



# Innovation Labs: Driving the Future of Industry Evolution

**Analyst Spotlight**

## INNOVATION IN THE DIGITAL AGE



# 60%

of companies state that innovation will be critical to their success over the next 5 years

Source: Frost & Sullivan, VIG's State of Innovation Survey, Oct 2017  
N = 282

Innovation has become the most talked-about growth strategy at the CEO's table. Amid new challenges and transformation in a rapidly digitalising environment, organisations are increasingly recognising the need to invest in innovation to survive and sustain growth.

The digital era is revolutionising the way products and services are consumed and elevating the importance of customer experience innovation. The emergence of new-age technologies such as cloud, analytics, social media, automation, IoT sensors/connected devices, cognitive artificial intelligence, and proliferation of startups across all sectors also underscore the need for innovation-led growth.

### Why Enterprises are Investing in Innovation

**Changing customer expectations** as they get used to new/enhanced products every 3–6 months and tire easily of existing products in the market

**Proliferation of digital startups and ease of market entry**, resulting in new entrants stealing market share from incumbents in a short time

**Increasing shareholder value** as innovation becomes key driver for revenue growth and competitive advantage

**Easier access to technological advancements** as the underlying hardware, software, and services become cheaper and more widely available



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*Digital transformation, competitive complexities, and changing customer demands are fostering need for a holistic approach to innovation. As a result, innovation has moved up the CEO agenda as a key driver for sustainable growth and competitive advantage.*

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## Innovation needs to be embedded in the **DNA of companies**

Current innovation-related activities appear to be more reactionary than planned, as companies have traditionally viewed innovation as a low-priority external venture.

Instead, the need of the hour appears to be:

- Breakthrough developments in business models
- Innovation embedded in the DNA of organisations
- Support innovation through changes in internal processes, culture, leadership, dedicated strategies, and integration of digital technologies

There's no question that organisations need to pursue innovation as a strategy to solve critical challenges and address unmet needs, ultimately improving business performance.

Financial services, more than any other sector, has undergone radical technology-led changes in recent years to keep pace with market changes and customer expectations for transparency, prompt services, and convenience. The wave of financial services innovation has led to the emergence of fintech companies and startups that are gaining significant market share, challenging the competitiveness of traditional financial services institutions.

### Key Drivers of Innovation in a Company



Developing an innovation strategy that adopts an action-oriented, pragmatic approach is pivotal to maximising potential benefits. Several factors define the success of innovation in capitalising on opportunities presented by emerging digitalisation.

1

## Direct Correlation between Innovation and Companies' Top Line Growth

51%

of organisations ranked revenue growth as their top innovation objective over the 2017–2021 period

Revenue growth and competitive differentiation are the top benefits experienced by business leaders engaging in innovation. Conversely, one in every two companies admitted to not putting in place coherent growth implementation strategies.

Source: Frost & Sullivan, CEOs' Perspectives on Growth, Innovation, and Leadership, 2016

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## Inability to Solve Real-world Customer Issues Slowing Innovation

Three out of five companies fail in their innovation initiatives

Deriving the optimal value from innovation is only possible for organisations that are able to bring the new idea or solution to the market and to put it into practice in people's daily lives. Survey findings show that three out of five companies indicated failing in their innovation initiatives owing to the inability to solve real-world challenges and build a culture of innovation within the organisation.

### Key obstacles inhibiting innovation include:



Unstructured investment in new technologies



Innovation without a coherent digital strategy



Isolating innovation from mainstream operations



Inability to relate innovations to customer



Lack of technical skills



Limited time devoted for developing new ideas



Cultural resistance to change



Difficulty in securing funds



Inadequate headcount



Unsupportive senior management



3

### A 'Prefabricated' Innovation Approach May Not Necessarily Translate into an Optimal Strategy

While most organisations are aware of the importance of innovating and have access to various approaches, most **fall short of expectations or fail to generate commensurate returns** as:

- Such initiatives are mostly directed at incremental innovation, which could be insufficient to yield the desired returns
- Companies follow a “one-size-fits-all” approach without taking business goals into consideration

**Merely recognising the need for innovation and establishing an innovation approach does not necessarily translate into a best-of-breed innovation strategy.** Successful implementation of an innovation strategy should have the potential to translate into significant business gains; however, it needs to be adapted to internal factors such as business and stakeholder goals as well as external requirements including industry regulations and customer expectations.

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### Emergence of Innovation Labs

Globally, there are over

**7,000 corporate innovation centres,**

which are expected to increase in the future

The push for innovation in recent years has led to the emergence of thousands of corporate innovation labs globally. These labs aim to overcome the challenges associated with traditional innovation models deployed by enterprises that have so far yielded limited results.

In striving to enable enterprises develop and research breakthrough technologies, processes, and business models, innovation labs provide a dedicated and autonomous environment to create and test innovations independent of corporate constraints, contributing to its relative success.

#### Value-add of Innovation Labs

Help in adapting to changing market dynamics and emerging technologies



Quicken time-to-market of new products by leveraging partners' tech competencies



Enable smooth R&D in new areas, particularly for companies resistant to change



Resolve typical industry challenges (e.g., reduce fraud, speed up transaction times, gain consumer insights)



Create a motivating work environment to generate new ideas by thinking out of the box



Establish a transparent and structured approach to help firms filter, assess, and implement technology trends/innovation



Enable market participants to obtain first-hand market intelligence

## SUCCESSFUL INNOVATION LABS

Globally, the success rate of innovations labs has been a mixed bag with many disappearing within two to three years of their launch. That stated, we have seen multiple success stories, where innovation labs have allowed organisations to fast-track innovation and provide competitive advantages.

### Successful Innovation Labs

#### X Development

**Formed in 2010, the company formerly known as Google X is Alphabet Inc's semisecret innovation lab initially created for the company's founders and scientists to experiment with new technologies and businesses.** Adopting the term "moonshot" for its most innovative projects, X's mission includes inventing and launching moonshot technologies to make the world a better place. The lab's notable projects include Google Glass, Waymo, and Project Loon.

#### Microsoft Research

**Founded in 1991, it is among the pioneers in corporate innovation labs.** The organisation has a unique culture that combines an academic approach with practical, real-world solutions across all industries through open collaboration between its product development teams and academic, government, and industry researchers. Employing over 1,000 scientists and engineers in 13 Microsoft Research centres worldwide, its current focus areas include gaming, computer vision, quantum computing, and machine learning (ML).

#### MasterCard Labs

**Established in 2010, MasterCard Labs is the company's independent R&D arm** that aims to innovate consumer payment methods by leveraging next-gen technology including AI, blockchain, and analytics. It is also looking to support earlystage fintech players by launching new tools and resources such as Accelerate and MasterCard Advisors.

#### StanChart eXellerator

**Formed as a part of Standard Chartered's Catalysts group under the SC Ventures business unit,** it aims to invest in emerging fintech startups and use digital technologies and data sciences within business units across the group. It focuses on developing solutions in artificial intelligence, cyber security and 'Banking Made Easy'. The bank's eXellerator labs are located in Kenya, Singapore, Hong Kong, London and San Francisco.

#### DBS Asia X (DAX)

**Launched in 2016, DAX is a dedicated innovation centre for DBS Bank** that leverages technologies such as big data, biometrics, and AI to change traditional banking. To achieve this, DAX regularly partners with startups and fintech companies, as well as engages with the startup and innovation community through industry events, hackathons, and innovation conferences. Its key projects include the Inncee automated tool for data analysis; Seedly, a personal finance app to help users track their money; and financial inclusion in ASEAN by partnering with regional microfinance institutions and cooperatives.

#### Experian X Labs

Leverages alternative data, advanced analytics and partnerships with industry organisations to develop technology solutions that bridge the gap between unbanked population and financial service providers. It provides Experian with a platform to collaborate with start-ups, fintech providers, related businesses and academic institutions in the region. Experian X Labs primarily focuses on developing cutting-edge solutions in Experian's core areas of expertise around financial inclusion, digital payments and consumer enablement through advanced data analytics, research and development.



# CONSIDERATIONS FOR ESTABLISHING INNOVATION LABS

Common characteristics successful innovation labs share include internalising innovation and making it part of the organisation's culture, rather than treating it as a separate activity. Critical imperatives for successful innovation labs are as follows.

## Pillars of Successful Innovation Labs

### PILLAR 01

#### Well-defined Strategy

Creating a well-defined strategy and maintaining a clear focus on vision and mission are crucial for an innovation lab to yield desired results. Clarity on the lab's focus areas could go a long way in achieving overall organisational goals.



### PILLAR 02

#### Operational Model

Establishing the correct operational model requires clarity on the company's innovation strategy. Firms such as Google and Amazon want to build and patent technologies, while others may license a technology created through partnerships.



### PILLAR 03

#### Focus on Core Business

Large, established companies should invest in innovation in a controlled manner focusing on their core business and customer needs. Trying to emulate competitors' innovation initiatives may not yield the desired results.



### PILLAR 04

#### Approach & Methodology

Measuring the success of innovation in driving organisation-wide value can be tricky without the proper key performance indicators. Stipulating appropriate metrics to measure performance is essential to ensuring that the lab is working towards set goals and targets, increasing productivity, and allowing the management to assess ROI from the initiative.



# TECHNOLOGY REDEFINING THE FUTURE OF FINANCIAL SERVICES

The financial services sector continues to record radical technology-led changes. As financial services firms deal with an increasing volume of critical customer data, there is a growing focus to integrate data and advanced technologies to transform the sector. Digitally-savvy customers are increasingly gravitating towards technology-driven industry participants using advanced solutions to launch innovative products and services, while incumbents are seeking to reinforce their digitalisation strategies.

Application of advanced technologies in various financial services continues to transform the ecosystem to meet the needs of consumers. Leading financial services companies are leveraging disruptive digital technologies such as IoT, big data, and AI, to create new business models and solutions, enhance customer access to financial services, and improve business outcomes.

## Technology-led Innovations in the Financial Services Sector

| Company           | Technology Deployed  | Impact on Financial Services   |
|-------------------|--|--|
| <b>MasterCard</b> | <ul style="list-style-type: none"> <li>Launched AI bots that allow consumers to transact, manage finances, and shop via messaging platforms</li> <li>Integrating its payment system into voice assistants like Amazon's Alexa and Google Assistant</li> </ul>  | <ul style="list-style-type: none"> <li>Better customer experience</li> <li>Allow people to pay for items using their voice</li> </ul>  |
| <b>AXA</b>        | <ul style="list-style-type: none"> <li>In partnership with IoT-enabled smart home products to offer a connected home-based insurance policy</li> <li>Devices include Myfox (sensor camera and alarm), Kiwatch (Wi-Fi CCTV camera), Philips Hue (connected LED light bulb), Orange's My Plug (smart plug with sensors)</li> </ul>   | <ul style="list-style-type: none"> <li>Enhanced customer experience with emergency support</li> <li>Customised and more effective insurance products</li> </ul>                      |
| <b>BehavioSec</b> | <ul style="list-style-type: none"> <li>Uses behavioural biometrics, big data analytics, and continuous ML for customer authentication</li> <li>Allows companies to learn user behaviour/keyboard dynamics/data from sensors</li> </ul>   | <ul style="list-style-type: none"> <li>Real-time and automated fraud detection and attack prevention</li> <li>Seamless security to improve user experience and confidence</li> </ul> |
| <b>Experian</b>   | <ul style="list-style-type: none"> <li>Leverages data sciences and advance analytics to develop innovation solutions like Experian X Score and Prove ID:</li> <li>Experian X Score, a credit-scoring system based on alternative data, aimed at helping more than 200 million customers get access to financial services</li> <li>Prove-ID gathers key consumer insights from multiple data sources and helps banks verify customers at a faster rate</li> </ul> | <ul style="list-style-type: none"> <li>Enables millions of unbanked people gain access to government and financial services</li> </ul>   |
| <b>ABN Amro</b>   | <ul style="list-style-type: none"> <li>Has a team to explore blockchain applications and invested in Digital Asset Holdings</li> <li>Examines blockchain for smart contracts to facilitate the issuance of letters of credit</li> </ul>  | <ul style="list-style-type: none"> <li>Application in trade finance and transaction banking</li> </ul>   |



**87%**

of financial services firms say they either have an innovation lab or have at least carved out some real estate for innovations,

which is a **27%**

increase in the number of innovation centres over 2017–2018 (Capgemini)

Innovation is pivotal to navigating the dynamic environment of financial services as well as resolving key industry challenges such as financial exclusion, customer experience, compliance, and cybersecurity, with innovation labs proving to be particularly successful as they offer an independent, sandboxed environment for testing new products and services.

#### Innovation Helping to Address Critical Industry Challenges



## EXPERIAN X-LABS: PIONEERING FINTECH INNOVATION

Experian has been named in Forbes Magazine's Top 100 list of the

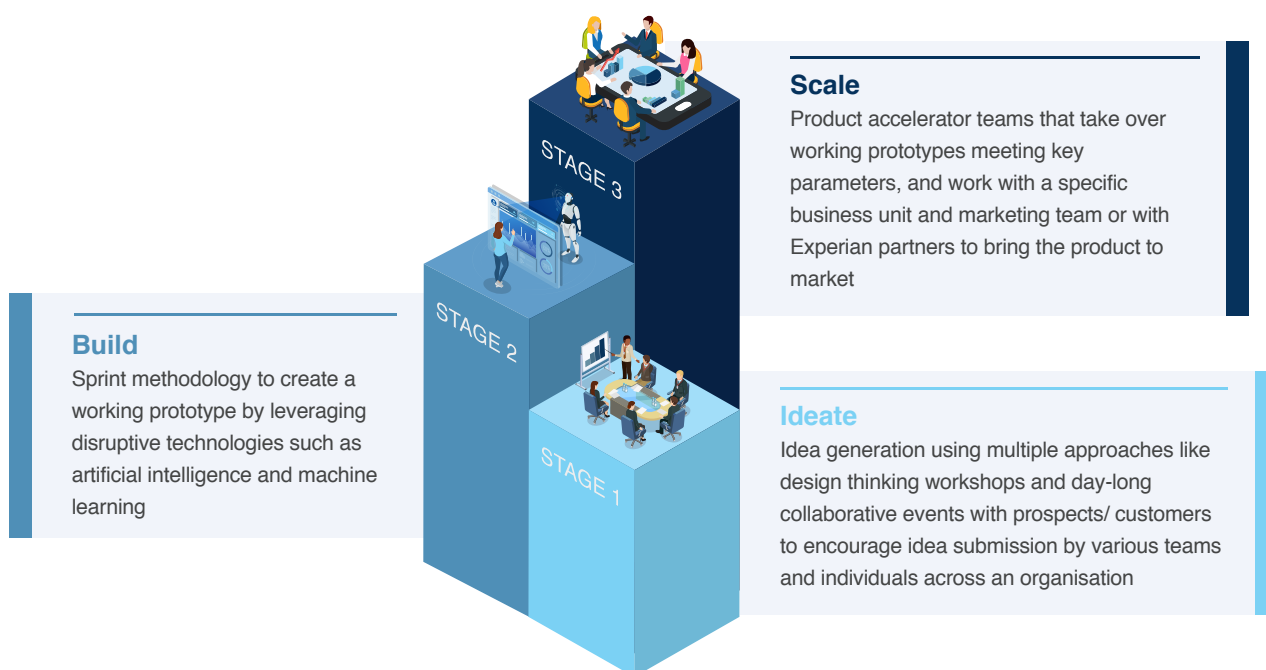
### “World's Most Innovative Companies”

for four consecutive years, recognising its culture of continuous innovation and use of data and technology to transform financial services.

Innovation has been a significant driver for growth for Experian. Consistently recognised as one of the most innovative information services companies in the world, Experian's global innovation lab, DataLabs, combines Experian's vast data assets and the latest technologies to solve the most critical real-world business challenges.

Recently, Experian's first Asia Pacific (APAC) incubator and collaboration centre, Experian X Labs, was opened in Singapore. The facility serves as a centre for cutting-edge solutions, aimed at addressing pressing economic and societal issues in the region. Experian intends to grow X Labs team 10-fold by 2020, and aims to influence 30% of APAC revenue through innovations from X Labs.

X Labs brings together industry experts, market leaders, and Experian product teams to address critical challenges in the financial services sector. Experian X Labs follows a three-stage approach – Ideate, Build, and Scale – to bring an idea to market:



### Recent Innovations

*Experian X Labs has witnessed considerable success with launch of innovative products:*

**Experian X Score:** A new credit scoring technology, which leverages data from alternative sources to provide valuable insights into a person's credit worthiness. This product aims to help build financial identities for Asia's unbanked

**Prove-ID:** Prove-ID gathers key consumer insights from multiple data sources and helps banks verify consumers at a faster and more efficient rate. It is helping over 7 million marginalised Indian citizens gain access to government and financial services

**Digital on-boarding and collections:** Helps the rapidly growing internet users in APAC gain access to services being offered by financial institutions seamlessly

**Ascend:** A powerful, on demand analytics environment which allows you to anticipate and evaluate critical business decisions faster, and with better insight than ever before. With the analytics tools of the future within Experian Ascend, you can build a range of benchmarking, scorecard and customer management analysis on the platform in real time

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X Labs differentiates itself from other innovation labs by:

- Focusing on a structured innovation process to drive innovation across industries
- Accelerating the process to pilot new use-cases, products, and solutions to enable faster go-to-market strategy
- Collaborating with partners to jointly solve ecosystem and industry-wide challenges

Experian's X Labs has witnessed considerable success in the first few months, organising seven innovation sprints in 12 months, resulting in a pipeline of 10 products and six live products. X Labs is expected to drive the innovation culture across Asia-Pacific, reinforcing Experian's credentials as one of the most innovative companies in the financial services industry.

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*Customer-centricity and financial inclusion remain a challenge for the financial services sector. It is great to see that Experian X Labs aims to break down this barrier using powerful data analytics techniques and next-generation technologies.*

– Ajay Sundar, Vice President, Digital Transformation, Frost & Sullivan

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