transform the business focus on data, a broad digital core, structured experiences, and work. Companies that choose to optimize the business focus on the foundational elements of the digital core (e.g., modernized infrastructure, streamlined processes, and data).

The digital ambition should also define a compelling and easy-to-understand vision and strategy that will improve the lives of patients, drive business impact, and inspire employees and colleagues. Once a digital ambition has been set, a life sciences organization will be ready for its first steps toward activating a successful digital transformation program.

2. How do I value and position a broader digital transformation?

Enterprise digital transformations are not technology adoption programs or costs plays. They are strategic enterprise imperatives that challenge existing business models, practices, and norms to amplify the science, insights, productivity, and collaboration needed to succeed in a digital health ecosystem. Valuing and positioning enterprise digital transformations can be challenging, yet successful companies do so across a structured digital value model that consists of value, operational performance, and capability plays (and measures), expressed through digital contribution, discrete digital value, and a digital-readiness lens (figure 4).
### Enterprise digital transformation as a competitive necessity

**Figure 4. The digital value model**

<table>
<thead>
<tr>
<th>Value plays</th>
<th>Contributing value</th>
<th>Discrete value</th>
<th>Adoption and readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Product, TA, and pipeline performance</td>
<td>Digital contribution to revenue, performance, and adherence</td>
<td>Digital product revenue, digital adherence, and outcomes</td>
<td>Digital ambition realization and digital experience adoption</td>
</tr>
<tr>
<td>• Health outcomes and adherence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• New digital products and services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational performance plays</td>
<td>Digital contribution to margins, asset utilization, and agility</td>
<td>Digital product P&amp;Ls and digital asset utilization</td>
<td>Digital capability and cloud adoption</td>
</tr>
<tr>
<td>• Profitability and margin improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Asset utilization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Business model agility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability plays</td>
<td>Digital contribution to analytics experience and virtualization</td>
<td>Information velocity and technical debt reduction</td>
<td>Product-Agile model adoption, digital DNA fluency</td>
</tr>
<tr>
<td>• Insight- and information-driven organization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Engagement- and experience-centric</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Work, workforce, and workplace of the future</td>
<td></td>
<td></td>
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</tbody>
</table>
Enterprise digital transformation as a competitive necessity

For example, enterprise digital transformation programs for big pharma typically have a cost-optimization component that addresses hundreds of millions of dollars in baseline spend, and therefore view both savings targets and investments to be of the same magnitude (due to legacy process, data, and technical debt). Yet, even with hundreds of millions of dollars in potential savings, most enterprise digital transformation business cases are positioned by upside value and competitive positioning, given the need and opportunity to lead in the digital health care future.

For new, hyper-growth, or mid-tier life sciences companies without significant process, data, or technical debt, the business case should be made to establish a digital and data foundation to amplify science, insights, and connected productivity. Independent of size, many see digital adoption or transformation as establishing the digital business model required to compete and lead in the digital health care future, where digital DNA and technology fluency are core competencies of a vibrant digital enterprise.

3. How do I activate my ecosystem to accelerate digital value and realization?

To accelerate digital value, it’s important for companies to activate their ecosystem to support their digital journey. In an increasingly virtual and collaborative health care ecosystem, patient outcomes cannot be delivered by a single health care player. The same is true for a life sciences company’s digital journey; it cannot be done alone. Today’s business models are a mosaic of partners, capabilities, and shared data. An enterprise digital transformation requires securing resources and investments from all of them.

As such, it’s essential for life sciences companies to activate their wider ecosystem to leverage nontraditional approaches to mitigate the four C’s of enterprise transformation challenges: cash, capacity, competency, and control (i.e., risk).
Digital ecosystem partners have broad incentive programs to lower initial digital transformation costs, provide resources to support capacity and competency challenges, and offer risk-sharing models to increase confidence in and lower the risk of digital transformations.

These partners also bring a wealth of experience across various industries to help companies avoid common pitfalls. Therefore, given the strategic nature of digital transformations, it’s essential that companies select ecosystem partners that can support them across the lifespan of their digital journey. Digital transformation is a team sport.

**Figure 5. Overcoming barriers to digital transformation**

<table>
<thead>
<tr>
<th>Typical barriers</th>
<th>Value-based partnership models</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash</strong></td>
<td><strong>Feasibility through financial engineering</strong></td>
</tr>
<tr>
<td>Funding and investments</td>
<td>When done right, creative financial engineering can help flatten the P&amp;L impact, making it</td>
</tr>
<tr>
<td></td>
<td>easier to gain stakeholder alignment and to fund</td>
</tr>
<tr>
<td><strong>Capacity</strong></td>
<td><strong>Realization via ecosystem engagement models</strong></td>
</tr>
<tr>
<td>Resources and bandwidth</td>
<td>Alternative ecosystem engagement models take financial incentives, industry scale, and</td>
</tr>
<tr>
<td></td>
<td>existing partnerships to accelerate approval, initiation, and execution</td>
</tr>
<tr>
<td><strong>Competency</strong></td>
<td><strong>Confidence through value and risk-sharing models</strong></td>
</tr>
<tr>
<td>Skills and expertise</td>
<td>Shared value and risk models provide increased confidence in transformation outcomes and</td>
</tr>
<tr>
<td></td>
<td>shared risks</td>
</tr>
<tr>
<td><strong>Control (Risk)</strong></td>
<td><strong>Holistic scope to delivery broader outcomes</strong></td>
</tr>
<tr>
<td>to BAU, to digital</td>
<td>Broader holistic approach across digital, information, and cloud, and across value chains,</td>
</tr>
<tr>
<td>transformation success</td>
<td>to delivery significant benefits ($100M+) and sustainable digital capabilities</td>
</tr>
</tbody>
</table>
4. How do I structure, mobilize, and align my organization for success?

All big transformations are challenging. However, successful companies structure digital transformations to meet their challenges and mobilize for success by treating an enterprise digital transformation like any other strategic, business-driven, C-suite imperative (i.e., with the goal of delivering critical strategic objectives by defining, positioning, and managing the program through an enterprise business lens). It is essential to have dynamic executive leadership that leads and collaborates across the C-suite and ensures that the organization is positioned for digital success. Some key digital transformation lessons we’ve learned include the following:

- **Lead** with the defined digital ambition to align and focus the organization.
- **Focus** the enterprise digital transformation on business impact (i.e., as a business transformation, not as a technology program).
- **Adopt, connect, scale, and elevate** fast; don’t mistake point capabilities for holistic success.
- **Build digital DNA** and tech fluency early and often to sustain adoption and success.
- **Employ a highly disciplined approach** to prove digital momentum and realize digital-specific value.
- **Strongly manage risk**, including financial, cybersecurity, and regulatory and compliance.

Also, given that enterprise digital transformations connect across value chain functions, external stakeholders, and partners (and that they expose much company data), it is essential to continually manage interoperability and connectivity risks. Additionally, various financial levers, such as tax strategies, self-funding, and capitalization approaches, should be understood up front to help ensure that all available financial levers are used and the full digital transformation value is realized. The bottom line: Go through a strategic digital choice cascade (figure 6) to proactively and diligently define, structure, and realize a digital transformation.
Enterprise digital transformation as a competitive necessity

Figure 6. Digital choice cascade

Digital ambition?

What is your digital ambition? What benefits will you gain? Which KPIs will improve?

Where do we play and focus?

Where and at what depth will digital transformation drive change: patient, digital TAs, markets, channels, or virtual trials?

How do we win with digital?

How do you structure and operationalize to win (e.g., digital business models, product models, or digital op models)?

Digital capabilities required?

What enterprise- and ecosystemwide digital capabilities, technologies, and talent are needed?

Management structures?

What management and governance structures are required to track and help ensure digital success?

How do we realize digital value?

How do you make digital impact fast, and what are tactics, initiatives, and the road map to the target state?
5. How do we future-proof our capabilities and become an adaptable organization?

Digital transformation is not a pin on a road map. An enterprise digital transformation is an ongoing, enterprise evolution to innovate in order to engage and execute more agilely, effectively, and efficiently to build and sustain competitiveness in an ever-changing market ecosystem. Enterprise digital transformation is about future-proofing a business—not just succeeding today, but also leveraging the digital pillars, pivots, and agile decision-making and delivery of today to set the foundation for the next five, 10, or 20 years.

Future-proofing means delivering an adaptable, agile, business-issue-driven business model architecture—across business, data, work, and technology domains—that can scale and adapt to support growth at the speed of the market. Key tenets of an agile business model include:

- **Full interconnectivity** across the enterprise and larger ecosystem
- **Structured information flow** across a company’s ecosystem, allowing on-demand data access to drive new insights, new levels of operational performance, and agile business models
- **Assets orchestrated** with an interoperable digital lens to deliver the right services to the right customers
- **A focus** on effective and efficient extensibility and scalability
- **Agile** business decisions and models (funding, approvals, and delivery models) at the speed of the market
- **Exposing and integrating all assets** (e.g., capabilities, processes, data, and technology)
Moving forward in a digital world

The life sciences industry is facing unprecedented change and opportunity. Most companies have yet to move on from their traditional ways of doing business, but the challenges COVID-19 has presented have exposed the vulnerabilities in these old ways. However, this disruption has also opened leaders’ eyes to new possibilities, as well as the imperative to reimagine a new, digital future. To rethink their future, it will be critical for life sciences organizations to stop adopting digital in pockets and instead initiate broader, enterprisewide digital transformation programs that will help position them to be competitive in a digital health care world.

Companies that fail to successfully navigate enterprise digital transformations risk becoming minimized or boxed in in the future digital health care ecosystem. Enterprise digital transformations deliver more significant business advantages by applying innovation and digital technology to existing and new business models in strategic, creative, and agile ways for patient, partner, and employee impact, which allows companies to accelerate their core mission to deliver improved health, wellness, and experiences for their patients; drive business impact; and inspire company employees and stakeholders.

It won’t be easy—strategic transformations never are—but unprecedented times bring tremendous opportunity. Are you ready to take the leap into digital?
Enterprise digital transformation as a competitive necessity

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Endnotes

2. Deloitte experience and analysis within the life sciences industry.