



# Get ready for the future

**Emerging technology risk  
in life sciences**

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[kpmg.com](http://kpmg.com)



# Introduction

Mobile healthcare apps that help doctors track patients' symptoms and behavior in real time; organs-on-chips that assist in drug trials; computers that calculate and deliver the precise drug dosages needed for neonatal patients: the world of life sciences is evolving fast.

Driven by digital technologies, developments in life sciences are revolutionizing patient care. They are also raising important issues around trust, security, and confidentiality. Success depends on being alert to the risks of emerging technology, but also to its opportunities.

# Turn risk factors into SUCCESS factors

Emerging technologies such as the cloud, mobile apps, the internet of things, artificial intelligence, and blockchain are transforming nearly every sector. Life sciences is no exception.

While emerging technologies offer new sources of value and opportunity in life sciences, they also pose new risks. KPMG works with clients to proactively manage those risks by integrating them into every aspect of digital transformation.

# #1

**Emerging/  
disruptive  
technology risk**  
is seen as the  
number one threat  
to growth by U.S  
CEO's.

Source: KPMG 2019 US CEO Outlook

# Innovate with understanding

Today's customers come with increasingly high expectations. They want frictionless, personalized, digitally enabled services for themselves and their patients. In response to this demand, technology companies are entering the life sciences market and traditional industry players are transforming their business models at a rapid pace. As market competition squeezes profit margins, companies are seeking more efficient ways of doing business.

Innovation is critical to success. According to KPMG's 2019 CEO Outlook, 66% of Life Sciences CEOs believe that their organization is actively disrupting its own sector rather than waiting to be disrupted by competitors.

No organization wants to be a late follower and risk collapse, but being a market leader carries its own risks in an ever-more regulated, highly scrutinized market.

It makes active, agile management of emerging technology risk a necessity, not a choice.

Organizations must protect their customers at the same time as they serve their customers through practicing good digital governance. The challenges of doing so in such a fast-moving market should not be underestimated.

## Risks versus benefits

While new technologies offer new sources of value, the associated risks are so significant they can offset any benefits if not properly managed. Healthcare is the #1 industry with the most data breaches which, on average, cost 2.5 times more than other industries<sup>1</sup>. Even though 76% of Life Sciences companies acknowledge that the risk of becoming a victim of e-crime has increased, only about one in three has set up a cyber defense team to ward off attacks<sup>2</sup>.

The way that technological solutions are chosen and deployed can make the difference between competitive differentiation and market growth or monetary losses, write-downs, and reputational damage.

Emerging technologies help create new customer experiences but also generate new fears and uncertainties. Big data helps brands serve customers more personally, but people want control over how their information is used. A connected digital ecosystem offers more advanced, responsive, personalized care but also creates new points of failure for technology break-downs, cyber-attacks, and invasions of privacy.

## When to fail

Over decades of ground-breaking research, the life sciences sector has become familiar with the risks of innovation. According to KPMG's 2019 CEO Outlook, over two-thirds of CEOs (67%) say they have a culture where errors

## FOOTNOTES

<sup>1</sup> <https://advisory.kpmg.us/articles/2017/ethical-compass-automation-age.html>

<sup>2</sup> KPMG Digitalization in life sciences (2018)



are accepted as an ongoing part of the experimentation process. However, the introduction of digital technologies creates new types of risk and there are fewer established protocols for dealing with them. Failure will occur – but controlling when it happens and being prepared to manage it is critical.

### Trust in technology

Customer trust is now a top three priority for 61% of CEOs<sup>1</sup> because it is the foundation of successful, sustainable products and services. Trust becomes particularly critical in a healthcare setting. Lapses in technology integrity or data security can be devastating, not only for patients but for the reputation and bottom line of the companies involved. Weaknesses in technology design, programming missteps, and unreliable data can cost lives.

Modern customers rightfully expect a seamless experience that doesn't hinder usability or create unnecessary burdens while, at the same time, feeling reassured that they aren't personally exposed or threatened by technology. This distinctive value proposition, customer trust in technology, is a new currency in the digital world.

Organizations that demonstrate effective governance over the digital ecosystem have the advantage of maintaining customer relationships and creating a trusted technology platform.

### Questions of governance

As emerging technologies take their place in life sciences, the issue of how to govern them and scale them becomes critical. How can you maximize the benefits of personalized medicine while protecting personal data? What's the best way to offer a positive and safe digital experience? How do you design control measures that don't hinder innovation? What will help you embrace the dynamic ways of working technology can provide while maintaining transparency with regulators? What preparations can be made for technology-driven changes that can't yet be imagined?

From manufacturers to regulators, the failure to engage can be catastrophic – the greatest risk lies in what an organization doesn't understand.



67%

of CEOs say they have a culture where **errors are accepted as an ongoing part of the experimentation process.**

Source: KPMG CEO Outlook 2019



61%

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# Active management of technology risk

When it comes to the application of emerging technologies, KPMG helps organizations balance innovation against the risks – in particular the risks of jeopardizing customer trust.

We do this by bringing powerful technological insights to the table but, more than that, we offer in-depth experience of risk, compliance, and control in the life sciences sector.

We help ensure life sciences organizations remain resilient, protect customers, and promote accountability in their dealings with customers, patients, suppliers, and regulators.

By helping organizations identify and manage technology risks and embed technical trust throughout the innovation and product lifecycle, we also help them to grow and succeed.

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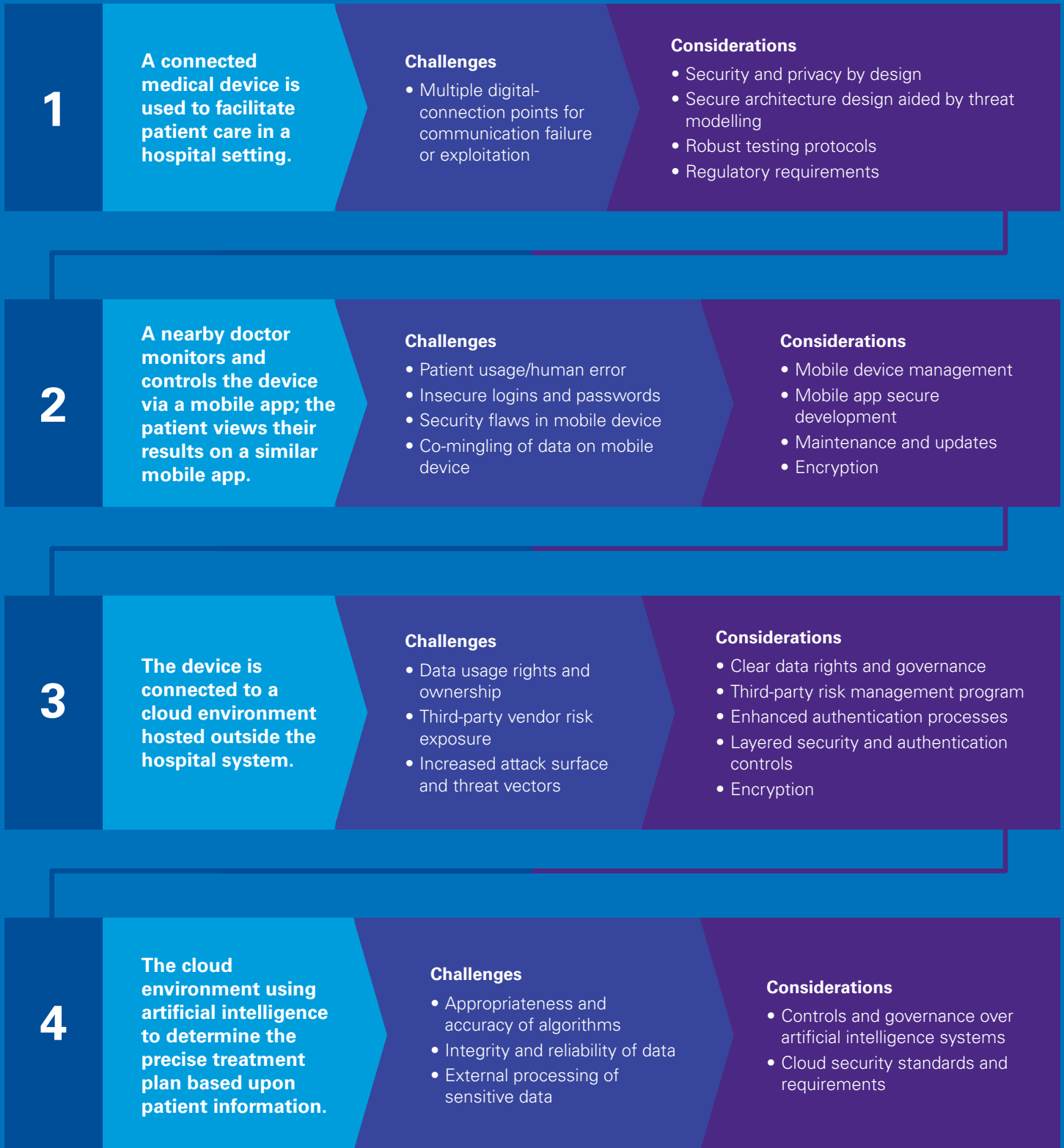
## Managing risk, enabling innovation

Drawing on sector experience in the life sciences, deep expertise in emerging technology risk, and a proactive approach to risk management, KPMG works with you to draw out new business benefits from the fast-evolving digital ecosystem.

Our holistic, wide-range approach integrates risk management into every aspect of digital transformation, helping you to embrace disruptive technologies and enable innovation.



# Creating digital products and services with a foundation of technical trust



# Contact us



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