5 THINGS CIOs NEED TO KNOW ABOUT CAPITAL-EFFICIENT INNOVATION
THE CHIEF “INNOVATION” OFFICER’S CHALLENGE

Shifting market forces have led to big changes for life sciences companies, forcing company leaders to find agile business models that allow the enterprise to expand and grow while staying focused on the main objective: to advance healthcare outcomes. The industry is moving toward patient-centric practices, such as personalized medicine, and toward using multiple communication channels to reach payers, healthcare practitioners and patients. Progressive life sciences companies understand that their business practices need to become more flexible and open, with operational transparency and efficiency. These changes also mean companies need to find the right resources — and talent. And, they need to partner and outsource in key parts of the business, both to drive innovation and to cut costs.

ALL EYES ON THE CIO

These shifts put the chief information officer (CIO) in the spotlight. Today’s CIO — who might better be defined as chief innovation officer — is crucial to a life sciences company’s success as a modern, thriving and innovative business. Tasked with enabling the business goals defined by the CEO, the CIO must tackle three key objectives:

• Continue to innovate so the business can get products to market faster, but do so with less money
• Achieve business aims while mitigating risk and maintaining regulatory compliance
• Enhance infrastructure and processes to create a more agile organization that enables better collaboration both internally and externally — and therefore works more effectively and efficiently

To achieve these objectives, CIOs need to:

• Make the business more cost effective, particularly in terms of how it sources and implements technology and processes
• Manage risk, particularly as it relates to cybersecurity, data sourcing and sharing, and regulatory compliance
• Infuse the enterprise with business agility and elasticity to allow the organization to scale and respond readily to growth opportunities in a dynamic marketplace

As business process change agents, CIOs must champion innovation, enabling the transformation that allows companies to meet and respond to the objectives of cost efficiency, risk management and agility.

COMPONENTS OF CAPITAL-EFFICIENT INNOVATION

With changing market dynamics forcing companies to innovate in order to grow while reducing costs, life sciences companies need to adopt a Capital-Efficient Innovation approach. Four pillars underpin a Capital-Efficient Innovation strategy:

• Leveraging regulatory information across the enterprise for greater business value. While the industry has become familiar with the concept of regulatory information management (RIM) to manage compliance, a holistic RIM approach extends across the value chain.
• Accelerating commercial success through new digital models that connect with healthcare decision makers, influencers and stakeholders. This extends into the exploding use of mobile devices by providers and patients, and the need to engage with a more informed and educated patient through their medium of choice.
As importantly, it’s about digitizing the workforce, including the research scientist, sales person, marketing and regulatory affairs professional, and partners.

- **Enabling R&D productivity through collaboration platforms and predictive insights to optimize processes and achieve product development breakthroughs**, particularly in the area of predictive and personalized medicine and personalized care.

- **Enhancing the supply chain’s flexibility, responsiveness, transparency and security** as part of a shift from a stock-based to an order-based model driven by demands of a personalized medicine paradigm. At the same time, next-generation supply chain models remain focused on security and enhancing regulatory compliance and mitigating risk.

From a practical standpoint, what does Capital-Efficient Innovation mean to the business? Here are five areas where CIOs should focus their attention.

1. Capital-Efficient Innovation is about agility

To drive innovation, **you need to have the elasticity within your infrastructure to support existing and new business objectives.** Agility means putting the right platform, processes and discipline in place so you can quickly respond to market opportunities, regulatory challenges, changes in the supply chain and so forth. Flexibility is enabled via an IT platform through which you can embrace and support new services, products and capabilities.

Having an agile and consistent IT platform allows companies to derive value from integrating systems used by different functions in the business. So, for example, a company’s RIM platform can be integrated with content management solutions and master data management activities. But to derive the greatest benefit, the IT platform needs to be easy to use — **you need to build the right platform, to enable agility.**

One way to achieve platform simplicity is through a trusted cloud service, which opens up the opportunity to build a more agile and interconnected architecture. Adopting cloud is beneficial at both economic and business-value levels, as it reduces the cost of infrastructure while accelerating time to market by facilitating consistent, repeatable service delivery. Additionally, as CIOs increasingly focus on what systems and processes they need to run the business, an agile IT platform, enabled through the cloud, creates an environment for low-cost prototyping of alternative solutions, allowing ongoing innovation without additional cost.

2. Capital-Efficient Innovation is about compliance and security

**Progressive CIOs need to drive toward architectural simplicity to improve regulatory compliance.** Companies understand that RIM is integral to managing the regulatory submission process; however, for RIM to provide the level of compliance and business value that the enterprise requires, regulatory rich information should be leveraged more extensively across the organization and supported by a more agile, integrated platform.

The broader benefit to an integrated approach to compliance is that it helps you bring products to market faster, and enables a smarter and lower-cost way of managing regulated activities. The challenge in most organizations is that data is dispersed across numerous legacy systems that run globally within a complicated and outdated IT architecture.

In addition, **you need to ensure a clear, streamlined security strategy to protect the enterprise’s assets and minimize the risk — and cost — of security breaches.**
For the past 4 years, cybersecurity has been the top priority stated in the annual CSC Global CIO Survey results, with 81% of healthcare CIOs identifying it as a business priority. Priorities for the industry include ensuring that R&D intellectual property is secure from cybertheft, and that their supply chain is traceable, transparent and secure.

CIOs are tasked with helping achieve these goals without additional cost burdens to the business. With the right infrastructure, it’s now easier and less resource intensive to make use of capabilities such as RFID, data leakage protection, identity and access management, application security, network security and single sign-on. Having the capabilities in place — either internally or through a partner — that enable enhanced situational awareness and global threat intelligence, further strengthens risk management and allows the enterprise to innovate in a secure environment.

3. Capital-Efficient Innovation is about governance and portfolio management

As organizations have moved away from vertical integration to orchestrating a complex network of suppliers and partners, it has become all the more important to have a clear governance and portfolio management structure in place. To manage those many relationships and activities effectively and efficiently, you need to be able to ensure that every relationship is governed in a structured and repeatable way.

Governance also encompasses portfolio management; an efficient governance structure allows you to look at the cost base around your portfolio of activities and determine the most efficient way to manage those activities. For example, could a service be handled more efficiently externally or through process changes such as application rationalization and modernization, adopting project management as a service, or a move toward integrated service delivery? This prompts companies to look at their underlying architecture, because simplifying it makes it easier to manage the portfolio.

The question becomes, are the tools and processes in place to activate and manage governance and the portfolio, in order to work more efficiently? Companies can’t govern without portfolio management, without effective supplier management or without adopting architectural simplicity. This is relevant across all functions within the business: without architectural simplicity, businesses can’t optimize the supply chain or enhance how they collaborate with R&D partners, or manage global regulatory information.

4. Capital-Efficient Innovation is about talent optimization

Today’s life sciences organizations face ongoing transformation, particularly as a result of mergers and acquisitions, divestments, and the increasing dependence on external partners. But to make best use of the global skills and knowledge these new or supplemental team members and partners bring, you need to become more comfortable in leading and working with co-located and distributed teams across the globe and across organizations.

To make the best use of talent, you need to put in place processes that enable you to identify and source the right skills both inside and outside the business, not just at an operational level but also at a strategic level. At the same time, you need to seek out the right resources to help your company develop and train its own people in order to respond to rapidly changing market dynamics and trends.
5. Capital-Efficient Innovation is about collaboration

At all levels — R&D, clinical, infrastructure and supply chain — life sciences companies are collaborating with many different stakeholders, both internally beyond their functional walls as well as outside the company with business partners. The need to innovate at a research and development level has led once-insular companies to work with academic institutions, start-ups, biotechs, technology companies and former competitors.

Collaboration means that you need to be able to securely share information and intellectual property — through flexible cloud-based or as-a-service platforms that can be scaled up during the collaborative process, allowing rules-based access, and scaled down when not required, without residual cost. It’s about having an agile platform that lets the enterprise work across multiple clouds and different organizations, and have access to different applications, as well as information within those applications in a secure environment. Mobility is also an important enabler of collaboration, because today’s workforce is not only geographically spread out but increasingly needs access to information while working beyond corporate walls.

The drive for collaboration isn’t restricted to inside the industry. Today, pharma and medical device companies are part of an extended healthcare ecosystem that incorporates providers, care delivery organizations, payers, management organizations and patients, all driving toward personalized medicine and population health management. In this environment, social media becomes an important resource for providing greater insights on improving the quality and effectiveness of therapies.

CONNECTING THE DOTS

Capital-Efficient Innovation responds to the industry’s dual challenge of innovating to grow while reducing costs. And the industry is trying to achieve this while staying true to its purpose: bringing life-saving products to market faster for patients across the globe.

As CIOs increasingly take the lead in delivering the innovation needed to enable the objectives set out by stakeholders, the priority must become creating a business model that best optimizes the value chain to meet the needs of the patient through Capital-Efficient Innovation.
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