

# OCP Impact Study 2021

Open Computing and  
Data Center Sustainability

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The Omdia logo is located in the bottom right corner of the slide. It consists of the word "OMDIA" in a bold, white, sans-serif font. To the left of the text is a circular icon containing a stylized white symbol that resembles a lowercase 'o' or a similar character.

1. What is the market impact of the OCP?
2. What is the vendor ecosystem seeing?
3. What are end users saying?
4. Q&A with the Omdia team

# Top Takeaways

Despite the COVID-19 pandemic, spending on open computing accelerated.

The pandemic did impact some open compute deployments which were postponed to 2021 and 2022.

The community's efforts in setting standards component categories like the OCP NIC and OAM are on track to have a very broad market impact.

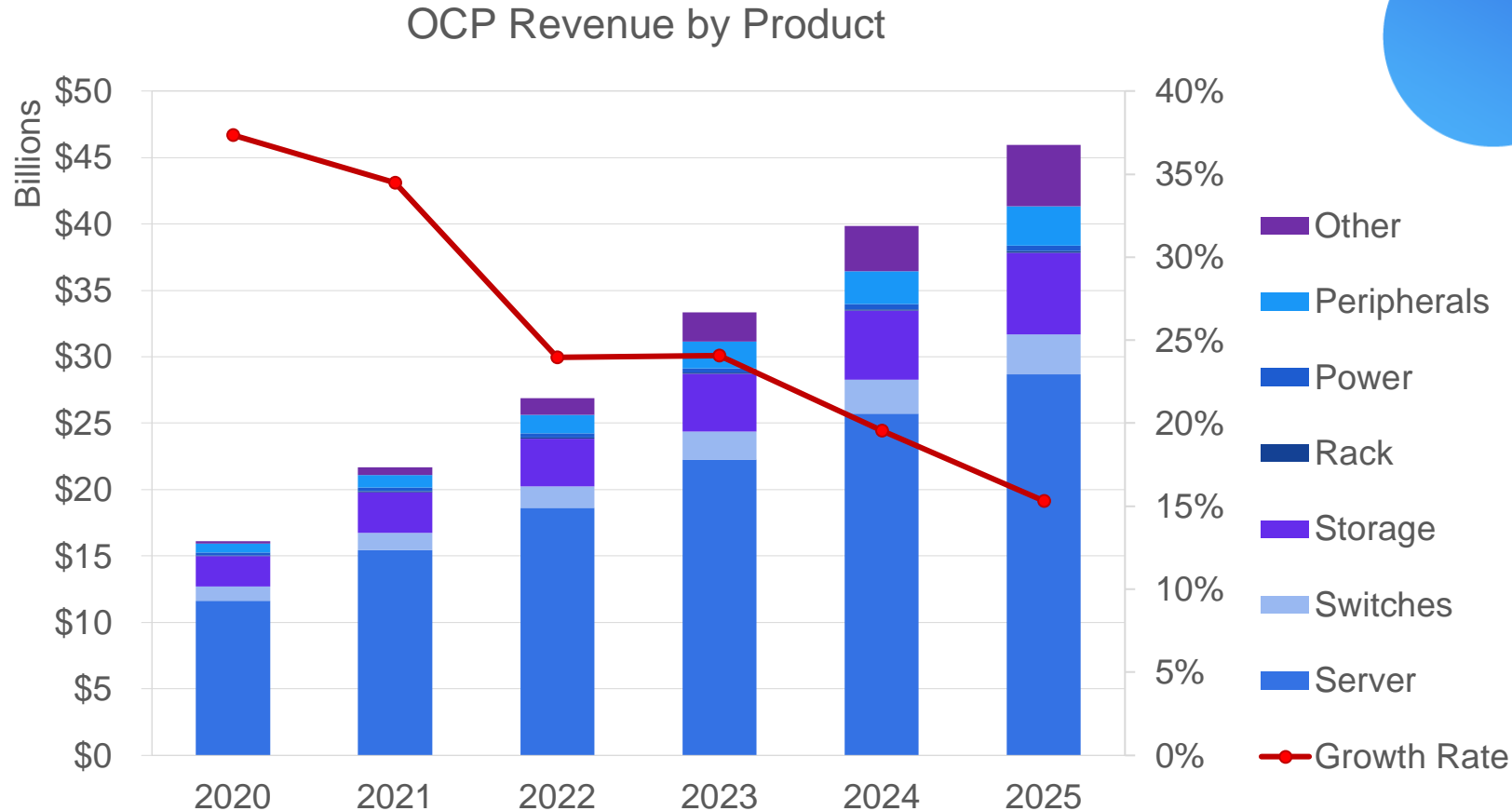
Familiarity with the OCP has significantly increased businesses from every vertical are listening.

Communication service providers continue to be a big opportunity for OCP. The number of POCs has multiplied.

# 46

Billion USD  
OCP revenue  
in 2025

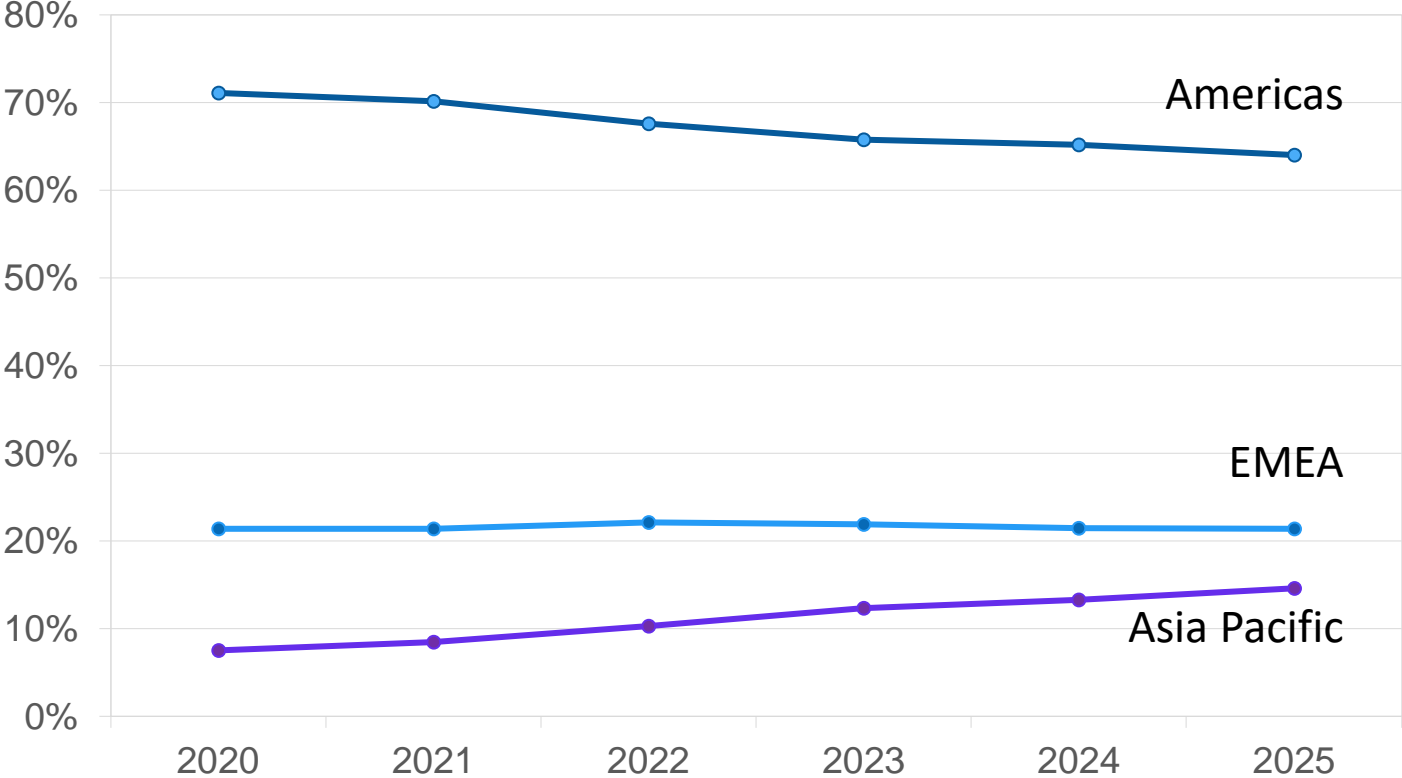
# 2020 revenue topped \$16 billion



- Accelerated adoption of servers, storage & switches
- OpenEdge powers the next wave of growth
- Broad market interest into OCP NIC and OAM

# Steady regional diversification

OCP Revenue by Region

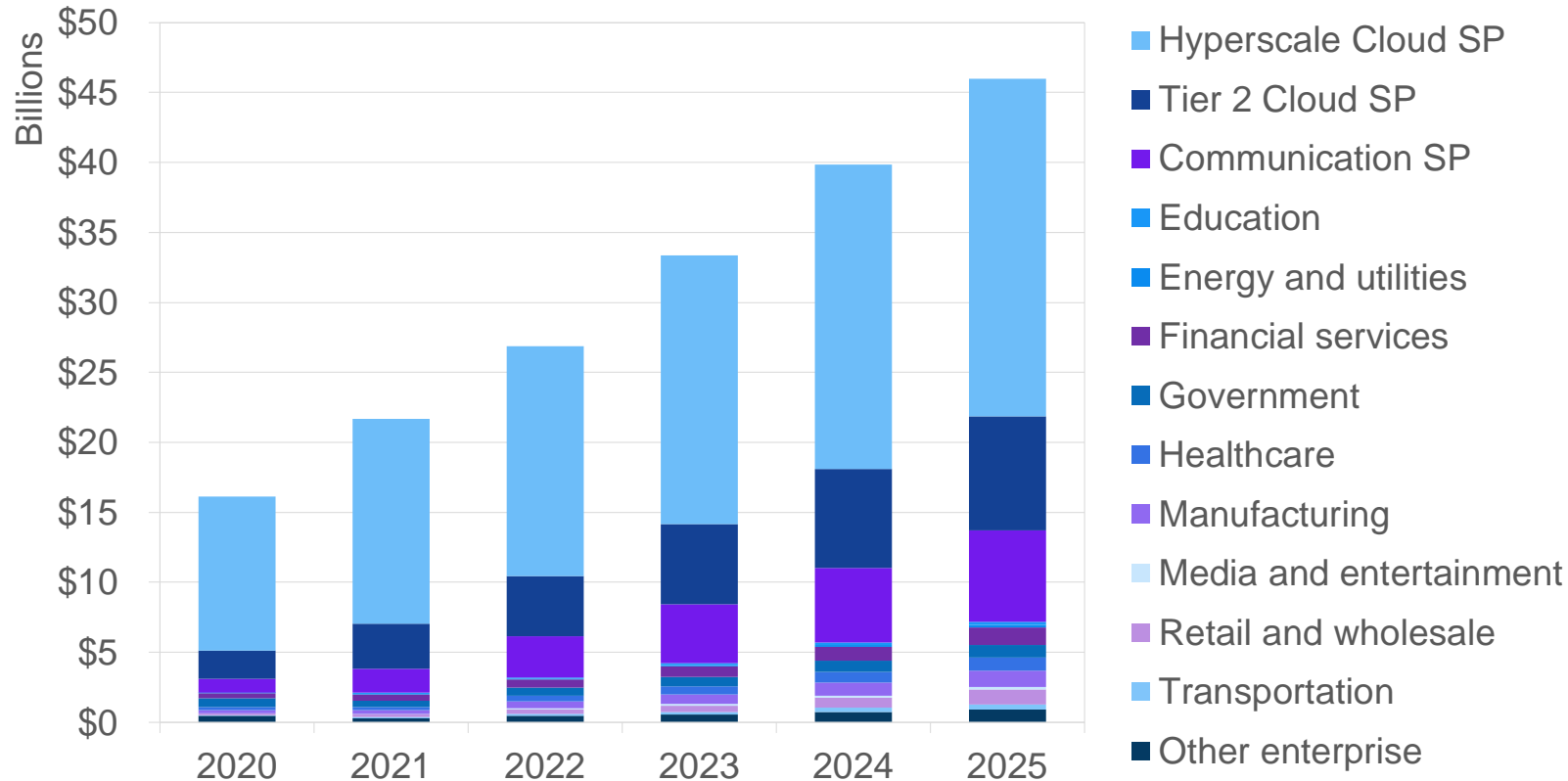


- The number of clients interested in OCP-developed products outside of the US is steadily increasing.
- EMEA is a large region and interest is wide-reaching.
- Though small, an unexpectedly large number of POCs in Africa are currently underway
- In Asia Pacific, we have seen strong interest in many of the components developed by the OCP, in addition to equipment types



# More and more vertical industries use OCP

OCP Revenue by Customer Segment



- Cloud SPs continue to have the largest number of deployments, and the largest in scale.
- The number of communication SP trials has multiplied and is on track for a large number of production deployments in '22
- We continue to see strong interest from the public sector in the US
- OCP is a hit for HPC across verticals
- Retail and wholesale is a new industry showing interest, not just Target but other retailers
- We even heard of fisheries in Europe deploying OpenEdge servers



The background of the slide is a high-angle photograph of Earth from space, showing the curvature of the planet and the dark void of space. The Earth's surface is illuminated, showing clouds and landmasses.

# 52/48

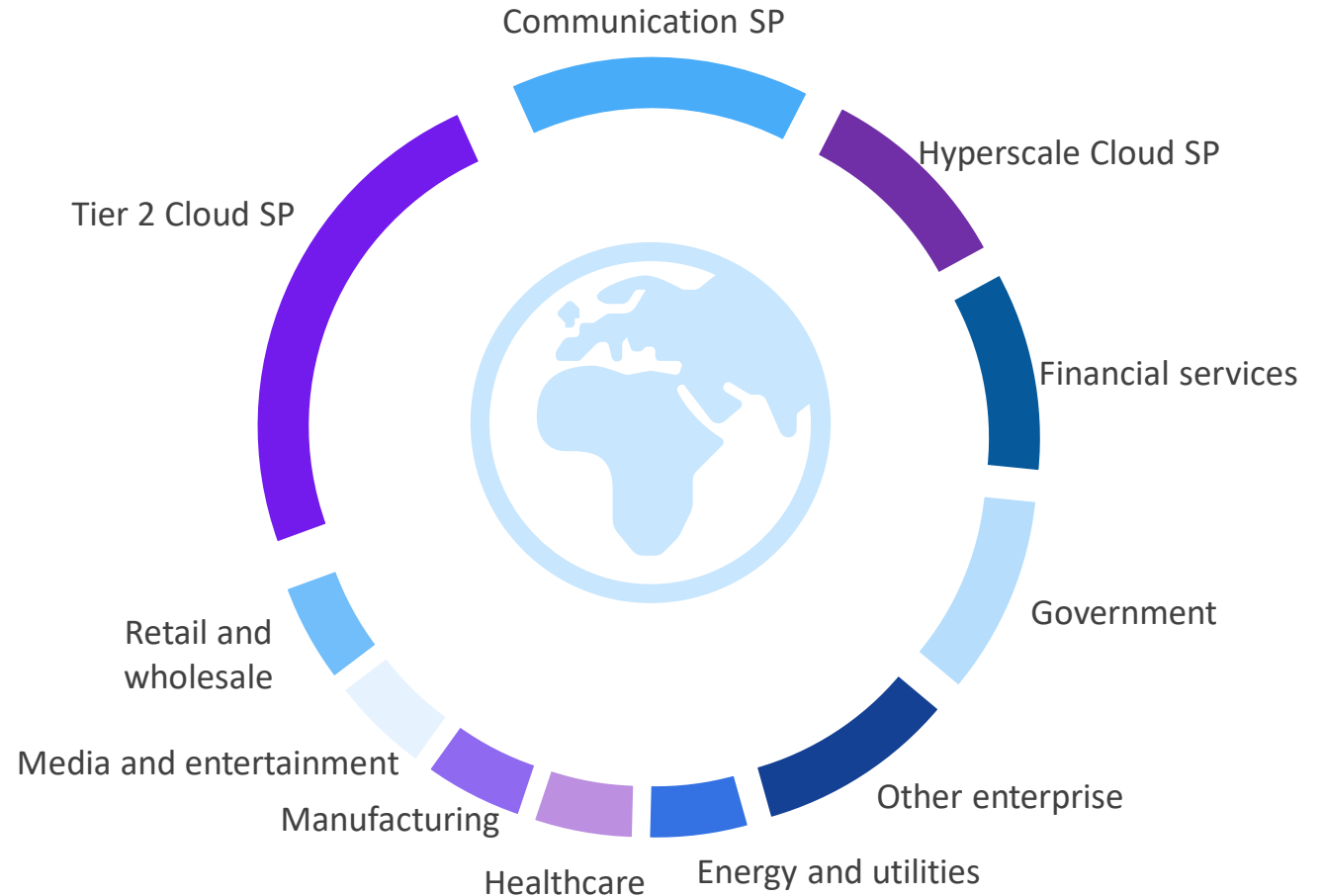
The split of hyperscale cloud SP versus the rest of the OCP equipment revenue in 2025

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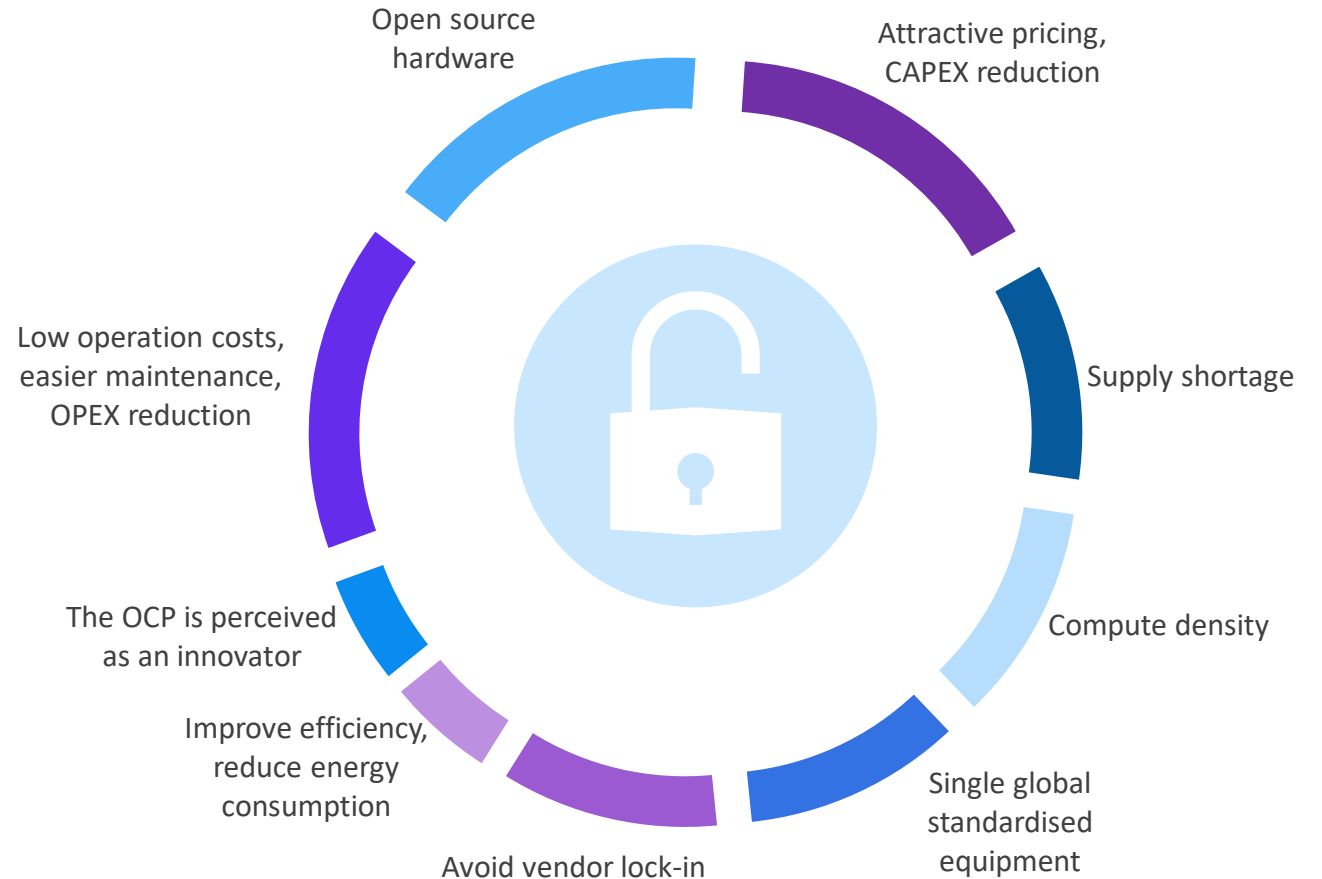
# More diverse clients in more countries

- Nearly all vendors had an existing relationship with tier 2 cloud SPs; this was also the case in all regions
- Commercial relationships with communication SPs had also been established by many vendors and across regions
- Governments only in EMEA and North America showed interest in OCP equipment, though openness is becoming a requirement for government tenders in many countries in these regions
- No engagements with transportation companies were highlighted during the interviews which stood out to us



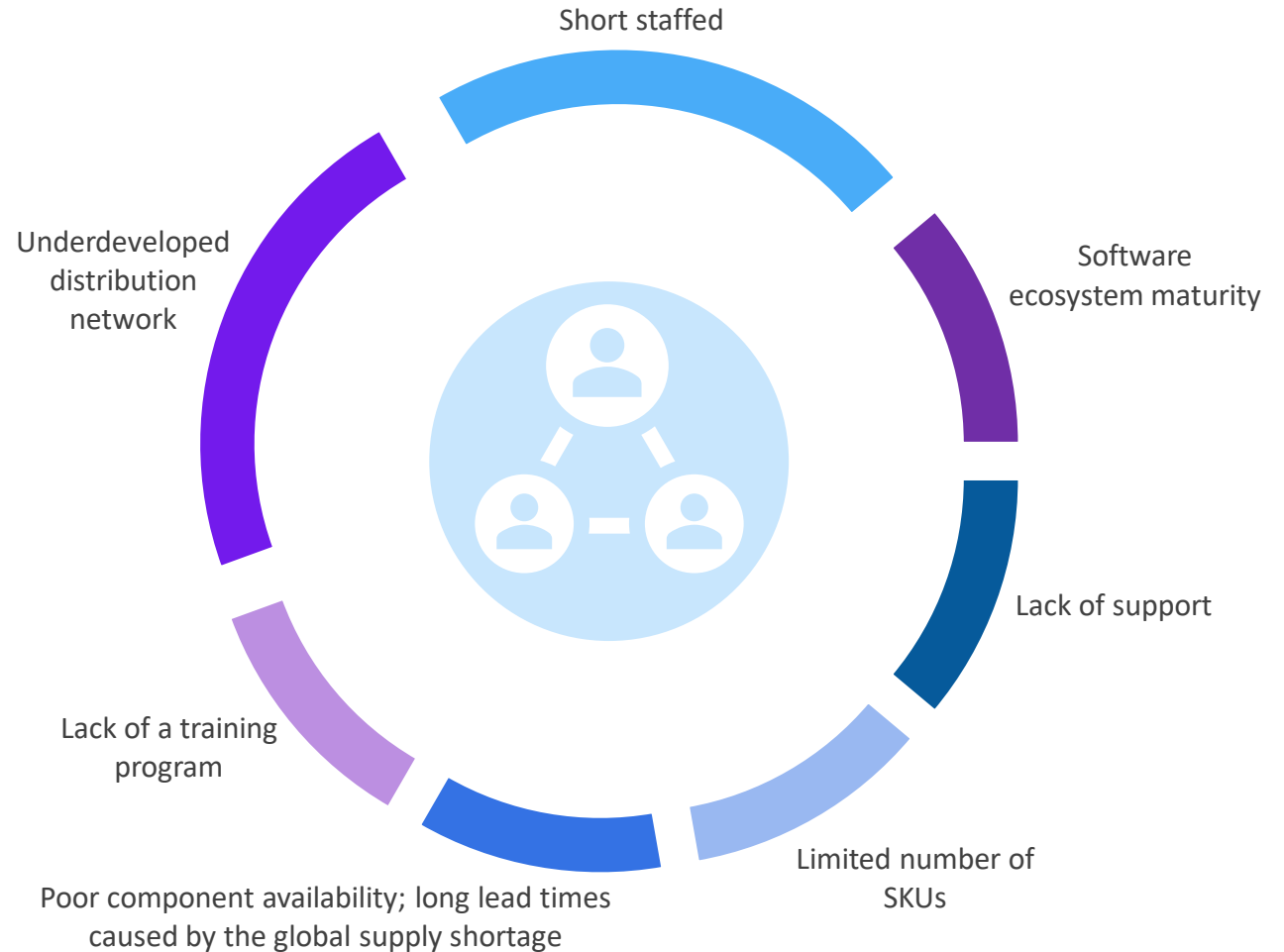
# Openness as important as cost now

- For the first time the vendor and partner ecosystem highlighted openness as an equally important factor for winning new clients
- Some OCP vendors won new clients because they managed their supply chain better than the market during the global IC shortage
- Avoiding vendor lock-in is increasingly key to the clients of our respondents
- Being able to offer better compute density was another winning driver for adoption
- The OCP is also perceived as an innovator



# People are the biggest barrier to growth

- Most vendors we spoke to highlighted that they are hiring aggressively and staff shortage is a barrier to growth
- A large number of respondents also highlighted poor availability of distributors as a challenge
- For the first time we heard that investment in a professional development or a training program would enable client acquisition
- The global supply chain shortage limited some vendor's ability to fulfil orders or created a longer fulfilment lead time



# Notable quotes

“Open, a requirement for government tenders.”

**“SONiC is a catalyst for OCP switch adoption.”**

“A lot of people are interested in the 50V OCP power supply.”

**“OpenEdge could be very big.”**

“The number of customers we’re working with is 10 times higher than two years ago even though many are still in a POC stage. We expect to see commercial deployments next year.”

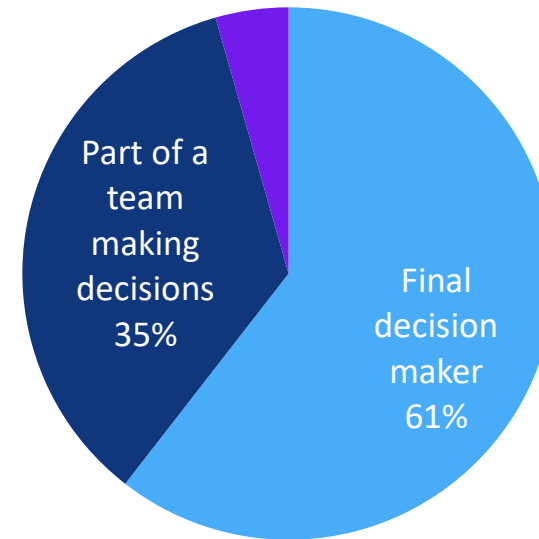
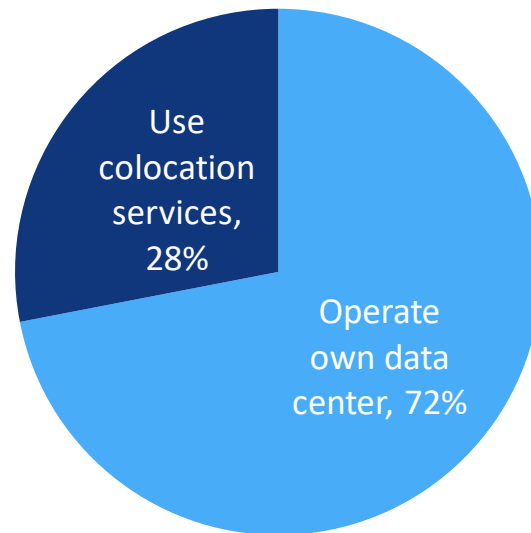
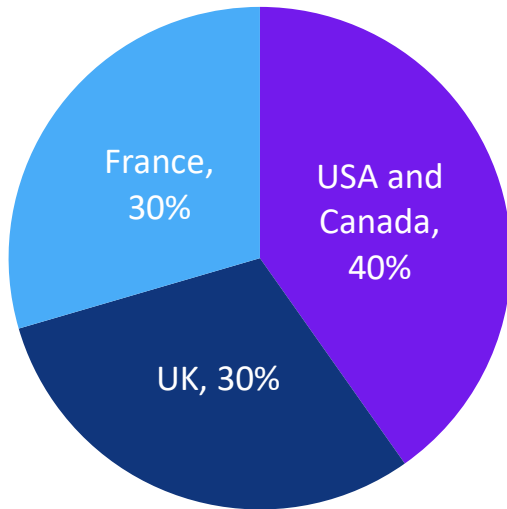
“[Provided a] remote Norwegian fish farm with fish traceability from feeding to distribution, improving efficiency, profitability, and sustainability”

“SONiC is becoming a de-facto standard for network operating system.”

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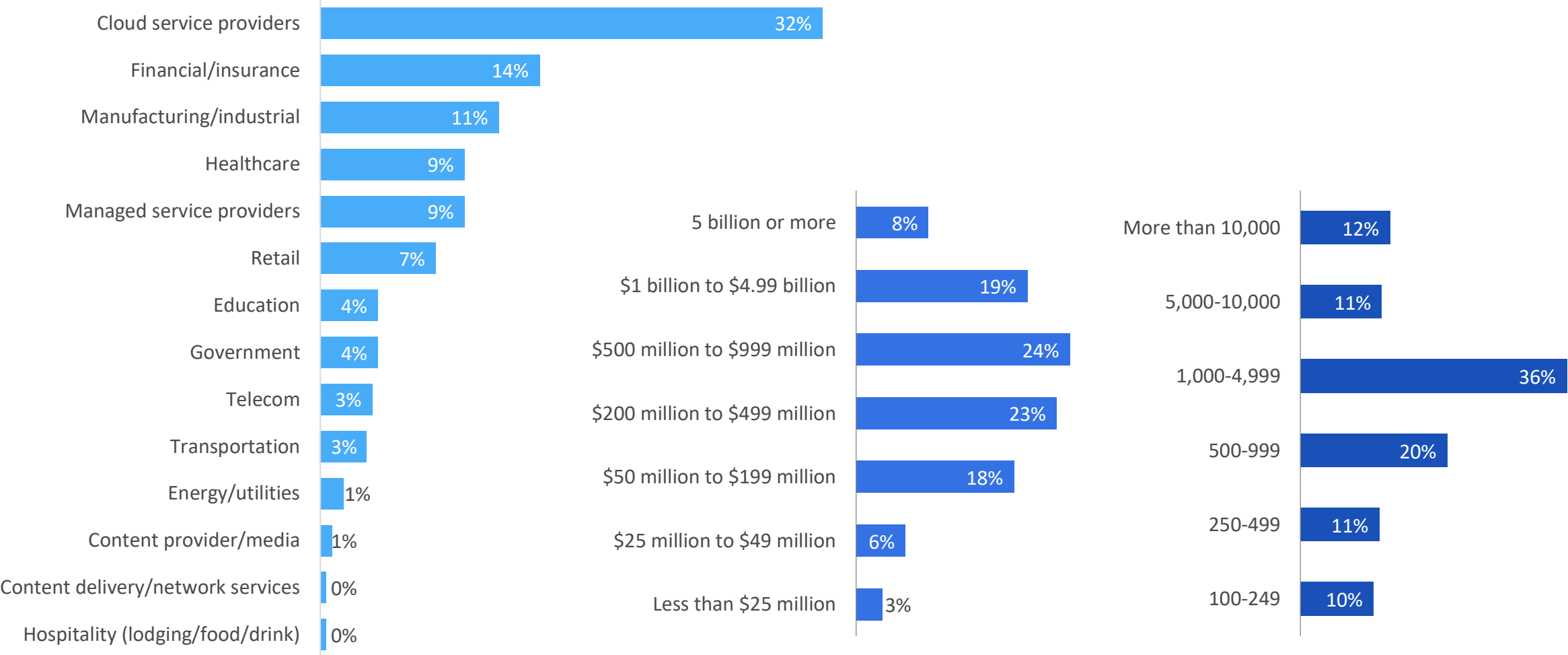
# Large scale end-user survey

Over the course of August and September 2021 OMDIA surveyed 271 enterprise IT buyers across 4 countries to capture their familiarity, usage and appetite for open compute equipment.





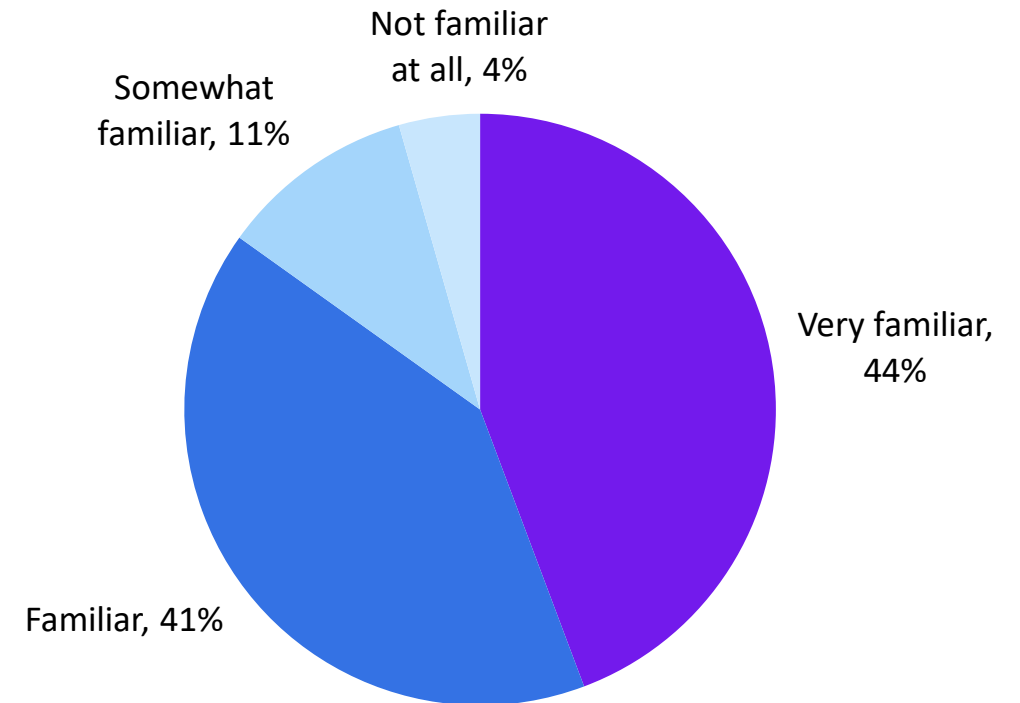
# A well-distributed sample of respondents



# A high level of familiarity with the OCP

- Nearly all respondents were already familiar with the OCP. Only 12 out of 271 were not familiar.
- Familiarity was the highest in the US and lowest in France.
- Familiarity was particularly low in the government segment followed by transportation
- All of the interviewed C-level executives and nearly VPs and directors surveyed were familiar with the OCP
- Managers of a team of functional practitioners were the most unfamiliar with the OCP

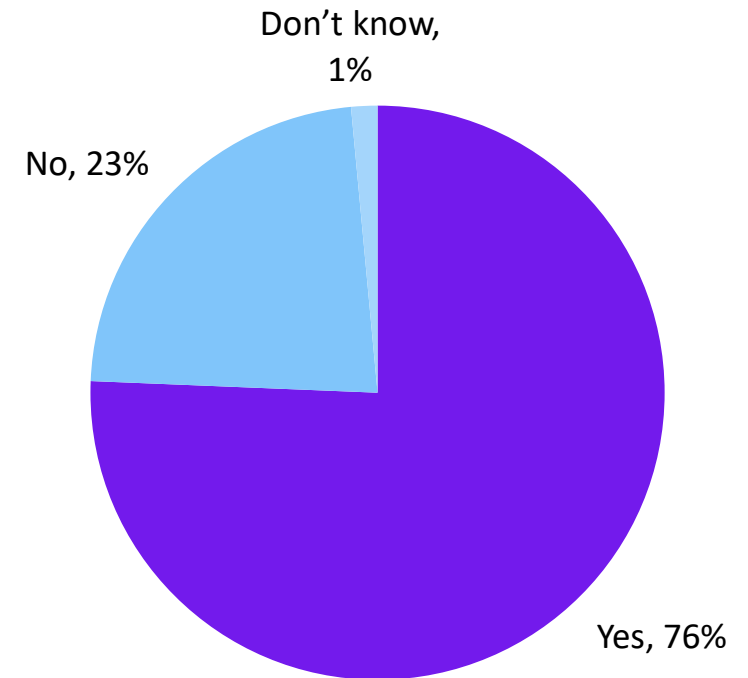
**Q1: How familiar are you with the work of the Open Compute Project?**



# Overwhelming majority have trialled OCP

- Despite having a high familiarity score, 26% of the respondents in the UK and 23% in the US had not tested OCP gear.
- Government and hospitality were the two verticals who had the highest “No” share with none of the government agencies in the UK testing open compute equipment
- We also found that the larger the company the lower the likelihood of testing OCP with over 40% of the companies with over 5000 employees or over \$1B revenue answering “No”
- At the other end of the scale, the smallest companies surveyed also had not trialled OCP
- The sweet spot for testing OCP equipment looks to be companies with 250-4999 employees or \$25M-\$999M revenue

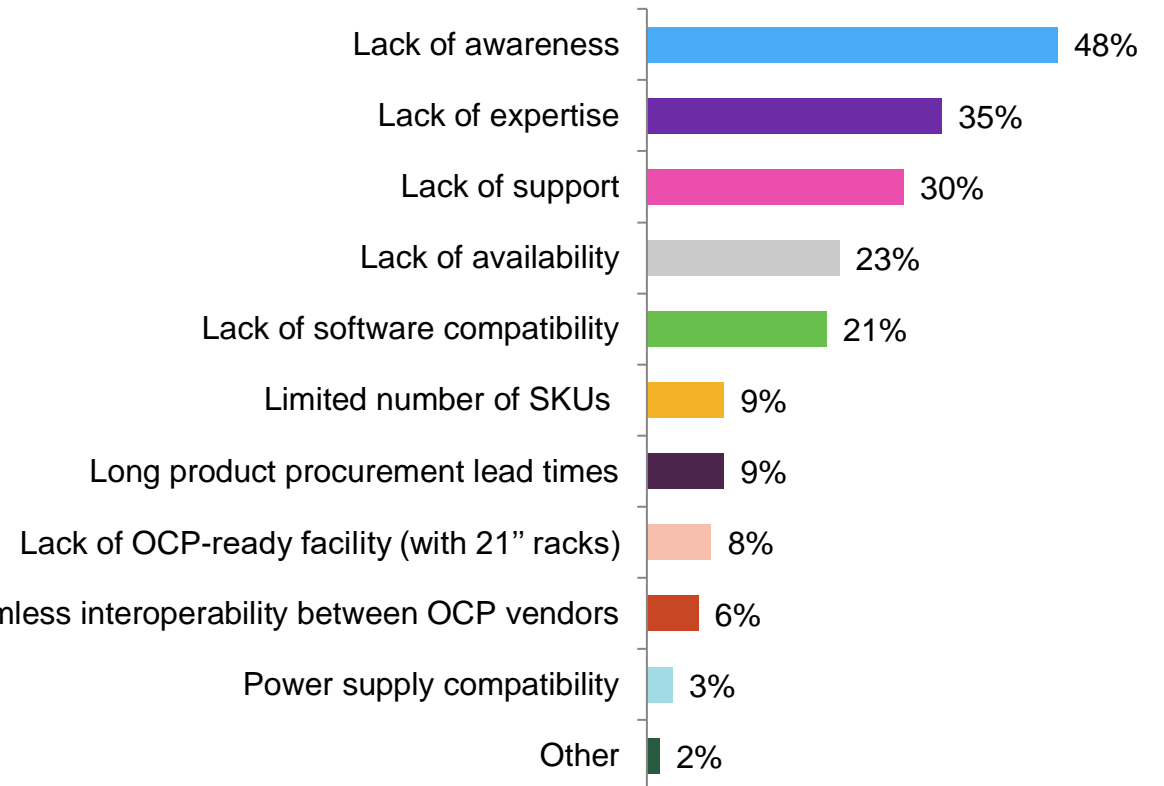
## Q2: Have you ever trialled/tested open compute equipment?



# Awareness, the biggest deterrent to testing

- We asked the 66 respondents who have not trialled OCP equipment why with “lack of awareness” provided as the main reason in all countries but the US where “lack of support” was the biggest driver.
- In the US respondents indicated that lack of availability and expertise is just as much of a barrier as lack of awareness
- We saw the highest “lack of awareness” scores in the government, education, transportation verticals. Interestingly cloud and non-cloud service providers who had not tested OCP also pointed to awareness as the biggest reason
- It was interesting to see that “lack of software compatibility” scored very high in France only

## Q3: What are the main reasons you have not tested open compute equipment?





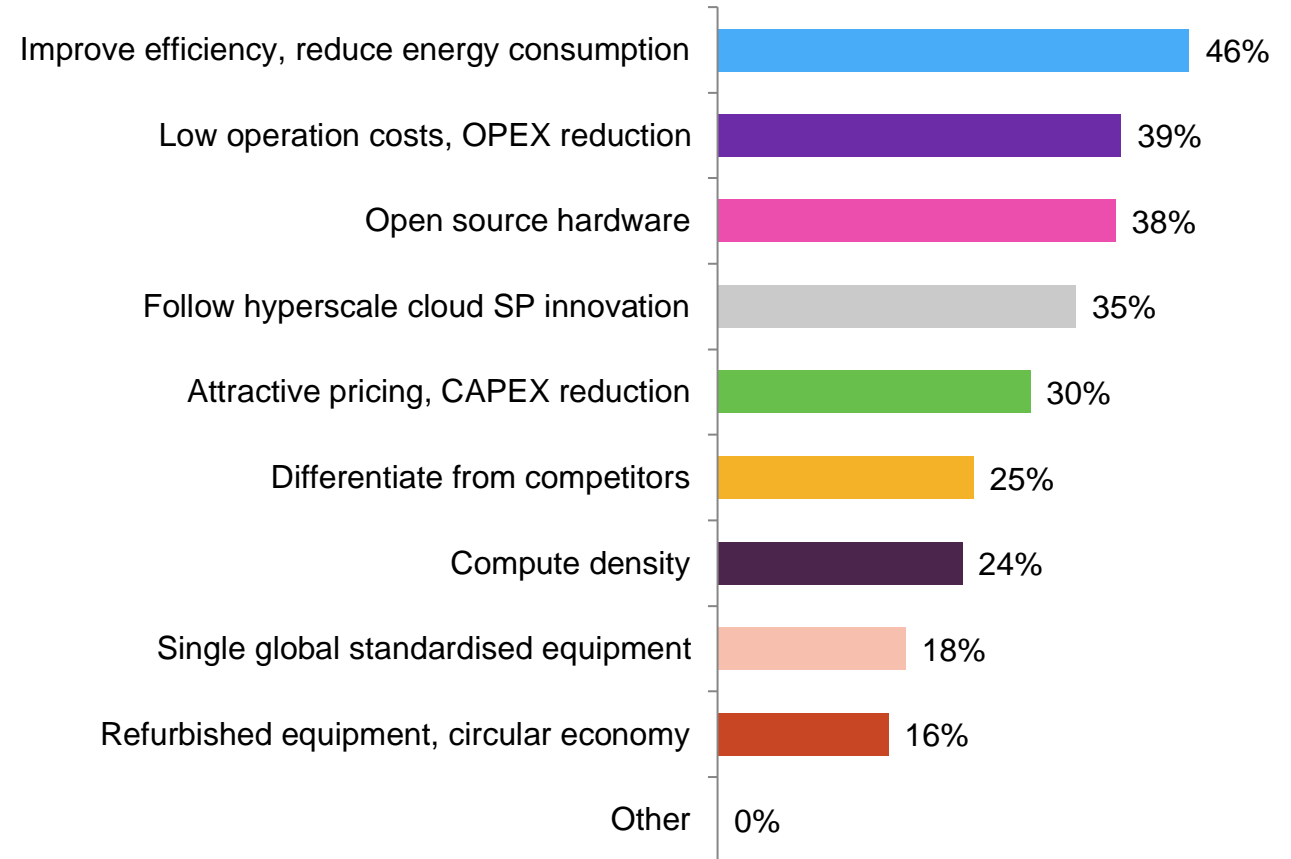
# 90%

of field trials result in a  
production deployment

# Energy consumption and cost main drivers

- Reducing energy consumption was the top reason for OCP deployment in all countries apart from the UK where “follow hyperscale cloud SP innovation” was the top reason
- Improving energy efficiency was selected as the top or a top reason by most vertical segments
- Reducing OPEX and CAPEX also scored high with most groups of respondents
- Follow hyperscale cloud SP innovation was also the top reason for the financial services and tier 2 cloud SP verticals
- For the telecom and healthcare vertical openness was the top reason for deploying OCP

## Q7: What are the main reasons you deployed open computing equipment in production?

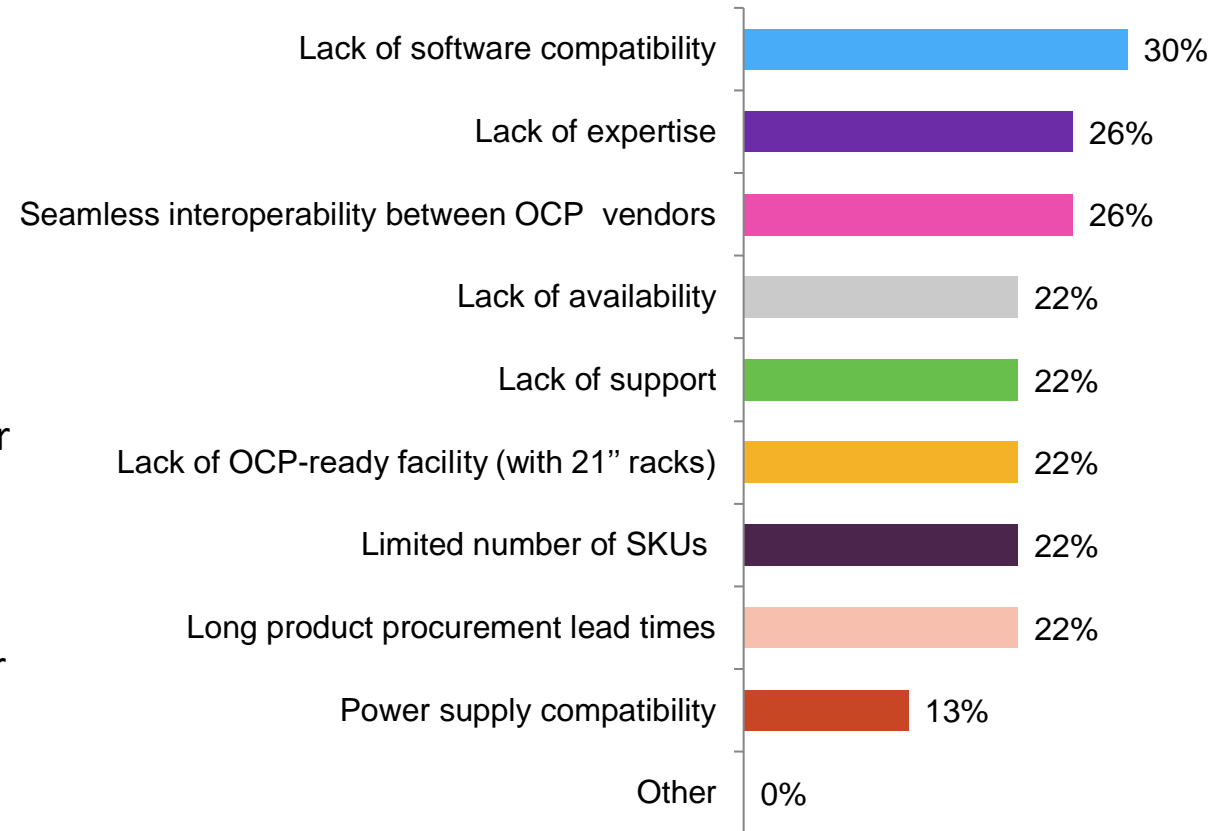




# No single reason for not moving into a production deployment

- While lack of software compatibility came at the top when asking the 23 respondents who tested OCP equipment but did not deploy in production, results differed across respondent groups
- In France lack of availability was highlighted as the main issue
- In the US interoperability between OCP vendors, lack of support and limited number of SKUs were the main deployment barriers
- In the UK lack of software compatibility was on par with lack of expertise and interoperability
- It was interesting to see that the respondents who also said that they are very familiar with the OCP on question 1, highlighted that the limited number of SKUs was the biggest reason they did not deploy

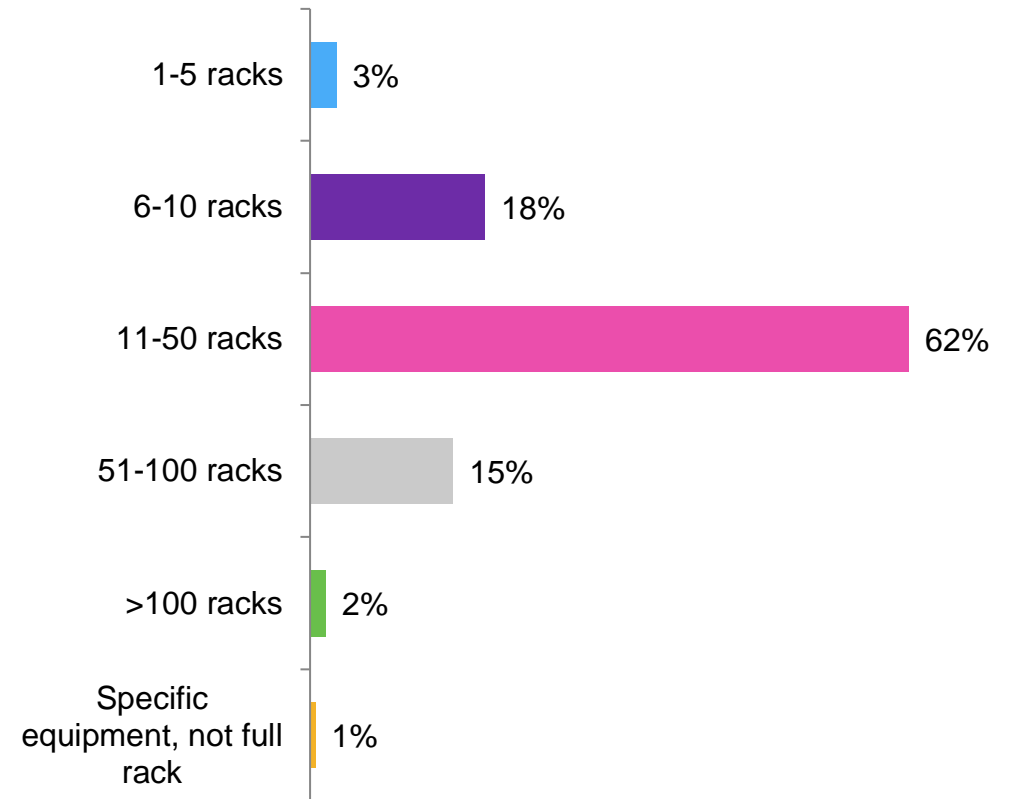
## Q8: What are the main reasons you did not move into a product deployment?



# 11-50 rack deployments are the sweet spot

- Across all countries and verticals 11-50 racks were the sweet spot from a deployment perspective
- Deployment size also did not change depending on whether the respondent owned their own DC or used collocation though the latter had a higher proportion of 6-10 rack deployments which was expected
- There is a clear correlation between familiarity and deployment size, the respondents who were very familiar with the OCP were the only ones with deployments of over 100 racks and had a higher proportion of 51-100 racks
- As would be expected there was also a strong correlation between company size and deployment size

**Q9: What was the scale of your deployment?**





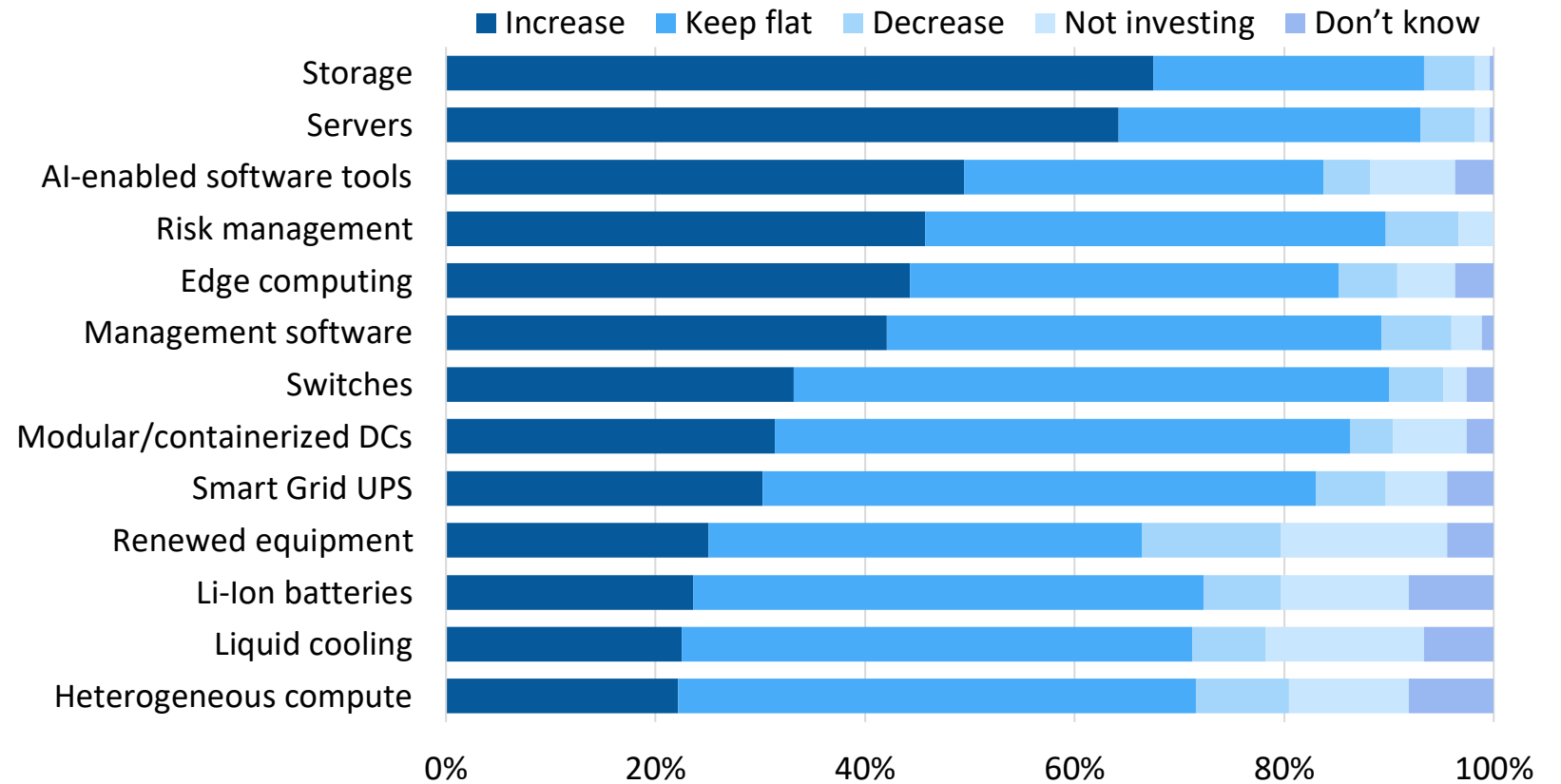
# 7 in 10

respondents plan to increase their data center investment in the next 24 months

# Investment plans look very positive

- Storage was the biggest area of investment for most respondents, though in the US servers were on top by a small margin
- There was a surprising correlation between OCP familiarity and investment plans where those familiar were also more likely to increase DC spend
- Government, education, hospitality, transportation and non-cloud service providers (MSPs) were the most likely to decrease or cease investment, regardless of the category
- All these have been impacted by the COVID-19 pandemic, so we were not surprised to see the results

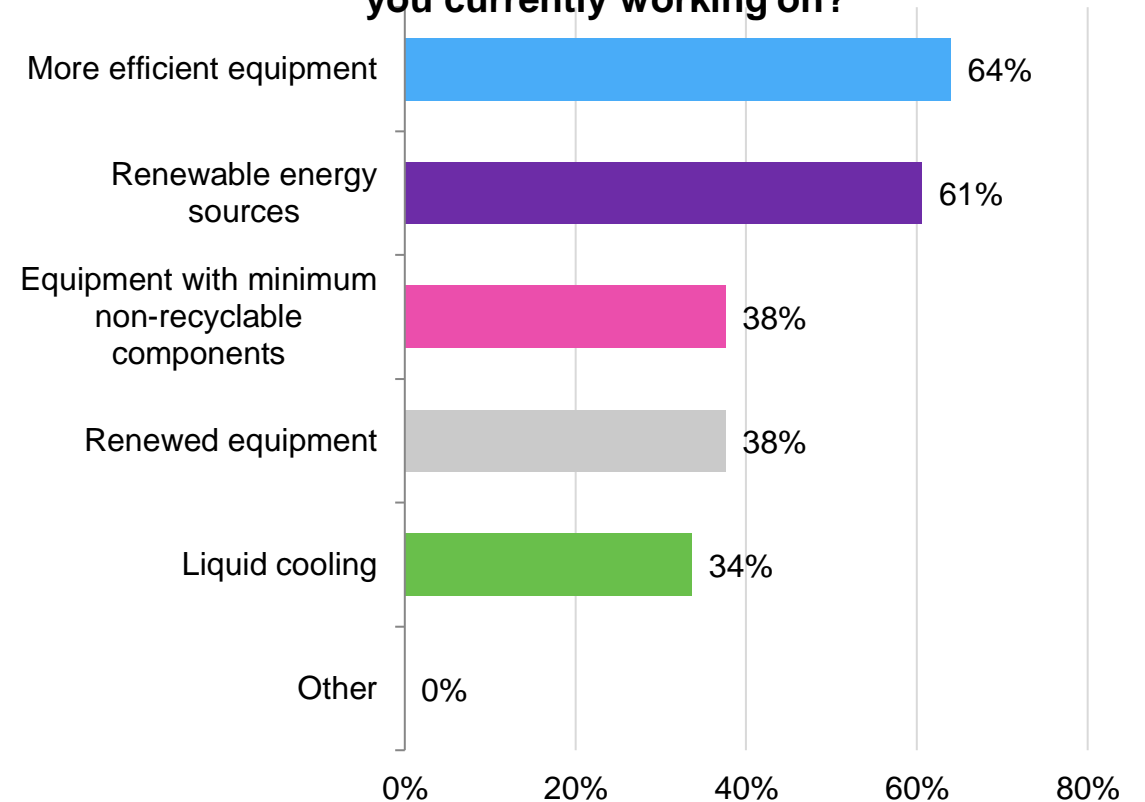
**Q12: How will your investment change for the following DC spending categories over the next two years?**



# Most DC owners have kicked off sustainability projects

- 66% of respondents said they have kicked off sustainability efforts, a number fairly uniform across countries and company sizes
- Government and education are the least likely to have kicked off sustainability projects
- Cloud SPs, healthcare and energy/utilities companies were the most likely
- More efficient equipment and renewable energy came at the top across countries and companies of different sizes, as well as, across industries
- Education, telecom and healthcare verticals were the most likely to invest in renewed equipment
- Energy, Telecom, Retail, Cloud SPs and MSPs were the most likely to invest in liquid cooling

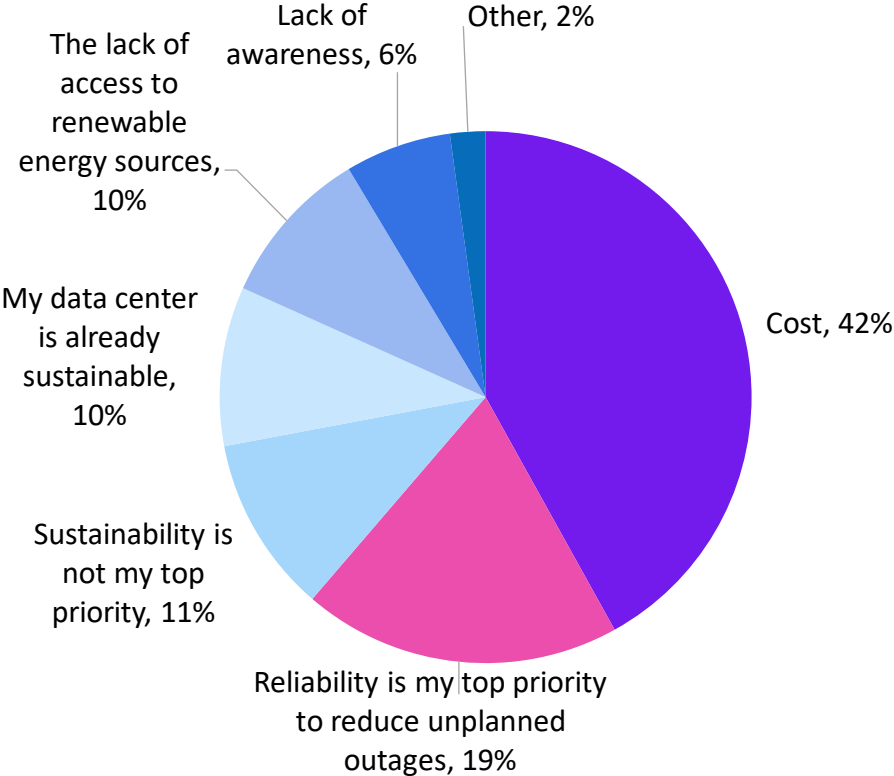
**Q14: What data center sustainability projects are you currently working on?**



# Cost is the main barrier to ramping sustainability efforts

- The 34% of respondents who have not kicked off sustainability efforts yet indicated that cost is the main barrier
- Reliability was indicated as the second biggest barrier, indicating that respondents expected sustainable IT practices to impact reliability
- These results we consistent across countries, verticals and company sizes

**Q15: What has been the biggest barriers to pursuing data center sustainability?**

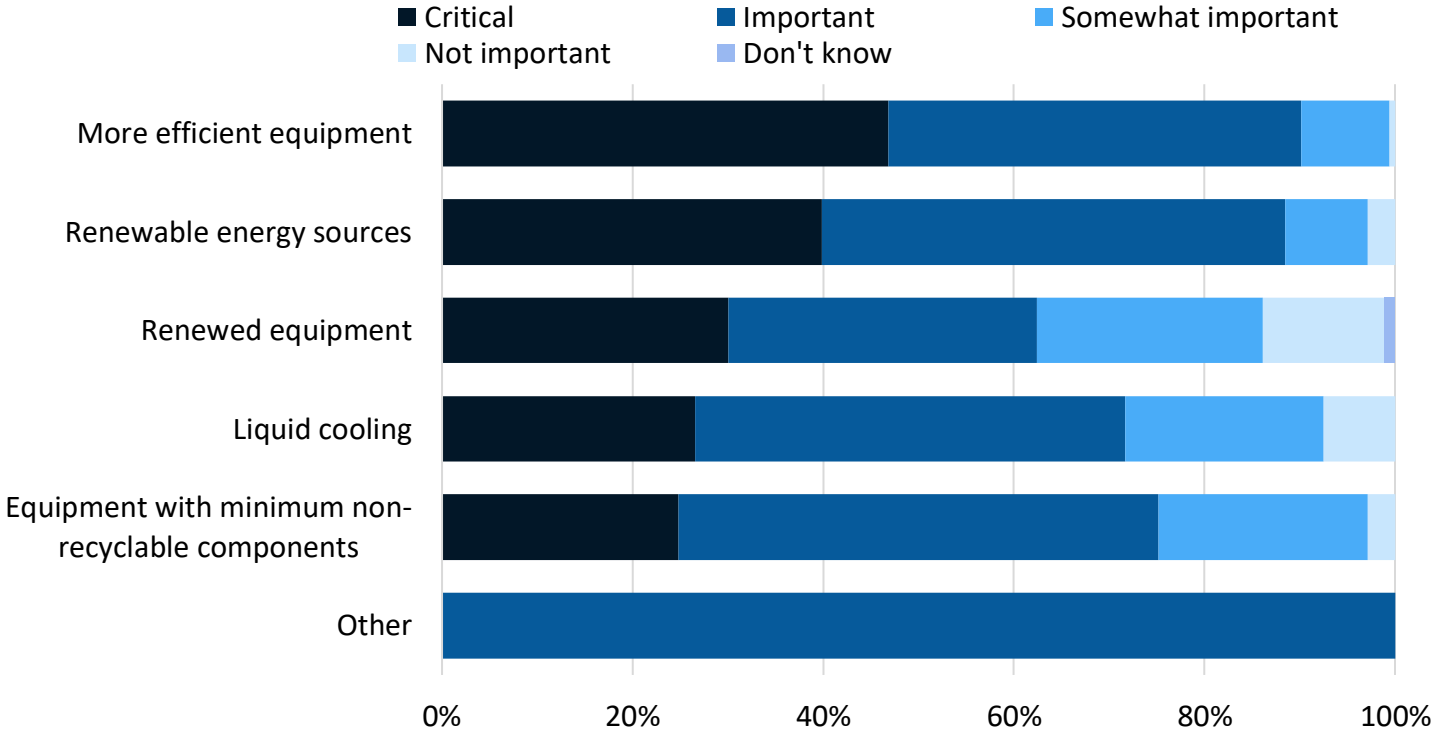




# Collocation users are also looking for sustainable credentials

- Efficient equipment and renewable energy were chosen as the top sustainability credentials for collocation service providers by respondents of the survey
- The results were consistent across geographies and verticals

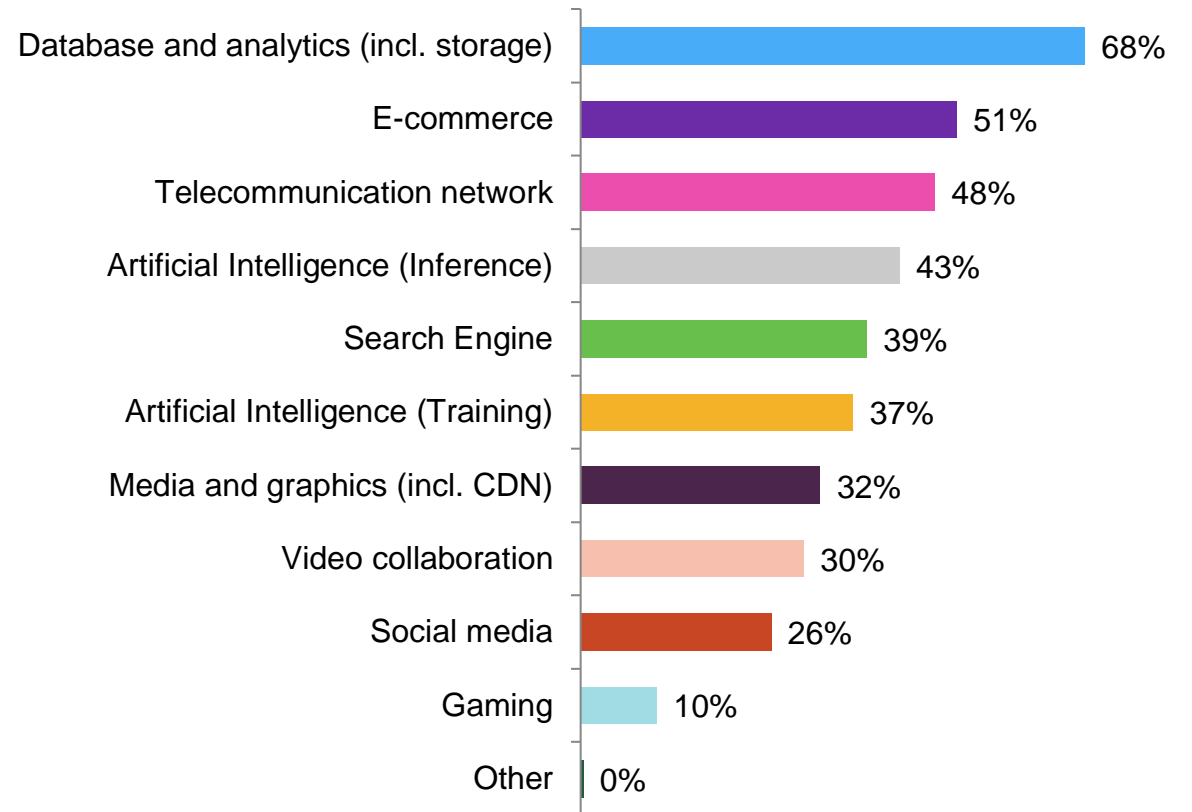
**Q17: How important were the following sustainability credentials in your selection of a collocation provider?**



# Database & analytics, top workload today

- Nearly 7 in 10 respondents pointed to database and analytics as a workload they are running today
- 8 in 10 financial services and healthcare services and all energy/utilities companies selected database and analytics
- Retail, telecom and content delivery network providers were the only exception with these having a strong affinity to e-commerce, telecom network processing and media and graphics, respectively, an anticipated result
- AI scored really high and the larger the company the more highlighted the workload was with 64% of the companies making over \$5B highlighting it

## Q18: What types of software workloads are you running in your data center now?





Database and analytics,  
the fastest growing  
workloads respondents are running

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