

INNOVATION ACCELERATED

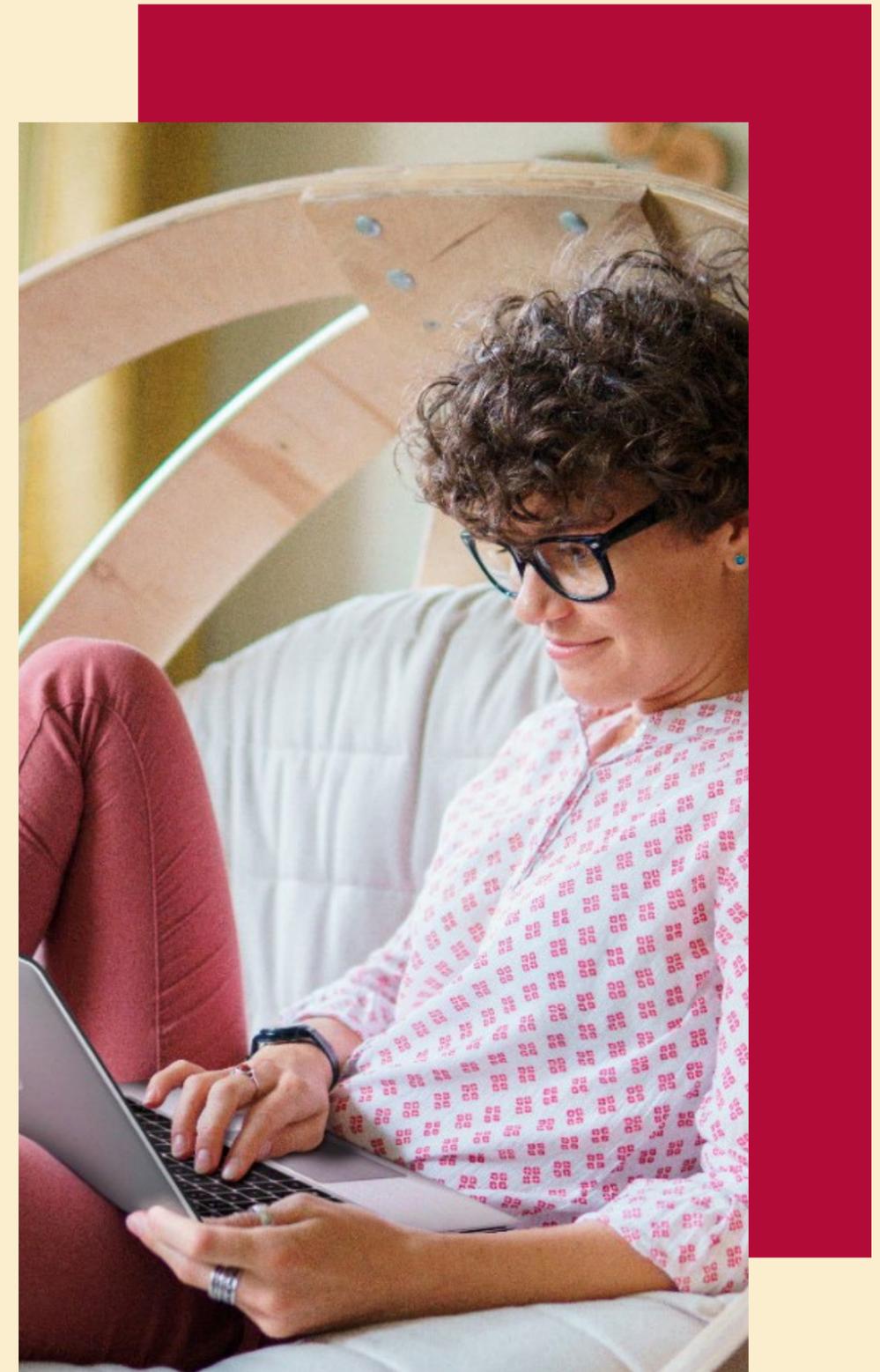
Power innovation
with modern data
infrastructure



DELL Technologies

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Power innovation with modern data infrastructure

As discussed in our recent eBook, *[“Innovation Accelerated: How to turn ideas to impact faster”](#)*, we explored the relationship between how an organization approaches and prioritizes innovation and its overall competitive success. But the ability to innovate is only possible if the fundamentals underpinning a business and its people, processes and technology are in place.

One of those fundamentals is the ability to get from data to outcomes quickly. Data powers applications and creates new user experiences. Those applications include artificial intelligence which as recent excitement—and nervousness—about generative AI (Gen AI) demonstrates, has reached a major inflection point. Its ability to revolutionize business is still being understood but its potential is nothing short of transformative—if certain prerequisites are met. Chiefly, to provide value and accuracy, AI needs a data-rich diet. It needs to be fed huge amounts of diverse data sets which, of course, must be stored somewhere. Only then can AI turbo-charge organizations’ capacity to spot opportunities, course correct and pivot in new directions.

Data is often considered highly valuable to organizations, often referred to as their most valuable assets. However, not all data holds intrinsic value. Once the data is organized and prepared for AI applications, it becomes the organization’s means of perceiving, understanding, and responding to its environment—essentially, its central nervous system. It enables purpose, focus and discernment. It takes off the blindfold so organizations can innovate with clarity and speed. Of course, data must be handled with care as privacy principles must be upheld.

To harness data that powers AI and with that, innovation, organizations need a modern data infrastructure (MDI) that can manage an explosion in data while conforming to privacy rules, the IT challenges that arise from multicloud environments, a surge in cyberattacks and can reduce energy expenditure (which is a huge advantage given the rising cost of energy).



“

Organizations routinely ask people to do more with data, but shouldn't we be asking the same of IT? For the IT department to become an innovation engine it needs to be properly equipped to work smarter and scale better. An army of storage admins (even if you could find them) can't wrap their arms around zettabytes and petabytes of data without more automation. A modern data infrastructure enables the kinds of automation and scale needed to get the business to high value outcomes faster. It also keeps the IT team focused on new kinds of high value work powered by the intelligence in the infrastructure.

John Roese, Global Chief Technology Officer, Dell Technologies

This paper draws upon insights from the latest Dell Technologies market research – *the Innovation Index* – based on responses from 6,600 business and IT decision-makers responsible for driving or influencing innovation in their organization. We will explore the importance of innovation to the success of modern-day organizations, the relationship between a modern data infrastructure and innovation maturity, and the three strategic steps organizations should take to advance their innovation in a data-driven world.





Key Findings

Organizations are drowning in data. This is curtailing their ability to innovate:

69%

of organizations admit they're struggling to get value from data



Hence, **only 26%** of organizations are anchoring all their innovative efforts in data

To reverse this, organizations need to strive to excel in the following three areas with a modern data infrastructure:

Seek smart:

51%

of organizations don't have solutions that allow them to ingest, analyze and derive actionable insights from their data

62%

don't have the technology (AI/ML) to do predictive analytics and forecasting

Be flexible:

66%

of organizations can't move and track data

68%

can't move surplus data to the data center

Build resilience:

33%

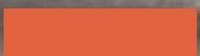
of organizations are securing data in transit, in use and at rest extremely well

53%

don't have the means to uphold privacy and do data redaction



The relationship between modern data infrastructure and ability to innovate anytime



Data-driven innovation

As the Dell Technologies Innovation Index demonstrates, there is a clear link between innovation success and organizations that have a modern data infrastructure, for obvious reasons. Firstly, intelligent and efficient data centers can cost-effectively manage rampant data growth and accelerate innovation with time-saving automation. They can be deployed flexibly to power any workload from the edge to the data center to the public cloud and they can ensure your data (your innovation engine) is protected everywhere. This elegance reduces the complexity and size of the task. The data explosion we saw years ago is going super nova with more companies digitally transforming at pace and creating larger data footprints. Only smart systems, driven by AI, can harness, manage and protect that much data. Generative AI will create more data, by many orders of magnitude, as data is created to feed and teach large language models. Being able to deliver on data’s promises has never been more important and more within reach.

The causal relationship between organizations that value their data and manage their IT infrastructure accordingly in relation to their innovation pipeline is evidenced by correlations between the overall Innovation Index and the data measure, this will only become more pronounced in this new AI age. The study assesses how 6,600 respondents’ people, processes and technologies aid or hinder their ability to innovate (half of whom are ITDMs and half are BDMs shaping/ influencing innovation in their organization) and compares the scores with the data measurement (based on responses from the ITDMs surveyed), regarding how their organization uses data to drive innovation.

The innovation benchmark places respondents in one of five innovation maturity groups – a spectrum that ranges from “Laggards” (least mature) to “Leaders” (most mature). This is the overarching Innovation Index benchmark.

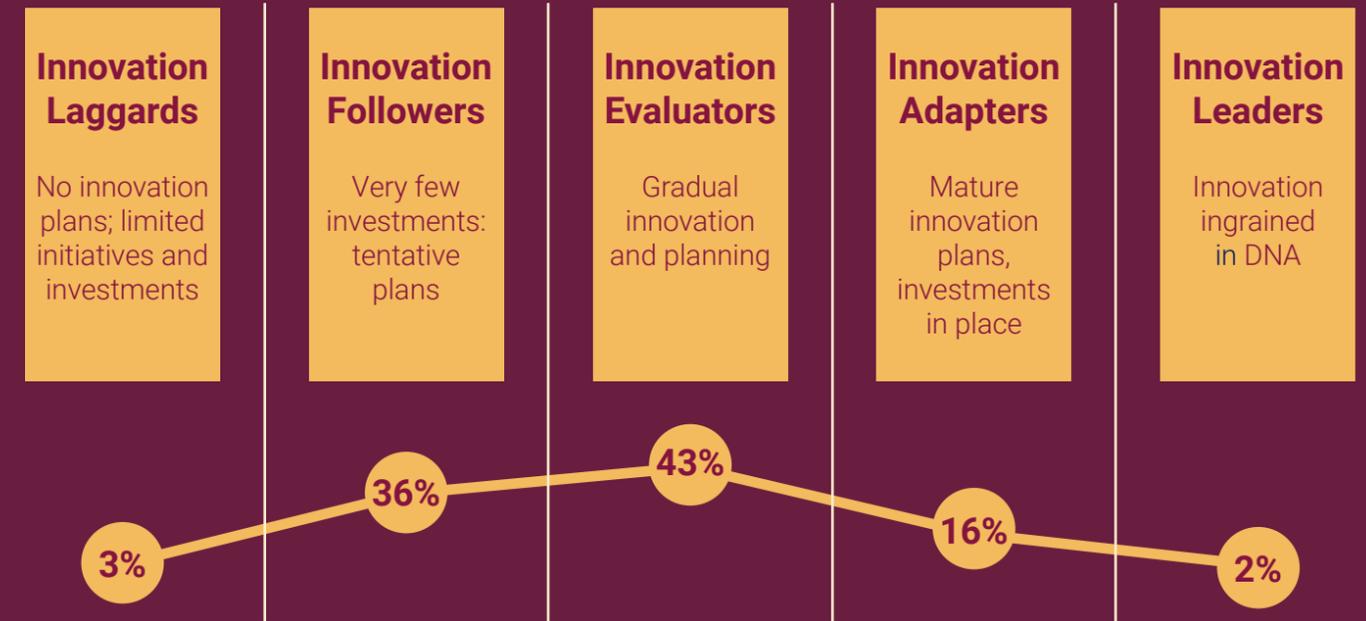


Figure 1: Showing innovation maturity model. Base: All respondents (6,600). More detailed description of each group can be found in the appendix.

Throughout this eBook we will explore how organizations’ approaches to data directly impact their innovation maturity and success.

Data maturity is an innovation factor

Organizations with established practices that use data to drive innovation have achieved data maturity. For them, a high proportion of their innovation efforts are data driven and they're reaping the benefits.

That causal analysis is helpful but based on data maturity measures, only around a quarter (26%) of organizations across our global study are identified as Data Leaders or Adopters – the two most mature categories. We know anecdotally and from previous recent research, many businesses are struggling to execute on their data strategy. Commonly, they're either contending with an avalanche of data that threatens to bury them, or too little data, with no structures for capturing and shepherding the right data to the right stakeholders.

Of course, this curve may look very different in years to come as more organizations turn to AI to wrangle the data and provide the much-needed contextualization at warp speed. But as the current curve suggests, some organizations will be readier to move than others.

Presently, just 26% of organizations anchor their innovation efforts in data insights and 69% admit they're struggling to get value from data. The majority (51%) do not have solutions that allow them to ingest, analyze and derive actionable insights from their data.

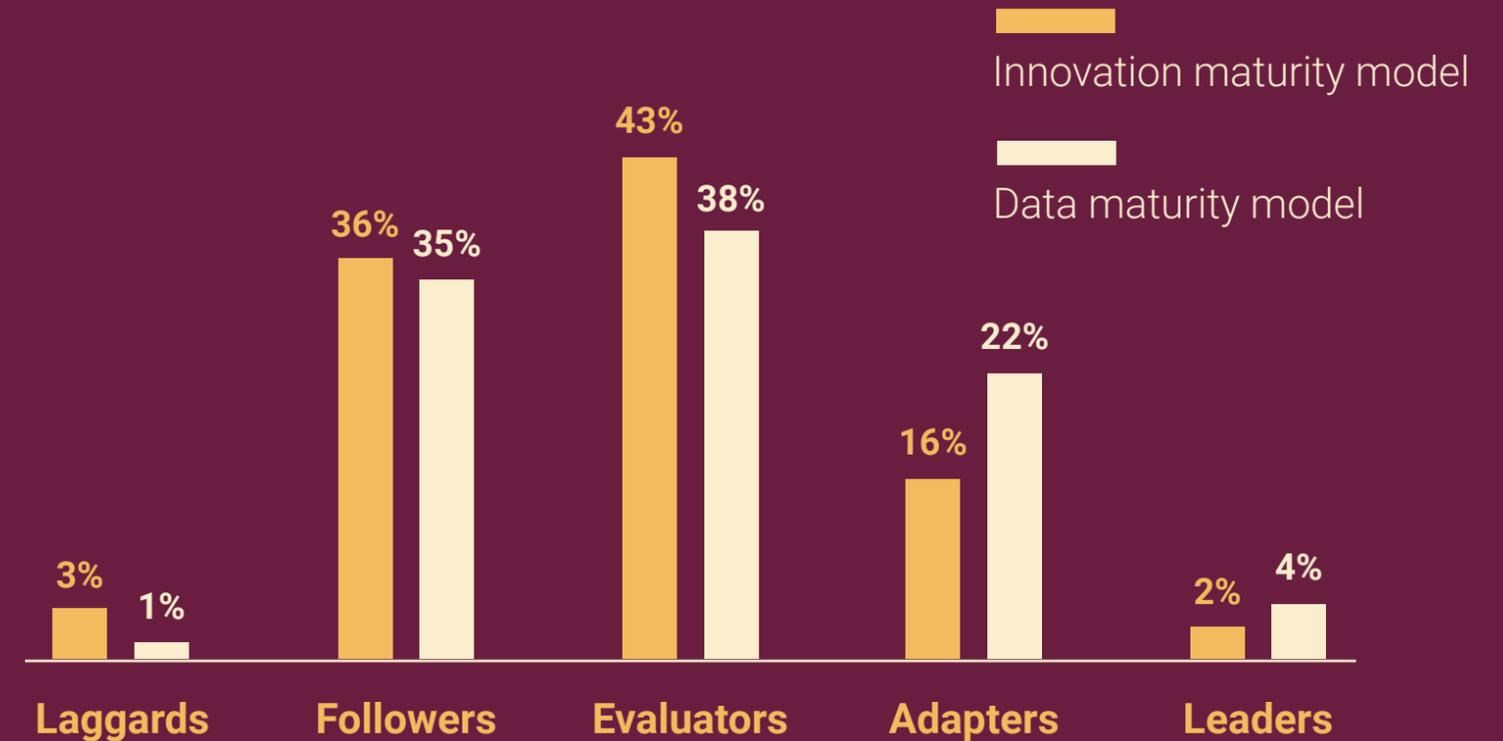


Figure 2: Showing Innovation maturity model (all respondents = 6,600) and Data maturity model (ITDMs only = 3,350).

The overlay shows us that data excellence is positively correlated with innovation excellence. The former enables the latter. As such, a disproportionate number of data leaders show up in top innovation groups and a disproportionate number of data laggards show up in the bottom innovation groups.

With a modern, intelligent data infrastructure, organizations will be better equipped to turn data into innovation and impact.



Organizations that perform highly in terms of modern data infrastructure are more likely to perform highly in terms of innovation:

97%

of Data Laggards are Innovation Laggards or Followers

58%

of Data Leaders are Innovation Leaders or Adopters

How to build maturity and move up the data register

In a world that's teeming with data, data immaturity holds organizations' innovation efforts back. This immaturity is typically the result of broken technology, inefficient processes, a skills gap and the lack of a data-driven culture.

Technology

Approximately two in three ITDMs believe their organization does not have technology that enables the following to support innovation:

- **66%** cannot move and track data
- **68%** cannot move surplus data to the data center
- **62%** do not have an AI/ML platform connected to the data warehouse, allowing predictive analytics

People

Employees need to be able to access data, take meaning from it and act on it. There are various steps and contingencies to make that happen. Presently, a minority of organizations are doing the following pieces of that undertaking extremely well.

- Democratizing data or delivering data for all (**30%**)
- Internal data skills training (**32%**)
- Providing non-technical staff with user-friendly data tools (**37%**)
- Enable test and learn training between data analysts and knowledge workers (**39%**)

To some extent generative AI may hold the key to solving some of these challenges. Organizations will make huge strides forward. However, there are dependencies and important hygiene measures to follow. Dell has always maintained that the future will herald a deeper human-machine partnership. This belief hasn't changed with generative AI. Humans still need to be kept in the loop, so to speak. Generative AI is in its With a centralized IT strategy and home-built Gen AI on-premises for highly sensitive information, we can put the necessary guardrails in place protect data.

Building a modern data infrastructure to power innovation anywhere





Barriers to innovating with data

Data powers innovation once organizations overcome the many barriers to innovating with data with AI. Most organizations have a mountain of data at their disposal but if they cannot effectively wield their data, it's of negligible value.

#1

Cybersecurity threats (on data)

#2

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

#3

People following their instinct rather than study data first

#4

Explosive growth in complexity/diversity of data

#5 “Three-way tie”

Regulatory and compliance data requirements

Limited processes and tools to derive insights from data

Data silos: lack of visibility/ can't bring data together

The second most reported barrier to innovating with data is a lack of IT infrastructure to meet and process data at the edge. This is reflected in the 66% of respondents that can't move and track data and the 68% that can't move surplus data to the data center. Given the link between data and innovation capabilities, it follows that organizations with the lowest innovation maturity are even more likely to struggle with these issues.

Organizations with a modern data infrastructure can overcome many of these barriers simultaneously. For instance, they can reduce the risk of intrusion with infrastructure that conforms to Zero Trust principles. They can bridge the skills gap and wrangle the data explosion by leaning into automation and AI Ops to manage more data with limited resources and give back time to their IT team in the process. With scale up and scale out architectures they can get a grip on data density. And they can meet the demands of data intensive analytics, AI & machine learning workloads with high-speed processors, advanced memory technologies and fast networking components.

What's more, they can meet ever-increasing regulatory and compliance-related scrutiny. Presently, most (53%) ITDMs say their organization does not have privacy software and data redaction capabilities to protect customers' data, suggesting they are not able to disclose that data to customers upon request. A modern data infrastructure can grant them the control and transparency they need to meet these regulations with confidence.



Success factors when implementing MDI

Having established a clear link between organizations that have a mature data infrastructure and culture and those that are high-performing innovators, what needs to happen to outfit more organizations with a modern data infrastructure success and achieve better data outcomes?

Organizations need a foundational, durable data infrastructure capable of adapting to evolving business requirements. This modern data infrastructure must feature built-in automation to reduce routine administration tasks and free IT to focus on strategic data initiatives. It requires deep visibility into data sources, so it can be managed effectively across the edge, core and cloud. It must be capable of supporting multiple data types for data warehousing, data lake and data lakehouse analytics projects. And it must be secure.

Here are three strategic areas to focus on when architecting a modern data infrastructure to aid innovation:

Seek smart



Be flexible



Build resilience



Organizations are in a bit of a bind. To get from operation mode to transformation mode they need to invest in innovation. But the lion share of budget is nearly always eaten up by just “keeping the lights on”, which is still a necessity. So, how can they make the slice of their innovation budget go further? They need a technology infrastructure that will extend their capabilities exponentially.

Helen Yu, Founder & CEO, Tigon Advisory



Seek smart

Goal: Accelerate innovation with intelligent and efficient systems.

How do innovators make the most of their data opportunity? By putting in place AI-powered automation, industry-leading energy efficient products and leveraging resilient infrastructure to transform IT from a cost center into an engine of innovation.

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

- **2.7x more likely** to strongly agree that their organization has the IT infrastructure to enable them and their team to innovate without constraints and delays
- **2.9x more likely** to strongly agree that their organization has predictive capabilities to foresee barriers and avoid pitfalls
- **2.7x more likely** to strongly agree that with sustainable IT or greener data centers, they're modernizing their organization in ways that's better for the planet

Of course, generative AI will put a rocket behind these differentials. Those organizations that create focused models with focused internal data will take “smart” to a new level. For the enterprise, generative AI provides opportunities to create business-specific, proprietary large language models for specialized use cases, e.g., a bank using AI to calculate credit risk or fraud detection. With domain-specific, process-specific AI, organizations will break through age-old barriers with unprecedented alacrity.

“Generating actionable insights is very challenging, and now, more than ever, it's critical to harness data to drive real world solutions. Intel is proud to be working with Dell to deliver modern data and analytics solutions that help organizations unlock the untapped value of their data.”

Gilberto Vargas, Corporate Vice President and General Manager, Data Center and AI Sales & Marketing, Intel

Partnering for success

IT is being asked to do more with less—from replacing legacy systems to designing a next-generation data lake house. IT must meet the demanding SLAs of the business with the right performance, scalability and cost profiles. At Dell Technologies, we are uniquely positioned to help you design a modern data infrastructure that can keep pace with the swell of data; get enormous value from it, all the while ensuring data is protected along the way.

- We'll help you create new data architectures and more processing power to do AI inferencing at the edge
- We'll optimize your architecture for digital transformation and enable you to quickly and securely gain value from underused data
- We'll simplify enterprise generative AI deployments and support the complete generative AI lifecycle – from infrastructure provisioning, modeling, training, fine-tuning, application development and deployment, to deploying inference and streamlining results



How MDI can support sustainability

A modern data infrastructure is more sustainable by design. Which means MDI is also more efficient and cost effective (at a time when energy is expensive). According to our survey, 47% of organizations are taking steps to reduce energy use in the data center and 50% are seeking to become more energy efficient by leveraging Edge, AI or ML to action data insights.

Partnering for success

At Dell, we're helping our customers leverage sustainable technology to drive positive solutions for a better today and tomorrow through products and services designed to increase efficiency, reduce energy use and shrink emissions.

- We take a holistic approach to designing energy efficient infrastructure for your IT estate from reducing the carbon footprint of every component in our products, to embedding management software that provides telemetry-based insights, to rethinking the data center entirely to improve your Power Usage Effectiveness (PUE)
- Our AI-based data reduction technologies can deliver data reduction to significantly reduce power, cooling and hardware requirements.
- We deliver as-a-Service options so organizations can fully utilize equipment and maximize energy efficiency and prevent over-provisioning (waste). With APEX, customers can host solutions in colocation facilities powered by renewable energy





Be flexible

Goal: Power any workload across the edge, core and public cloud.

There is no one-size-fits-all approach for supporting a diverse set of workloads, users and data sources across a distributed IT landscape. It's not all public cloud or on-premises infrastructure. It's both—enabling choice and flexibility so that users' data needs can be met whatever the use-case and environment.

Innovation Leaders and Adopters are much more likely to be taking purposeful steps to gain IT agility and flexibility to support innovation than Innovation Laggards and Followers. According to ITDMs in these organizations:

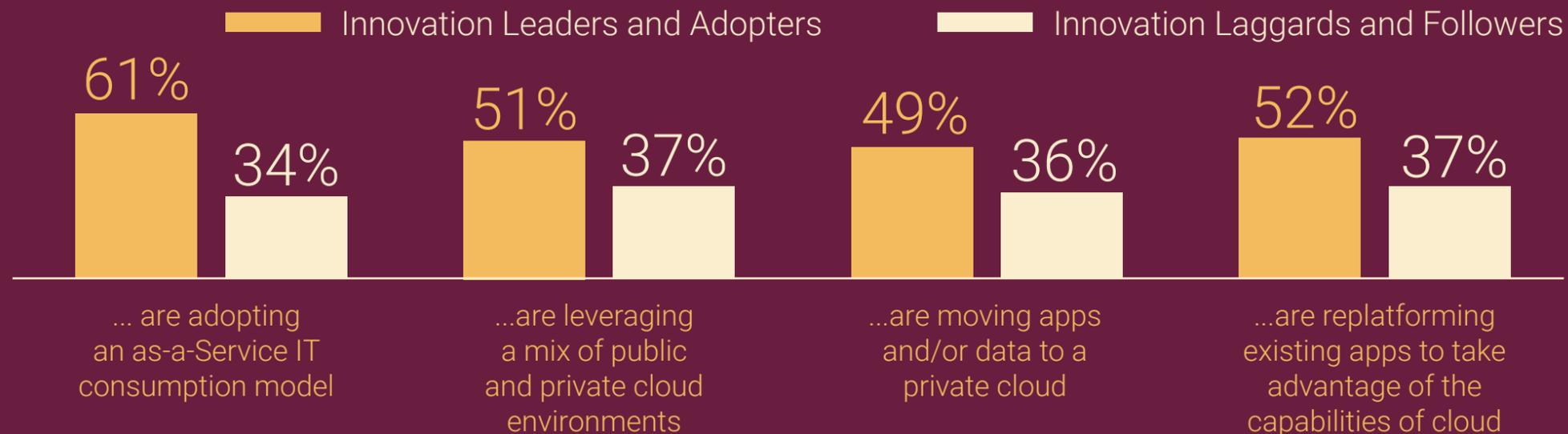


Figure 3: ITDMs whose organizations are doing the above, split by innovation maturity (Innovation Leaders and Adopters = 606; Innovation Laggards and Followers = 1159)

The volume of data that is created, stored and managed across cloud and on-premises deployments is growing relentlessly, so organizations need to think carefully about how they respond.



With data growing at scale, it matters where organizations place their data. The cloud is a running meter and organizations are realizing that their cloud design really matters. Where they place their workloads matters. The configuration can be the difference between curtailing innovation because growth is too darn expensive and onerous, and gaining the wings to fly.

Professor Sally Eaves, Author and Global Strategic Advisor in Emergent Technologies, Founder of Tomorrow's Tech Today and Aspirational Futures



Partnering for success

To realize this responsibility, IT needs easy access to their organization's insights. This requires efficient mobility between on-prem and public cloud storage without needing to refactor applications or retrain staff. Dell enables this ease of impact with the following:

- We design flexible data center solutions so you can rapidly respond to evolving business requirements across the edge, core and cloud
- We deliver on-demand scalability through consistent operations with physical, software-defined and multicloud deployments, so you're equipped to support data and applications wherever, whenever, via a strategically aligned consumption model
- We provide seamless cross-cloud connectivity with a common storage layer so your data can live in any cloud or co-location without sacrificing ease of movement or communication with your applications and databases



Build resilience

Goal: Deliver comprehensive data protection everywhere

In an ever-expanding IT landscape, with assets in multiple clouds and data centers, it's never been more important to keep security top of mind. With resilient data services, organizations can safeguard and rapidly recover assets across physical data centers and cloud environments alike.

This is another area where leading innovators—Innovation Leaders and Adopters—are performing especially well versus Innovation Laggards and Followers. According to ITDMs at these organizations:

- 63% are very confident that their data will be secure and protected at the edge within the next 1-2 years (only 28% of Innovation Laggards and Followers say this).
- 57% are securing data in transit, in use, and at rest to support privacy and security objectives extremely well (only 20% of Innovation Laggards and Followers say this, and only a third (33%) of all respondents).
- 57% are securing edge hardware, applications and data extremely well (only 26% of Innovation Laggards and Followers say this).

In relation to the third listed differential, here organizations acknowledge that the edge comes with unique security challenges. The edge is typically outside a controlled environment and needs to be adequately patched and monitored. Innovators are proportionately more confident they can benefit from the speed of the edge while containing the associated security risk.

Definition of 'Edge':

Where data is acted on, near its point of creation, to generate immediate value.

Partnering for success

With the constant threat of data-related business disruption, securing data and protecting digital assets is a top priority for IT.

- Dell Technologies enables you to protect data everywhere by delivering cyber recovery, backup, disaster recovery and long-term retention solutions, enabling IT to establish a holistic business continuity strategy and manage risk in an evolving, Zero Trust world.
- With durable data services and intelligent protection, organizations can safeguard and recover data across the edge, core and cloud.
- Dell Technologies has designed an extremely scalable, highly efficient infrastructure with a vast partner ecosystem that will enable you to securely use your own data to build and operate generative AI applications. Security and privacy controls are built into foundational components.



Accelerating your data strategy

Modernizing infrastructure starts with creating a more agile and scalable data architecture. This includes considering where the workload should reside...whether on prem or in the cloud you'll need fast, highly flexible infrastructure that supports near real-time analytics. Key components of data infrastructure that need to be modernized are processing, storage, architecture, and security.

This means handling more diverse data that comes in real-time and moving compute closer to the data. Analytical workloads now rely on newer storage models like a data lakehouse. Newer architectures are more open, integrated, cloud-native and secure by design. When done well, modernizing their data infrastructure can help organizations turn their data into business efficiencies, new customer insights and faster time to market.

Powering business with data means making the data easier to manage, process and analyze as part of a data pipeline, so infrastructure can meet the data where it is. Intel can help customers build a modern data pipeline that can collect, extract, and store any type of data for advanced analytics or visualization. Intel Xeon is the choice for database and advanced analytics workloads and plays an important role in the pipeline.

Adding to these challenges are security risks around data access, trust, and control. Intel addresses some of these issues with hardware-based encryption and security extensions like the Software Guard Extension that improve the isolation of sensitive data with memory protection and the Trusted Domain Extensions which are used in virtualization environments where the entire virtual machine is isolated.

Lessons learned from innovators





Lessons learned from innovators

Organizations can learn how to improve their data utilization and in the process their innovation potential by looking at how the most mature innovators—Innovation Leaders and Adopters—currently work with data.

These organizations derive value from their data because they have the ways and means of collecting, curating, managing and optimizing their data. They have a modern data infrastructure that can harness data from its point of creation, which can be literally anywhere (the data universe has never been more expansive) and direct that data to where it needs to go to power the business.

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

2.5x

more likely to collect, prepare and curate data extremely well

2.4x

more likely to use advanced data management (e.g., automation, policy, cloud tiering) extremely well

1.5x

more likely to have a data warehouse, data analytics or data lakehouse solution in place to derive actionable insights from data

A hallmark of a modern data infrastructure is appropriate intelligent automation—systems handling operations themselves, with minimal or no need for human input. As things stand most organizations' IT and data processes are predominantly manual or only use partial automation.

- **Manual:** only automating at an operator-assisted level (scripted and manual IT operations, human intervention required).
- **Partial automation:** rules-based decision-making to achieve specific outcomes. System dependent on humans for input and intervention.



The data decade has rocketed us into the realm of AI and you're going to need a thoroughly modern infrastructure to not be left on the launch pad. Whether you are building or refining, there's lots of room to participate in the ongoing growth and development of AI – if you're prepared.

Matt Baker, Senior Vice President, Corporate Strategy, Dell Technologies

Just 38%

of organizations have an AI / ML platform connected to the data warehouse, enabling predictive analytics and forecasting.

83%

agree that they could be automating more to free-up bandwidth and enable teams to innovate more.

When IT operations are automated, businesses can create an IT strategy that is software-defined, open, scalable and available as-a-Service. This enables them to react faster than attackers in cyber space, adapt their infrastructure as swiftly as modern software can create code, and provide the IT needed for smart factories, cities and hospitals at scale.

Agility and scale used to be the public cloud's unique selling proposition. With automation augmented with Gen AI, now organizations with on-prem modern data infrastructures can achieve these benefits without the rising costs, cloud vendor lock-in and data sovereignty concerns associated with the public cloud. With intelligent automation, it's never been easier to manage a cloud migration and run a workload with infrastructure-as-code. Both hardware and software vendors large runbook repositories. Once accessed by Gen AI, organizations can easily create their own code and push that code out to thousands of servers for remote management purposes. In short, automation in the data center is handing back control to the enterprise without any of the initial difficulty of storing and accessing applications, systems and data, because they have the superhuman capabilities of Gen AI at their fingertips.

INNOVATOR SPOTLIGHT

Nature Fresh Farms





Leveraging data to drive the future of farming

Idea



Nature Fresh Farms, based in Canada, sought to build a state-of-the-art greenhouse operation that was both sustainable and innovative. It recognized that the future of farming (one that's less exposed to changing environmental factors) requires access to real-time data. To that end, it strove to get as close to its plants as possible and mitigate for poor connectivity (most greenhouses are in the middle of a field with limited to no internet).



Technology



To meet these needs, it built a massive data collection operation, using a fleet of sensors and robots to gather delicate atmospheric and chemical measurements across 200 acres of greenhouses. Such an operation requires a modern data infrastructure. With virtualization and automation, it can now scale with the growth of data. Simple but necessary tasks such as uploading plant images for data analysis used to take 6-12 hours. Now it takes under one hour.



Impact



With real-time edge insights, it can see how much light a plant is getting, the irrigation levels, nutrients in and out, and when the plant is awake or asleep, what bugs might be attacking their crop and which good bugs could be introduced to kill the bad bugs. In short, it's finetuning crop conditions, controlling the environment and increasing yield all year long. The impact has been extraordinary. It's recycling 97% of water; doubled its business and increased growers' productivity from managing 12 acres to 100 acres.

Learn more [here](#)



Conclusion

It's known that many businesses are experiencing a data paradox: they're drowning in data on the one hand but don't have access to enough of the right data on the other. Those that can resolve the paradox with a modern, intelligent data infrastructure will upend their innovation potential for the better. They'll discover the resources they need to respond quickly to disruptive market conditions, predict customer needs, identify revenue generating opportunities, optimize back-end and creative processes and identify risk early on.

Of course, they'll need to put the upfront work in. Even in the age of accessible AI, business benefits can accelerate when you combine generative AI models with large, proprietary data sets. But this no longer has to be a hurdle.

Organizations have strived to be data-driven for years. It's eluded most. AI will make this goal a reality, along with the benefits that come with being data-driven. One would assume that the sheer weight of this goal would overwhelm already stretched IT teams. Quite the opposite.

An automated modern data infrastructure releases the load. Historically, the complexities of balancing cutting-edge technology adoption with the day-to-day operations have put enormous pressure on IT. IT is commonly asked to enable new services and workloads with fewer resources and increased budget constraints. It's required to support users with on-demand infrastructure services and secure data access across a

distributed landscape. In many sectors or corners of the world, there aren't enough IT personnel to do all of this. The proliferation of data and compute are growing exponentially and well beyond human capacity. But a smart machine-to-machine environment can, while freeing IT teams to focus on transforming the business. However, safeguards need to be upheld. Accessible/generative AI can also run roughshod over data privacy. A modern data infrastructure must put the necessary controls in place.

In summary, to power today and tomorrow's breakthroughs, businesses need to be data-driven, data-enabled and technologically smart. All of which requires a right-sized, AI infused data environment that automatically makes data and infrastructure resources available when and where they're needed and protects data from cyberattacks and privacy intrusions across a distributed data landscape.

With the backing of our global services and supply chain, Dell Technologies is your trusted partner on the journey toward a modern data infrastructure. Our industry leadership and experience ensure your organization can maximize the value of data and accelerate from ideas to innovation, faster. Learn more, [here](#).

To explore other important building blocks for your innovation strategy, visit Dell.com/AccelerateInnovation



Innovation and data maturity curve group descriptions

Laggards	Followers	Evaluators	Adapters	Leaders
<p>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.</p>	<p>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.</p>	<p>Innovation Evaluators innovate in some areas but are mostly stuck in the 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 needs to be coached to encourage innovation from across the organization.</p>	<p>Innovation Adapters 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.</p>	<p>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.</p>
<p>Data Laggards very little if no innovation efforts derived from or supported by data. Typically, they aren't doing well with internal skills training and hiring data experts, or collecting, preparing and curating data. They're also unlikely to be good at securing data in transit, achieving insights or applying insights to deliver value using data.</p>	<p>Data Followers derive data insights for innovation efforts around half of the time and are likely to have several capabilities in place to support innovation with data. They are typically doing somewhat well with internal skills training and hiring data experts, or collecting, preparing and curating data. They're also doing somewhat well with securing data in transit or achieving insights or applying insights to deliver value using data.</p>	<p>Data Evaluators derive data insights for innovation efforts most of the time and are likely to have several capabilities in place to support innovation with data. They are typically doing well with internal skills training and hiring data experts, or collecting, preparing and curating data. They're also doing well with securing data in transit or achieving insights or applying insights to deliver value using data.</p>	<p>Data Adapters are highly likely to derive data insights for all innovation efforts and are likely to have several capabilities in place to support innovation with data. They are typically doing well or extremely well with internal skills training and hiring data experts, or collecting, preparing and curating data. They're also doing well or extremely well with securing data in transit or achieving insights or applying insights to deliver value using data.</p>	<p>Data Leaders are deriving data insights for all innovation efforts and are highly likely to have several capabilities in place to support innovation with data. They almost always do extremely well with internal skills training and hiring data experts, or collecting, preparing and curating data. They're also almost always doing extremely well with securing data in transit or achieving insights or applying insights to deliver value using data.</p>



Methodology

Dell Technologies commissioned independent market research specialist Vanson Bourne to conduct this research. The study surveyed 6,600 respondents from organizations with 100+employees from across the following regions: North America, LATAM, EMEA, APJ and Greater China. These organizations are from a range of public and private sectors.

All respondents either drive or influence innovation in their organization. Of the total number of respondents, 3350 are IT decision-makers (ITDMs) and 3250 are business decision-makers (BDMs). We asked only ITDMs to answer questions related to multicloud, data, edge, security and hybrid work strategy/performance in their organization.

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.

Dell Technologies

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