



# Why There Has Never Been a Better Time to Lead R&D Technology in Biopharma

*Diana McKenzie, Technology Executive, Board Member and Former CIO*

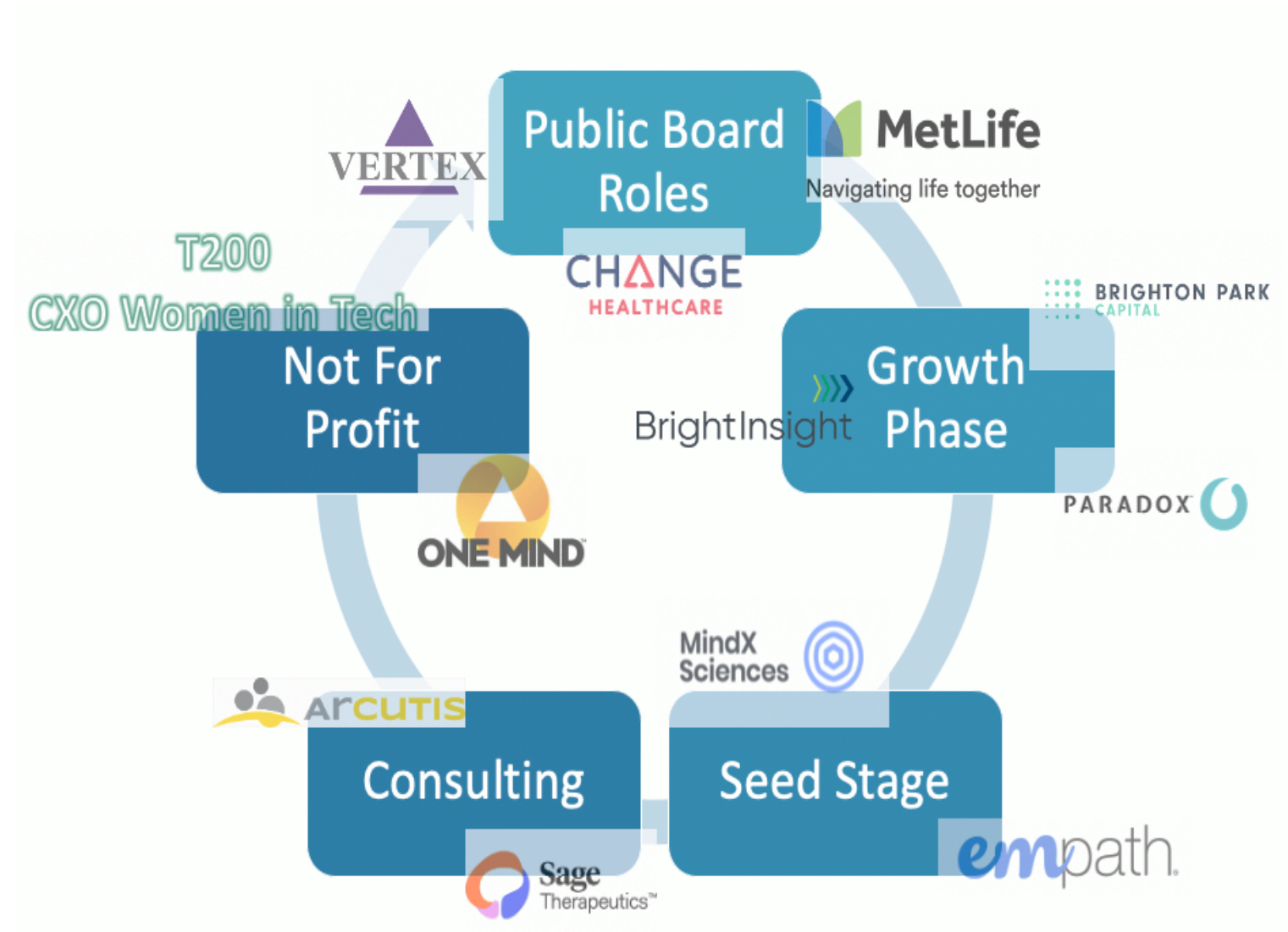
**PRISME Forum**

Pharmaceutical R & D Information Systems Management Executives

I've been where  
you are and . . .



.. It laid the foundation for the journey I am on now - specializing in digital health and technology futures.

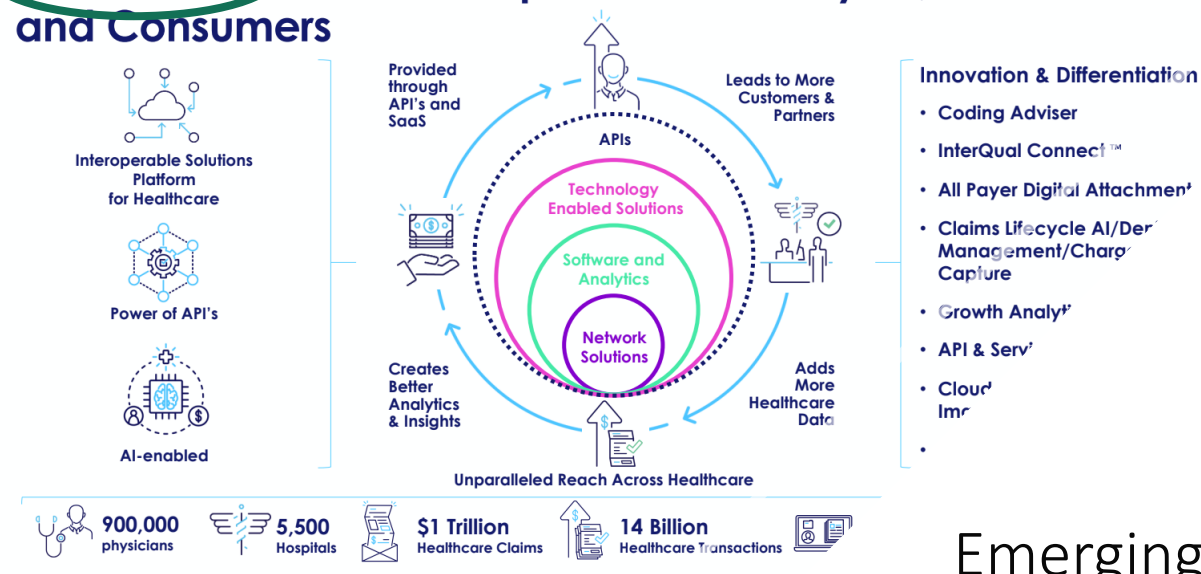


...there has  
never been a  
better time to  
lead R&D  
Technology.

1. **Healthcare Technology is at an inflection point**, creating possibilities to transform R&D to deliver for patients and shareholders.
2. Significant and **increasing demand for R&D technology leadership** and operations **experience** positions you for a **bright future**.
3. **COVID-19** has accelerated digital health investment, uptake and **planted the seeds for regulators** to keep pace globally.
4. **Boards** are **driving increased** CEO and executive team focus on and **expectations for digital transformation**.
5. **Digital transformation is a cross-functional team sport** requiring changes to business strategy, operating models, a clear focus on outcomes and executive incentive systems – **technology and titles are the easy part**.



## Our Platform Delivers Unique Value for Payers, Providers and Consumers



## Market trends create significant opportunity

### 17th Annual Employee Benefit Trend Study



### Market Trends

- Benefits are a strategic business enabler
- Shift to voluntary benefits favors carriers with a distinct value proposition
- **Evolving third party ecosystem**
- Increased carrier consolidation

Emerging cloud-based ecosystems and platforms – moving beyond hype.

**Digital Health Platform**  
Accelerates Time to Market and Minimizes Risk

BrightInsight Platform is built under a Quality Management System to support and optimize up to Class III regulated drugs, devices, software, connected surgical equipment and Digital Therapeutics through integrated data and actionable insights

**PLATFORM**  
FROM DIGITAL ASSESSMENT  
TO MOLECULAR DIAGNOSTICS  
TO TARGETED MEDICATIONS



#### Apps

That provide a risk score, and track symptoms, validated in clinical settings



#### Blood Tests

For suicide risk, pain, stress, depression, Alzheimer's, longevity, and other indications, validated in clinical settings



#### Matching with medications

Matching of patients with medications, and monitoring of response to treatment

#### New Medications

Drug repurposing and collaboration with pharma for their drugs (precision clinical trials, companion diagnostics)



#### Data

Continuously updated datasets, databases, and methods.

CONFIDENTIAL



#### A scalable, turnkey solution

Hit the ground running with our managed service model, modular platform architecture and foundational capabilities.



#### Next-level intelligence

Our integrated data management transforms drug and device data into powerful real-time insights.



#### Medical-grade security, privacy and compliance

Our advanced quality, security, privacy and compliance processes and tools give you peace of mind.

# COVID-19 “Planting the Seeds”

New drug/device  
guidance documents  
and waivers  
March 2020 to-date:

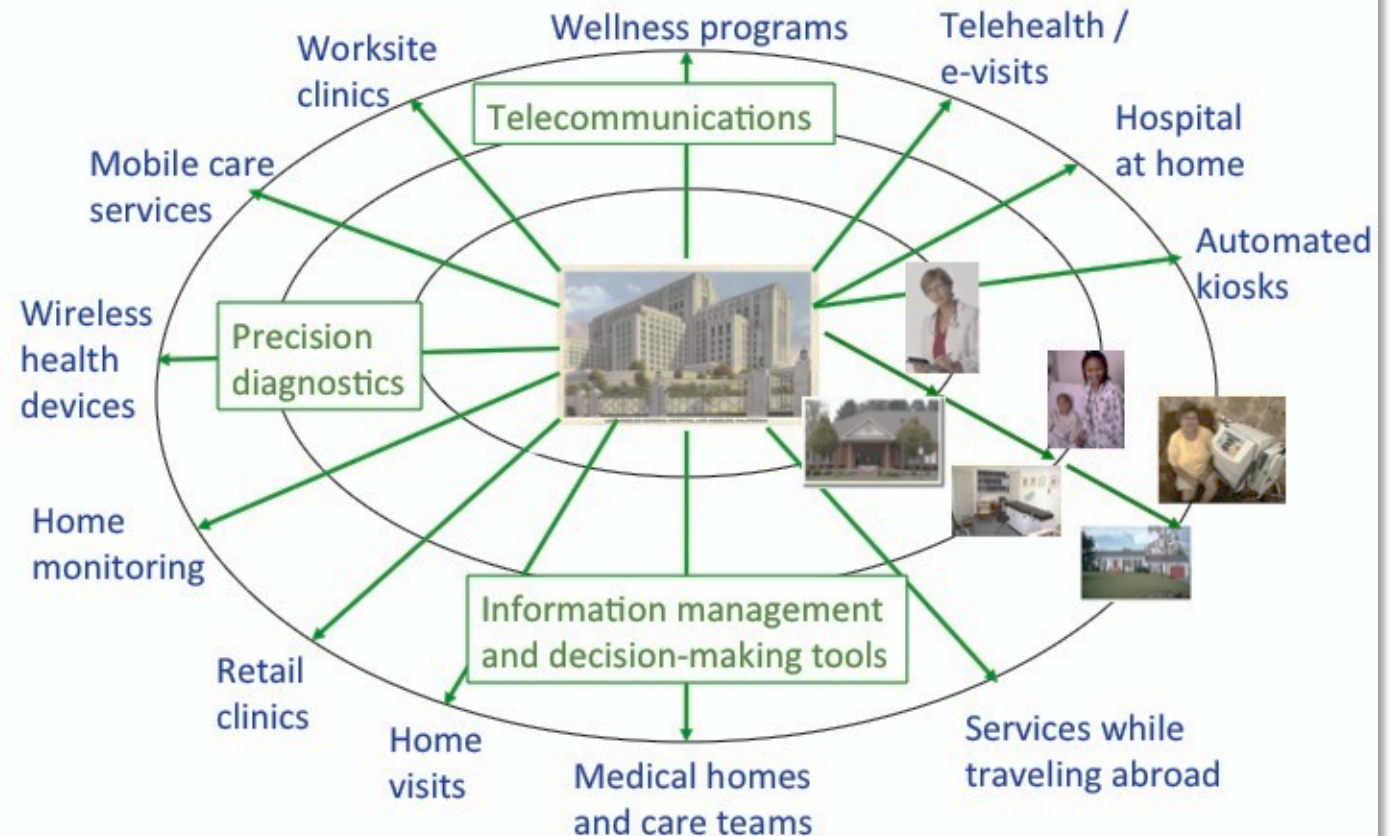


(18) European Medicines  
Agency

(56) US Food and Drug  
Administration

(190) US Centers for Medicaid  
and Medicare

## Accelerating a new ecosystem of disruptive healthcare business models



BrightInsight 

**\$45M** Unsolicited  
B Series

 GenapSys™

**\$75M** COVID-19 Inspired  
Financing

 Benchling

**\$50M** D Series

 AETION

**\$82M** B Series

GRAIL

**\$8B** Acquired

 biofourmis

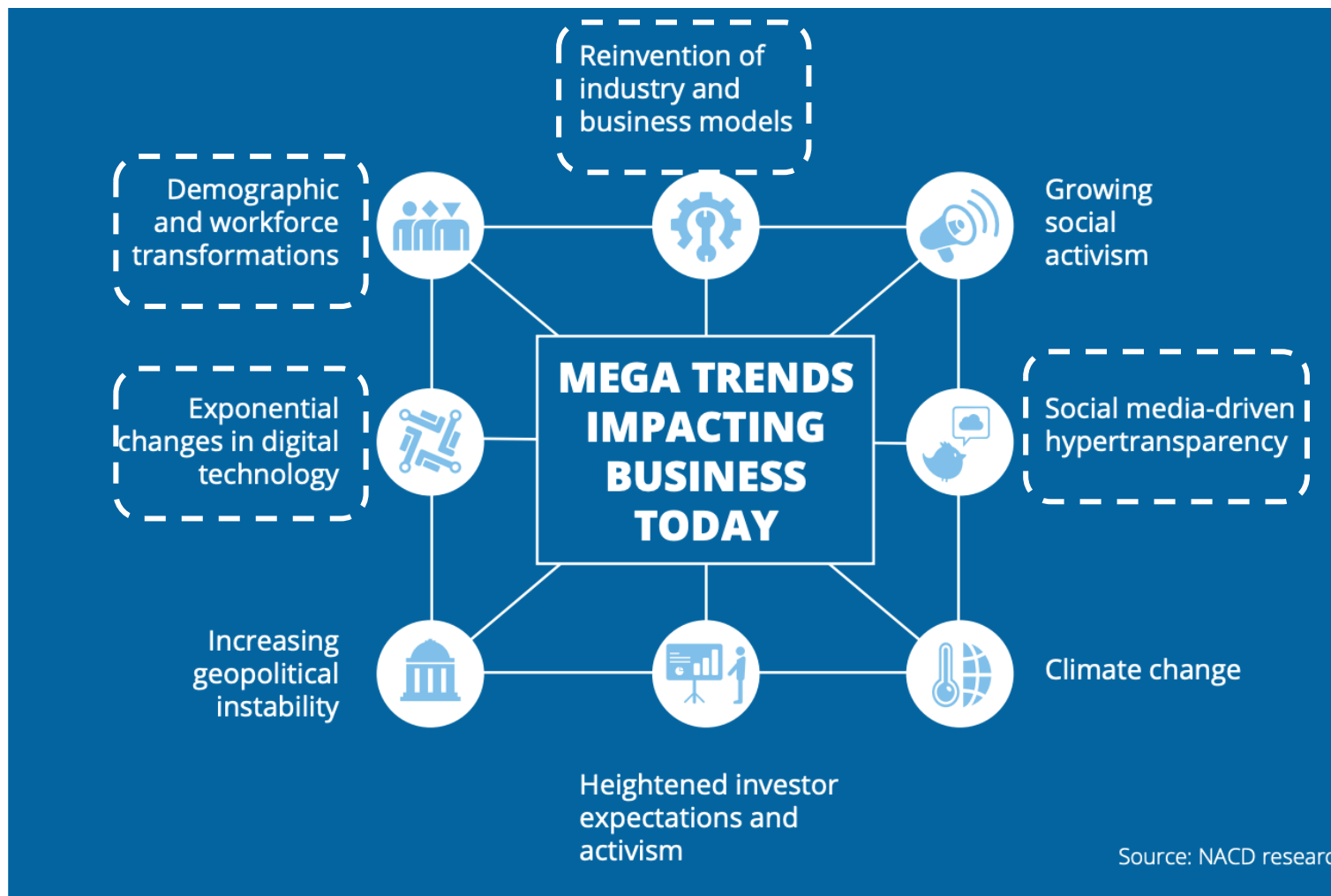
**\$100M** C Series

**\$9B / 7.7€**  
Investments  
2020 YTD



## Pre-Pandemic

Boards already driving increased CEO and executive team focus on “all things digital”



*National Association of Corporate Directors (NACD) - Blue Ribbon Commission Report 2019*

# Board engagement increased significantly with the pandemic giving rise to the importance of scenario planning

## Fundamental uncertainties explored

- 1 The overall **severity of the pandemic** and pattern of disease progression
- 2 The **level of collaboration** within and between countries
- 3 The **health care system** response to the crisis
- 4 The **economic consequences** of the crisis
- 5 The level of **social cohesion** in response to the crisis

## Additional uncertainties explored

### Society

- Levels of societal trust
- Psychological impacts after quarantine
- Impacts on different generations
- Long-term impacts on education

### Technology

- Attitudes toward data-sharing
- Speed of technological innovation
- Long-term effects on the workplace
- Types of new technology adopted

### Economy

- Speed of economic recovery
- Distribution of economic growth
- Impacts on inequality
- Shifts to new business models

### Environment

- Focus on fighting climate change
- Reduction of emissions
- Investments in renewable energy

### Politics

- Long-term impacts on governments
- Impacts on public policy and regulation
- Levels of trust in political systems
- Changes in election methodologies



**Deloitte.**



## Making sense of the future

These scenarios illustrate different ways in which the world could unfold after the crisis

	The passing storm	Good company	Sunrise in the east	Lone wolves
<b>Society</b> Social cohesion...	... <b>rises</b> , with a heightened appreciation for interpersonal and familial relationships	... <b>is maintained</b> , as society shifts to become more "purpose-driven"	... <b>shifts</b> to an increased emphasis on the "good of the whole"	... <b>falls</b> , as xenophobia and suspicion of others become the norm
<b>Technology</b> Technology advances...	... <b>stay on course</b> , as previous holdouts move online	... <b>take the center stage</b> , with large companies driving solutions in areas such as health tech and biotech	... <b>are accelerated</b> , as more data-sharing allows for advances in AI and other advanced tech capabilities	... <b>are divergent</b> among different markets, with a focus on advances in surveillance and control measures
<b>Economy</b> Worldwide economies...	... <b>enter an extended recession</b> , with increased income inequality	... <b>are disrupted</b> , with a growing concentration of power among large companies	... <b>shrink</b> , due to the prolonged nature of the virus	... <b>are left in turmoil</b> , as global supply chains are disrupted
<b>Environment</b> Focus on climate change...	... <b>is renewed</b> , as global collaboration provides hope for progress	... <b>is mixed</b> , with some sustainability-minded companies investing in renewable energy	... <b>is deemphasized</b> , as economic recovery is prioritized	... <b>declines</b> , as countries shift toward energy independence
<b>Politics</b> Governments around the world...	... <b>gain trust</b> , and international organizations such as WHO grow in relevance	... <b>partner</b> with large corporations, who step up as part of the solution	... <b>look to the east</b> for guidance, as Asian countries effectively manage the virus	... <b>adopt isolationism</b> , as they attempt to contain the virus within

What strategy is required in each scenario?

How will you monitor which direction the environment is moving?

What do you need to do regardless of the direction things move?

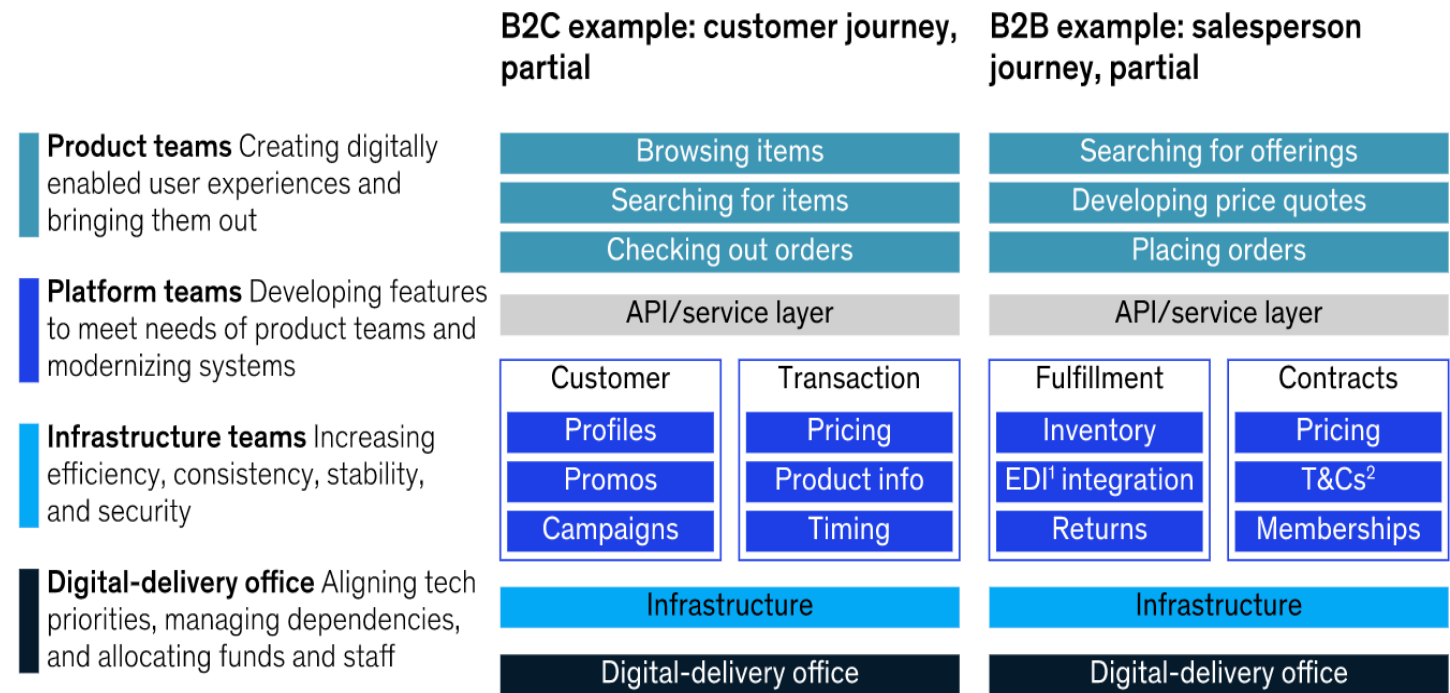
# Questions your board is asking about your digital strategy and transformation

- Awareness of trends – which choices are being made?
- How is your competition responding?
- Do you have the talent you need to drive the change and if not, what are you doing about it?
- What percentage of your budget/investments are allocated to innovation vs. legacy operations?
- What new opportunities exist for M&A, strategic partnering, and sourcing?
- How are you measuring progress and outcomes and what successes can you share?
- How are you incenting leadership differently to drive the change?
- How does the strategy impact Enterprise Risk, inclusive of cybersecurity and regulatory compliance.



# Successful Digital Transformation is a Team Sport

Integrated technology organizations comprise teams that support products, platforms, and infrastructure, plus a digital-delivery office.



McKinsey  
& Company

## Technology & Titles are the Easy Part!

- **Focus:**
  - Outside-in: Stakeholder journeys
  - Inside-out: Capability driven operating model
- **Methods**
  - Product Management Lifecycle
  - Agile
- **Performance Measures**
  - Define value focused performance metrics
  - Processes for tracking and reporting
- **Funding**
  - Tie new funding to successful releases that deliver outcomes vs. projects
- **Governance**
  - Decision rights for relieving bottlenecks
- **Talent**
  - Seed and re-skill / up-skill
  - Strategic partners / vendors

# Questions for you as an R&D Technology Leader

- How would you and your team answer the questions posed by the board on slide 11?
- Do you engage in periodic scenario planning exercises with your business partners or at a minimum with your team?
- How strong is your relationship to the R&D and Commercialization executive team?
- Do your external networks inspire you to challenge the status quo and bring innovative perspectives to the leadership table?
- How effectively do you influence cross functionally?
- Do you know your external customers/stakeholders well enough to understand and positively impact their experience journey with your products and solutions?
- How strong is your relationship to the CDIO/CIO/D&A leader
- Are you satisfied with your rate of progress toward product / platform maturity?
- Do you have the right strategic partnerships and if not, why not?





Thank you!

Questions?