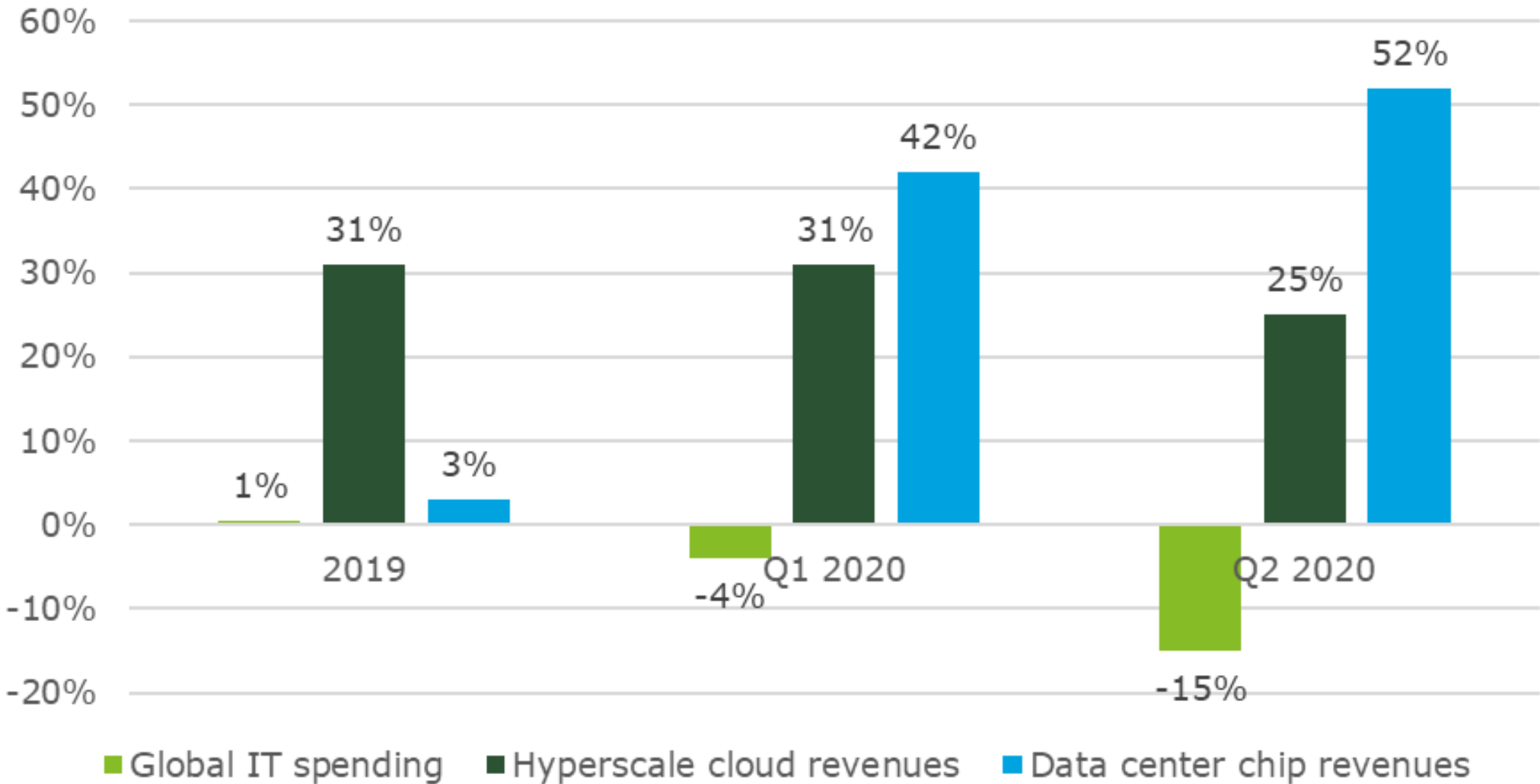


TMT Predictions 2020

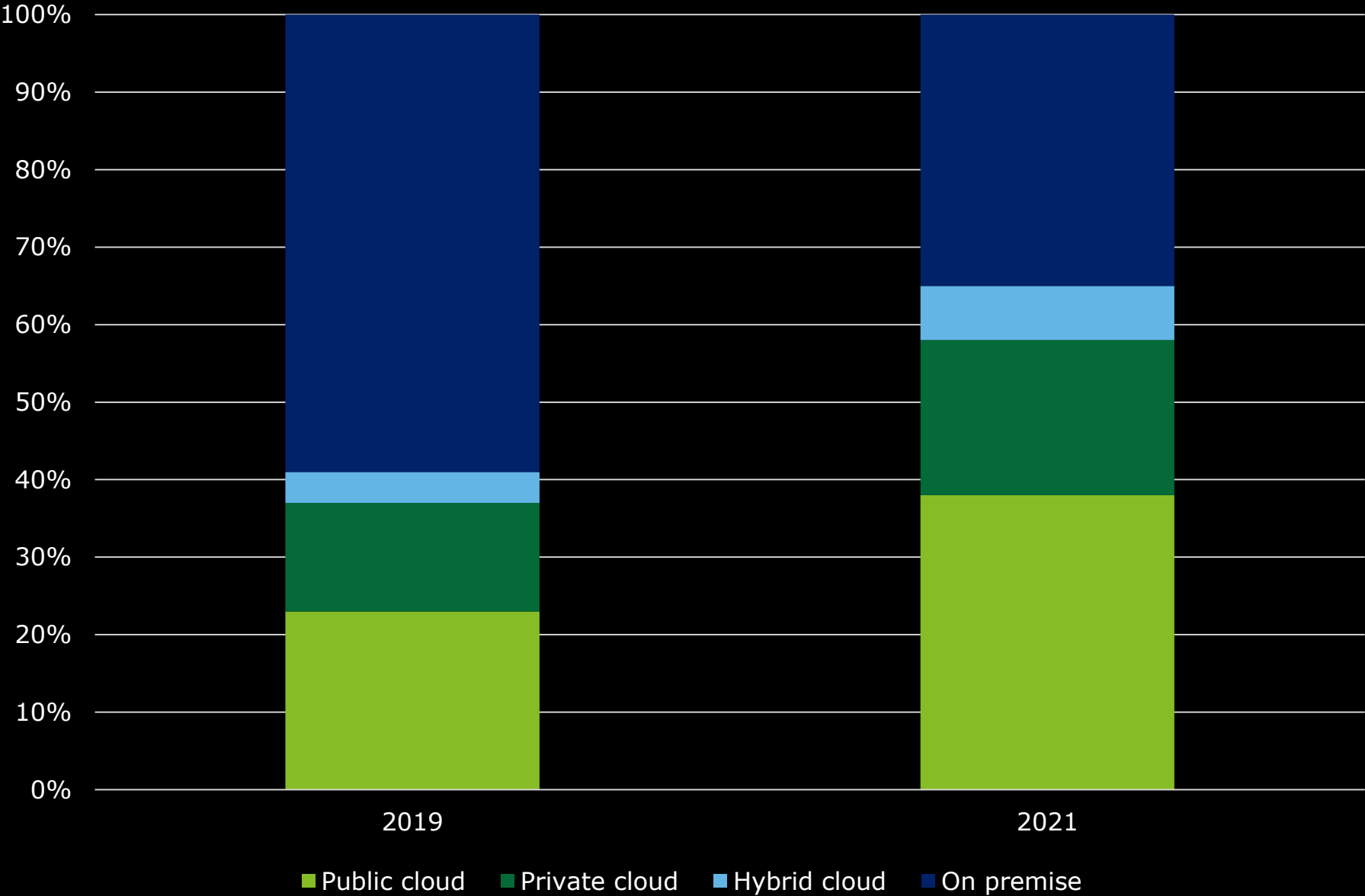
Fuelling the future

September 2020 – with COVID-19 updates

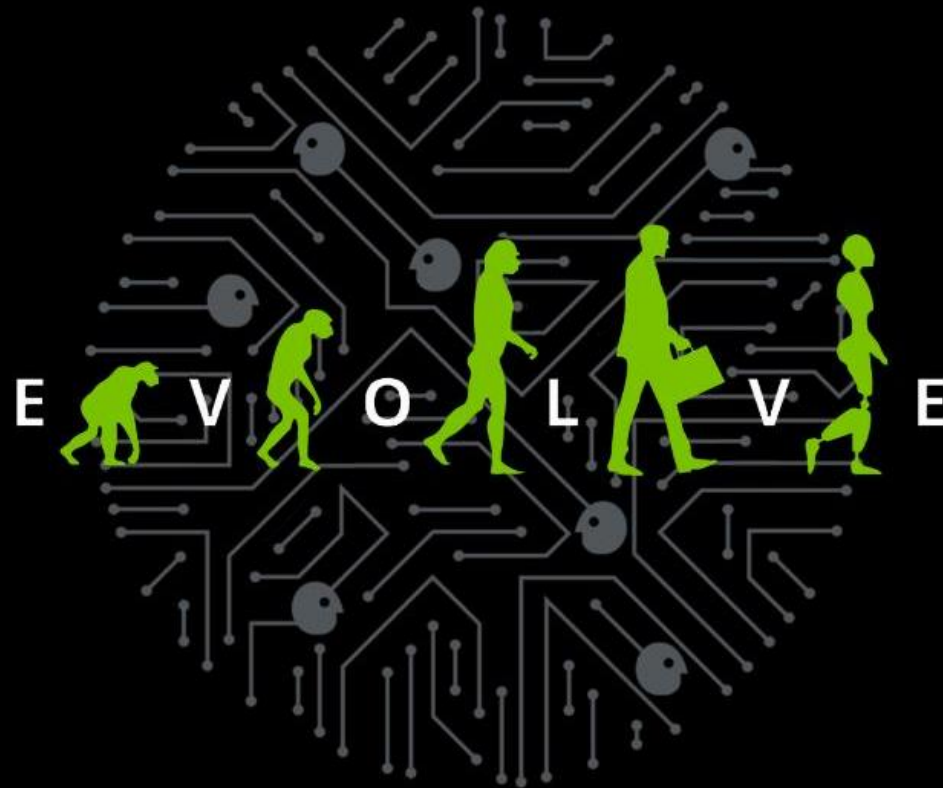
Cloud does better than overall IT spend



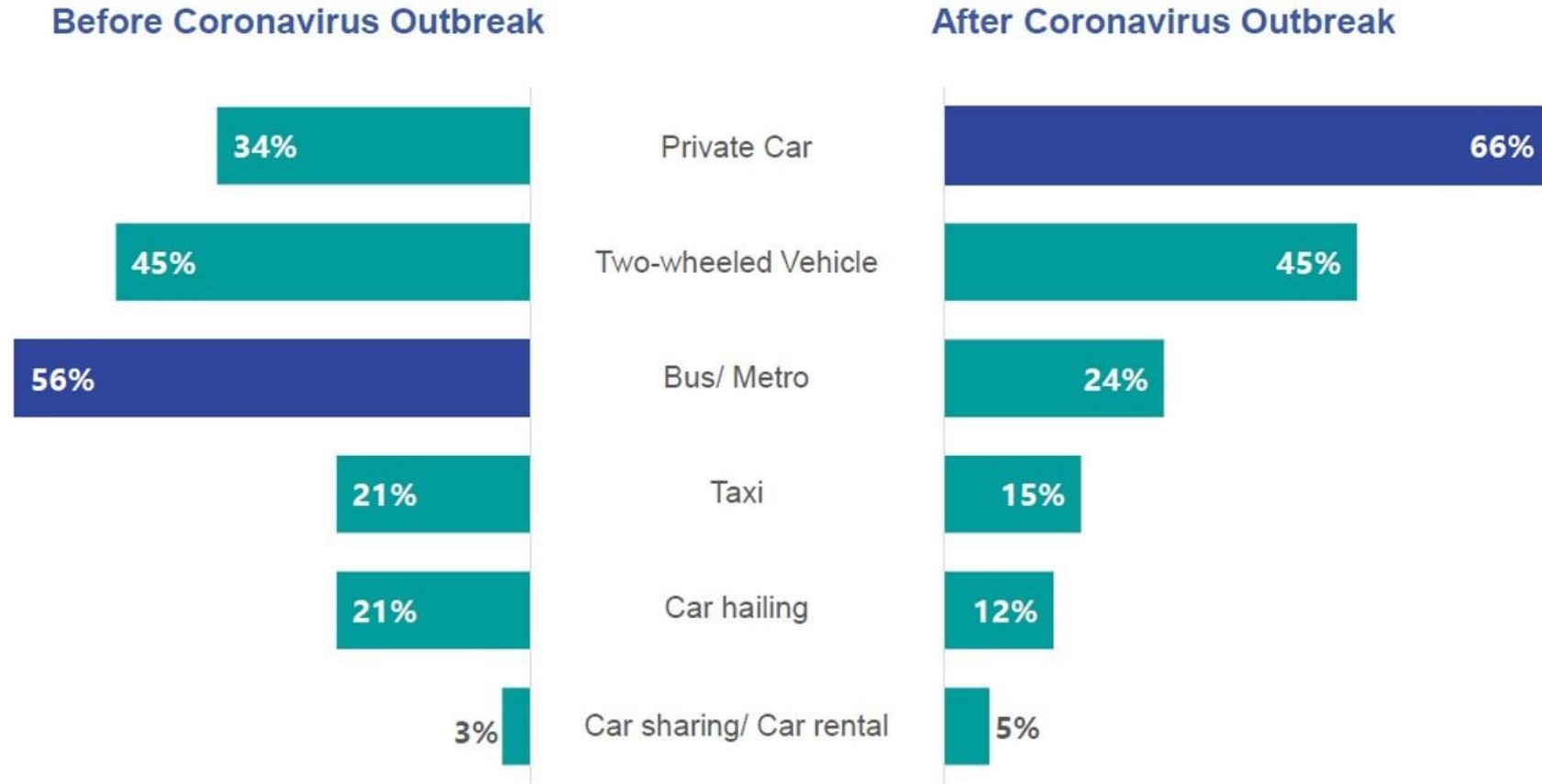
Computing forecast: Cloudy with a chance of clouds



Future of Work



CONSUMERS TEND TO USE MORE PRIVATE CARS AND LESS PUBLIC TRANSPORTATION



Total respondents (N=1620)

NEW CAR PURCHASE INTENTION IS INCREASING AMONG CONSUMERS WHO CURRENTLY DO NOT HAVE A CAR, DUE TO LACK OF TRUST OF PUBLIC TRANSPORTATION

72% Strengthening Purchase Intention

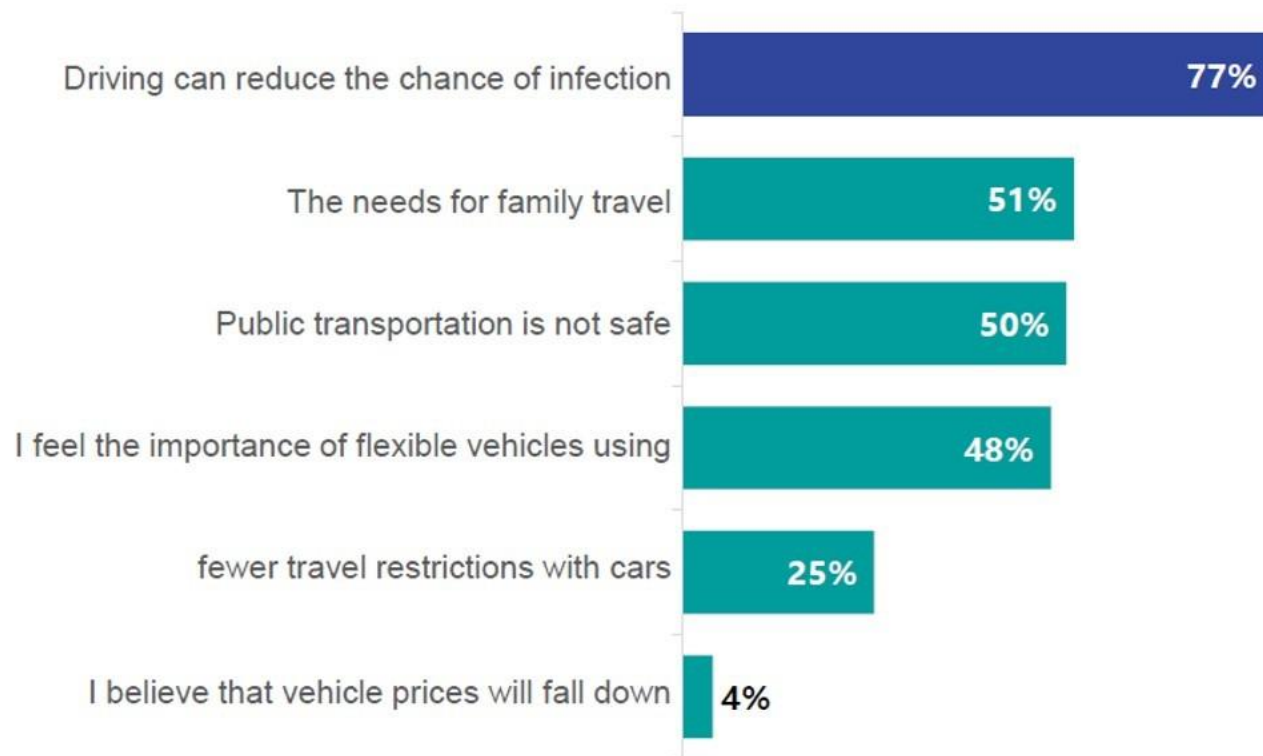


Especially in severe outbreak region and tier 1 cities

66% Would Like to Purchase a Car within 6 months

Who currently do not have a car (N=601)


Reasons of New Car Purchase



1st time buying intenders (N=430)

Marseille traffic

CURRENT WEATHER

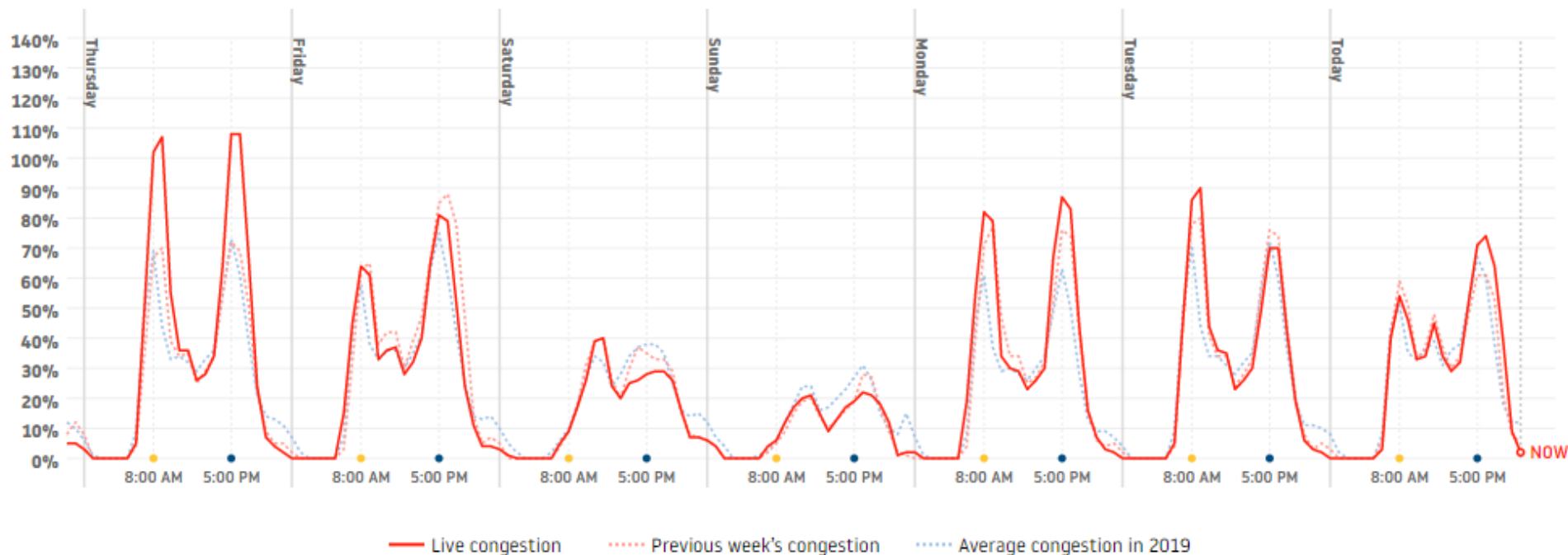
 **22°C**

LOCAL TIME

10:25 PM

HOURLY CONGESTION LEVEL

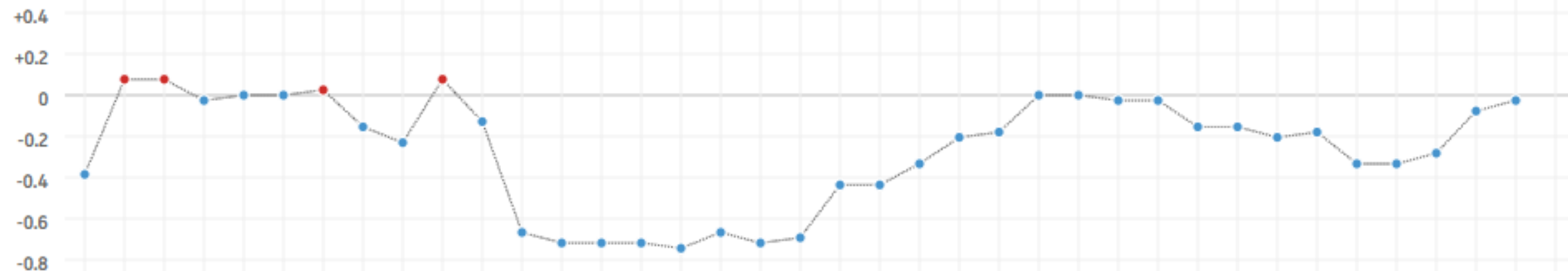
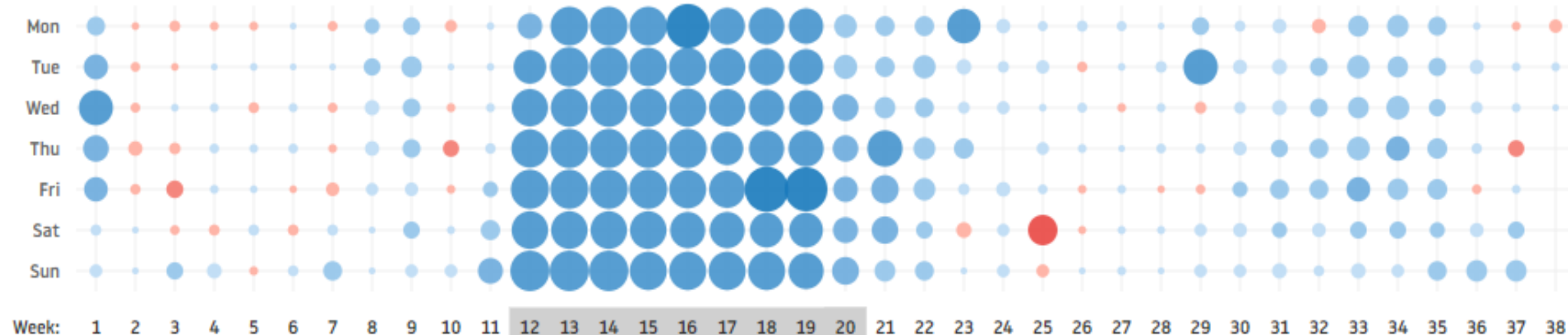
[Last 48 hours](#) **[Last 7 days](#)**



DAILY AND WEEKLY CONGESTION LEVEL

Average congestion

Difference from 2019



Less congestion



More congestion

COVID-19 severe restrictions

COVID-19 restrictions

TECH

The PC is suddenly cool again ... for now

PUBLISHED MON, MAY 4 2020 3:52 PM EDT | UPDATED MON, MAY 4 2020 6:03 PM EDT



Jordan Novet
@JORDANNOVET

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KEY POINTS

- People appear to be spending more time with their PCs in the coronavirus era.
- In the past few days Apple and Microsoft have given indications that use of their PC operating systems is higher than usual.
- Facebook in recent weeks provided richer desktop capabilities for Instagram and Messenger.

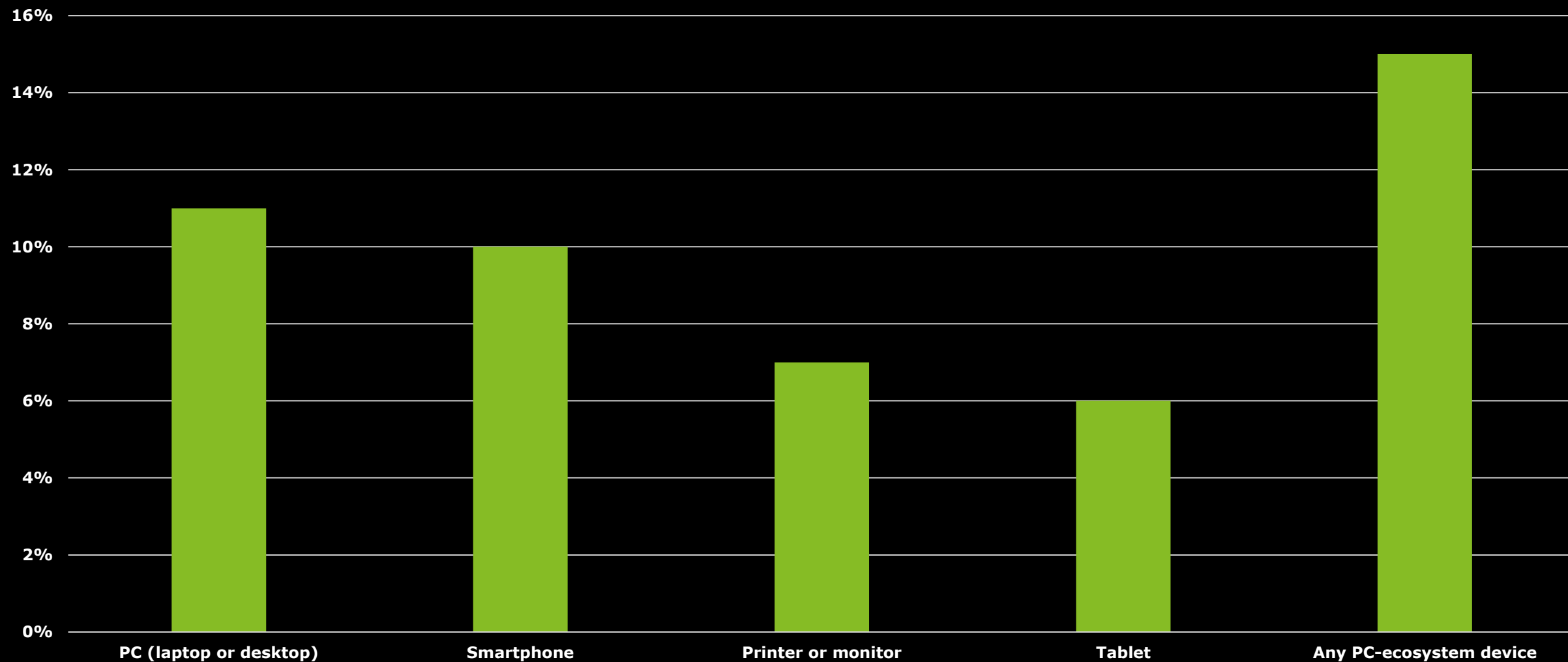


← Ads

Stop

W

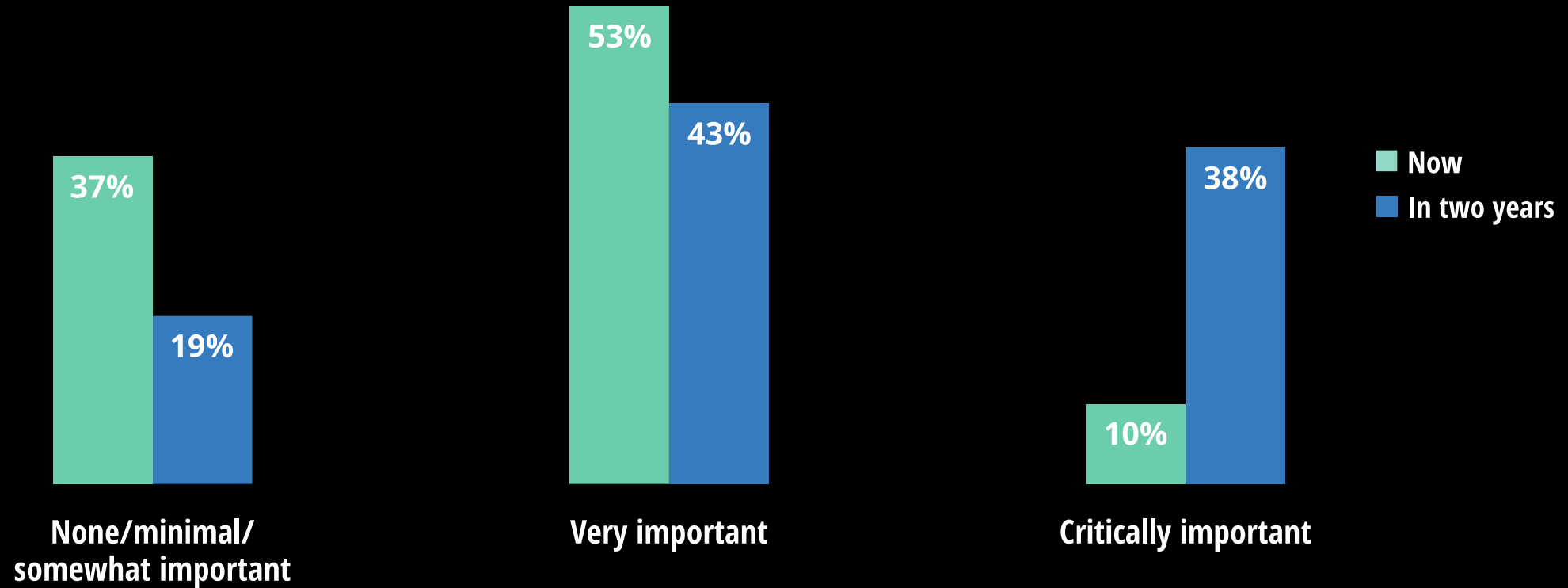
Q: Which, if any, of the following devices have you purchased as a result of spending more time at home because of the coronavirus pandemic?



Source: Deloitte survey of 29,000 adults in Australia, Austria, Belgium, urban China, Denmark, Germany, Finland, Ireland, Italy, Japan, Mexico, Netherlands, Norway, Poland, Sweden and the United Kingdom. Conducted May-July 2020

AI is becoming mission-critical

Executives report AI will become more strategically important to their companies' business success



Note: N = 1,900 global respondents.

Source: Jeff Loucks, Tom Davenport, and David Schatsky, *Deloitte's State of AI in the enterprise*, 2nd edition, Deloitte Insights, October 22, 2018.

Early adopters have their heads in the clouds

Cloud enterprise software + AI

2018

2019

2020

58% Usage

+12 Growth estimate

+17 Growth estimate

Cloud AI development services

2018

2019

2020

50% Usage

+15 Growth estimate

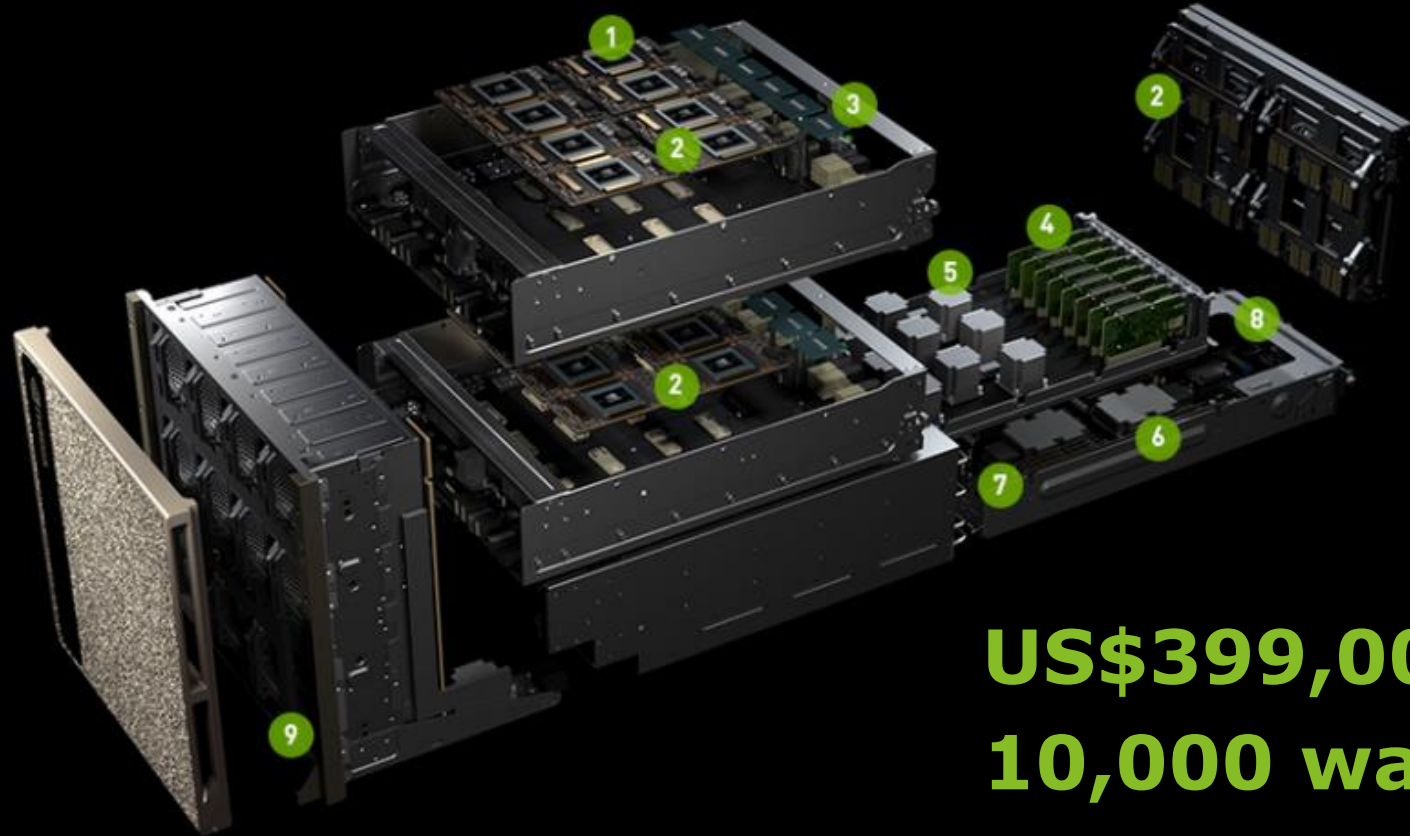
+18 Growth estimate

Note: N = 1,900 global respondents.

Source: Jeff Loucks, Tom Davenport, and David Schatsky, *Deloitte's State of AI in the enterprise*, 2nd edition, Deloitte Insights, October 22, 2018.

NVIDIA DGX-2

Explore the powerful components of DGX-2.



- 1 NVIDIA TESLA V100 32GB, SXM3
- 2 16 TOTAL GPUS FOR BOTH BOARDS, 512GB TOTAL HBM2 MEMORY
Each GPU board with 8 NVIDIA Tesla V100.
- 3 12 TOTAL NVSWITCHES
High Speed Interconnect, 2.4 TB/sec bisection bandwidth.
- 4 8 EDR INFINIBAND/100 GbE ETHERNET
1600 Gb/sec Bi-directional Bandwidth and Low-Latency.
- 5 PCIE SWITCH COMPLEX
- 6 TWO INTEL XEON PLATINUM CPUS
- 7 1.5 TB SYSTEM MEMORY
- 8 DUAL 10/25 GbE ETHERNET
- 9 30 TB NVME SSDS INTERNAL STORAGE

US\$399,000
10,000 watts
350 pounds

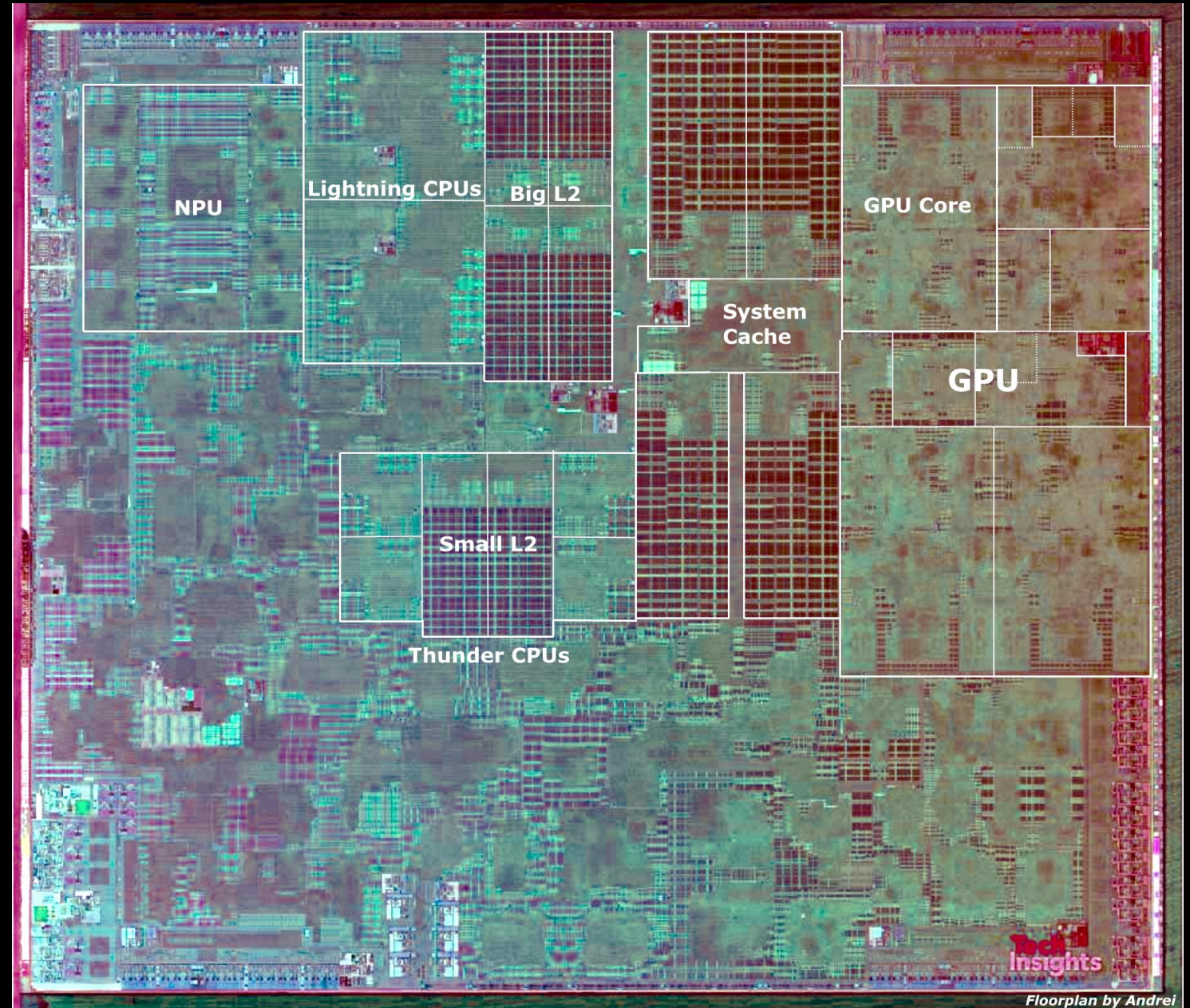
LIVING ON THE EDGE

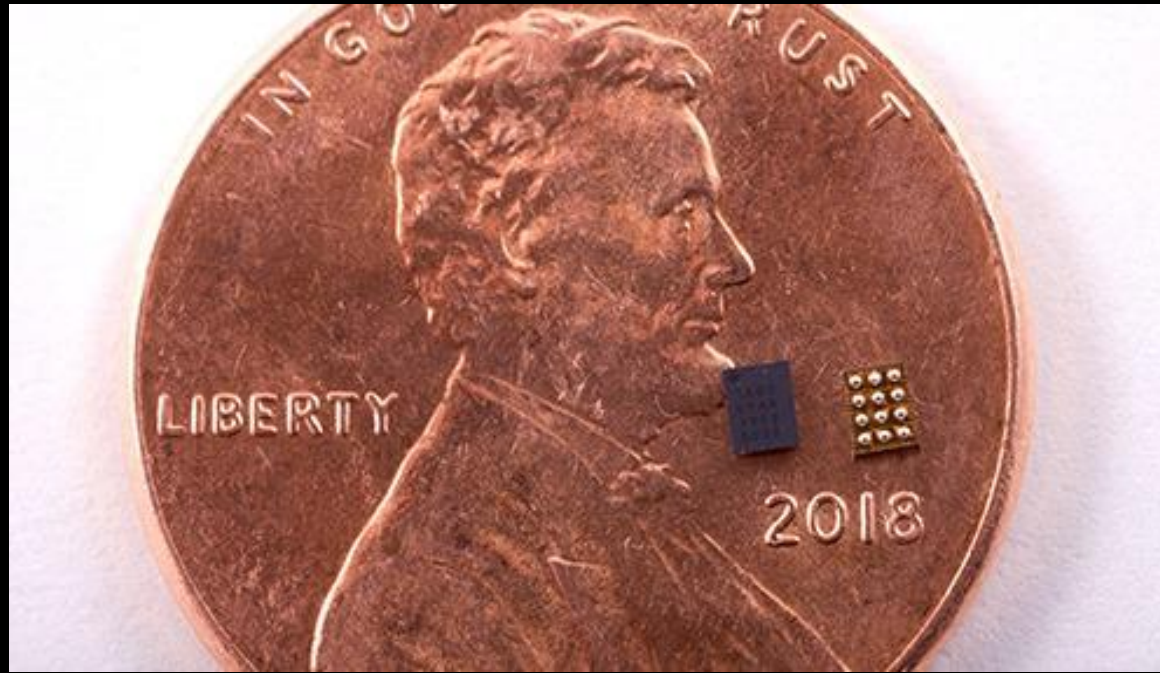


Apple A13 Bionic

4.7% of die, US\$64 SoC

NPU=US\$3.01





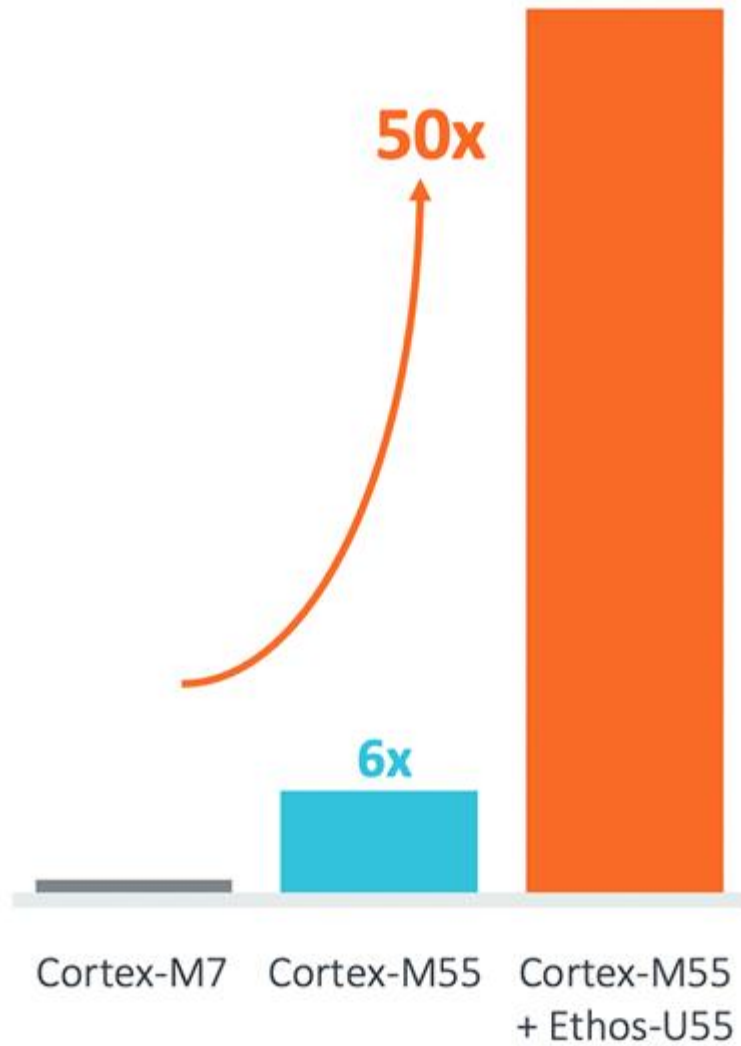
 CES 2020 INNOVATION AWARD PRODUCT

Syntiant® NDP100™ Neural Decision Processor™

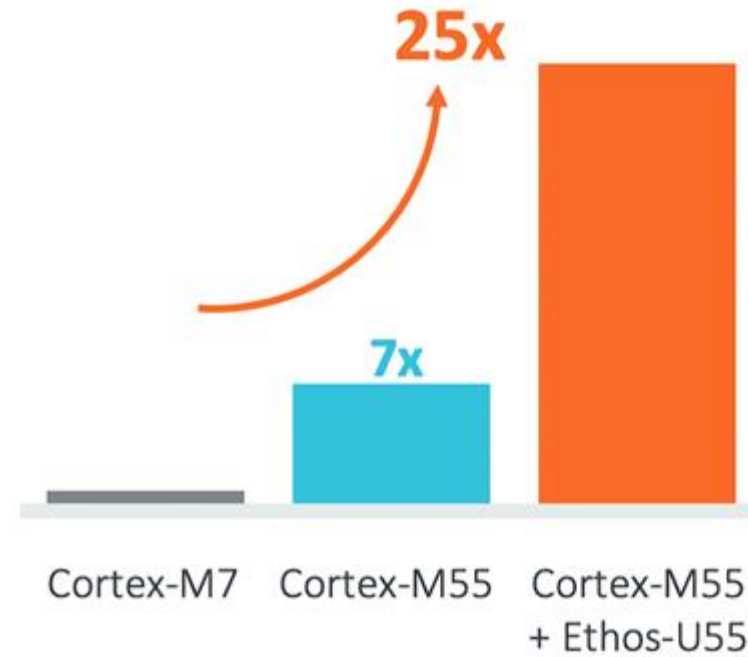
By Syntiant Corp.



Speed to inference



Energy efficiency





By the end of 2020, there will be **more than 700 satellites in low-Earth orbit** seeking to offer global broadband internet —up from roughly 200 at the end of 2019.

Though these won't be enough to connect all of the world's consumers and enterprises, they may be **offering partial service in late 2020 or early 2021.**

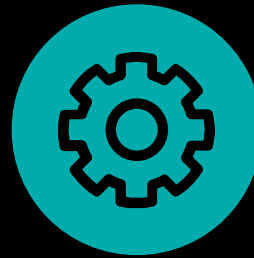
All of this has happened before... or has it?

Getting into orbit has become less expensive



Average cost of launching an object into orbit:
1970-2000: US\$18,500/kg
Today: US\$2,720/kg

Satellites and manufacturing are more advanced



- Mass production approach
- More modular designs
- Standardized buses
- Smaller, more advanced components

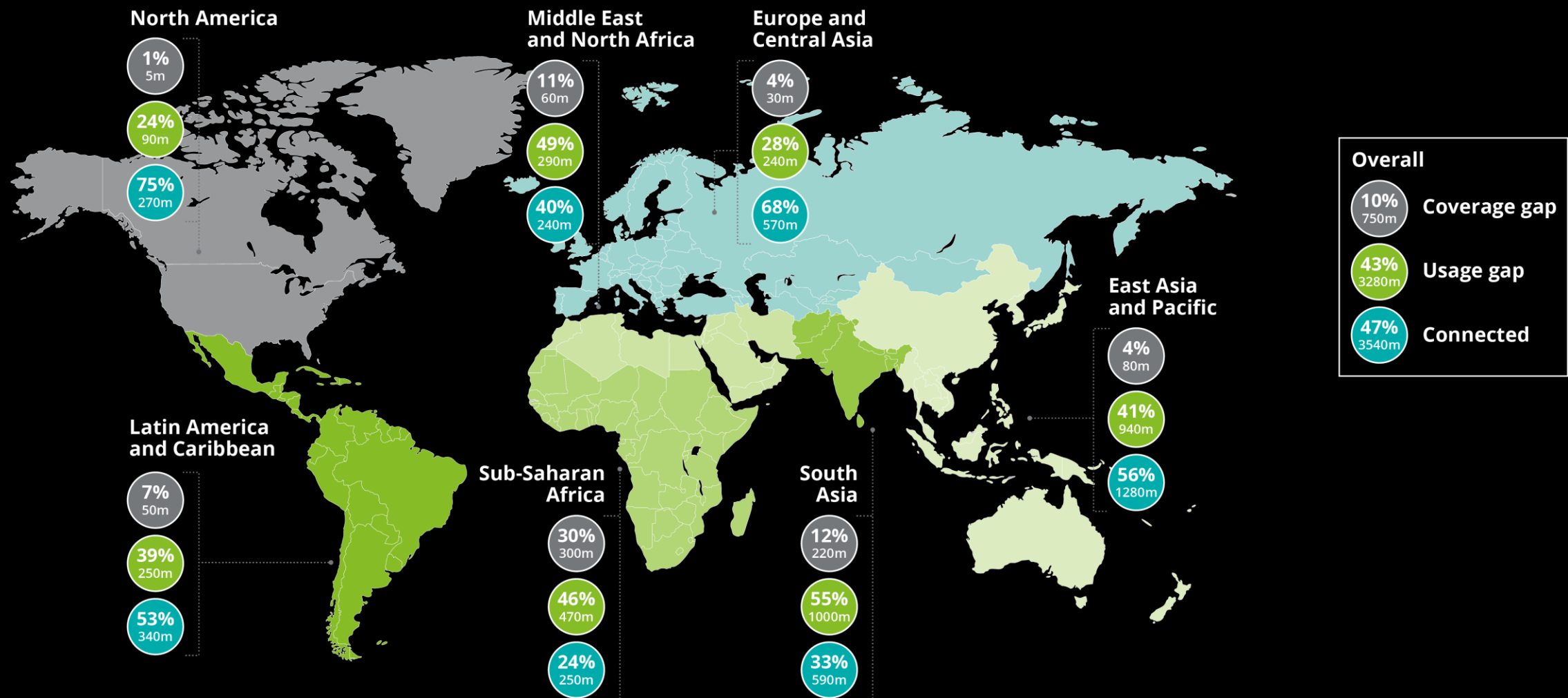
The demand for connectivity has increased



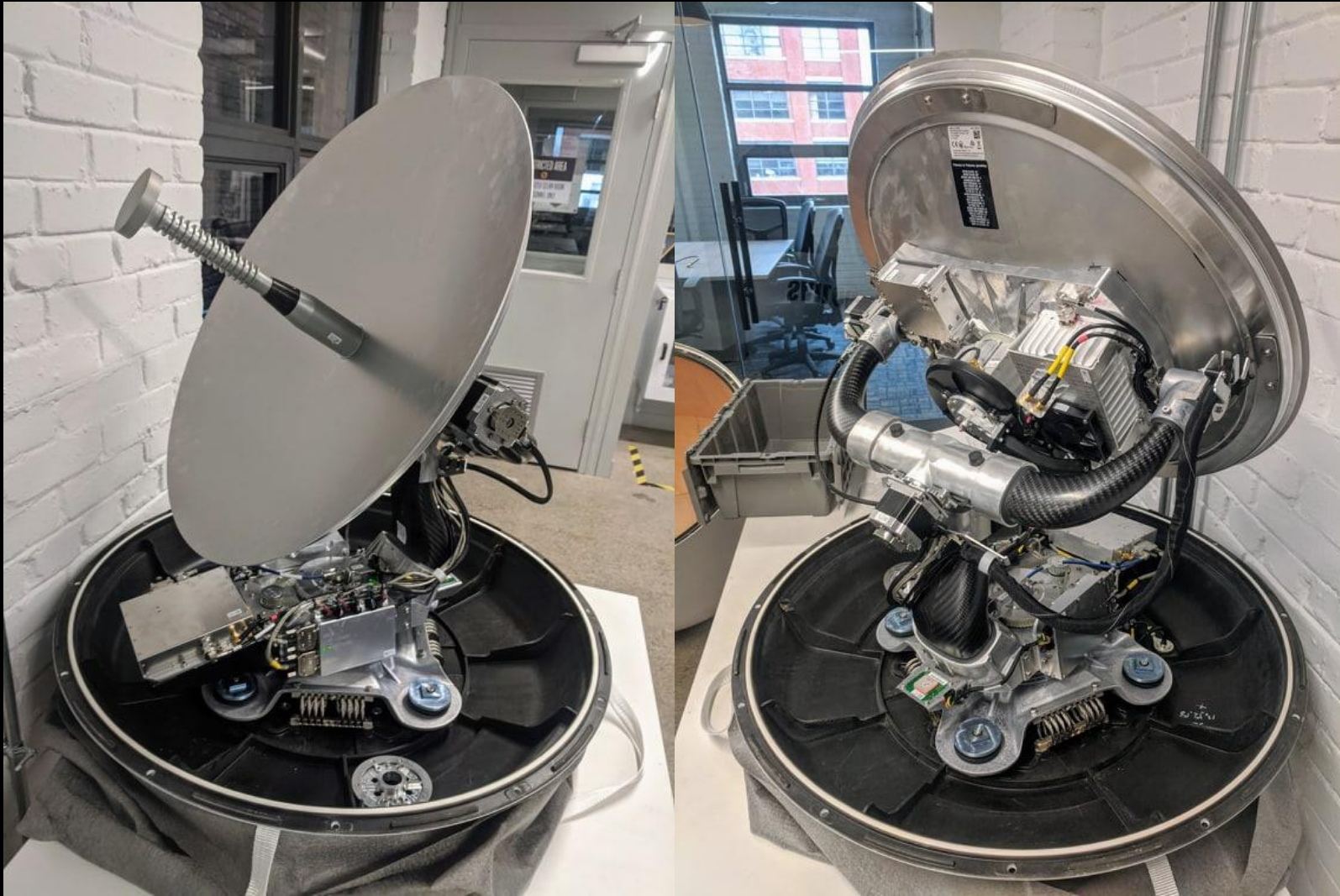
Consumers, companies, and governments expect to be able to stay connected no matter where they are

State of global mobile internet connectivity by region, 2018

Base: Total population (millions)



Source: GSMA Intelligence, 2018.





© bocachicagal
NASASpaceflight.com

High speed from low orbit: A broadband revolution or a bunch of space junk?

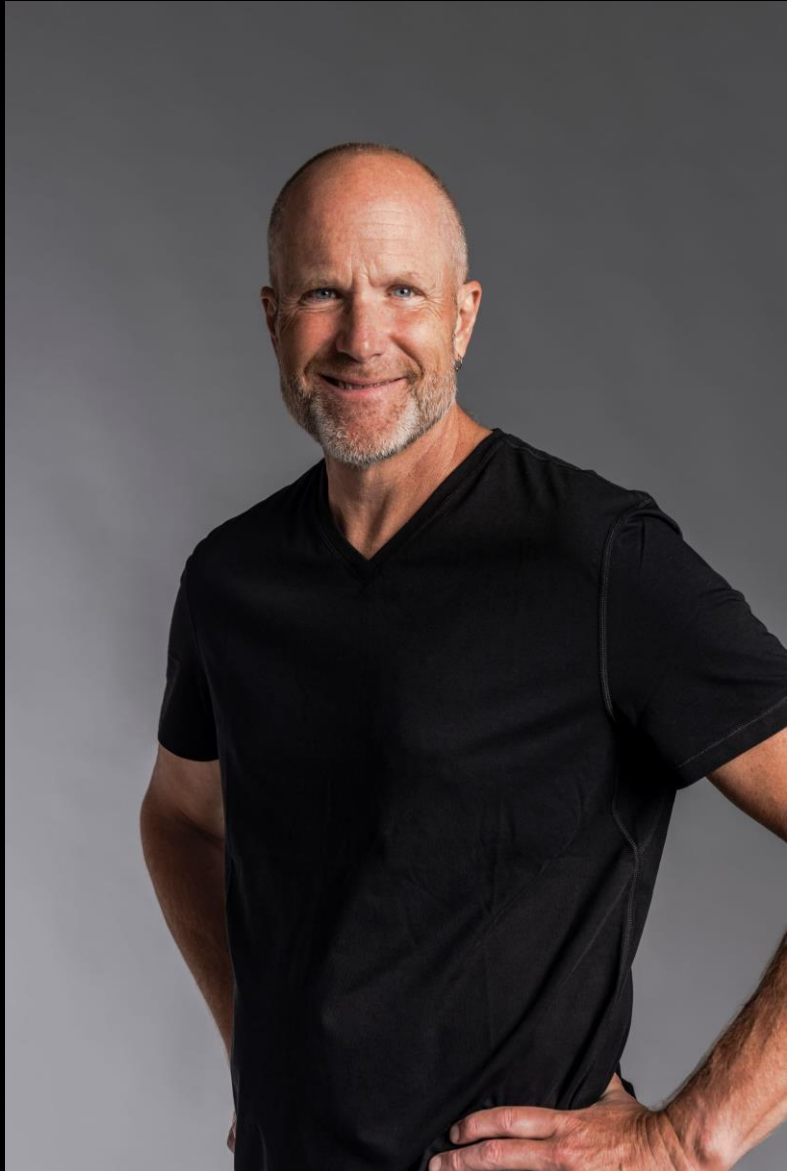
Original prediction: We predict that by the end of 2020, there will be more than 700 satellites in low-Earth orbit (LEO) seeking to offer global broadband internet, up from roughly 200 at the end of 2019, or 500 more.

Revised prediction: We now predict over 1,000 LEO satellites in orbit by the end of the year.

Why? Although OneWeb has gone bankrupt, it did place 68 satellites in LEO in Q1, and those will likely be bought by someone. Starlink placed 593 satellites in LEO so far (September 11), and even assuming that it slows to 60 per month, it will end up with around 780 new satellites in orbit for 2020.



TMT Predictions: custom events



Duncan Stewart can deliver a presentation for your office or industry. Contact him to find out more.

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