



Dell Technologies

Innovation Index

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In these tumultuous times, it's never been more important to innovate—to keep up with non-stop change and battle headwinds coming from a global recession, supply chain challenges and more. Innovation isn't a fun side-project. Resilient, focused, scalable, cultural innovation drives growth and protects companies from challenges that might otherwise defeat them.

The Dell Technologies Innovation Index is a **global benchmark assessing organizations' innovation maturity across the globe**. This inaugural study is a powerful, point-in-time snapshot of how businesses are innovating despite unprecedented uncertainty after a global pandemic and amidst rampant inflation.

RESEARCH SCOPE

Innovation influencer:
6,600 business and IT leaders driving or influencing innovation in their organization, mid- to enterprise-sized organizations

Global perspective:
45+ locations

Cross-industry:
14 industries

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The State of Innovation Maturity



Facing a perception gap



We live in uncertain times. It's never been more important to innovate and problem-solve. First, we need to address a perception and reality gap.

Businesses need to be alert and ready to course correct.

71%

regard their org as ***innovative*** or extremely innovative

Almost
6 in 10

worry that based on their innovation culture and/or pipeline their organization ***won't be relevant in the next 3-5 years***

Assessing the ability to innovate, anytime

Innovation isn't something you just do when you have some spare time and capital. In fact, you should innovate more when the going gets tough, because that's when you need it most.

In-nov-ation Re-sili-ence

[ɪnəˈveɪʃ(ə)n] [rɪˈzɪliəns]

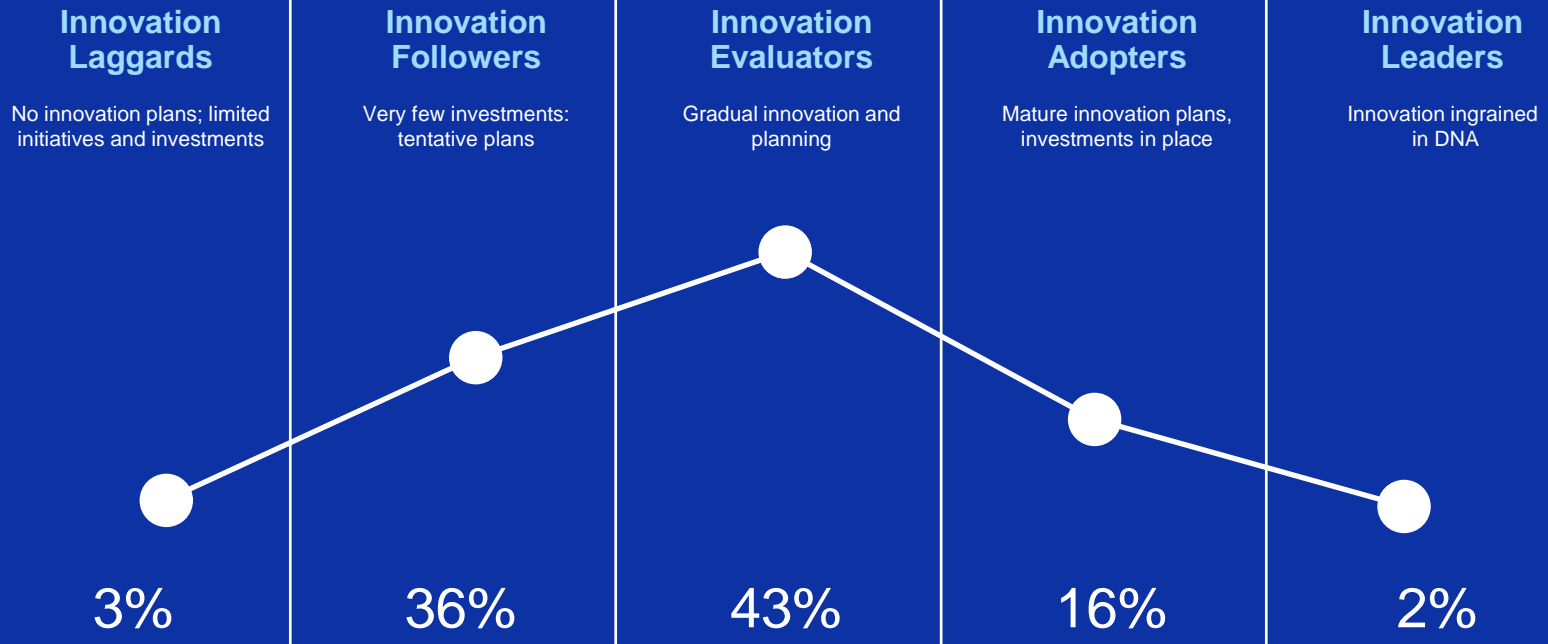
Noun: The ability and determination to innovate through uncertainty.

To develop innovation resilience, organizations need to align their people, process and technology.

The Innovation Index assesses organizations' maturity across these areas.



Innovation Index Maturity Curve



Innovation drives business outcomes

Innovation Leaders and Adopters are **2.2x more likely to accelerate** during recession/inflation/economic uncertainty, compared to the bottom two groups, allowing them to emerge stronger and more competitive.



Increasing
business growth

Securing
needed talent

Driving
customer value

Compared to Innovation Laggards and Followers, Innovation Leaders & Adopters are

1.9x more likely to experience higher levels of revenue growth (15%+)

1.7x less likely to face a skilled IT labor shortage

1.2x more likely to create new customer value through innovation

Addressing the top innovation barriers

95% of respondents say there are barriers to their organization's ability to innovate.



Skills gap/struggle
attracting and hiring talent

Overwhelming workload
leaves no space or
time to innovate



Lack of/ reduced
budget for innovation

Red tape or complex
approval processes



Lack of an established,
cohesive innovation
vision and strategy

Innovators embrace innovation strategically and holistically across

people, process & technologies.

PEOPLE

Build an innovation culture where any idea can make a difference and learning through failure is encouraged.



TECHNOLOGY

Invest in modern, scalable technologies and strengthen the business & IT relationship to increase technology and innovation maturity.

PROCESS

Embed a structured, data-driven innovation process to capture & realize innovation across the organization.



Building an Innovation Culture

People are eager to innovate and want to be part of shaping the organization's future direction

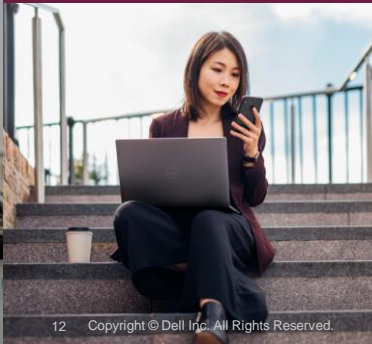
Top 5 incentives to innovate more:

To play a part in shaping the firm's future direction

Opportunities for promotion/other roles



Monetary reward



Learning opportunity



Recognition by senior leaders



Innovation can be a talent magnet.

But lack of an innovation culture and well-defined practices can also be a talent deterrent.

TALENT MAGNET

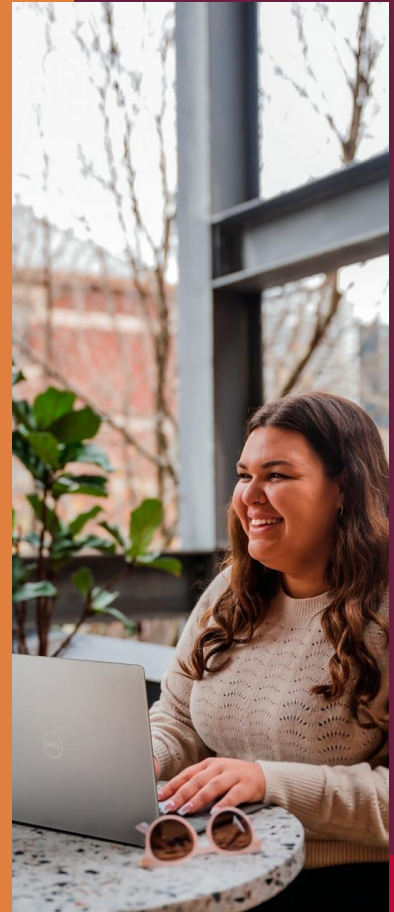
78%

believe that, in part, people **join** their company because they **believe they'll be empowered to innovate.**

TALENT DETERRENT

59%

believe people **leave** their company because they **haven't been able to innovate as much** as they hoped they would.



Embolden your employees by addressing these **people barriers to innovation:**

KEY FACTS

71% say their leaders are more inclined to **favor their own ideas.**

68% say their leaders are **more focused** on the **day to day running** of the business than innovation.

64% say aspects of their **company's culture** is **holding them back** from being as innovative as they want to be/can be.



Lack of time to innovate/
overwhelming workloads

Lack of **technology/digital fluency**




Not always **confident** to
share ideas with leaders

Fear of **failure**



Lack of **aptitude to innovate**
(curious, learn incrementally etc.)

Learning from Innovators



Innovation Leaders and Adopters are well resourced and supported to meet their innovation goals and foster a culture of innovation.

72%

have attracted sufficient IT talent to meet their innovation goals.

66%

strongly agree their culture reinforces the belief that everyone has the potential to innovate.

59%

partner with external partners to identify trends, forecast future need and bridge skills gaps

Characteristics of a thriving innovation culture:

- Communicate a cohesive innovation vision and strategy across the entire organization & provide regular updates
- Leverage employees' diversity and provide opportunities for all to participate
- Offer training and mentorship to build skills and aptitude
- Identify, then lean into, employees' top motivators to innovate
- Provide forums to share successful and failed projects to encourage a “fast fail & learn” mentality

Embedding a Data-driven Innovation Process



Successful innovations follow a structured process but many struggle to address these

process barriers to innovation:

KEY FACTS

Only 52% are **aligning** all innovation projects to **company goals**.

Only 30% **iterate** and course-correct.

Just 26% of ITDMs say all their innovation decisions are **based on data**.



Red tape or complex approval processes

Lack of a well-defined, practical execution & implementation process



Struggle to prioritize innovation areas/projects

Lack of an innovation forum to share or discuss ideas



Lack of appropriate innovation success metrics

Learning from Innovators

Innovation Leaders and Adopters are doing the following extensively to advance innovation processes in their organization:

75%

secure stakeholders' buy-in/employee involvement with consistent stakeholder communication.

69%

run pilots to demonstrate proof of concept and secure buy-in.

56%

host hackathons or scrums to encourage innovation and collaboratively fix problems.



Characteristics of a successful innovation project:

- Based on data insights, outcome-based and aligned to business goals
- Executed through a well-defined, iterative process from ideation to measurement
- Supported by management with resources
- Cross-functional input & collaboration



Scaling With the Right Technologies

Technology is seen as an **enabler** for innovation.

But businesses lack confidence in their technology and/or IT teams:

TECH AS ENABLER

86%

are actively seeking out technologies that realize their innovation goal.

FEAR OF FALLING BEHIND

57%

believe their technology is not cutting-edge. They fear they will fall behind their competitors.

BROKEN RELATIONSHIP

45%

of BDMs still don't regard their IT team as an important business partner.

Businesses need to address prevalent technology barriers to innovation



Growing cloud costs

Difficulties integrating the business architecture with the IT/OT infrastructure architecture



Time and money spent to migrate apps to new cloud environments

Cybersecurity threats: can't innovate with data and insecure edge devices



Lack of IT infrastructure to meet and process data at the edge

Accelerate from ideas to innovation

Multicloud

Data

Edge

Security

Work



Unleash innovation with multicloud by design

Businesses need an intentional multicloud strategy for unlocking best-in-class capabilities to streamline innovation, create competitive advantage and build resilience for the future. But many are plagued with complexity.



43%

are embracing a mix of public and private cloud environments to achieve agility and innovate.

42%

take advantage of cloud economics to accelerate innovation by eliminating large upfront CapEx expenditures.

Only 27%

are leveraging co-location and just 34% are embracing containerization and microservices.

Lessons from Innovators

Innovators* can manage resources better:

- 1.8x more likely to have adopted an aaS model to support innovation
- 1.8x more likely to have gained access to advanced cloud services
- 1.6x more likely to have eliminated large CapEx
- 1.6x more likely to achieve faster outcomes with a modern cloud infrastructure

Top multicloud challenges:

- Growing cloud costs (storage, networking egress, access fees etc.)
- Data sovereignty and other compliance requirements
- Time and money spent to migrate apps to new cloud environment
- Limited visibility and control create additional security challenges
- Siloed cloud experiences & management across disparate vendors

Power innovation with modern data infrastructure

With a modernized data foundation firms can simplify complexity, supercharge productivity, and accelerate innovation across a distributed data landscape. But only a minority has achieved this so far.



68%

of ITDMs say they can't move surplus data to a data center and 66% are not able to move and track data.

Only **26%**

of ITDMs say all innovation efforts are based on data insights.

Only **33%**

are securing data in transit, in use, and at rest extremely well to support privacy and security objectives.

Lessons from Innovators

Innovators* can capitalize on their data:

- 2.9x more successful in democratizing data across all employees extremely well
- 2.6x more likely to turn data into real-time insights extremely well
- 2.5x more able to collect, prepare and curate data extremely well

Top modern data infrastructure challenges:

- Cybersecurity threats on their data
- Lack of IT infrastructure to meet and process data at the edge
- Data silos and explosive growth in complexity/diversity of data
- Regulatory and compliance data requirements
- Limited processes and tools to derive insights from data

*comparing Innovation Leaders & Adopters to Innovation Laggards & Followers

Simplify your edge to generate more value

By designing a unified approach at the edge, businesses can achieve better experiences, smarter products, and faster, secure innovation. But first complexity at the edge needs to be resolved.



56%

of ITDMs' time on average is spent battling complexity at the edge, rather than innovating at the edge (44% avg).

59%

haven't yet / don't have capacity to use edge to unlock innovation in their organization.

Only **38%**

say they are securing edge hardware, applications and data extremely well.

Lessons from Innovators

Innovators* are 2-2.5x more likely to be very confident that in the next 1-2 years,

- they will generate value from data insights and automation at the edge
- their data will be secure and protected at the edge

Top challenges for innovating at the edge with data:

- Difficulties integrating the overall business architecture with the IT/OT infrastructure architecture
- Lack of people skilled in deploying AI and/or automation at the edge
- Security concerns regarding edge devices not designed with security in mind
- Governance, security and/or privacy concerns for data at the edge
- Adoption lag, as edge technologies are still developing

*comparing Innovation Leaders & Adopters to Innovation Laggards & Followers

Transform security with confidence

Cybersecurity attacks are on the rise. Organizations can innovate with confidence when their data and applications are secure and protected. This takes a holistic approach and enacting a Zero Trust architecture.



Only about **4 in 10**

can say with upmost confidence that security is embedded into their technology and applications.

Only **27%**

are using a managed threat detection and response service.

77%

are yet to explore/build a Zero Trust architecture.

Lessons from Innovators

Innovators* are prioritizing security:

- 1.6x more likely to build a Zero Trust architecture
- 1.4x more likely to say they are prepared for most threats
- 1.3x more likely to say they can experience a cyber attack and continue to trade

Top security challenges:

- Overall complexity of the modern computing environment
- Evolving threat landscape
- Employees don't take cybersecurity threats seriously/naïve
- Security teams not working hand in hand with business stakeholders to define priorities
- Too many discrete IT security solutions to manage

Work and innovate everywhere

The move towards working from anywhere has ignited creativity and instigated innovation. Now continued momentum is required, with a shift from anywhere work-light to anywhere work-right, i.e., equipping people to be productive, innovative and sustainable anywhere.



88%

believe their remote workers have as much/more opportunity to innovate as onsite staff, thanks to tech/freedom to work anywhere.

Yet only **26%**

of ITDMs say they are providing all the necessary tech for individual needs and preferences.

Only **45%**

of ITDMs don't have peace of mind their people can securely work from anywhere.

Lessons from Innovators

Innovators* follow a people-centric approach:

- 2.8x more confident that their workforce has the tools they need to innovate anywhere
- 2.3x more likely to bring all devices under a unified management system to a great extent
- 2x more likely to offer easy access to virtual IT support to a great extent

Top hybrid work challenges:

- Delivering cutting-edge collaborative technologies
- Providing coaching so that remote/hybrid employees feel empowered to exert influence through digital mediums
- Properly evaluating a larger, distributed attack surface for potential risks
- Providing easy access to virtual IT support
- Consolidating all devices under a unified management



Driving Sustainability

Sustainable innovation brings long-term value

All innovation must be sustainable. Not just because it's the right thing to do, sustainable innovation creates long-term value. Currently, climate change is seen as an innovation accelerator by more than 1 in 3 companies.



Reducing carbon impact

52% of ITDMs say they're reducing their overall IT carbon footprint, and 39% are turning to technology to gain greater visibility of their carbon impacts.



Becoming more energy efficient

47% of ITDMs say they're reducing energy use in the data center, and 50% are becoming more energy efficient by leveraging Edge/AI/ML to action data insights.



Recycling and testing new consumption models

47% of ITDMs are retiring or recycling end-of-life IT equipment and 42% are experimenting with as-a-Service to manage energy use.



Accelerating Innovation Outcomes, Together

We're always innovating so you can accelerate from ideas to innovation.

We believe that innovation can be incremental or revolutionary, and that any idea could start a ripple effect resulting in greater productivity, efficiency and profitability.

And we would know. For nearly 40 years, Dell has been innovating relentlessly to drive human progress. And we're far from done. Dell Technologies brings together the integrated solutions and expertise you need to simply, securely, and responsibly accelerate your innovation.

Combine our innovation with your ideas, and **together we'll achieve your innovation outcomes faster.**



DELLTechnologies

Learn more at www.dell.com/InnovationIndex

Innovation Maturity Curve Group Descriptions

Innovation Laggards perform poorly across a range of innovation markers, with considerable improvements needed across the board. They almost never have processes in place to facilitate innovation and do not work with partners to improve innovation success. Leaders do not model or encourage innovation from across the organization.

Innovation Followers underperform across a range of innovation markers, with improvements needed. They are unlikely to have processes in place to facilitate innovation, but they may work with partners, in a limited capacity, to improve innovation efforts. Leadership is unlikely to encourage innovation across the organization.

Innovation Evaluators innovate in some areas but are mostly stuck in evaluation stage. They lack a clear and holistic strategy and means to move forward. They have processes in place to facilitate innovation and will partner with organizations to advance these efforts. Leadership need to be coached to encourage innovation from across the organization.

Innovation Adopters are largely successful in their innovation efforts, but small improvements are needed. They're likely to have processes in place to facilitate innovation and often work with multiple partners to improve innovation efforts. Leaders encourage innovation from across the organization.

Innovation Leaders are successfully advancing innovation across the business. They have end-to-end processes in place to facilitate innovation and typically work with multiple partners to progress innovation efforts. Leaders actively encourage innovation from across the organization—their workforce is empowered to innovate.

Research Scope



QUANTITATIVE

6,600

Respondents from mid- to enterprise-sized companies

Senior IT decision makers & business decision makers (non-IT) (50/50 split, min. 20% C-level) driving or influencing innovation in their org/dept

Owner/ Executive, Finance, Sales, IT/Tech, Customer services, Marketing, Production & Manufacturing, HR, R&D, Digital, Customer Experience, Logistics & Supply Chain



INDUSTRIES

Financial services

Media & entertainment

Public Healthcare

Insurance

Oil & Gas (Energy)

Private Healthcare

Retail & consumer products

Manufacturing

Life Sciences

Telecommunications

Automotive

Government

Education



GLOBAL REACH

45+

 Locations

NA

Canada

United States

LATAM

Argentina

Brazil

Chile

Colombia

Mexico

NOLA (Panama, Costa Rica, Guatemala, Honduras, Puerto Rico, El Salvador)

APJ

Australia/New Zealand

Japan

India

Indonesia

Malaysia

Philippines

Singapore

S. Korea

Thailand

Vietnam

GC

China Mainland

Hong Kong

Taiwan

EMEA

Austria

Belgium

Czech Republic

Denmark

Finland

France

Germany

Greece

Hungary

Ireland

Israel

Italy

Luxembourg

Netherlands

Norway

Poland

Portugal

Romania

Saudi Arabia

Spain

South Africa

Sweden**

Switzerland

Turkey

United Arab Emirates

United Kingdom

Methodology

Dell Technologies commissioned independent market research specialist Vanson Bourne to conduct this research. The study surveyed 6,600 IT decision makers and business decision makers across the following regions: North America, LATAM, EMEA, APJ and Greater China. Respondents needed to drive or have influence over innovation in their organization to qualify.

Respondents had to be from organizations with 100 or more employees and came from a range of private and public sectors. We screened for people who are either driving or influencing innovation in their org.

The interviews were conducted online and via telephone in September and October 2022 and were undertaken using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate. Unless otherwise indicated, the results discussed are based on the total sample.

For more in-depth analysis, go to www.dell.com/InnovationIndex and read the full findings report.

ABOUT DELL TECHNOLOGIES

Dell Technologies helps organizations and individuals build their digital future and transform how they work, live and play. The company provides customers with the industry's broadest and most innovative technology and services portfolio for the data era. www.delltechnologies.com

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