Growth Readiness

All In: Changing the Innovation Mindset
Throughout history, human societies have shown a remarkable ability to adapt to technological change to further their advancement.

The Second Agricultural Revolution that began in mid-17th century Europe spurred an unprecedented increase in agricultural production. Reallocated resources later paved the way for the Industrial Revolution. While technological development was at the heart of these transformations, neither would have been possible without a collective shift in mindset — and a willingness to overhaul existing methods. The Luddites famously refused to embrace this shift in mindset and were unable to reverse the winds of change sweeping their industry.

Today’s investment industry is also on the cusp of a revolution. Research from our annual Growth Readiness Study — surveying institutional investors — reveals that respondents recognize the power of new tools, but are struggling to adopt a radically different mindset.
To achieve an alpha advantage, the industry must shake off old habits.

Stop the piecemeal approach
Emerging technology is recognized as a more important factor to achieving growth than ever before. However, 61 percent of our respondents are taking an incremental approach to emerging technologies, versus a fundamental re-engineering of their IT architecture. Even where businesses have committed to change, they are struggling to integrate new technology with existing systems and processes.

Overcome the resistance to change
Three-quarters (74 percent) of respondents say executives in their organization are reluctant to convert to a cloud-based architecture. And given the cost and complexity of an architectural overhaul, many firms are partnering with established vendors to roll out emerging technology solutions. But just 29 percent are broadening their innovation ecosystems to work with FinTechs, and just one-third are working with academic partners.

Adopt a new model for growth
A more innovative mindset will require operational change. Implementing agile architecture, recruiting digital leaders, creating partnerships and acquiring new investment tools will be central. Indeed, 42 percent of asset managers will prioritize new digital technologies to gain an investment advantage over the next five years.
Emerging technologies are powering a seismic shift in the financial services industry. They create the potential to reduce costs, improve returns, enhance risk management — and secure a competitive advantage.

Asset managers and owners know they need to get ahead of the forces reshaping their industry. Almost half (48 percent) of our survey respondents rank emerging technology as the top enabler of growth over the next five years, up from just 18 percent in 2017. This represents a huge change in how investment institutions are thinking about routes to growth. Now, they must follow this through by embedding an innovation mindset.

**The importance of integration**

While investment institutions express a clear desire to integrate emerging technologies, their current approach is keeping them in the slow lane. Upgrading existing infrastructure on a case-by-case basis will only exacerbate siloed legacy systems and make it harder to integrate emerging digital solutions. And it can be costly in the long run. For instance, many organizations have sought to address MiFID II with solutions that focus on individual components of the regulation. A more effective approach would have been to establish a workflow across a wider regulatory implementation framework. Successful integration could prove decisive in the battle for growth. For 49 percent of respondents, this challenge is one of the biggest barriers to taking emerging technologies from development to live implementation across their business. A fundamental approach requires a bold resolve. It means completely re-engineering architecture to put emerging technology at the core of an organization. And it also means asking tough questions. As the sophistication of new, tech-enabled solutions grows, it may be time to ask, “Do we even need to do all of this ourselves anymore?”
Figure 1: Redefining routes to growth

Of the following factors, which provide the greatest opportunity for your organization’s growth over the next five years?

- 2018
- 2017

<table>
<thead>
<tr>
<th>Factor</th>
<th>2018</th>
<th>2017</th>
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</thead>
<tbody>
<tr>
<td>Emerging Technologies</td>
<td>48%</td>
<td>18%</td>
</tr>
<tr>
<td>Economic Growth Outlook (in our key markets)</td>
<td>47%</td>
<td>49%</td>
</tr>
<tr>
<td>Monetary Policy (in our key markets)</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Equity Outlook (in our key markets)</td>
<td>35%</td>
<td>34%</td>
</tr>
<tr>
<td>Fixed-Income Outlook (in our key markets)</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>Political Outlook (in our key markets)</td>
<td>29%</td>
<td>32%</td>
</tr>
<tr>
<td>Regulation Governing Investment Behavior</td>
<td>29%</td>
<td>34%</td>
</tr>
<tr>
<td>Regulatory Attention to Investment Fees</td>
<td>18%</td>
<td>32%</td>
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</tbody>
</table>

Source: State Street Growth Readiness Study, 2018

Figure 2: Integrating new technologies remains a stumbling block

What are the biggest challenges for your organization in taking emerging technologies from the development phase to rolling out a live implementation across the business?

- Integrating new technologies with our existing infrastructure and process
  - 49%
- Insufficient budget/capital to spend on this
  - 38%
- Emerging technology R&D is not often targeted at a specific business use case
  - 37%
- Reluctance of business teams to change how they work
  - 36%
- Lack of expertise to manage the roll-out process across the organization
  - 33%

Source: State Street Growth Readiness Study, 2018
Despite the clear need for a comprehensive approach to digital innovation, our survey reveals that executive leadership teams are reluctant to abandon legacy IT mainframes and convert to a cloud-based architecture: 74 percent of all respondents (and 80 percent of asset owners) agree with this statement.

Uncertainty about the end game is fueling this resistance to change. Less than half (45 percent) of respondents say their organization’s executive team is highly effective at articulating the end goal for their institution’s digital transformation strategy.

Relying on a string of siloed legacy systems creates an incredibly difficult task for firms that want to reinvent a business function.

Among our survey respondents, there is a push for outside expertise.

Figure 3: Leadership remains tethered to legacy systems

To what extent do you agree or disagree with the following statements?

- Strongly disagree: 3%
- Don’t know: 11%
- Disagree: 12%
- Neither: 34%
- Agree: 39%
- Strongly agree: 12%

Our executive leadership team is reluctant to abandon legacy IT mainframes and convert to a cloud-based architecture.

Source: State Street Growth Readiness Study, 2018
Figure 4: A call for senior tech leaders
What type of organization have you recruited emerging technology leaders from?

Source: State Street Growth Readiness Study, 2018

that can lead the redesign of system architectures. Around half of respondents have made new appointments from the tech sector. Among asset owners, 43 percent have turned to academic institutions.

Another part of the integration challenge is getting the workforce to embrace new technology tools and processes, rather than reverting to familiar approaches.

But encouraging investment professionals to incorporate such tools alongside ingrained investment processes may not be straightforward. In our survey, an overwhelming majority (87 percent) of respondents agree their workforce needs better education if it is to adopt new technologies.

Organizations ready to embrace fundamental change will position themselves to become the dominant industry players of the future.
Investment institutions are increasingly looking to consolidate growing amounts of client and business data in repositories such as data lakes and warehouses.

Real-time data lakes keep data secure, organized, current and accurate. They will be critical to underpin the new operating model and enable tools that rely on access to vast amounts of up-to-the-minute data, whether to support investment teams or better manage operational processes. Yet the majority of organizations are just beginning their journey toward a single enterprise data store.

Institutions are recognizing the need to plug gaps in existing computing power, too. Almost three-quarters (72 percent) of respondents say cloud infrastructure is a high or very high priority. This puts it ahead of other emerging technologies such as distributed ledger technologies (DLT), cognitive computing/machine learning and robotic process automation (RPA).

While migrating to the cloud may seem a huge task, it will be critical. A cloud-based platform enables firms to scale quickly at a much lower cost, and accelerate the development of new products and services. It can also enable institutions to tap into microservices — a series of connected single-function modules — that can be rapidly updated without impacting the overall system.

From competition to collaboration

Investment institutions are not technology companies. Striking the right partnerships will be crucial. Organizations once seen as a threat are now important partners in achieving growth.

FinTech start-ups have risen to prominence as digital challengers to financial institutions, introducing highly accessible services often at low cost. Industry incumbents are now turning to FinTechs as partners to enhance their digital offering for clients and co-develop new investment, risk management and compliance management solutions.
Figure 5: Data lakes are at an early stage

To what extent has your organization implemented a “data lake” today?

- We have a data lake in place, and it is enabling multiple new business applications with real-time data
  13%
- We have a data lake in place, and are using it to integrate new analytics into existing processes
  19%
- We are currently migrating data from many applications into a central data store
  25%
- We are at the early stages of planning the creation of a data lake
  25%
- We do not have a data lake in place
  14%
- Don’t know
  5%

Source: State Street Growth Readiness Study, 2018

Figure 6: Cloud is a priority

To what extent is your organization prioritizing the following emerging technologies for investment? (Percent selecting “high priority” or “very high priority”)

- Cloud Infrastructure: 72%
- Distributed Ledger Technology (DLT): 63%
- Cognitive Computing/Machine Learning: 59%
- Robotic Process Automation (RPA): 57%

Source: State Street Growth Readiness Study, 2018
Some asset owners, for example, are collaborating with FinTech firms and others to help drive their digital innovation. APG — the administrative organization of Dutch pension fund Stichting Pensioenfonds ABP — has set up the Brightlands Smart Services Campus to test practical applications of blockchain, artificial intelligence and other technologies (such as to reduce carbon footprint), and to improve operational management.

Yet there is still a long way to go. Our survey shows that institutions continue to rely on established technology companies: half of respondents are partnering with established firms to support development of emerging technology solutions, while only 29 percent are partnering with FinTechs.

Established technology companies — many of which have built a strong reputation and high levels of customer trust — will remain important in providing scale. But pushing beyond traditional boundaries and using new capabilities will enable investment institutions to gain a deeper understanding of new technologies to ensure they are not left behind.

Source: State Street Growth Readiness Study, 2018
REACHING A TIPPING POINT?

While our survey clearly highlights the intent of financial institutions to adopt emerging technologies, current mindsets are proving a barrier to growth.

Organizations remain tethered to legacy mainframes and on-premises data centers. Unclear digital transformation strategies, cost concerns and a need to re-educate the workforce all contribute to this status quo.

The old way of thinking is not sustainable. The industry will soon reach a tipping point as emerging technology increasingly underpins new routes to growth. Our survey shows that neither leadership nor the workforce are ready for the scale and pace of change demanded.

To be on the forward side of change, institutions must first get the right architecture in place to enable digital tools that rely on real-time data and substantial computing power. Forging the correct partnerships is also crucial, as knowledge and talent will help change the way organizations think about innovation.

A huge undertaking, yes, but the investment industry has a remarkable capacity to reinvent itself. The industry is now on an irreversible path toward a digital-first future. Organizations that fail to adapt their innovation mindset will feel the consequences.
About the Research

State Street commissioned Longitude Research to conduct a global survey of more than 500 executive respondents representing institutional asset owners, asset managers and insurance companies during July and August of 2018.

The respondents span investment, operations and distribution roles and collectively represent 19 countries. Approximately 37 percent of respondents were located in the Americas, 40 percent in Europe and 23 percent in Asia Pacific.

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