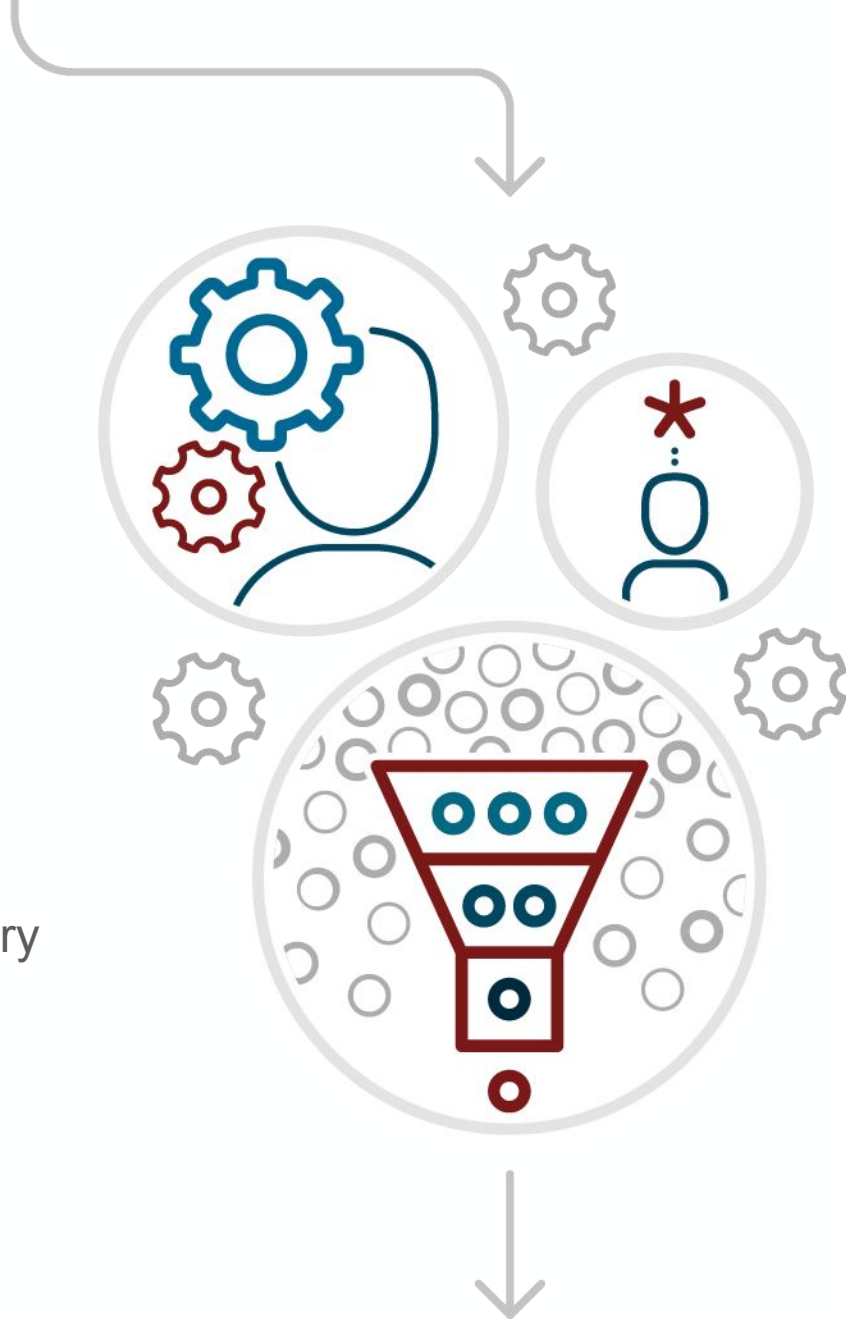


BMKT-102B-1:
**Data Growth
and a Future
with Zettabytes**

Mike Matchett | Research Advisor & Principal Industry Analyst, Small World Big Data

August 6, 2019



Mike Matchett

Principal IT Industry Analyst, Small World Big Data

- Mike Matchett is **Principal IT Industry Analyst** at **Small World Big Data**, focusing on technology trends and the intersection where IT enterprise meets emerging markets.
- He is also a lead consultant and advisor to **TechTarget's Market Research and Development Group**.
- With more than 25 years of high-tech marketing and product management experience, Mike writes across data center, cloud and big data segments predicting that all data will become big, all clouds hybrid, and the converged data center re-imagined from center to edge.
- Prior to TechTarget, Mike spent 8 years as Senior Analyst with Taneja Group where he provided expert analysis on emerging IT enterprise infrastructure markets. Mike is also a former USAF Intelligence officer and has a B.S in Electrical Engineering from the Massachusetts Institute of Technology.



SearchStorage

Session Panelists



Ken Steinhardt

Field CTO

INFINIDAT



Eric Herzog

CMO & VP WW
Storage Channels



Kirk Bresniker

Chief Architect /
HPE Fellow/VP



Walt Hinton

Chief Marketing
Officer



**Ramnath Sai
Sagar**

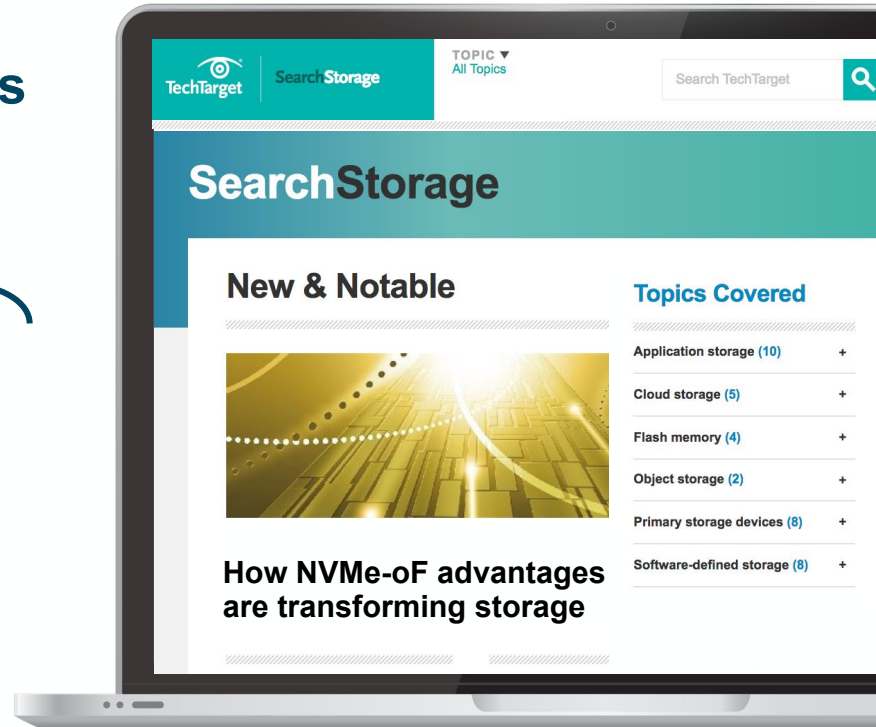
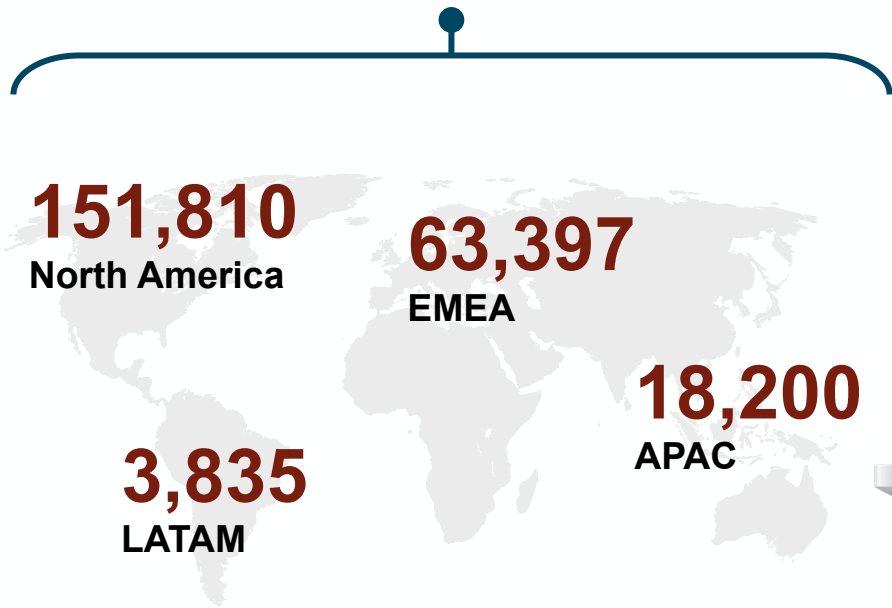
Sr. Product
Marketing Manager,
AI & Deep Learning



TechTarget's Storage audience

1.3 million Storage members globally

Storage and infrastructure buyers active in the last 90 days¹



650K+ SearchStorage.com monthly page views

NVMe & NVMe-oF appetites increasing

2.6M+

Activities taken around Flash & NVMe in the past year² (up 24% YoY)

626K+

Activities taken around NVMe/NVMe-oF² alone

90%

Increase in NVMe/ NVMe-oF activities since last year²

245

Articles written around NVMe in the last year

Data growth & volume predictions

According to IDC,
22 Zettabytes (ZB)
of digital storage will be shipped
across all storage media types
between 2018 and 2025...

...I bet they're
wrong



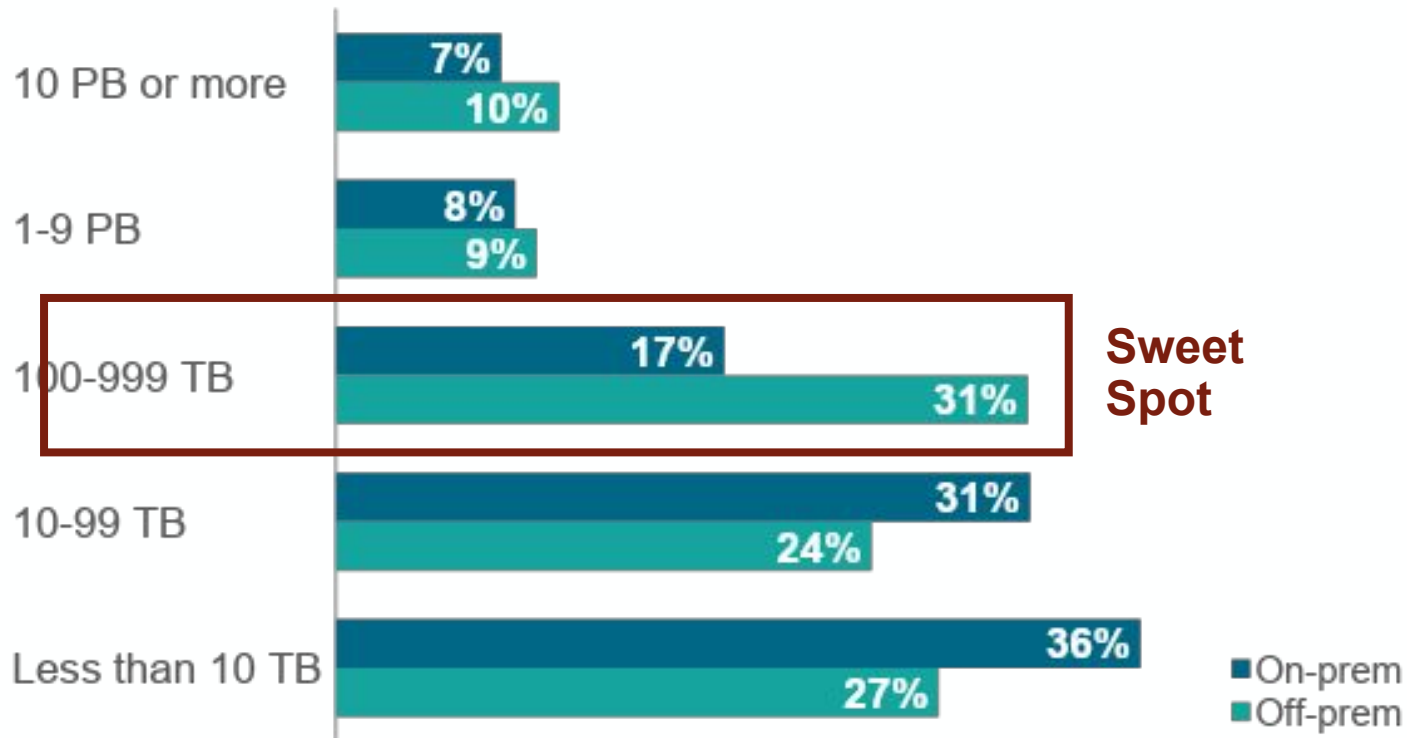
Data Growth and Management

- **80%** of all digital data is unstructured and growing at yearly rate of **60%**
- Unstructured Data has been difficult to mine but seeing advancements with AI
- Hybrid cloud adoption has made the challenge of managing data more complex and prompted the need for smarter storage



Total storage capacity

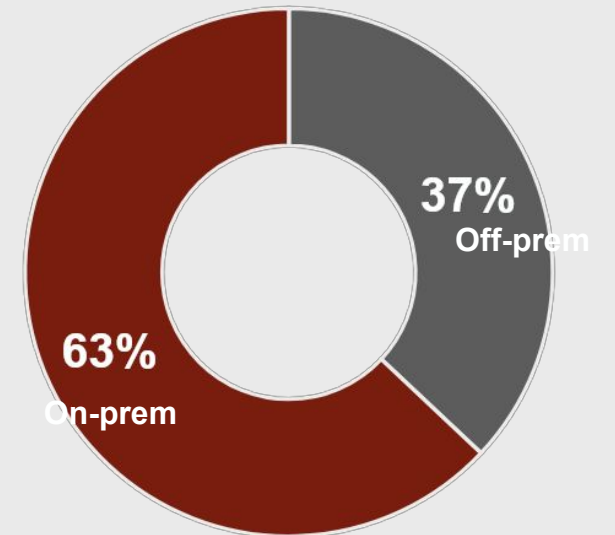
What is the total capacity of (on-prem & off-prem) storage managed by your organization?



Key Takeaways

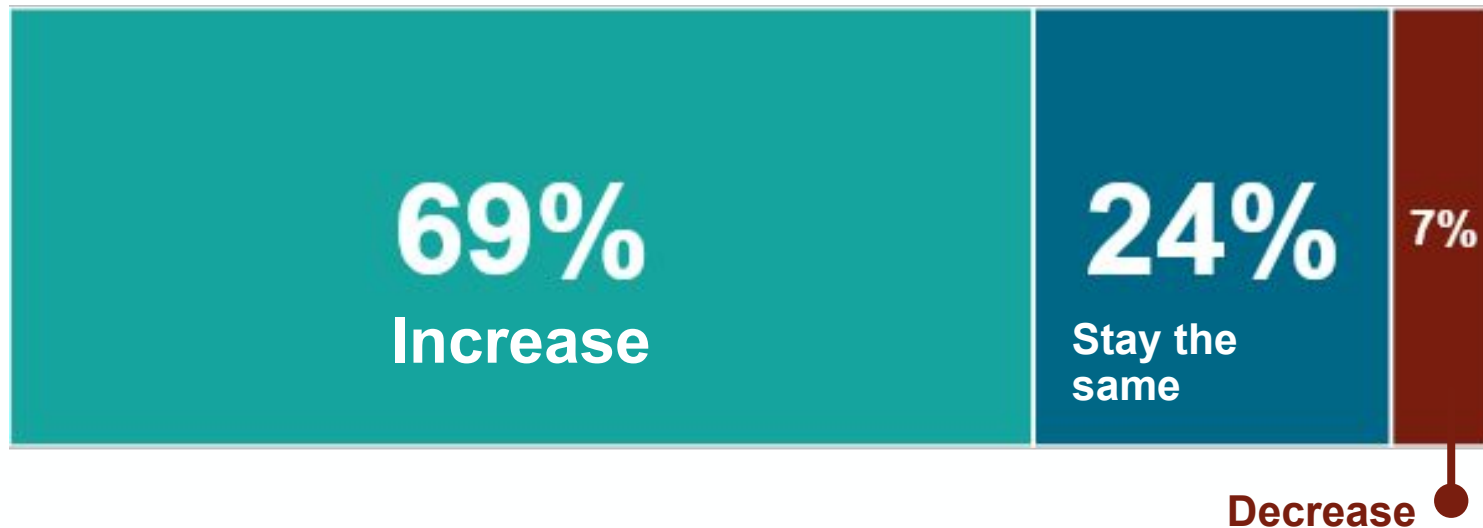
67%

Are managing **over 100TB** of total storage capacity



Spending change for storage

Over the next 12 months, how do you expect your organization's spending on storage to change?



Key Takeaways

- Not a surprise that most are planning for increased spending on storage
- Interesting that some are looking to decrease spending in the face of data growth/challenges

AI and Storage



1 in 4

buyers have plans to invest in AI/Machine Learning as a broad initiative in 2019



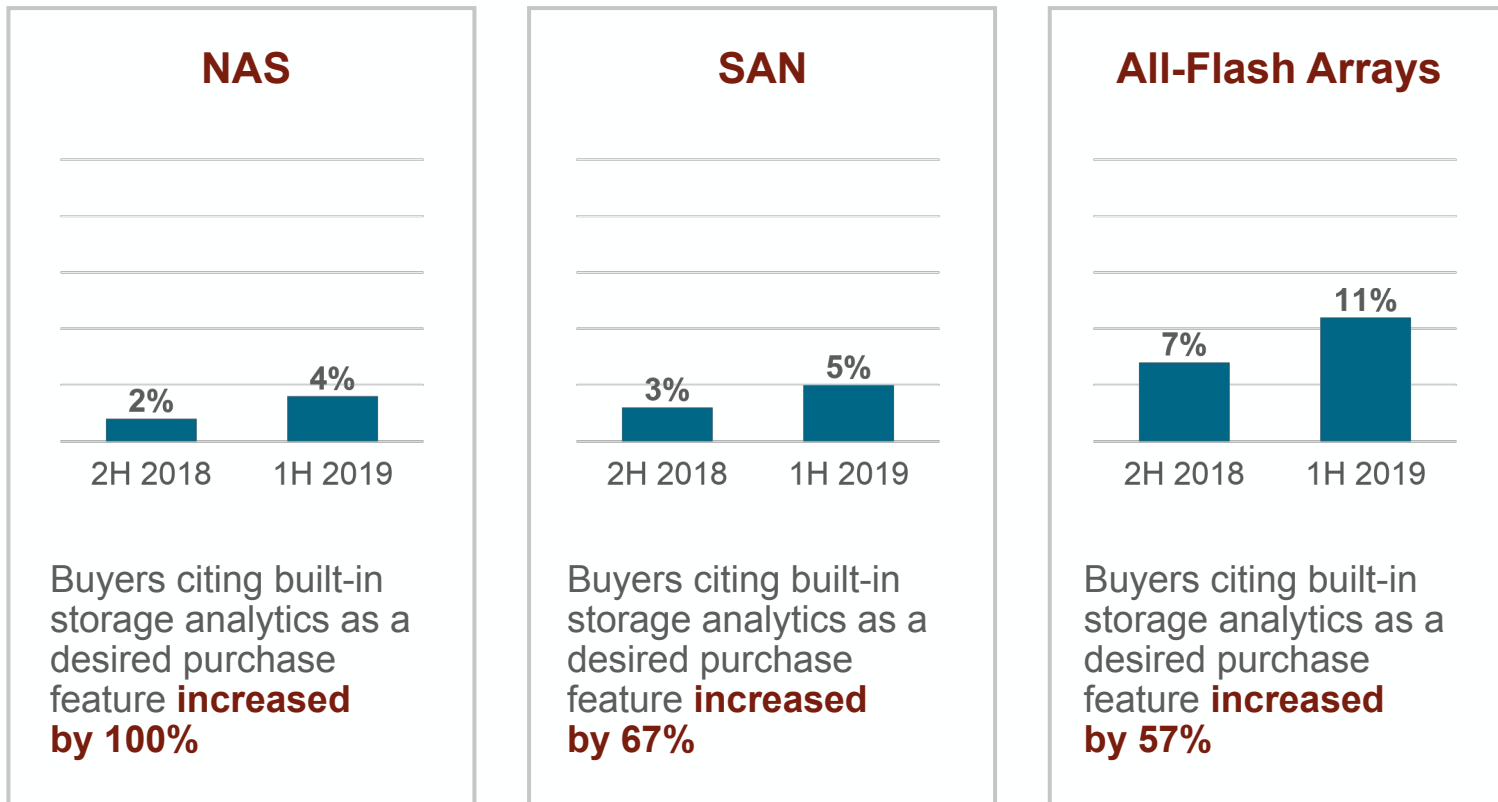
Data Management remains one of the most popular storage initiatives in 2019



1 in 4

data center buyers plans to invest in intelligent workload management this year

AI and data analytics grow in value among primary storage buyers

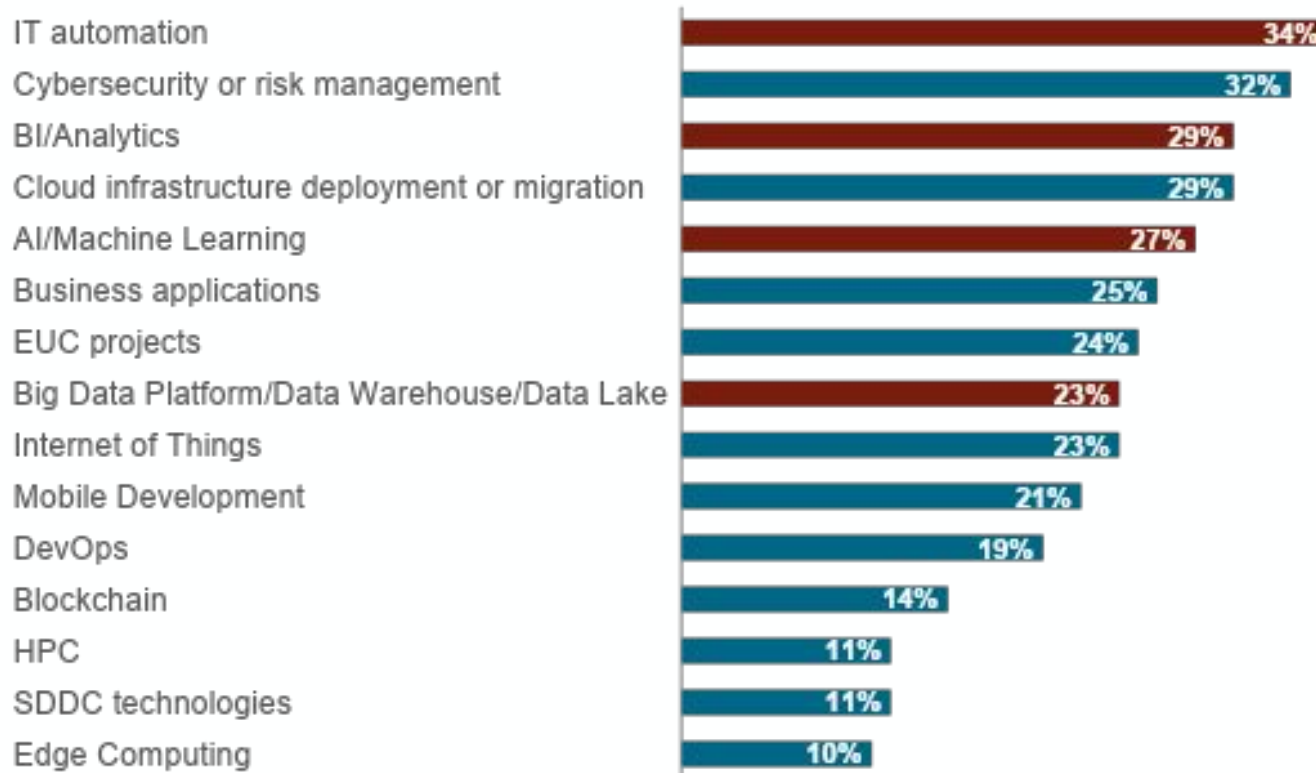


Key Takeaways

- This is about the meta-idea of storage analytics (analytics about storage)
- A doubling here in six months is a fast shift in the perceived value of analytics

Analytics and Artificial Intelligence/Machine Learning Are Top Initiatives

Which of these **broad initiatives** will your company implement in 2019?

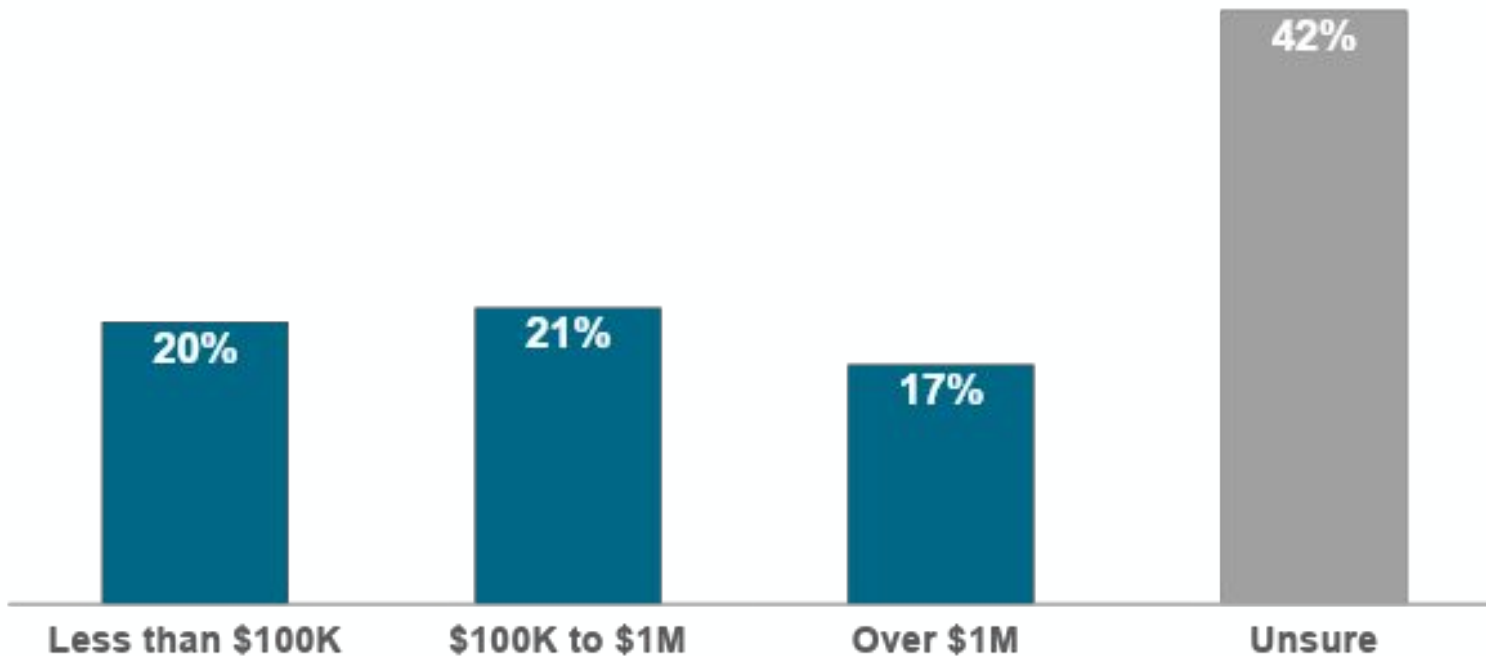


AI/Machine Learning

was the #1 Growth Initiative in 2018 and continues to be the **most wide-spread feature driving interest in software application upgrades, supplanting cloud**

Budgets for AI are Increasing

How much budget do you plan to spend on AI this year?

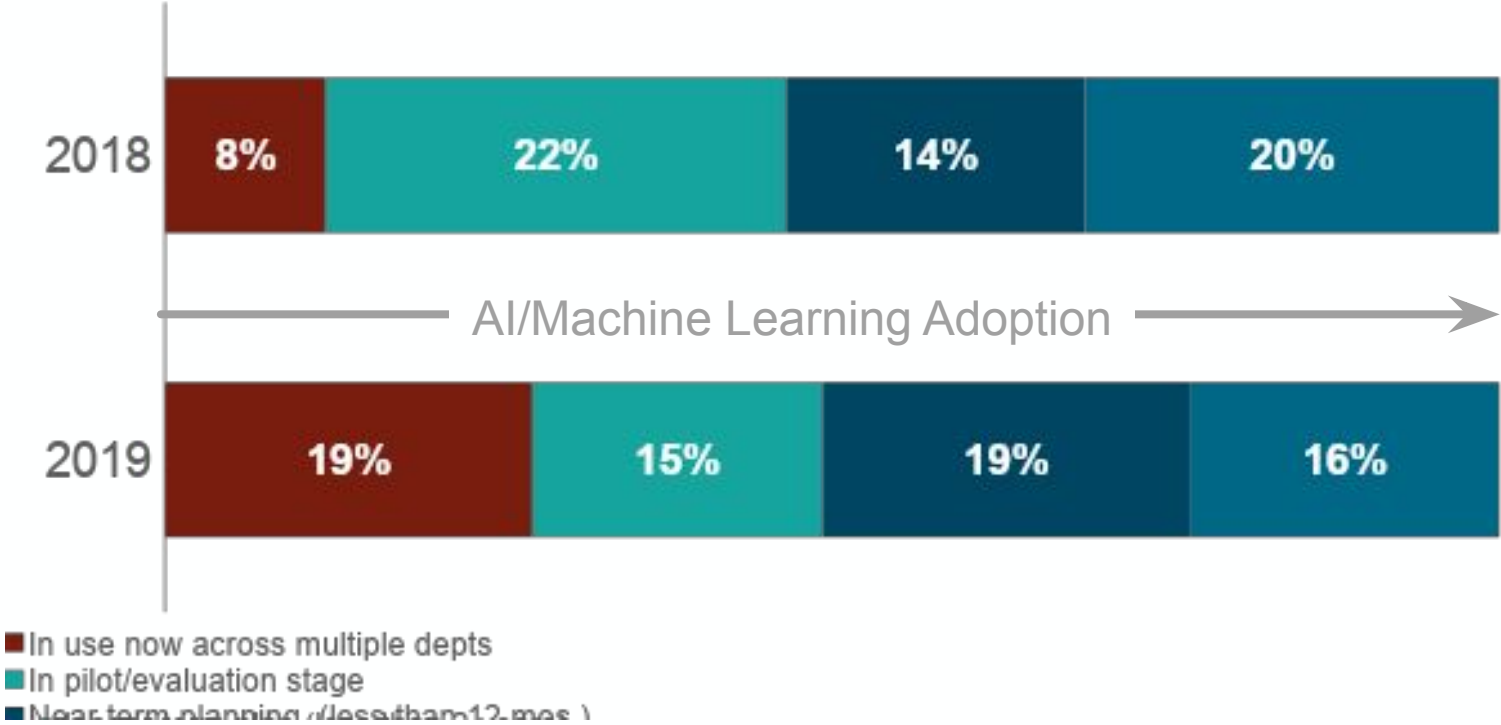


25%

companies plan to spend **over \$500K** on AI this year, compared to only **12%** in 2018.

Status of AI/Machine Learning adoption

Which of the following best describes your organization's level of AI/Machine learning adoption?



70%

of organizations have active AI projects

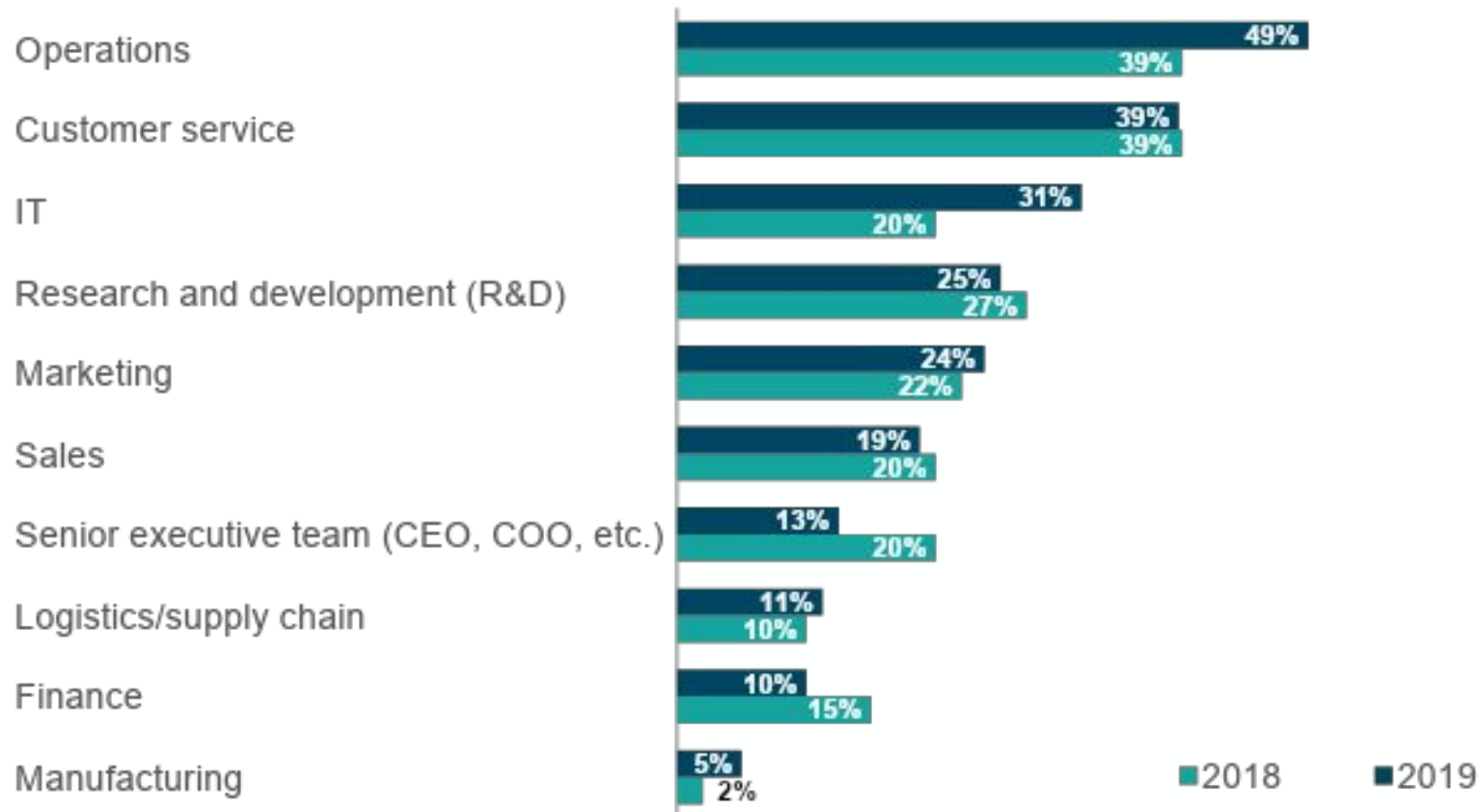
(7% more than in 2018)

In addition, the number of organizations citing AI production use (in use now across multiples)

has more than doubled YoY.

Who benefits most from AI / Machine Learning?

Which of the following departments/business units will benefit most from your planned AI/ML investment?



Key Takeaways

- Once the purchase decision is made, this creates an interesting dynamic for sellers where the key stakeholders change as the project progresses.
- For the 2nd year in a row, the Operations team leads the pack in terms of the stakeholder likely to benefit most from AI.
- This echoes the 2019 macro digital transformation trend where top investment drivers were internally focused on improving employee and operational efficiencies.

Upcoming sessions



Tuesday August 6th

BMKT-102A-1: Know What the Flash Customer Wants and Needs

Track: Business/Marketing

Presented by: Dave Raffo

Time: 3:40pm to 4:45pm

BMKT-102B-1: Data Growth and a future with Zettabytes

Track: Business/Marketing

Presented by: Mike Matchett

Time: 4:55pm-6:05pm

Thursday August 8th

FSOL-301A-1: Flash Solutions for Oracle

Track: Flash Solutions

Presented by: Dave Raffo

Time: 8:30am-9:35 am

FSOL-301B-1: Flash Solutions for SAP

Track: Flash Solutions

Presented by: Jillian Coffin

Time: 9:45am to 10:50am

FSOL-302A-1: Flash Solutions for Analytics

Track: Flash Solutions

Presented by: Mike Matchett

Time: 2:10pm to 3:25pm

FSOL-302B-1: Flash Solutions for AI/ML

Track: Flash Solutions

Presented by: Jillian Coffin

Time: 3:40pm to 5:00pm



Thank you.

Mike Matchett
@smworldbigdata

Agenda

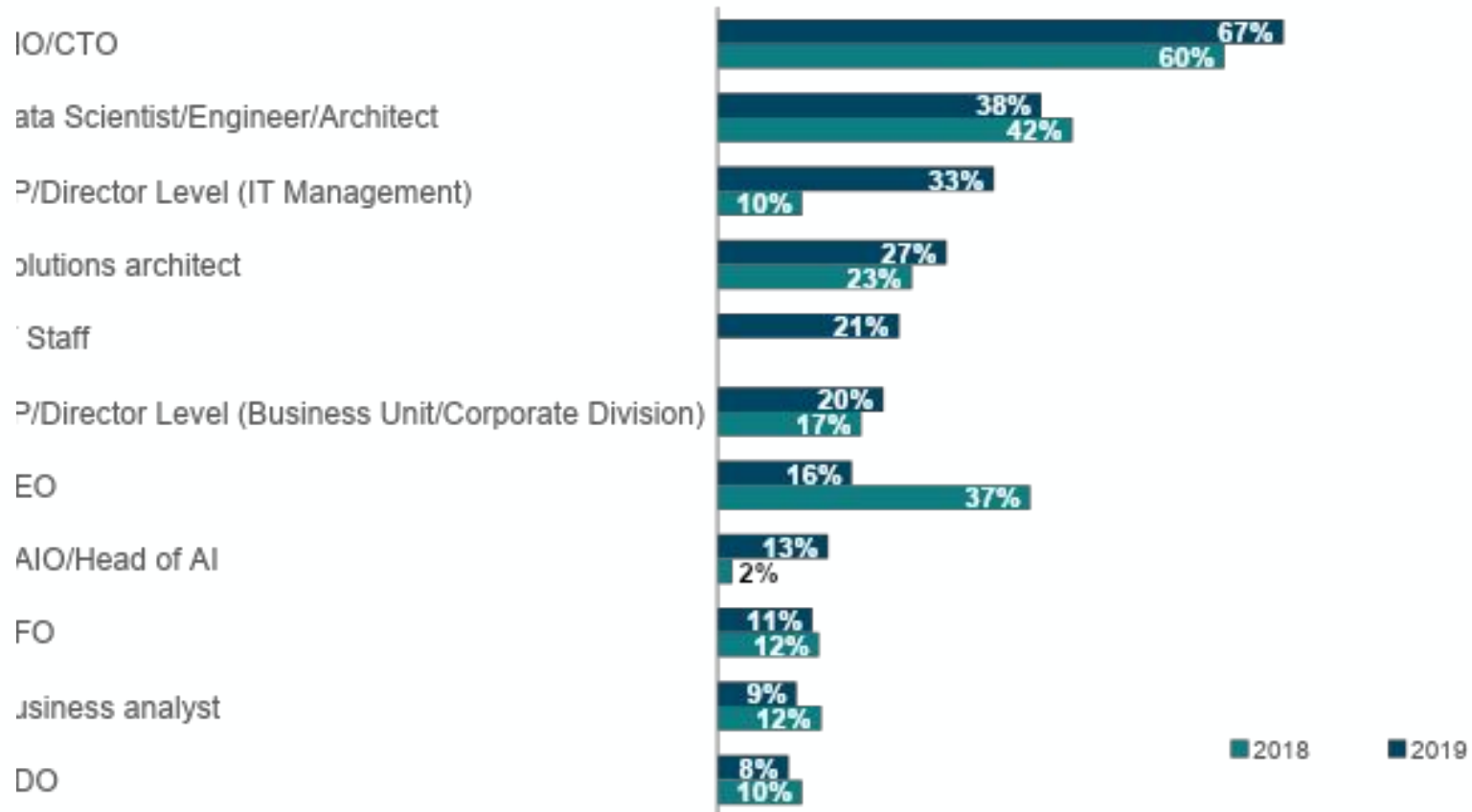
- **A session on how AI/Machine learning, IoT and analytics will impact the explosive growth of data and that will impact storage capacity and performance. Buyers are undoubtedly going to change the way they look at and manage storage at a larger scale**

-



The AI Tech Buying Team

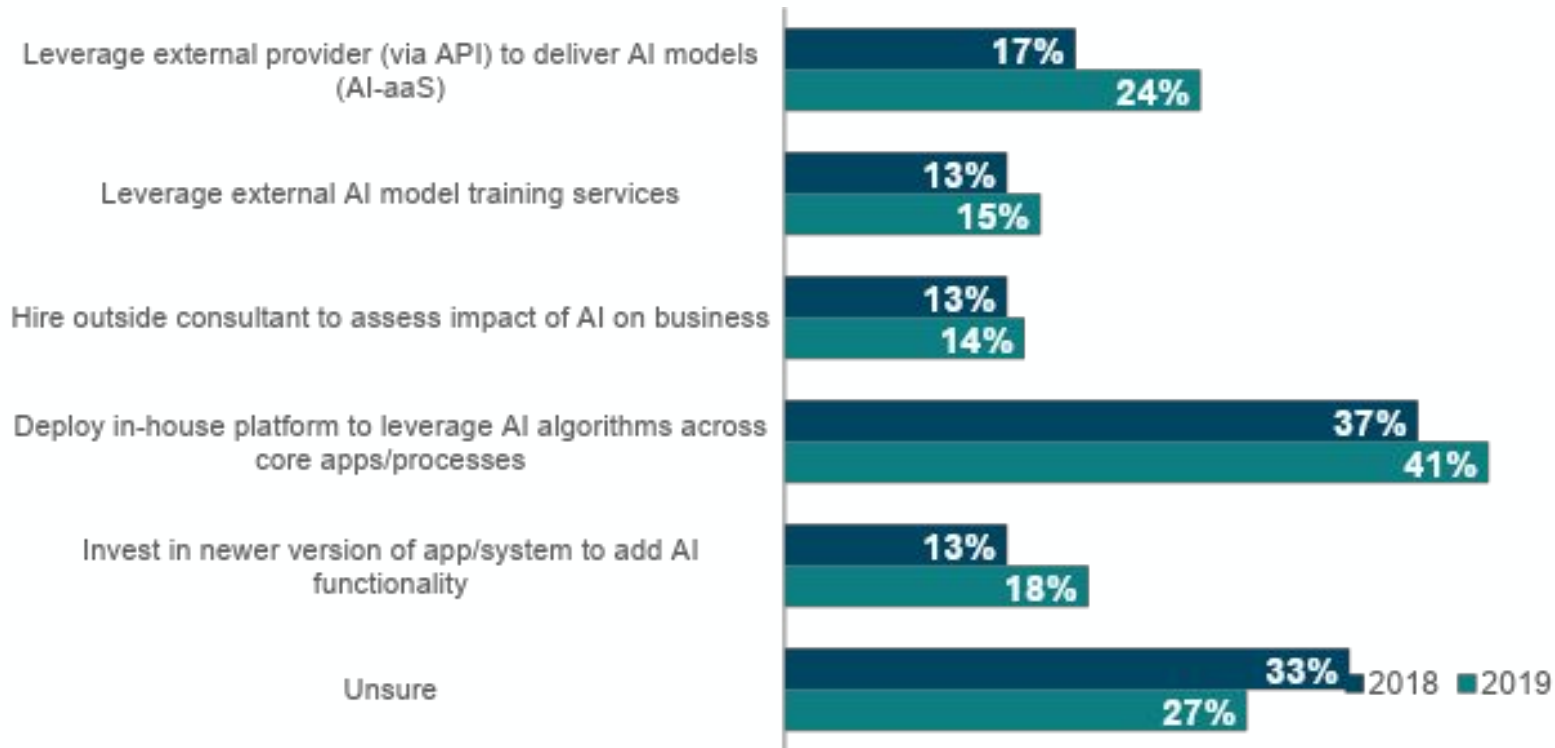
Who's involved in the tech purchase decision making process for AI-related solutions?



- NA respondents regard the CIO/CTO as leading the charge for AI projects in 2019.
- While AI is a horizontal endeavor, with strong input/visibility/influence from corporate LOB teams, not unlike cloud, it is ultimately technical pros who are deciding which solutions are purchased..

Snapshot of planned AI tech deployment methods

How do you plan to access/deliver AI across your organization?

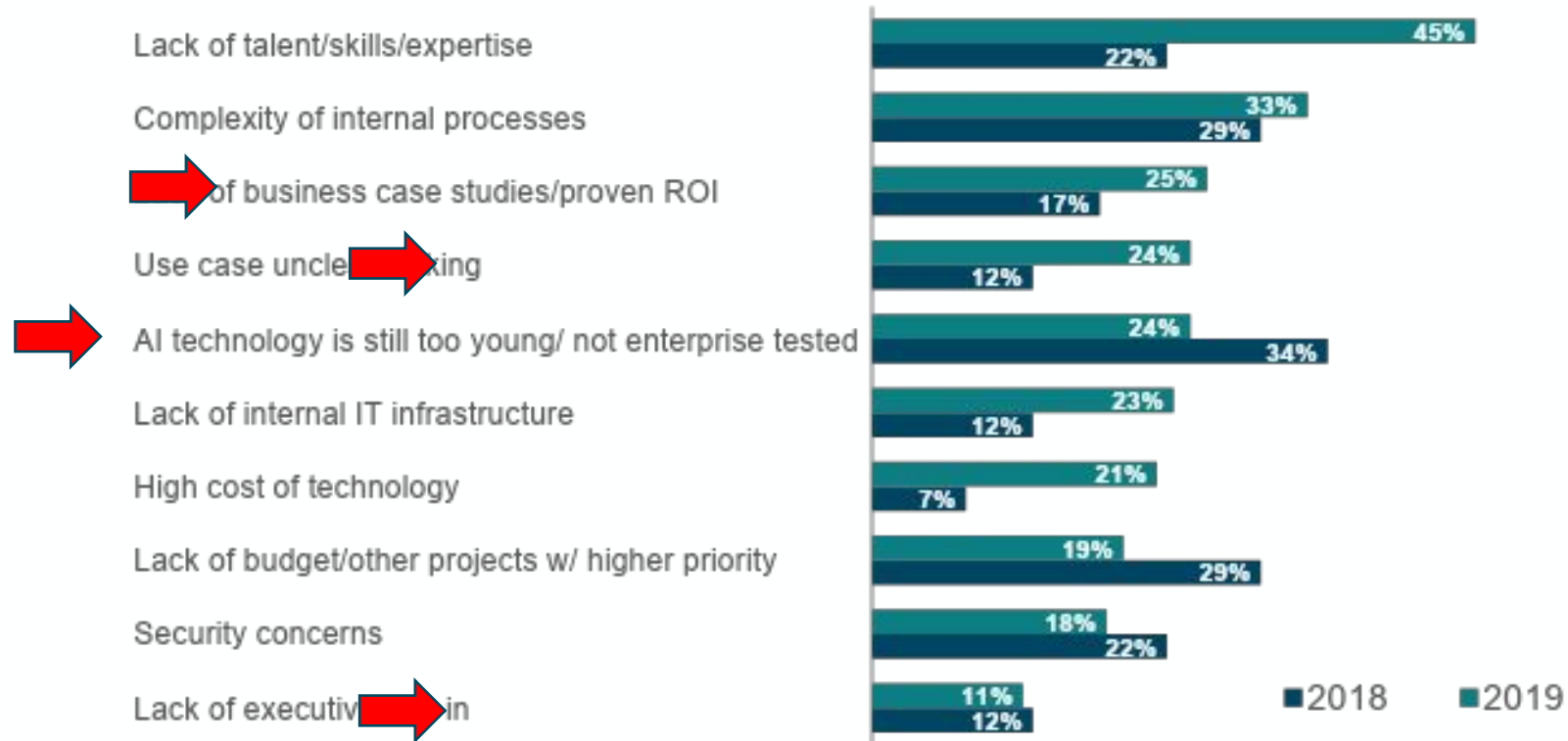


Key Takeaway

- No drastic change year over year in deployment types
- In-house AI platforms continue to dominate with 2 out of 5 organizations planning an investment.
- Consistent uncertainty year to year points to the need for ongoing evangelizing in terms of use cases that are better suited to in-house vs. as a service delivery.

Top barriers to adoption shift for 2019 Skills takes new foothold

What are the top barriers to achieving true value from AI adoption at your organization? (Choose up to 3)



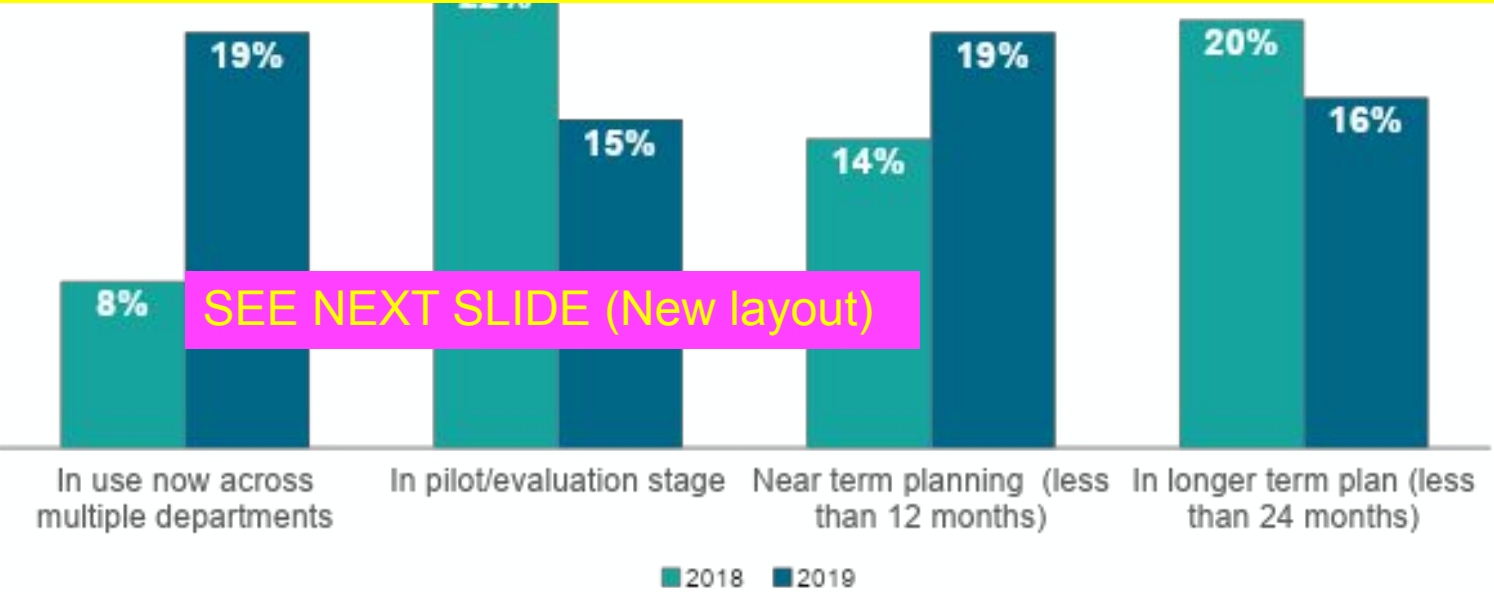
Key Takeaway

- The first two barriers point to the need for further democratization of AI:
 - emphasis on easy, simplified, automated to help downplay lack of expertise concerns.
 - shifting focus to “think big, start small” along with practical examples of ROI can help eliminate internal churn.
- Arrowed responses point to the need to further evangelize the market to help spur more rapid AI enterprise adoption.

Status of AI/Machine Learning adoption

Which of the following best describes your organization's level of AI/Machine learning adoption?

Changed to horizontal stack bar so you can see adoption L—R



70%

of organizations have active AI projects

(7% more than in 2018)

In addition, the number of organizations citing AI production use (in use now across multiples) **has more than doubled YoY.**

General AI market observations, future vision

Summary of 2019 AI topic themes:

- AI is gaining fast tracking, but still early innings...
 - Most orgs have yet to feel the full effect of AI, still determining where/how it can be most effective.
 - There's still a lot that algorithms don't know (training data limitation, algorithmic bias, ambiguity in how to apply results)
- Has led to a narrower “think big, but start small” project mindset
 - Further emphasis placed on aligning projects with improving business goals.

Looking ahead to 2H 2019, topical areas of focus include:

- Digging further into deep learning technology and use cases
- Machine learning frameworks – platforms, uses, do's and don't
- AI in robotics and process automation
- General coverage of AI tech advances, new uses in business

