

AI eats the world

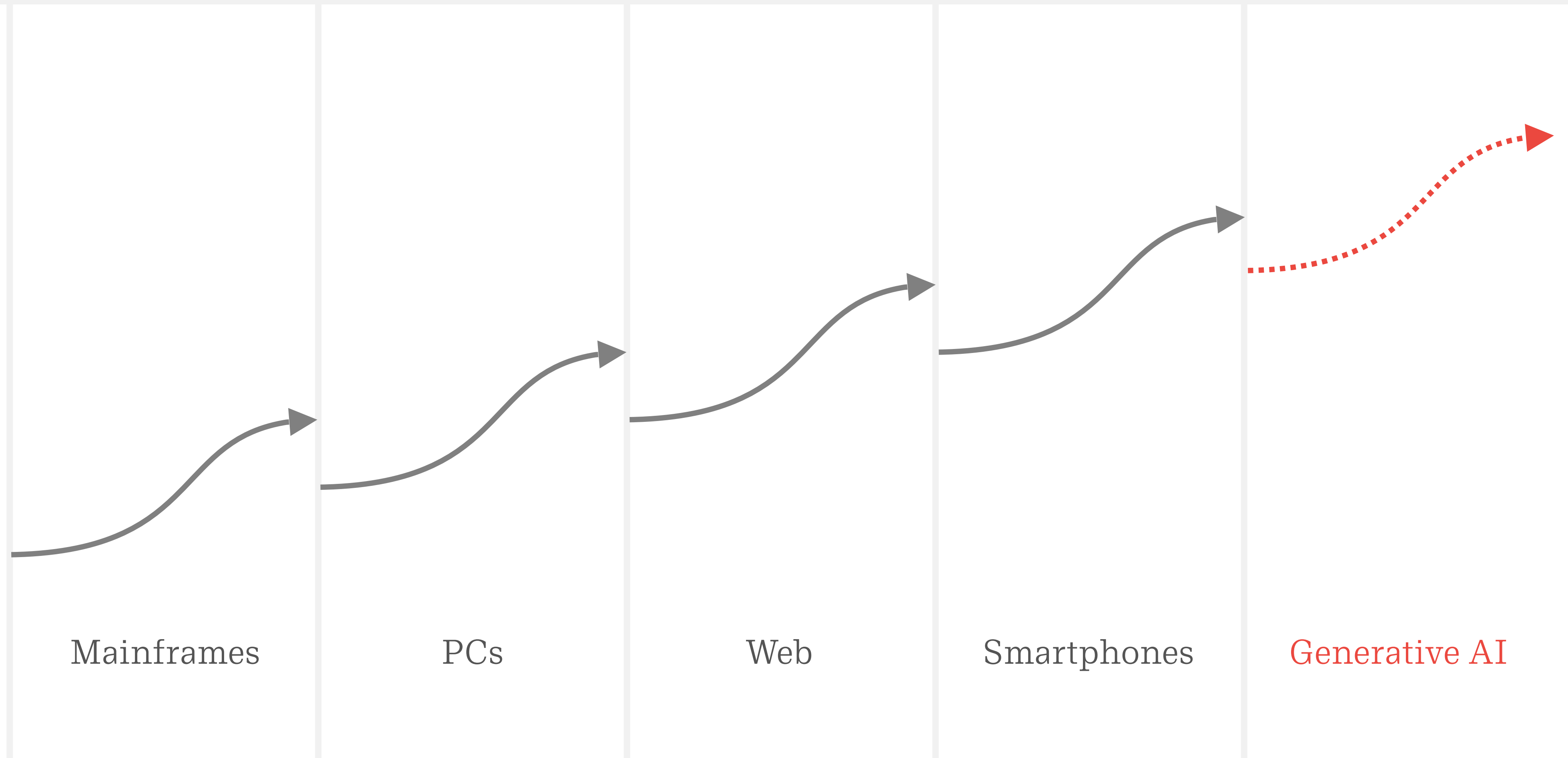
Benedict Evans

November 2025

www.ben-evans.com

The next platform shift

Every 10-15 years, a platform shift reshapes technology



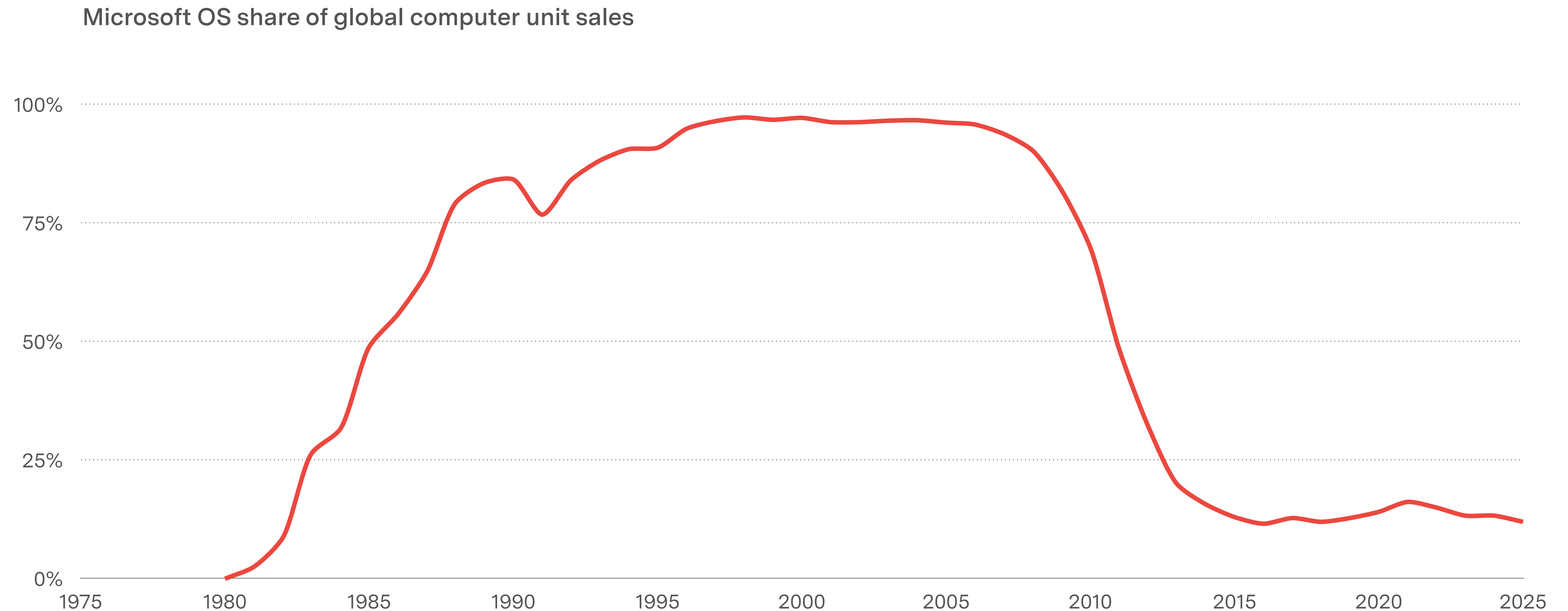
What happens in a platform shift?

Who is affected, and how much?



Dominance is won and lost

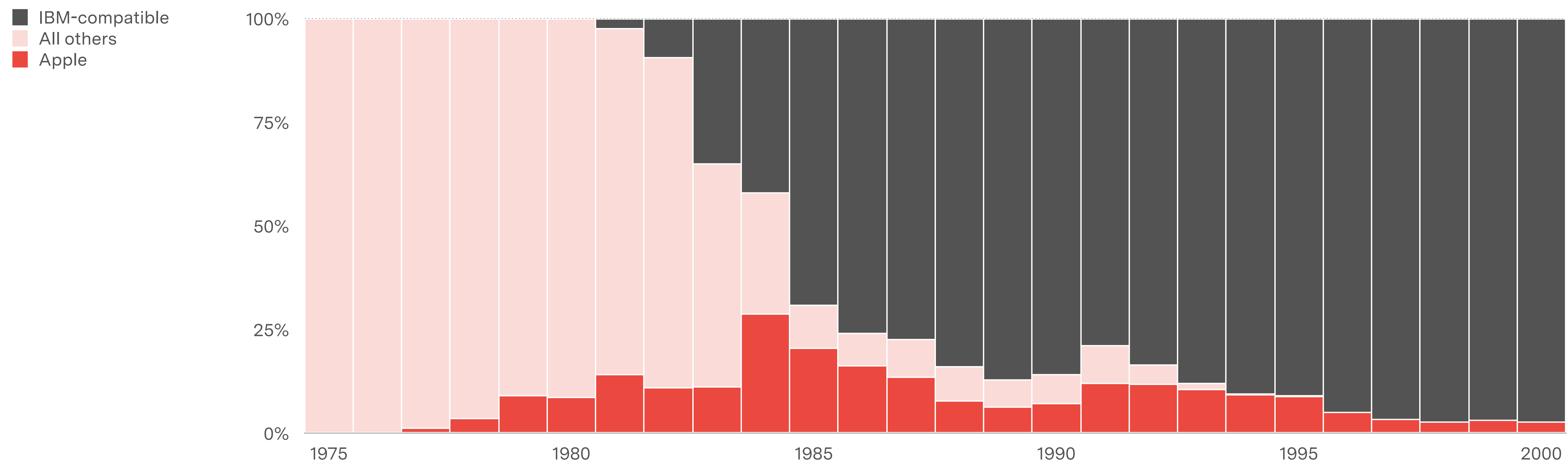
Microsoft dominated the PC era, but when the centre of gravity shifted to smartphones it became irrelevant



Early leaders often disappear

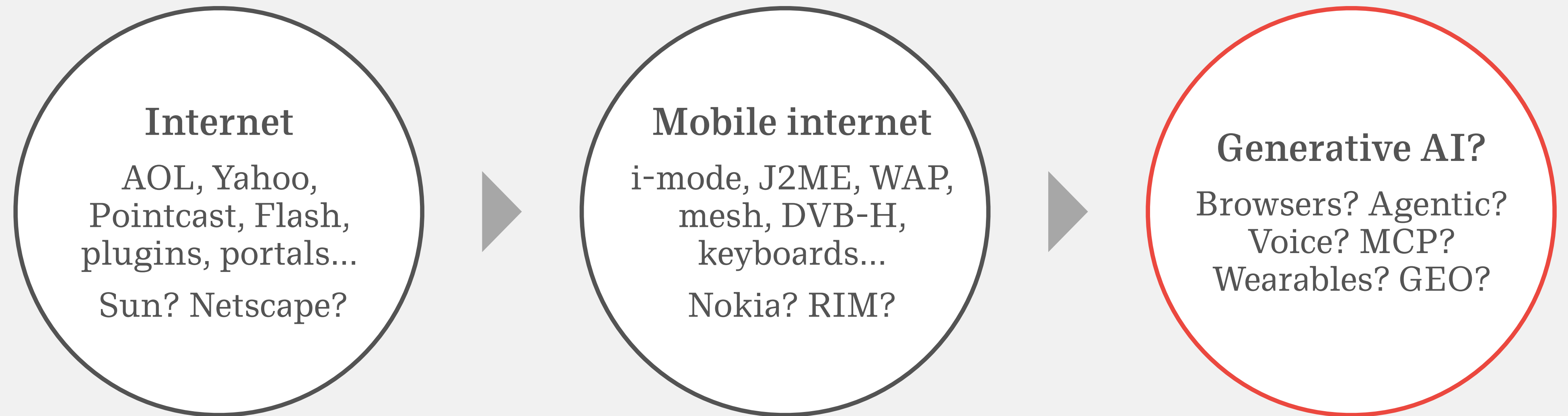
The ‘first’ was not the winner in PCs, browsers, search, social or smartphones

Global PC unit sales share



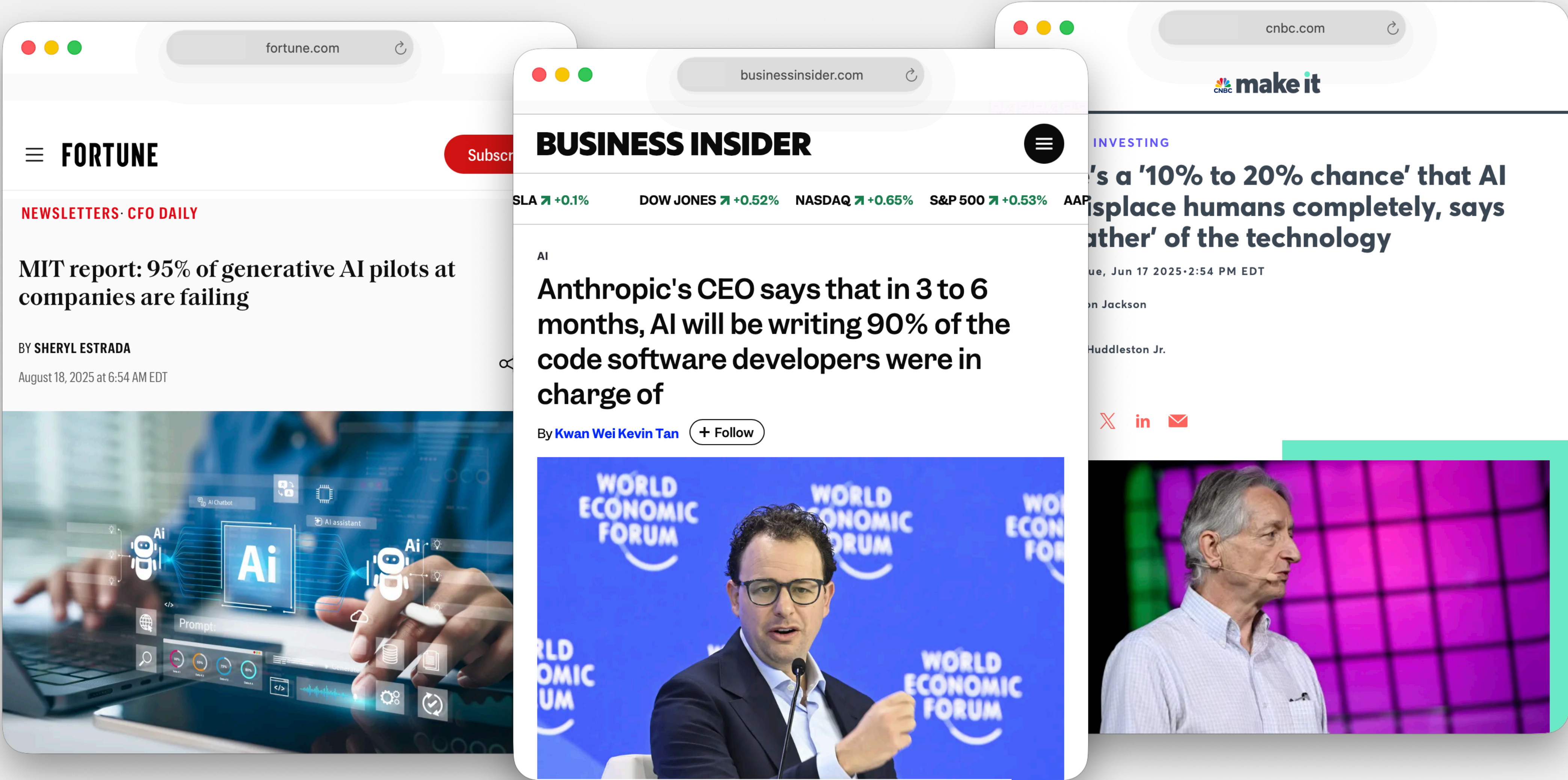
How will the new thing work? We don't know

For every new platform, we forget how many ideas failed and how unclear everything was



Noise, hype, anti-hype

When things are exciting, people get excited



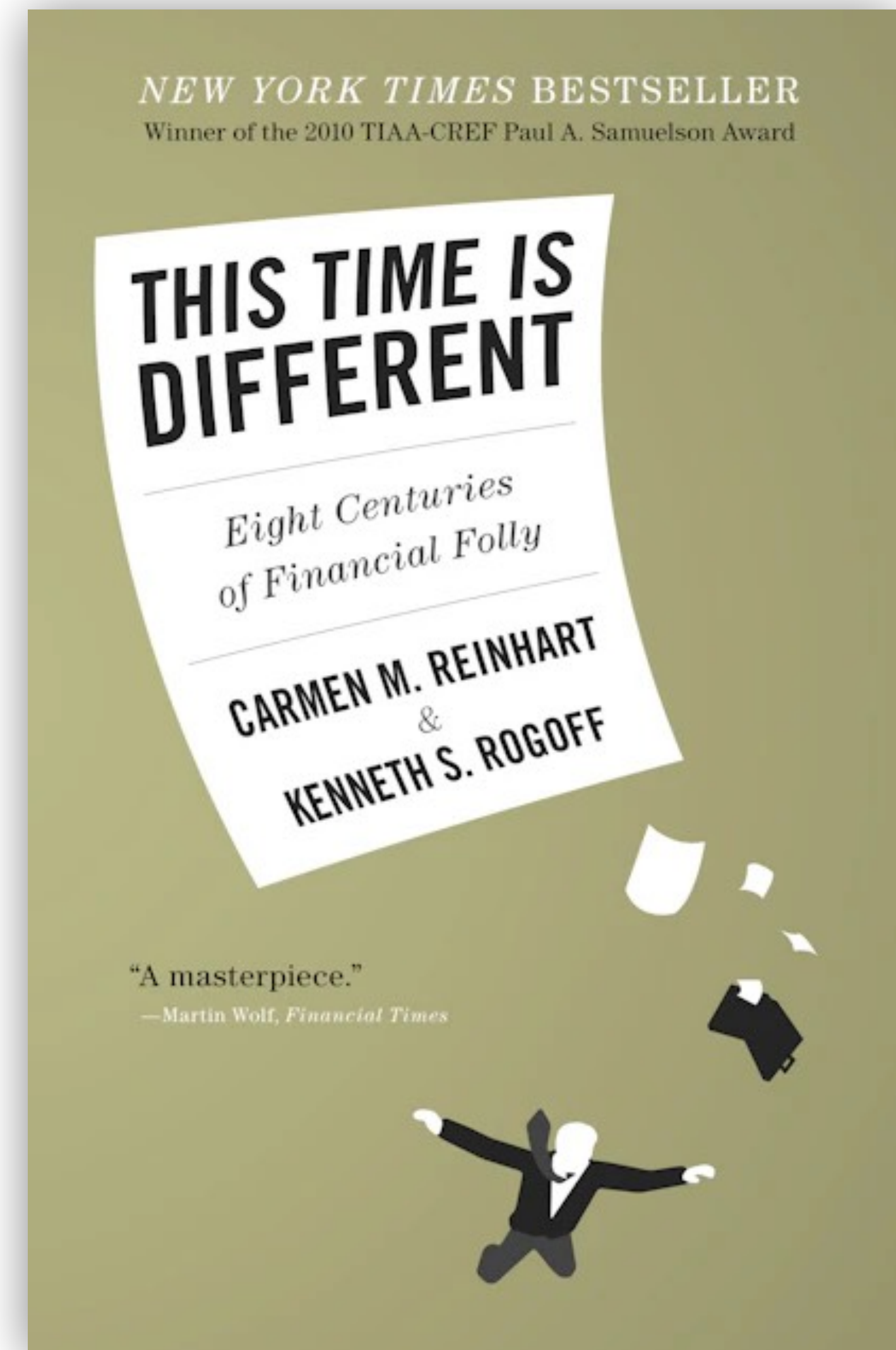
This often brings bubbles

People draw straight lines on log scale charts

They forget that exponential growth is generally an exponential curve

And always say “this is different”

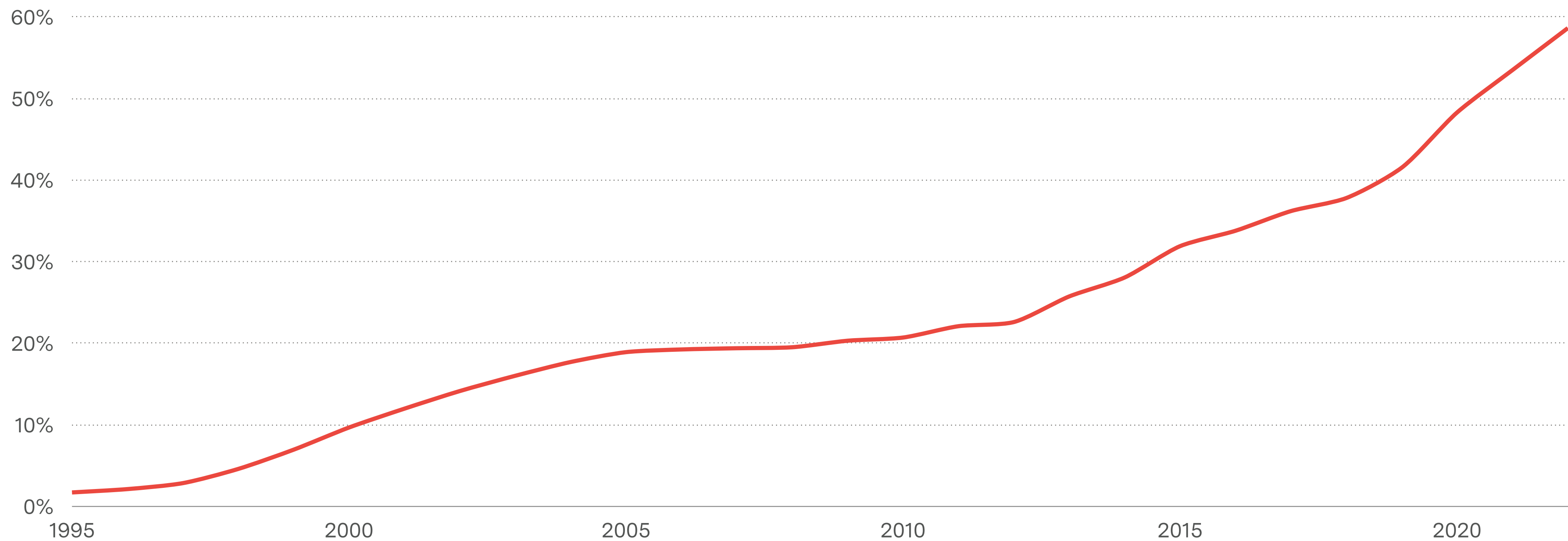
The trouble is, they’re generally *right* - every bubble is different! But it can still be a bubble



But when the dust settles, the world has changed

The internet has gone from the New Thing to a basic part of daily life

US heterosexual couples who met online, by year of meeting



Source: Rosenfeld HCMST

New platforms mean new tools (and new revenue)

SaaS means the typical large enterprise in the USA now uses 4-500 apps



One way this platform shift
is different, though

For PCs, the web or smartphones, we knew the physical limits of what could happen next year

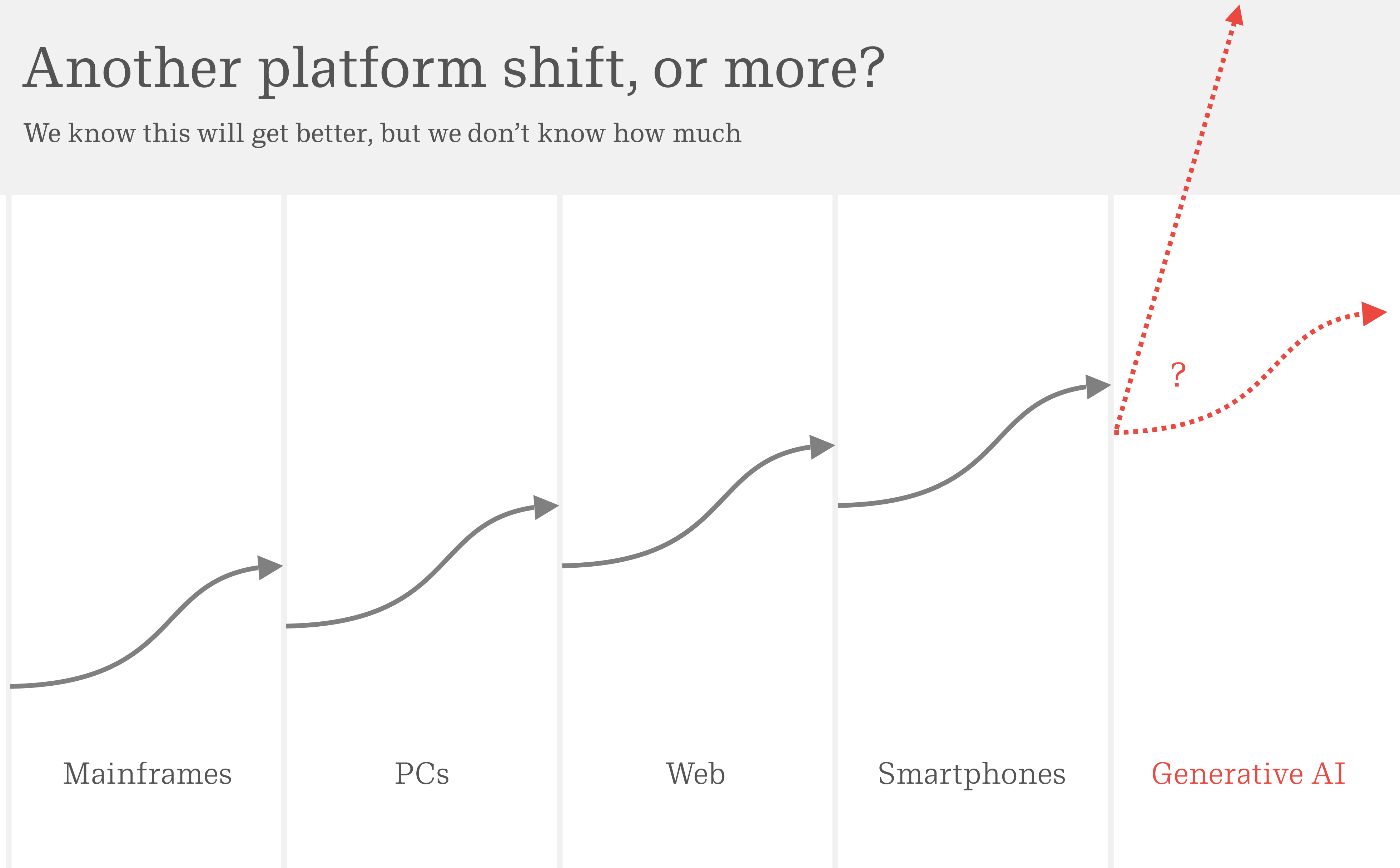
With LLMs, we don't know how much better this could get

“The race to AGI is afoot”
Sergey Brin

“AGI needs multiple
further breakthroughs”
Demis Hassabis

Another platform shift, or more?

We know this will get better, but we don't know how much



So how will the new thing turn out?

If this is 'only' as big as mobile or the internet, that seems like enough



How will this
work?

How will this
be useful?

Where is the
distribution,
value capture,
and value
destruction?

Inside tech

“The risk of under-investing is significantly greater than the risk of over-investing”

Sundar Pichai, Q2 2024

“The very worst case would be that we have just pre-built for a couple of years”

Mark Zuckerberg, Q3 2025

Three years of FOMO in Big Tech

“This is a huge new market, a huge threat to all our existing businesses, and we can’t miss it”

“This is a huge
opportunity and
threat
We can’t miss it”

“It keeps
getting better
with more
capex”

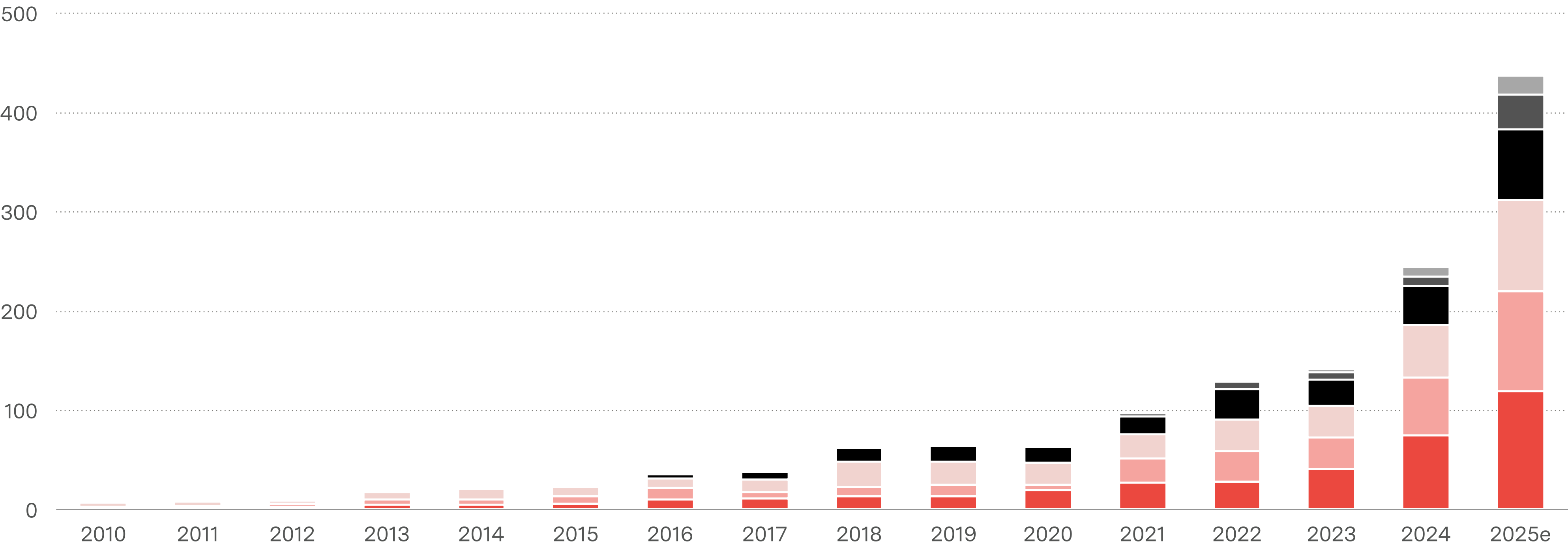
How much
better?
How much
capex?

FOMO drives a capex surge

~\$400bn in 2025 for the big four alone (for comparison, global telecoms is ~\$300bn)

Capex (\$bn)

- Coreweave
- Oracle
- Meta
- Alphabet
- AWS*
- Microsoft

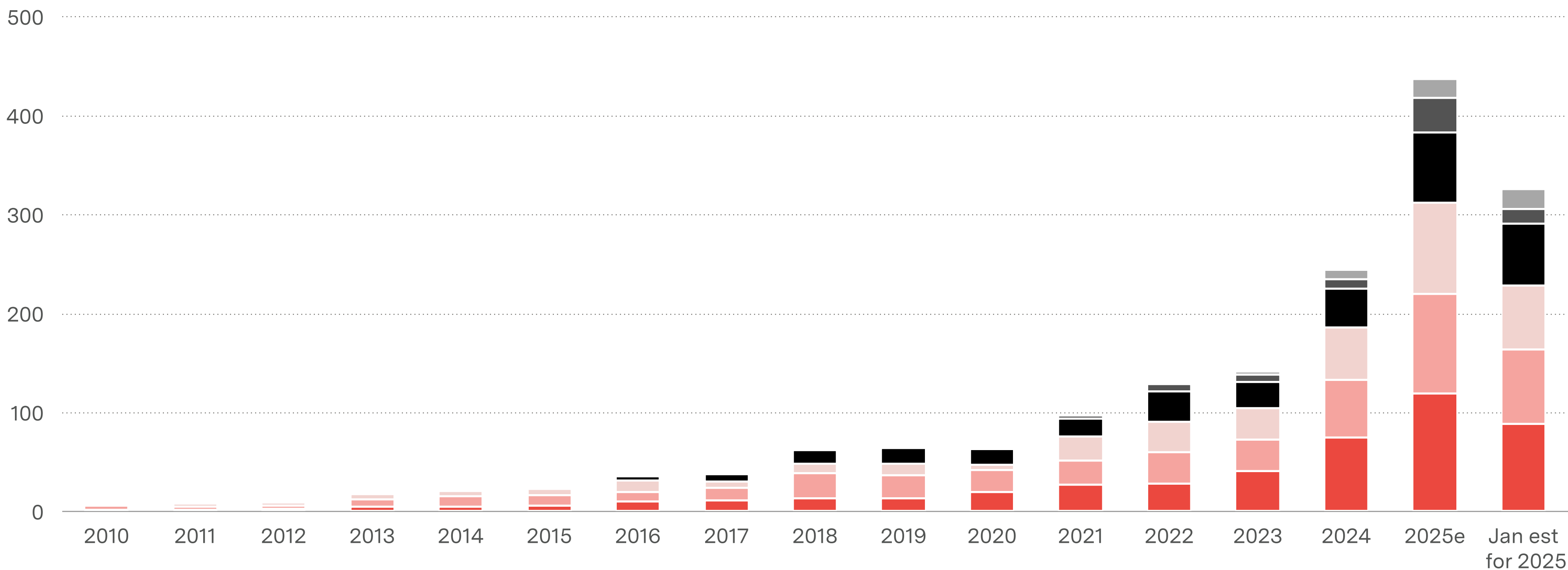


Source: Companies, company guidance. Includes capital leases
* Amazon does not break out AWS capex directly

Planned 2025 growth almost doubled - in 2025

~\$350bn in 2025 for the big four alone (for comparison, global telecoms is ~\$300bn)

Capex (\$bn)



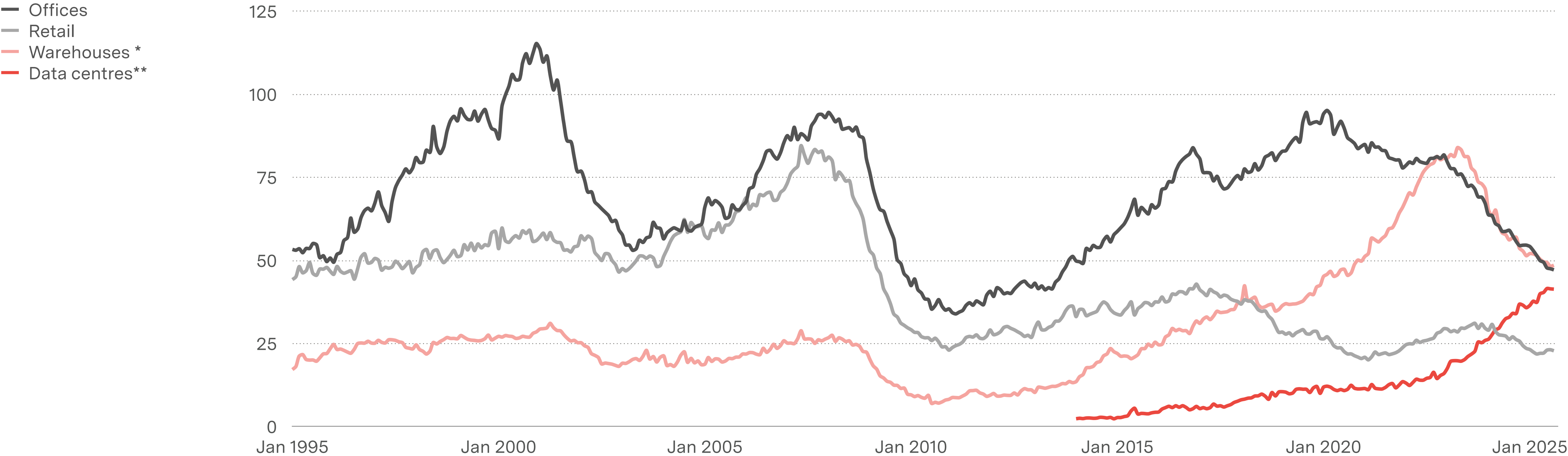
Source: Companies, company guidance. Includes capital leases

* Amazon does not break out AWS capex but reports it as 'the majority'

A new investment cycle

US data centre construction overtaking offices

US construction value (2025 \$bn, seasonally adjusted annual rate)

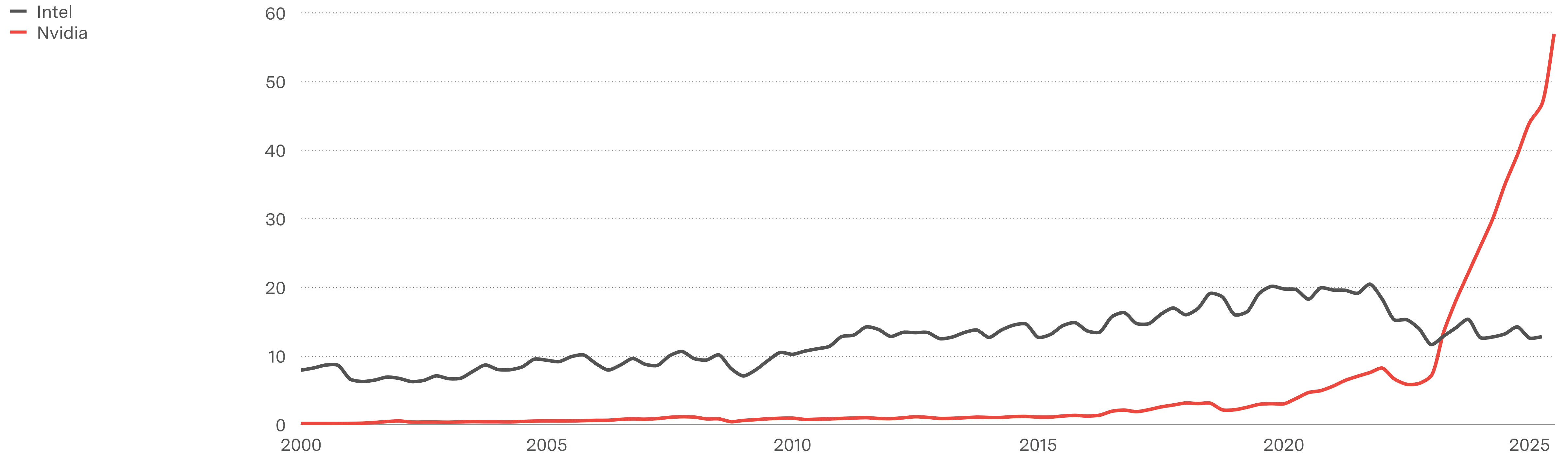


Source: US Census. * Excludes mini-storage ** Excludes compute
NB: data after July 2025 delayed by US government shutdown

Nvidia can't keep up

Trying to build a new Sun Microsystems (though China and hyperscalers' own chips are coming up behind)

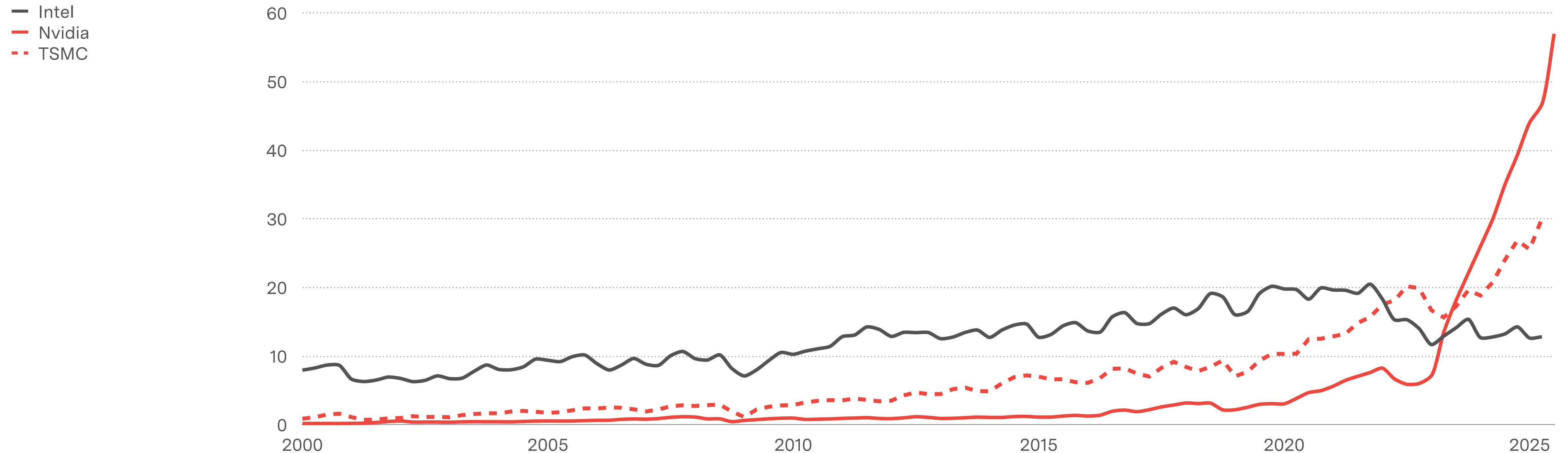
Quarterly revenue (\$bn)



Nvidia can't keep up (neither can TSMC)

TSMC unwilling/unable to expand capacity fast enough to meet Nvidia's book

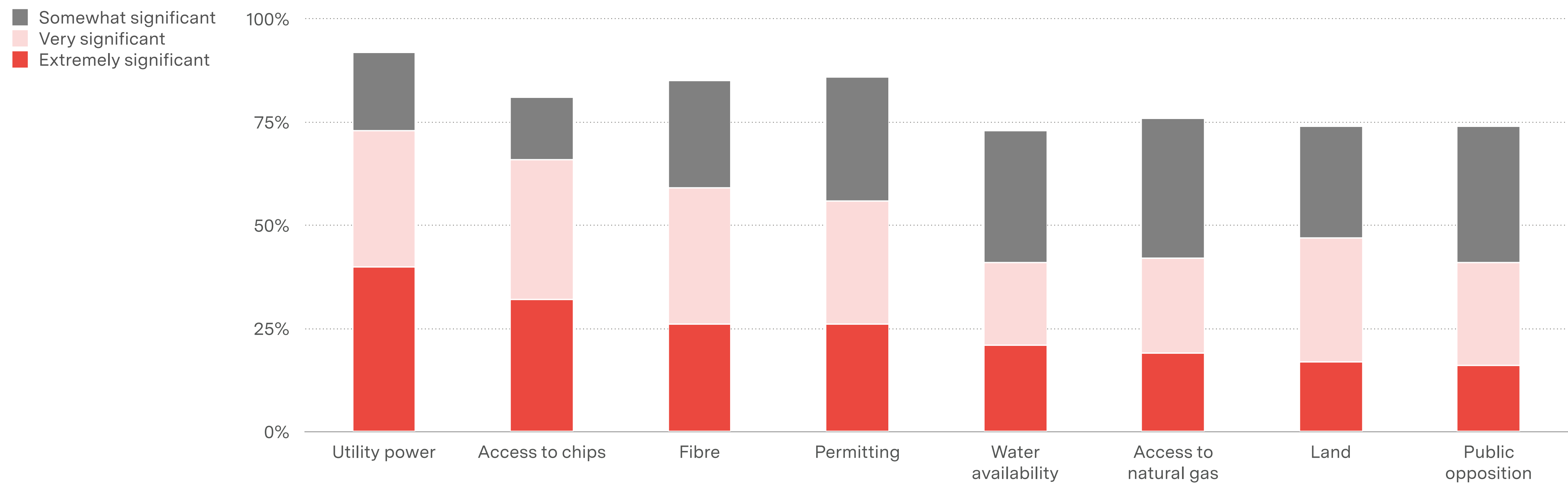
Quarterly revenue (\$bn)



US power backlogs becoming a major issue

US power demand growth is ~2%, and AI might add 1% that's hard to build fast (this is not an issue in China)

Main constraints to data centre construction, USA (February 2025)



Source: Schneider Electric industry survey

“It’s been almost impossible to build capacity fast enough since ChatGPT launched”

Kevin Scott, Microsoft CTO

“We now expect the FY26 growth rate to be higher than FY25” - Microsoft

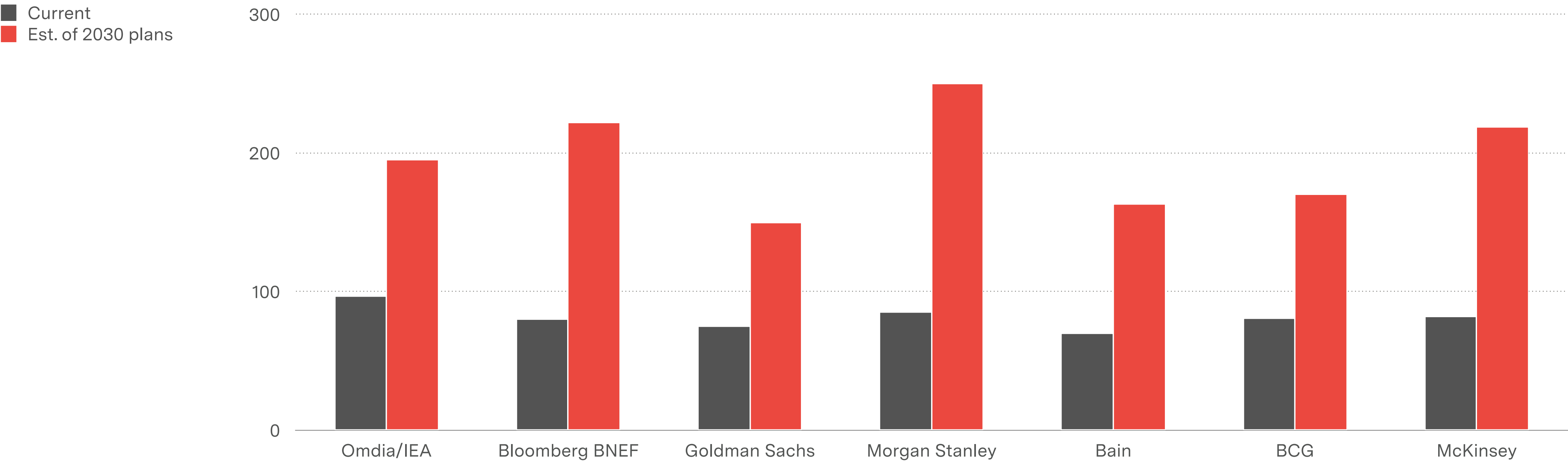
“Capex dollar growth will be notably larger in 2026” - Meta

“We expect a significant increase in 2026” - Alphabet

Data centre capacity triples? For \$3tr? \$5tr? More?

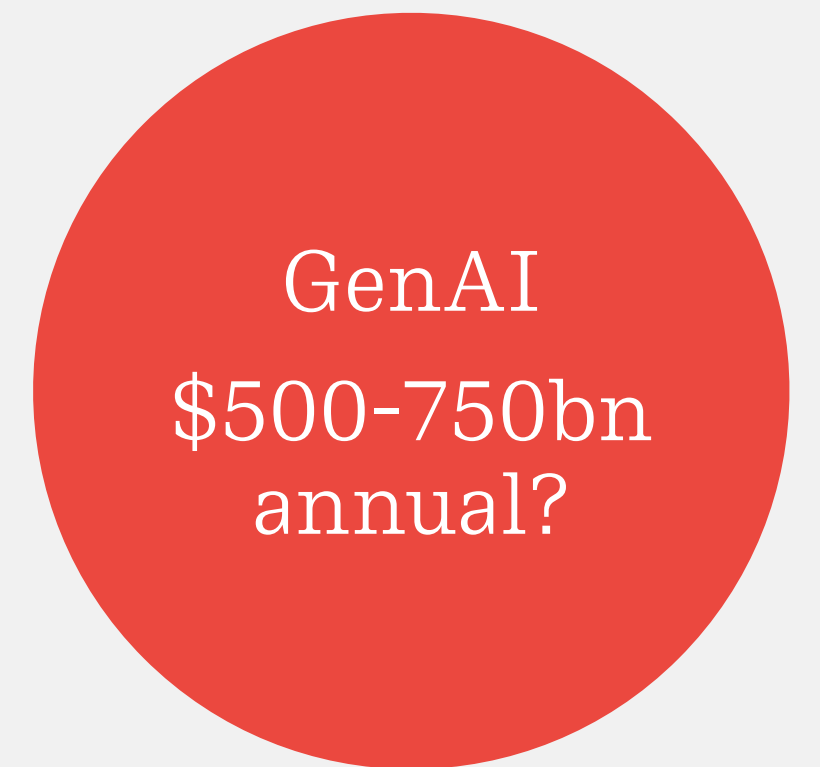
Some very large numbers (although some of the ‘bragawatts’ may be more performative than real)

Global data centre capacity estimates, H1 2025 (GW)



“Three trillion dollars!”

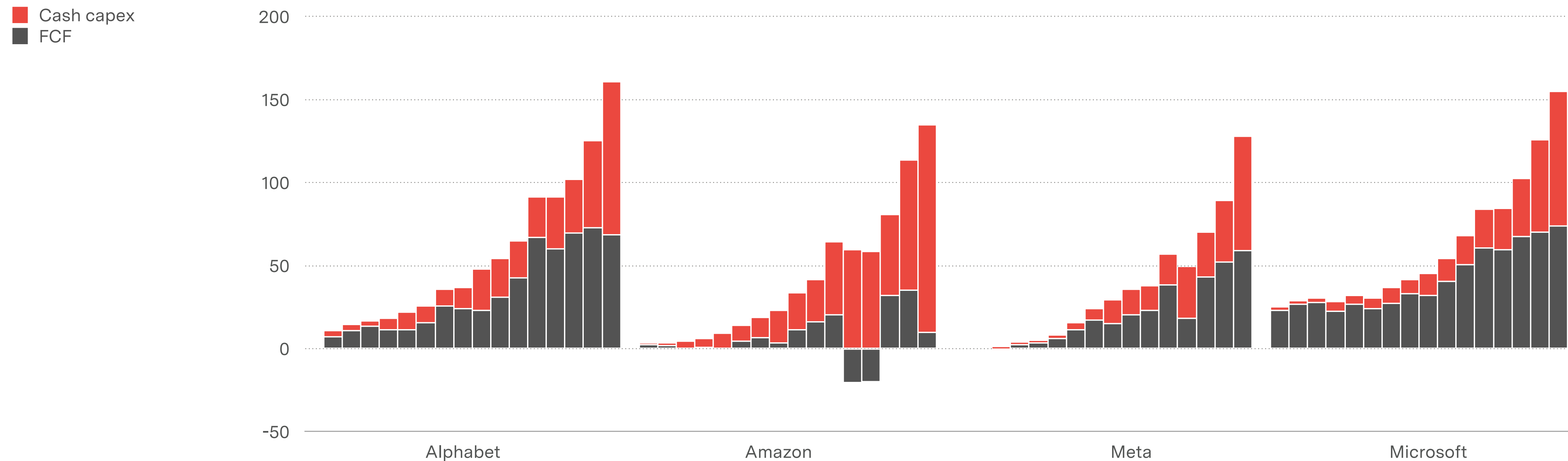
Annualised AI capex aspirations are a similar magnitude to mature global capital-intensive industries



The hyperscalers can afford it...

Big Tech cashflow has surged since the Pandemic, and most of that growth is going on AI capex

Annual Capex and Free Cash Flow, 2010 to 2025e (\$bn)

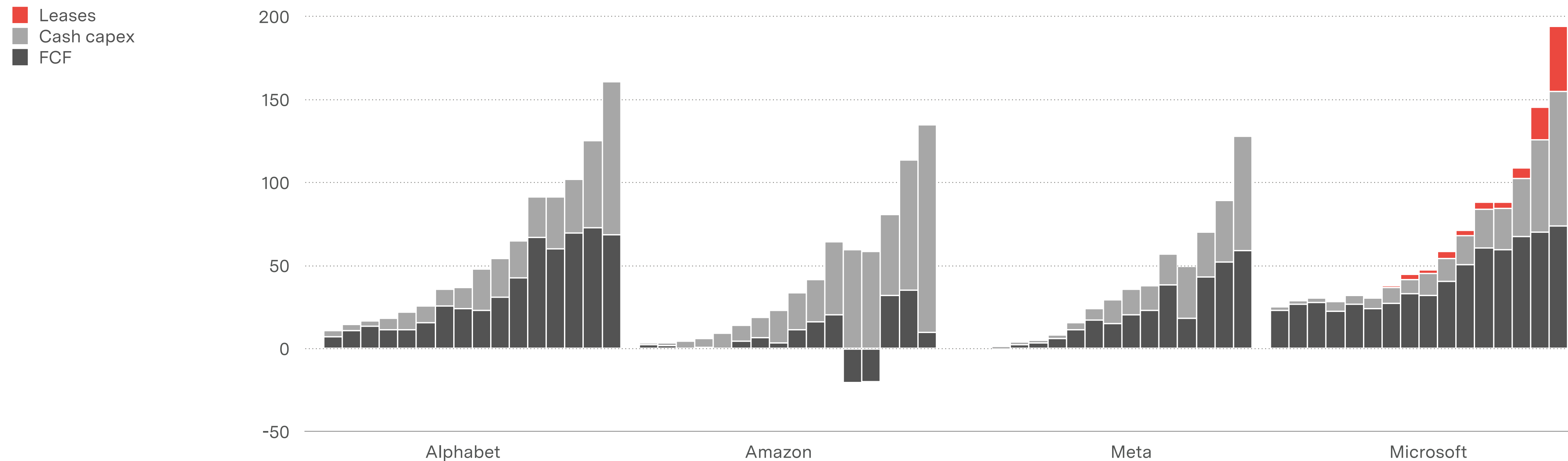


Source: Companies, consensus estimates. Calendar year.

The hyperscalers can afford it... up to a point

Capital leases are not new, but they've got a lot bigger

Annual Capex and Free Cash Flow, 2010 to 2025e (\$bn)




Source: Companies, consensus estimates. Calendar year.

Up to a point

Hyperscalers add leases and debt, while some analysts suggest Oracle's cloud capex might be >100% of revenue

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Big Tech

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‘Absolutely immense’: the companies on the hook for the \$3tn AI building boom

Private capital joins Big Tech in seeking to capture rewards from historic expansion of data centres


wsj.com

WSJ

Oracle Isn't Answering the Hardest Questions About Its AI Plans

Software giant boosts long-term targets, but paying for an artificial-intelligence build-out will stretch its resources

By [Dan Gallagher](#) [Follow](#)
Oct. 17, 2025 at 5:30 am ET




reuters.com

Reuters

My News

Meta taps PIMCO, Blue Owl for \$29 billion data center expansion project, source says

By Chandni Shah and Surbhi Misra
August 7, 2025 11:10 PM EDT · Updated August 7, 2025



A Meta logo is pictured at a trade fair in Hannover Messe, in Hanover, Germany, April 22, 2024.

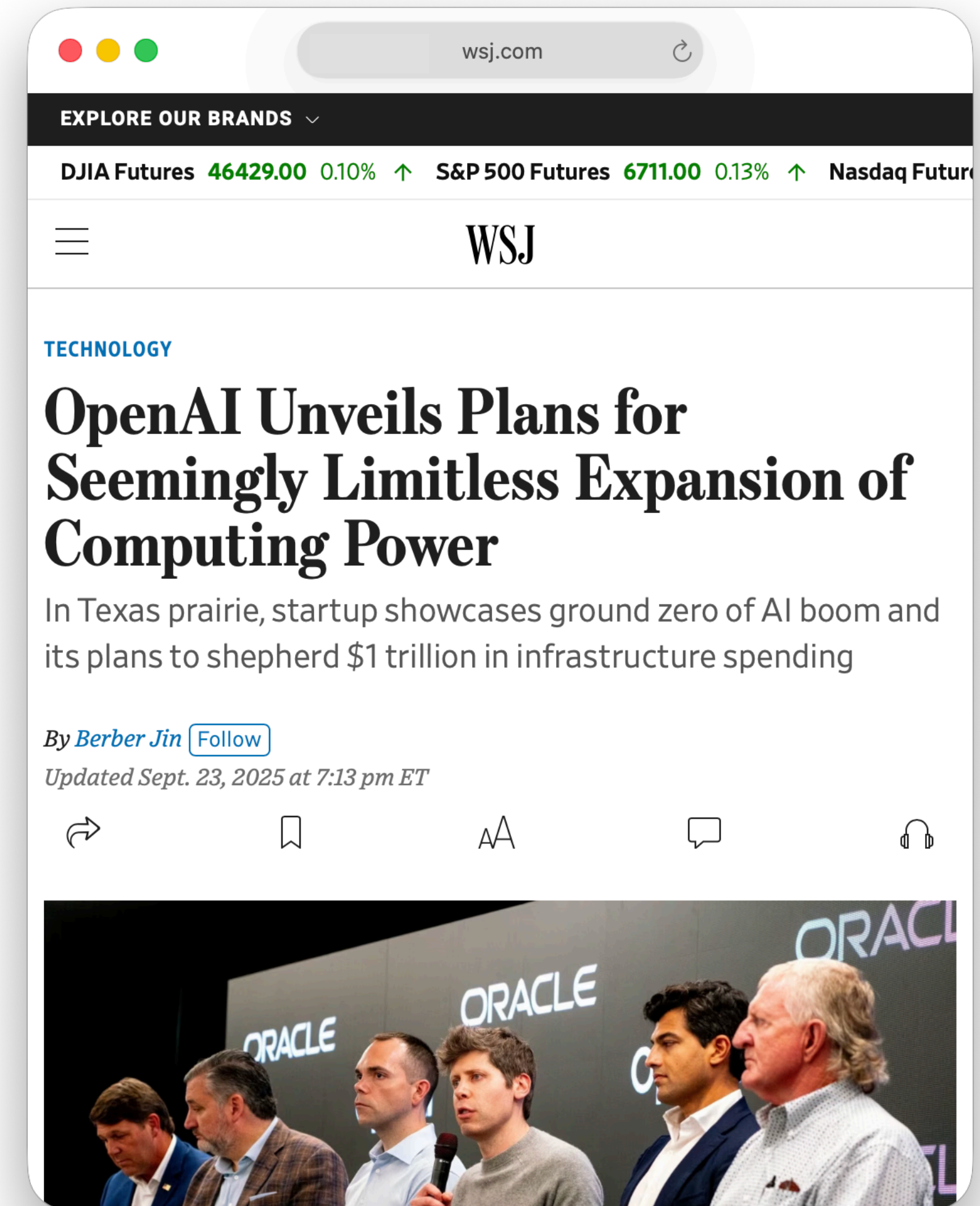
OpenAI joins the club

Announced commitments for 30GW+ of capacity at \$1.4tr

Aspiration for 1GW/week of new construction at \$20bn/GW = ~\$1tr annually...

Equivalent to 2/3 of total current global base, every year

Source: OpenAI, October 28 2025



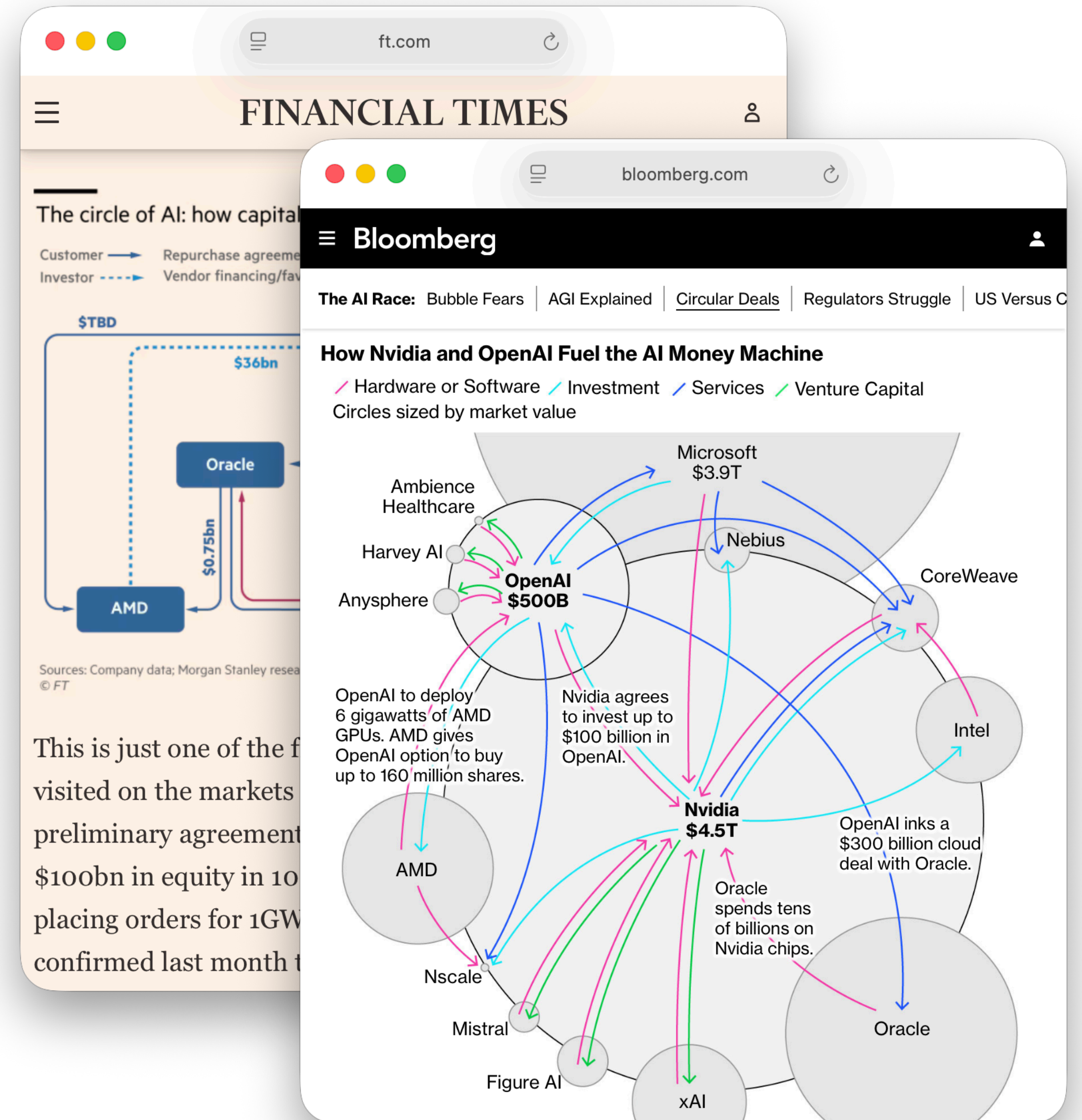
“Circular revenue”

Without its own cashflows, OpenAI partners with Nvidia, Oracle, Softbank, petrodollars...

OpenAI is buying Nvidia chips with Nvidia's cashflow...

Which comes from the hyperscalers...

and using Nvidia's cash to turn AMD into an Nvidia competitor, and pay Broadcom to make its own chips...



Rational actors?

What would you do if your company was sitting on a bubble?

Nvidia has \$77bn of TTM FCF* and TSMC can't keep up with demand



Use your excess cash to buy demand, FOMO and platform lock-in

OpenAI has mindshare and expensive stock, but no platform, infra or moat



Swap your paper for hard assets and market position

Oracle is a cash-generative legacy business losing share to cloud and now to AI



Gear up and burn your way into the new thing?

*Source: Nvidia

Yes, but where has all this money got us?

After three years, lots more science and engineering, but no real clarity on the shape of the market



A diagram consisting of two large circles, one dark grey on the left and one red on the right, separated by a vertical dotted red line. The dark grey circle contains three lines of white text. The red circle contains two lines of white text.

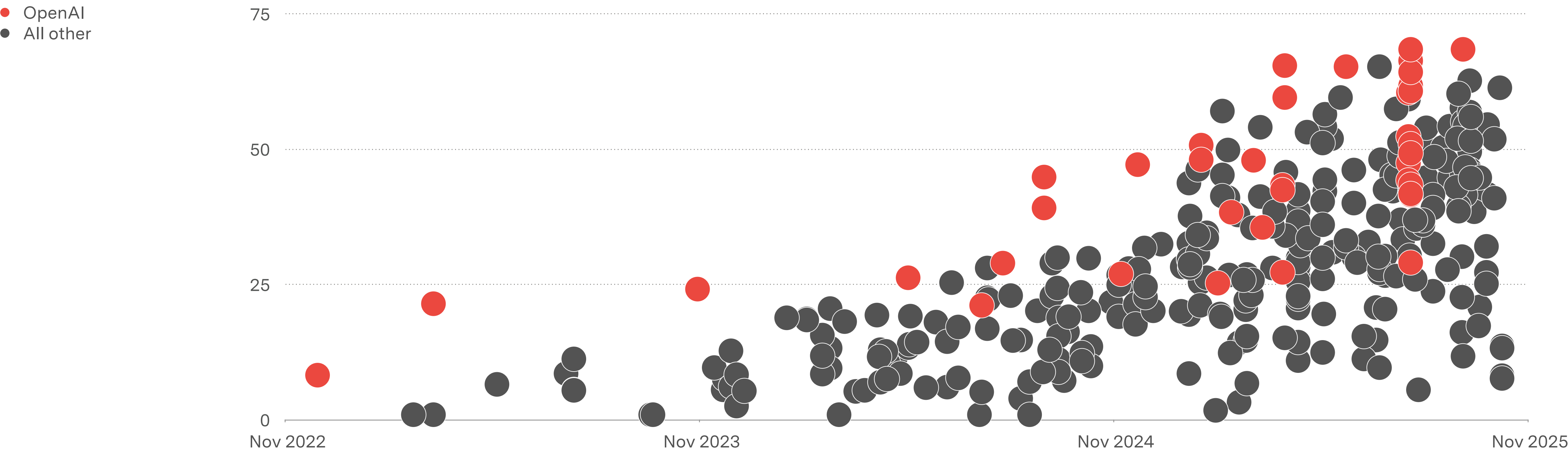
Models still improving
Far more models, China, OSS
Lots of new acronyms

No apparent moats
No clarity on product or value capture

Far more models

Every week - new models, new (problematic, gamed, saturated) benchmarks, new acronyms

Models by aggregate benchmark score

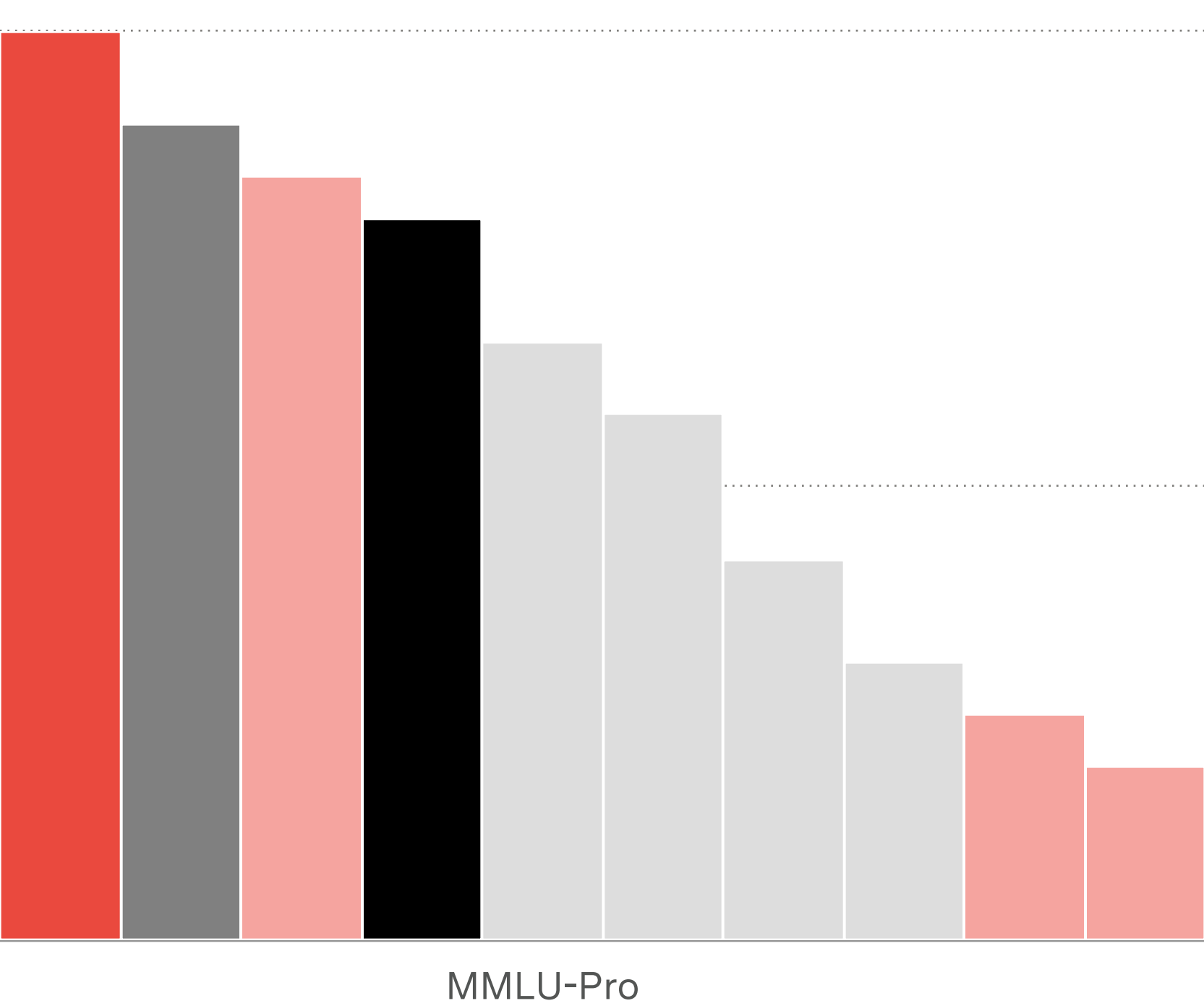
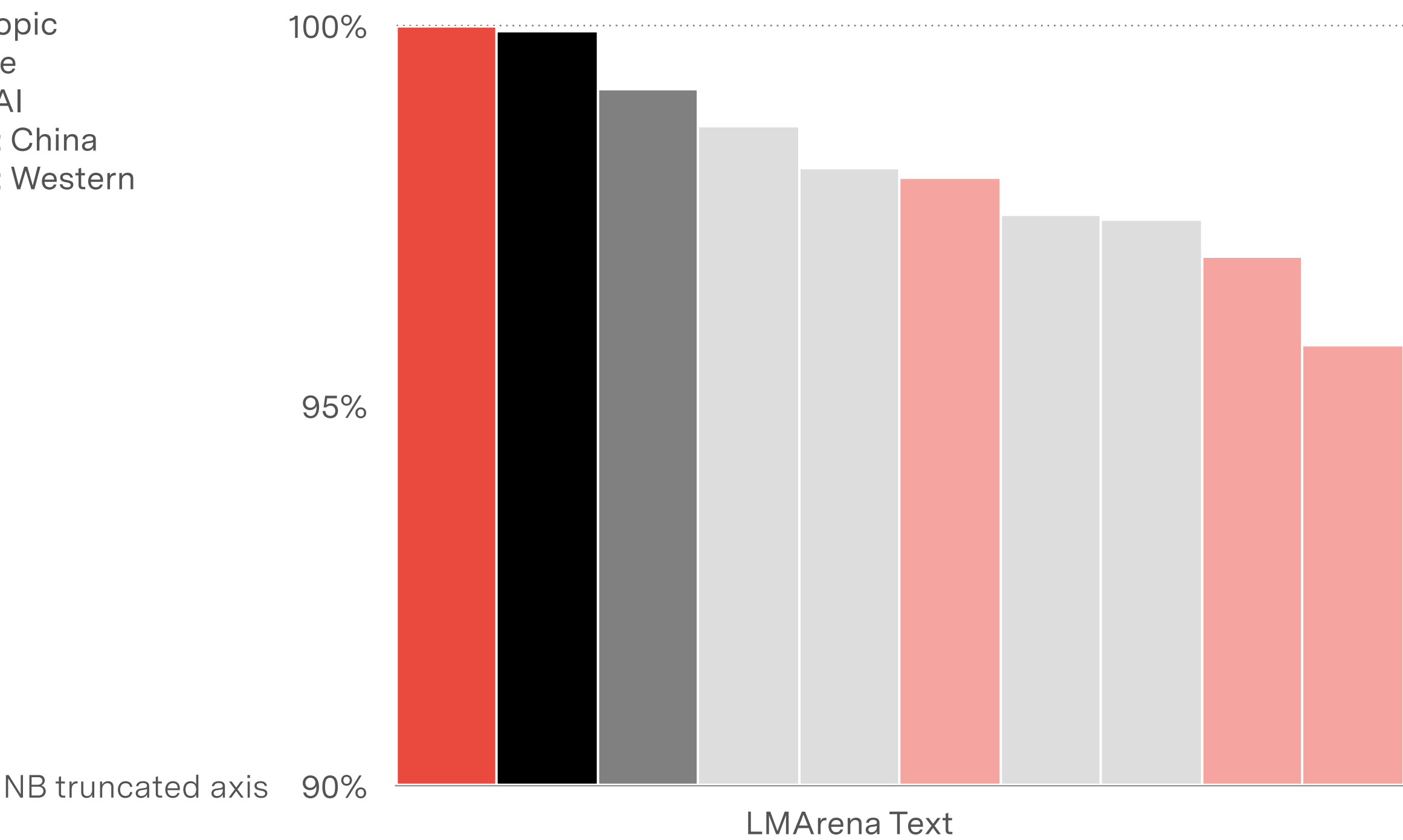


Models converge and leaders change weekly

Dozens of (saturated) benchmarks to choose from, but on the most general, the leaders are very close

Best scoring model relative to leader, October 2025

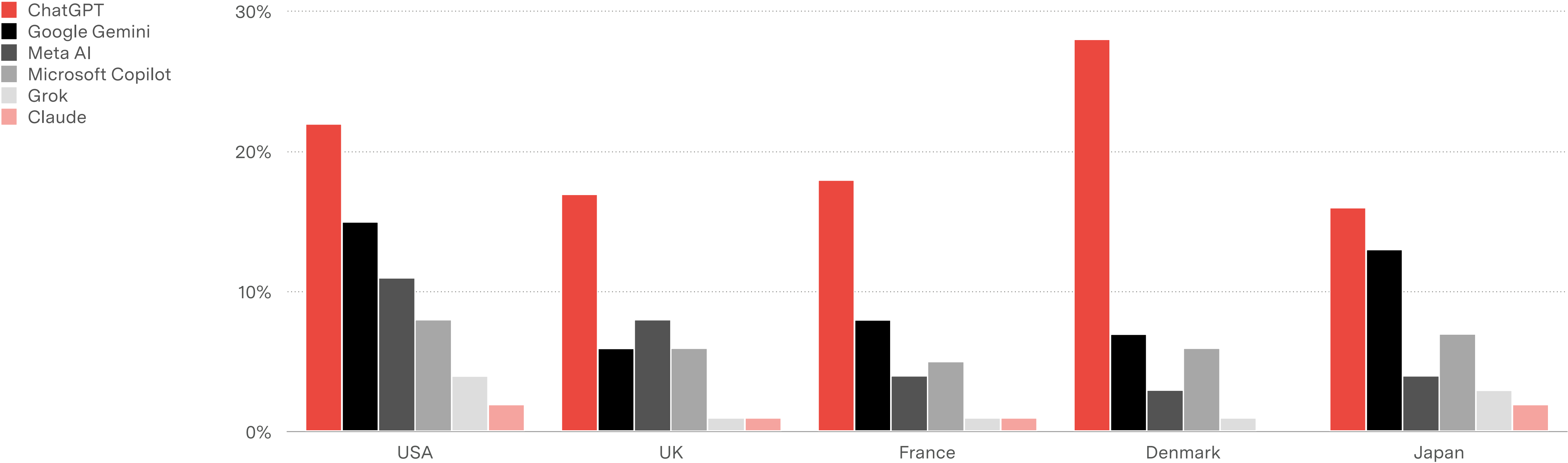
- Anthropic
- Google
- OpenAI
- Other: China
- Other: Western



Tech versus brand versus distribution?

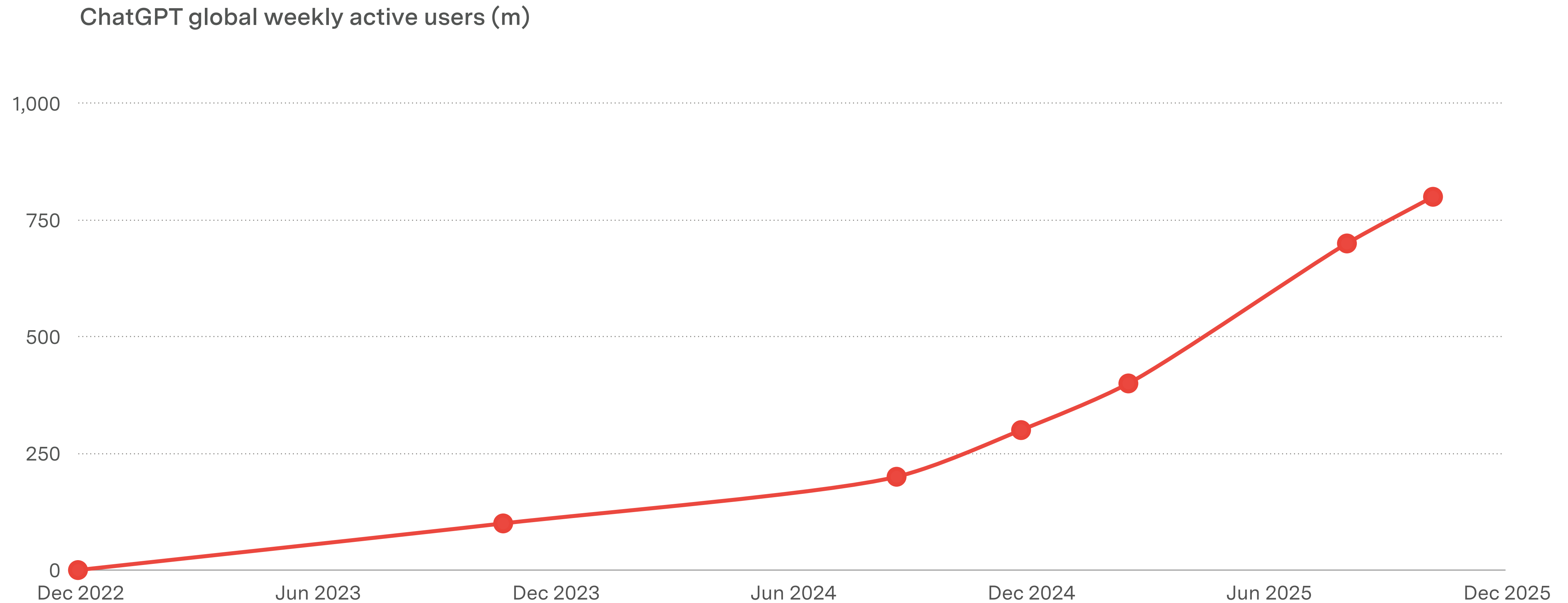
The models may be close to commodities (especially for general use), but market position is not, so far

Weekly active users of generative AI tools as share of the population, June 2025



“Everyone is already using this!”

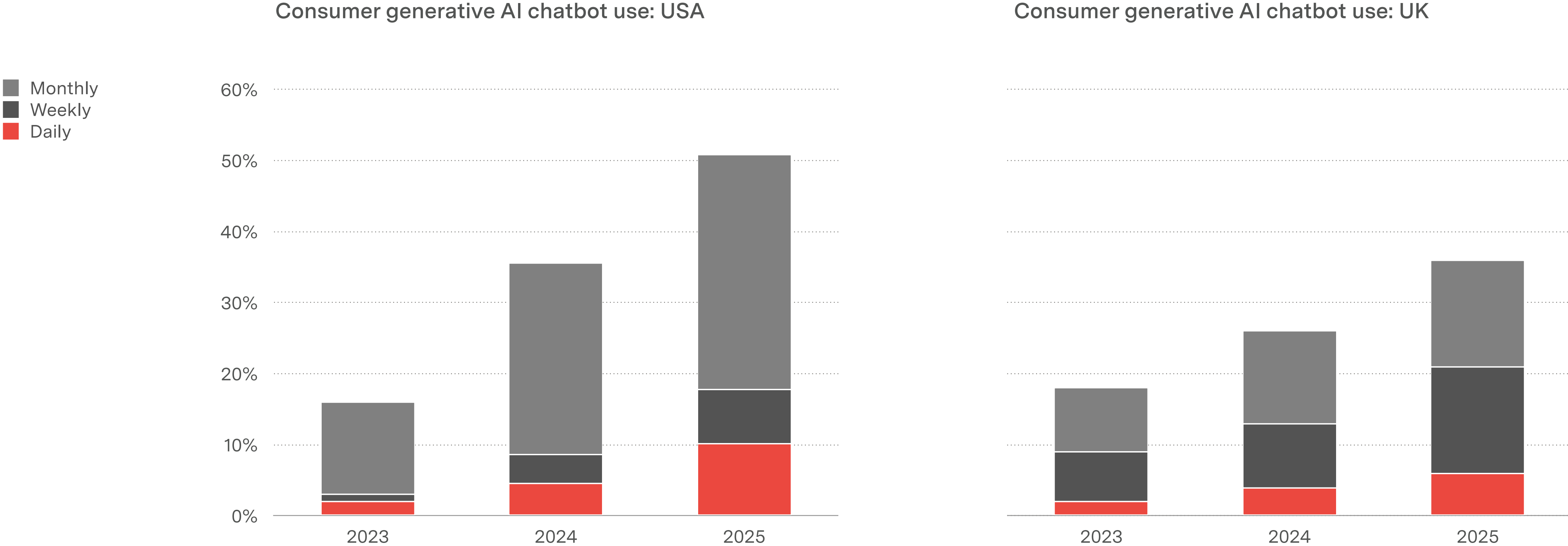
800m weekly users, but apparently only 5% are paying - and why announce WAU and not DAU?



Source: OpenAI. NB: round numbers reported at scheduled events

Still more experimentation than daily use

So far, many more people use chatbots occasionally than make them part of their daily lives

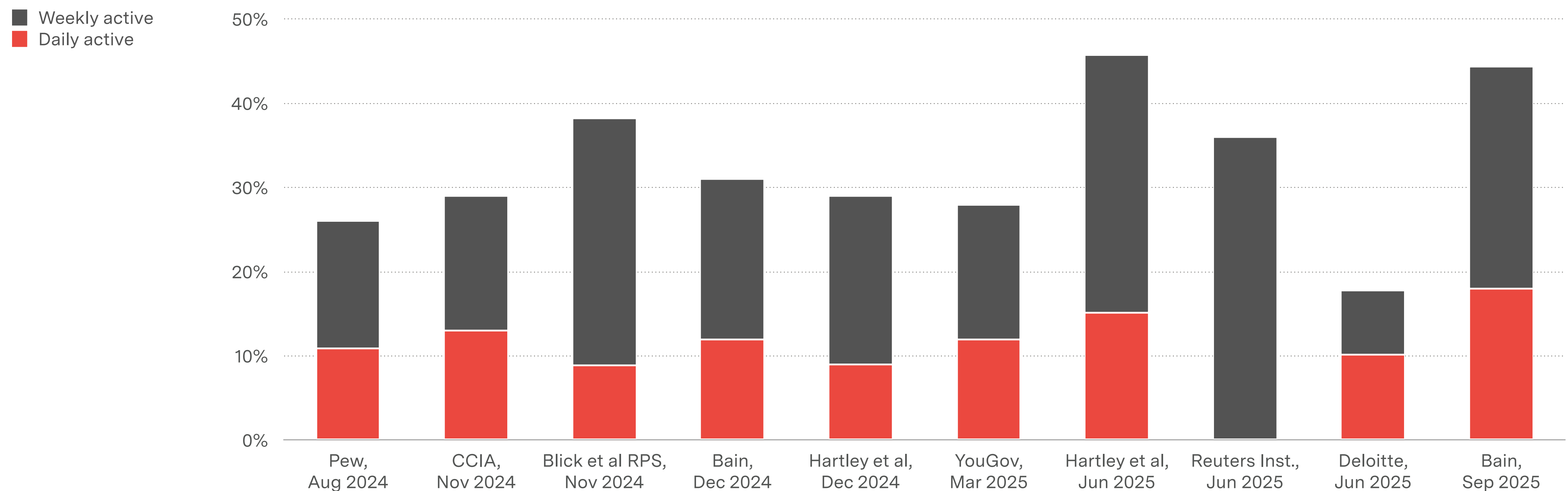


Source: Deloitte. Surveys conducted in June.
Defined as “Use of a purpose-built GenAI tool, like ChatGPT, Microsoft Copilot, Google Gemini, etc”

Most data shows the same picture

Surveys are early, scattered and inconsistent, but an engagement gap seems clear

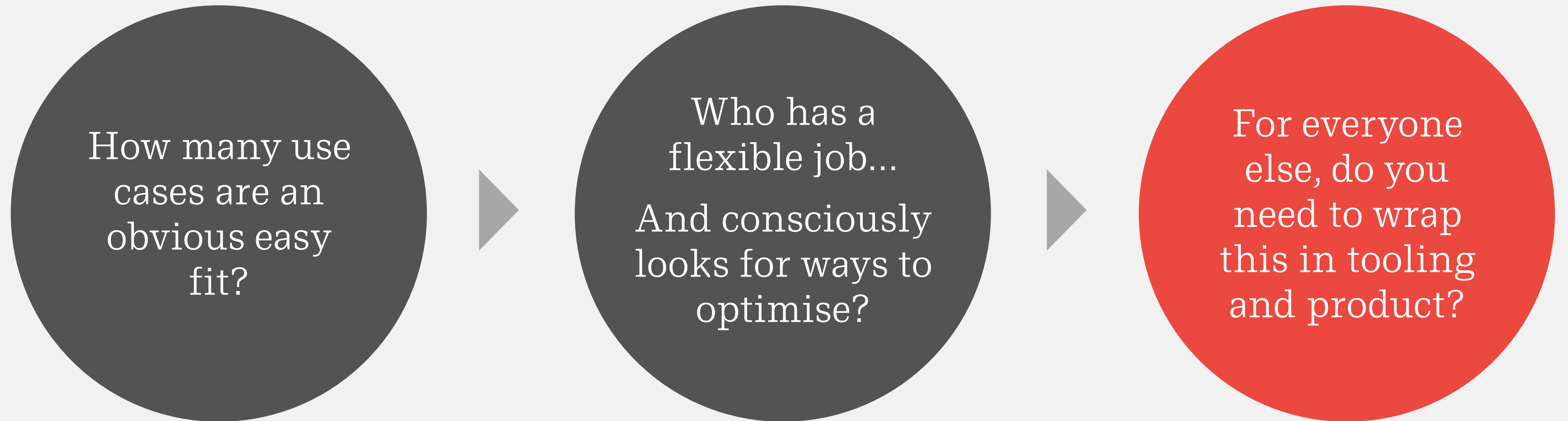
How many people use generative AI chatbots in the USA?



Source: Consumer surveys conducted as of date shown

Is this just early? Or a harder problem?

Why do most users of ChatGPT only use it a little bit?



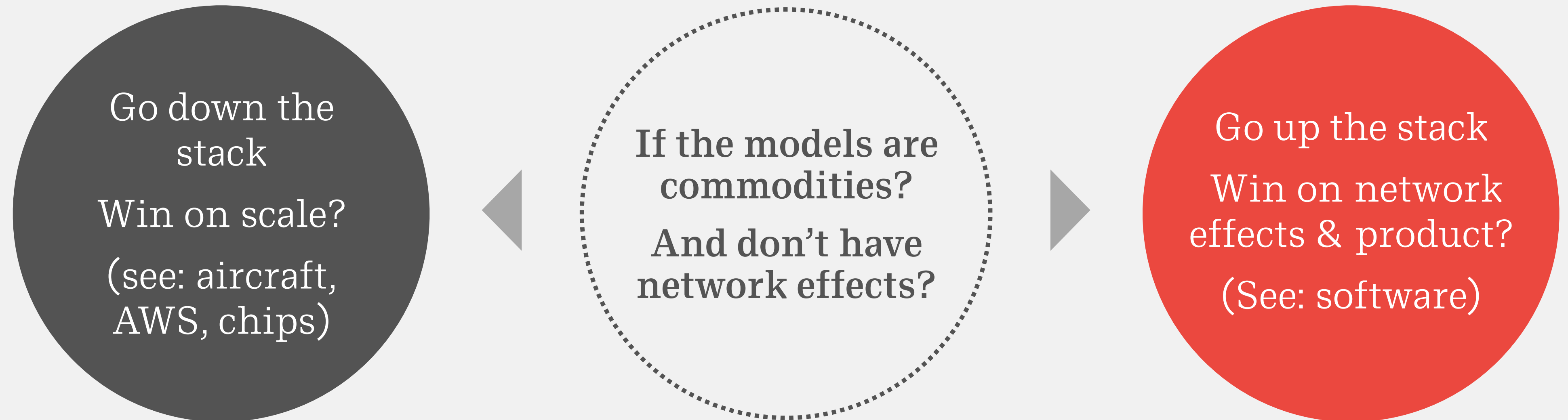
“People don’t know what they want until you show it to them”

“You’ve got to start with the experience and work backwards to the technology”

Steve Jobs

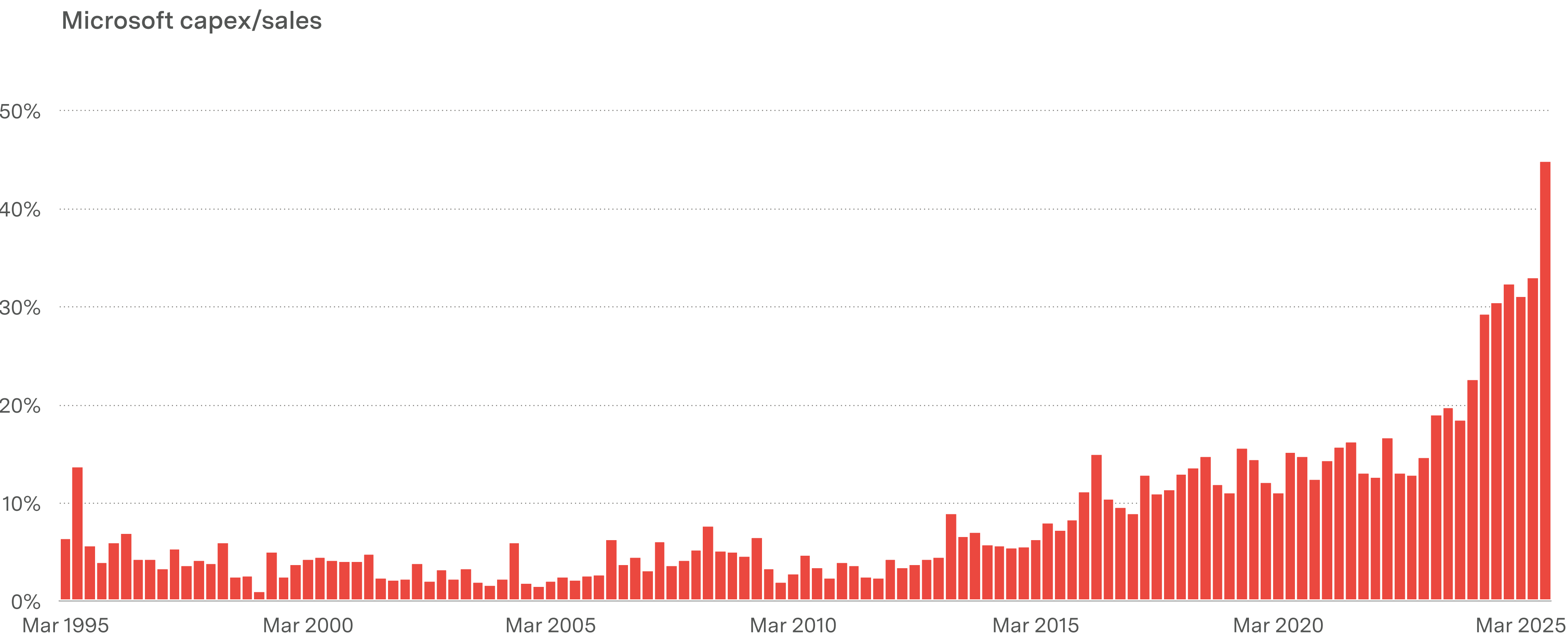
So where does a model lab compete?

Where is the value capture for a research-heavy, capital-intensive commodity?



Microsoft's shift away from network effects?

From competing on network effects to competing on access to capital?



Source: Microsoft. Includes capital leases

For OpenAI, “yes!” to everything

Everything, everywhere, yesterday (on other people’s balance sheets), before the market slips away

Infra deals
with Oracle,
Nvidia, Intel,
Broadcom,
AMD...

Ecommerce
integrations,
ads, vertical
data sets

App platform,
social video,
web browser

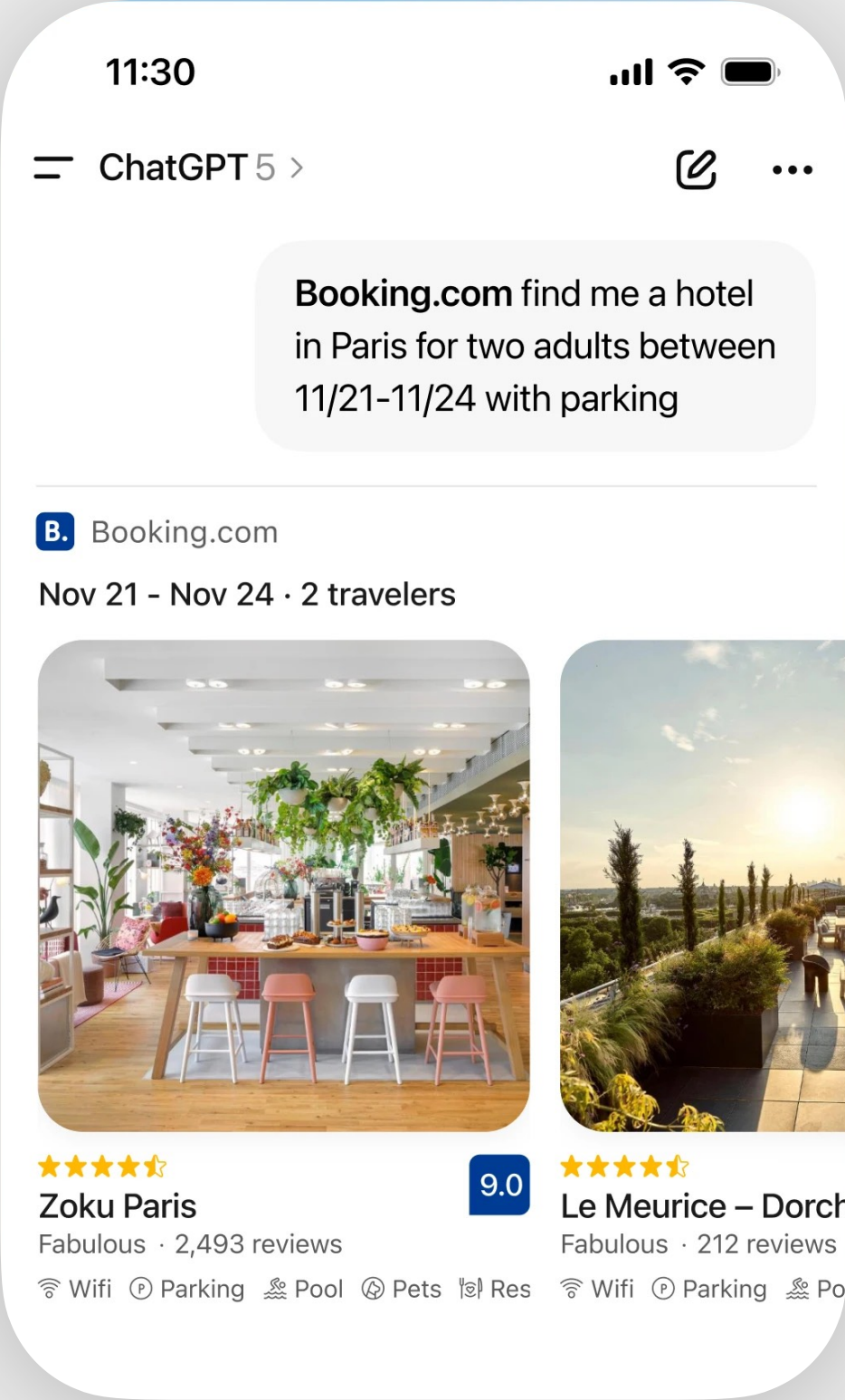
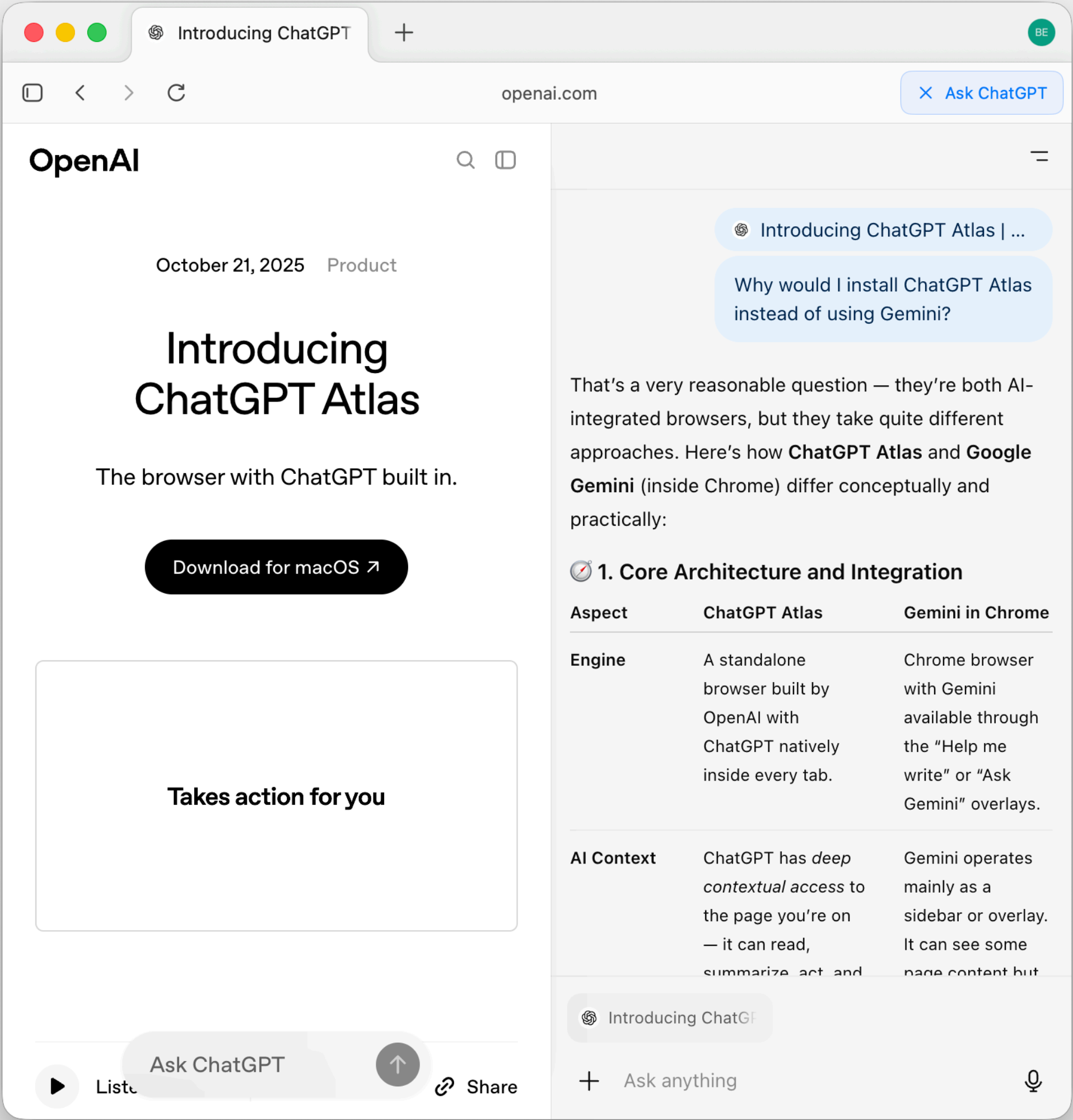
Robots
Jony Ive
Biotech

“There are two ways to make money.
You can bundle, or you can unbundle”

Jim Barksdale

OpenAI bundles and unbundles use cases

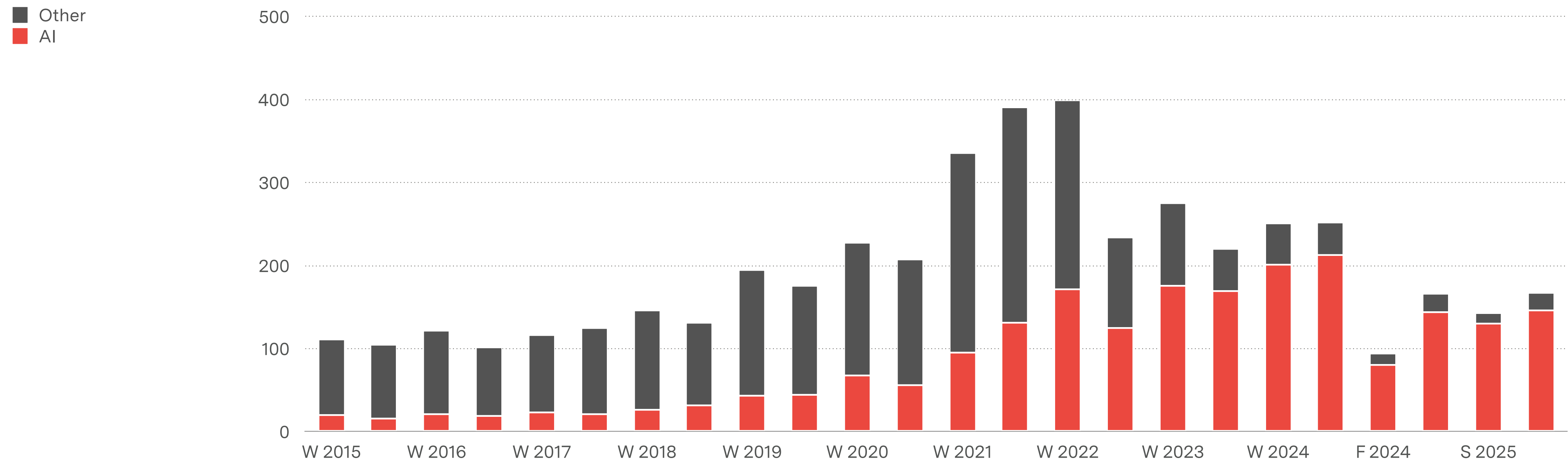
What’s the right experience? The right distribution? And why isn’t it just the ChatGPT app?



Startups exist to unbundle use cases

The coming wave of AI startups trying to unbundle Google, Excel, email and Oracle... and ChatGPT


Y Combinator startups by field



Source: Y Combinator

Where is the value capture?

If models are near-commodities, and we don't know the right product, where will the value be?



Best model?
Most capital?

Proprietary
vertical data?

Distribution
& GTM?
Product?
UX?

Building
'normal'
software
companies?

Outside tech

“What’s our AI strategy?” Well, what’s the pattern?

How do we *always* deploy new technologies?



So far, most successful use-cases are ‘absorb’

Where is it easy and obvious to use generative AI?



Coding

Marketing

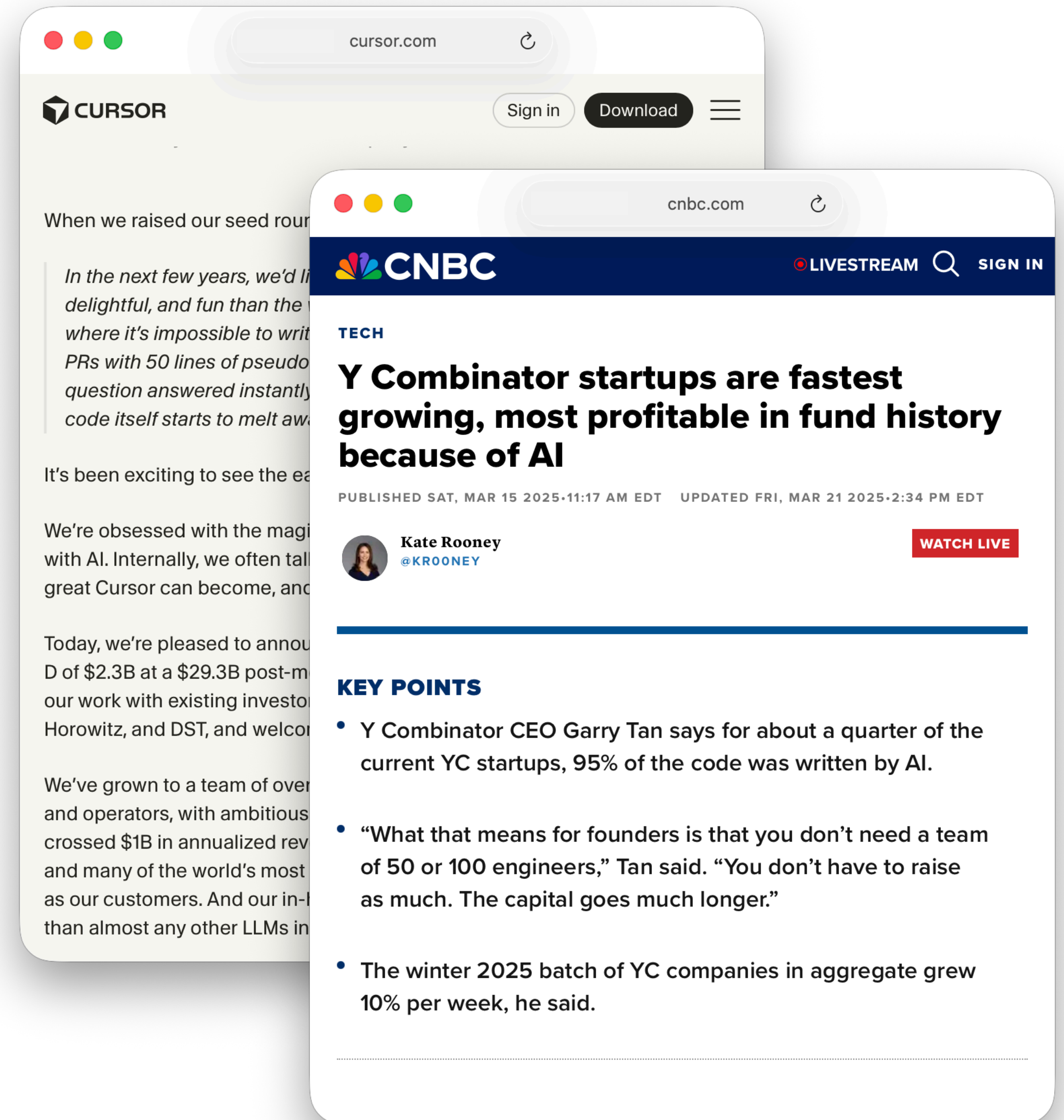
Customer
support

Automation

AI coding as the new AWS

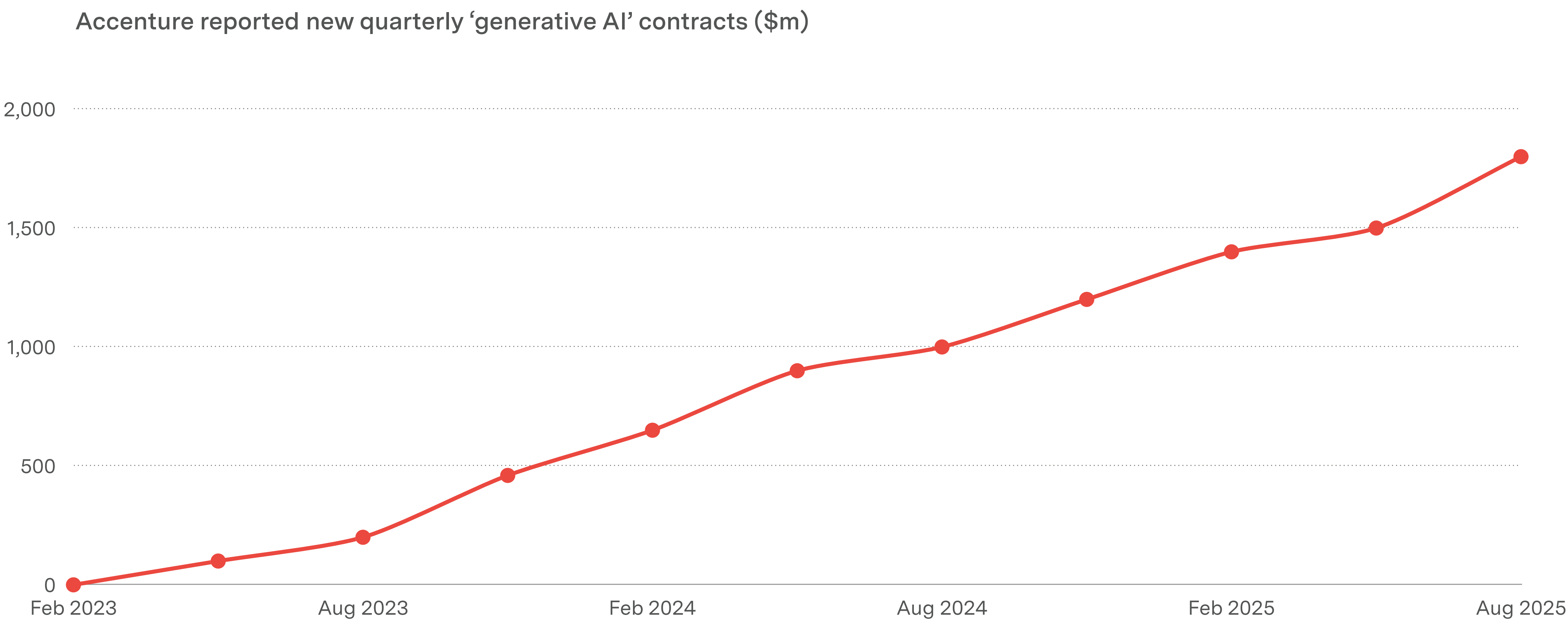
“Vibe coding” as the new abstraction layer, after AWS, libraries, operating systems...

A new step change reduction in software creation costs



How do you know what to automate?

Step one: ask your systems integrator

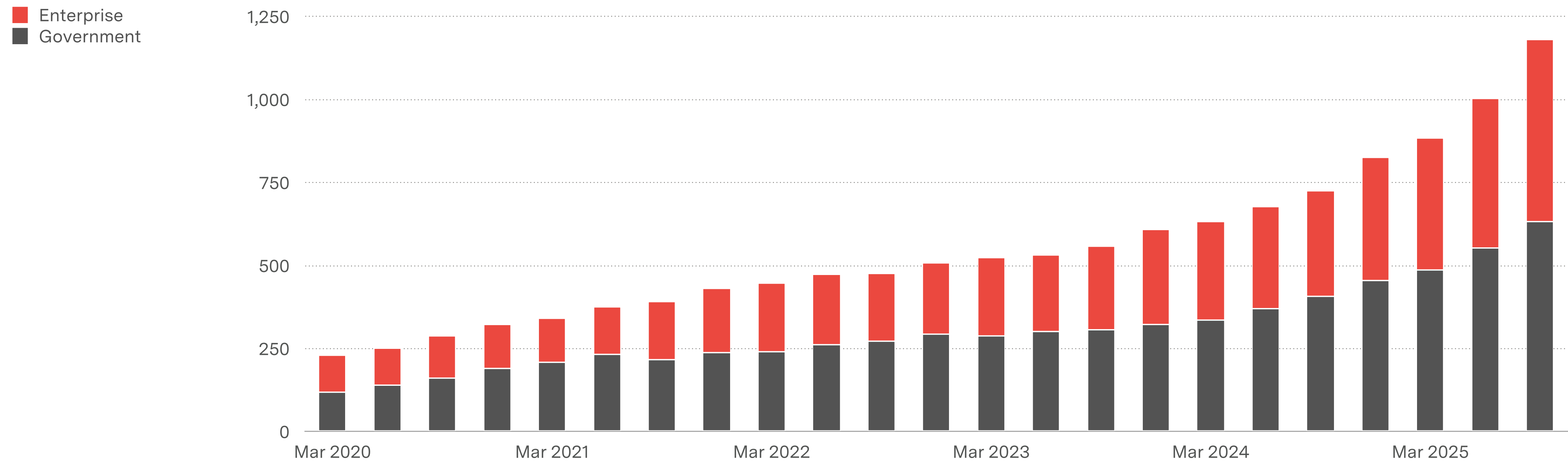


Source: Accenture

How do you know what to automate?

Step two: buy some SaaS from Dr Evil

Palantir quarterly revenue by segment (\$m)

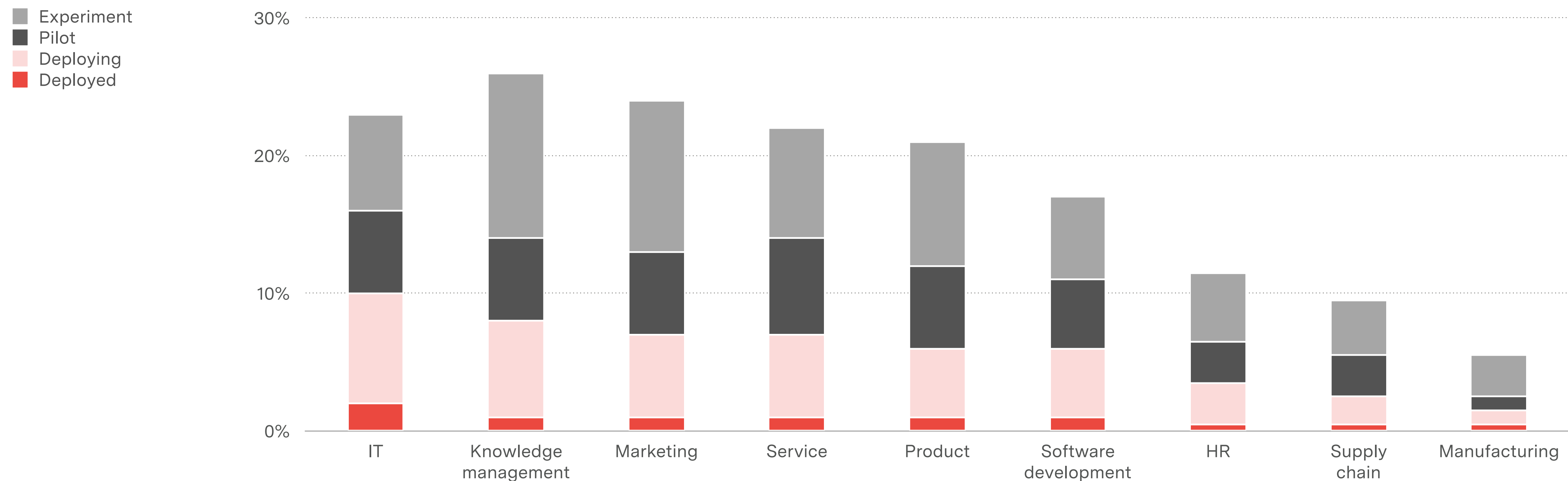


Source: Palantir

Pilots come first and deployment takes time

“Agentic!” is 2025’s buzzword, but deployment takes longer

AI ‘agent’ use by business function, where Generative AI is already used. June 2025



Not everything works? Welcome to tech

“Why did our AI pilot fail?” That’s a CTO question, not an AI question



Security,
privacy, IPR,
error rates,
legal

Data
integration
& legacy
systems

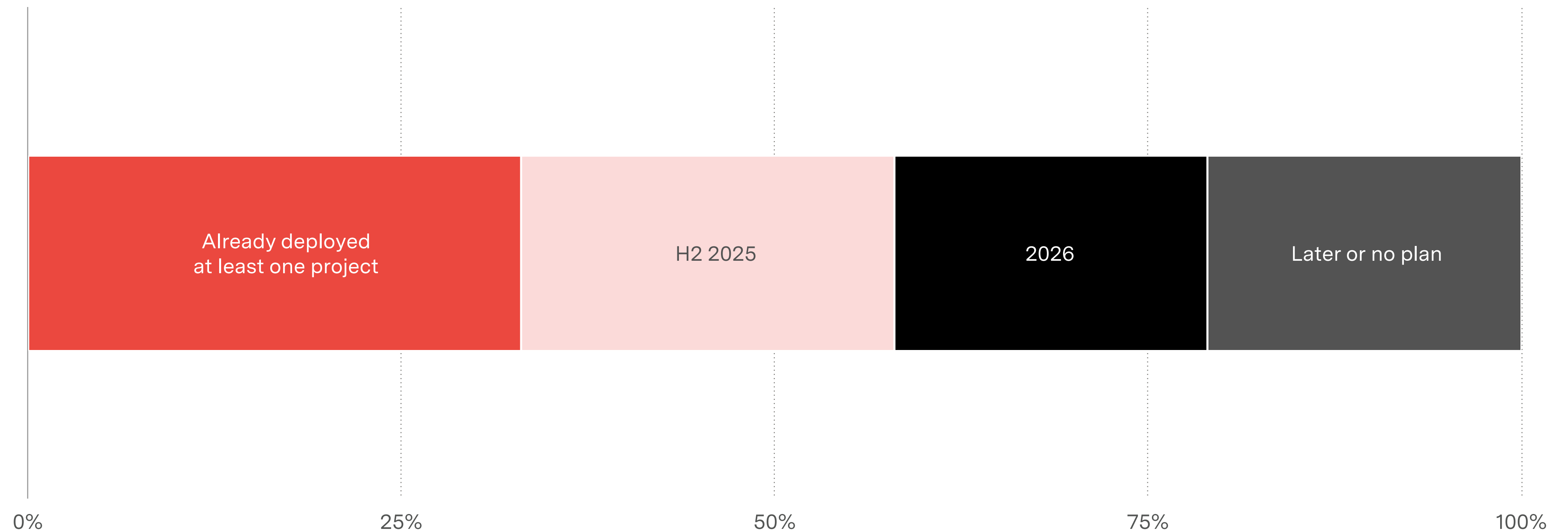
Finding the
right solution
for the right
people

The same
issues as
deploying any
new tech

The future can take time

A quarter of CIOs have launched something - but 40% don't plan anything until at least 2026

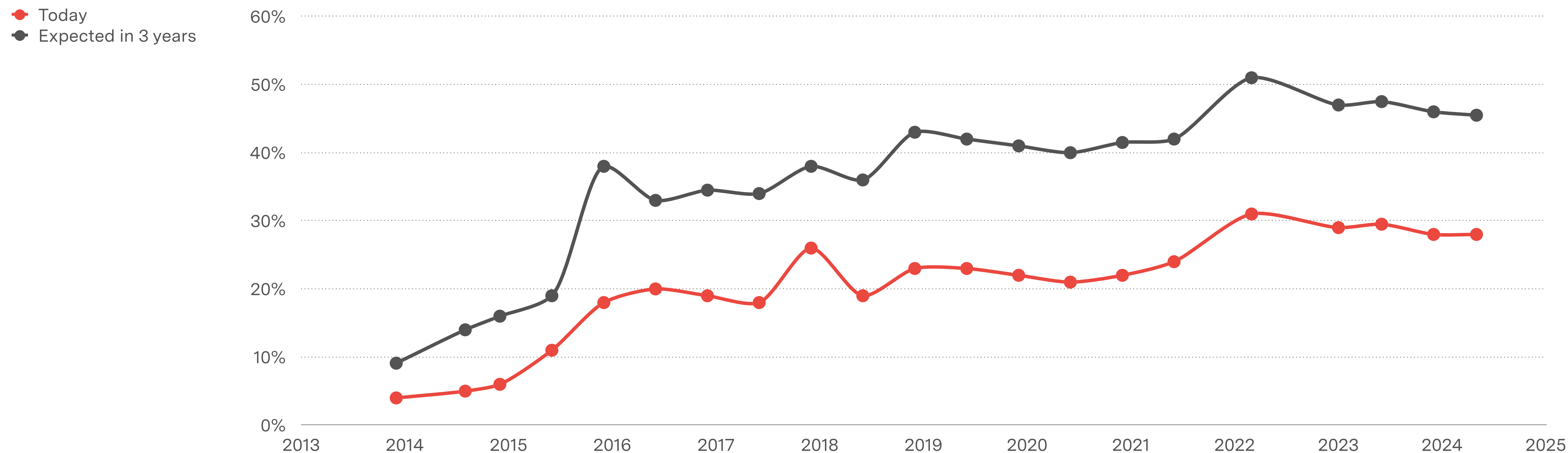
CIO expected timing for first LLM projects in production, September 2025



But the future always takes time

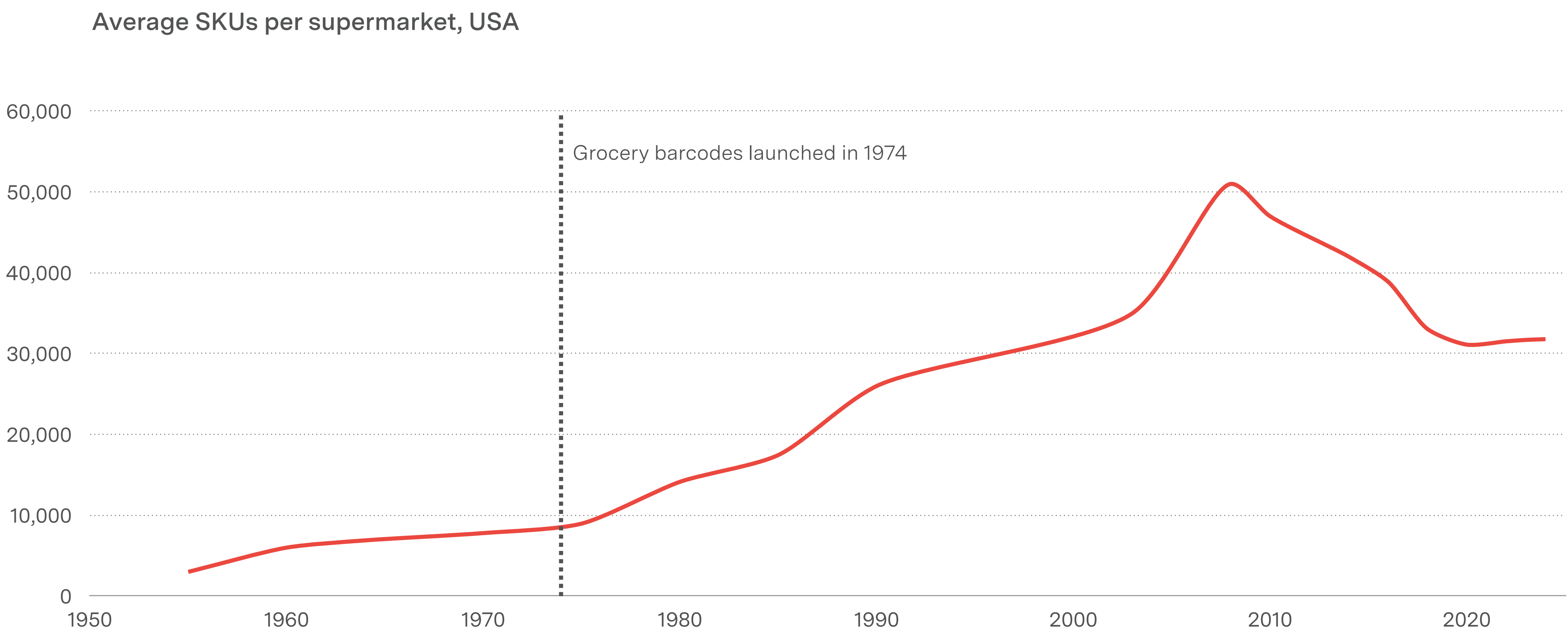
Cloud is old and boring - but still only 30% of workflows

Enterprise workloads in public cloud



Sometimes ‘automation’ alone is a big deal

UPCs, barcodes and databases let retailers manage 5x more SKUs



Source: FMI

But...

“We’ve all seen lots of AI presentations now, and we’ve deployed a bunch of stuff. Is that it? What’s next?”

F100 Retailer CMO, summer 2025

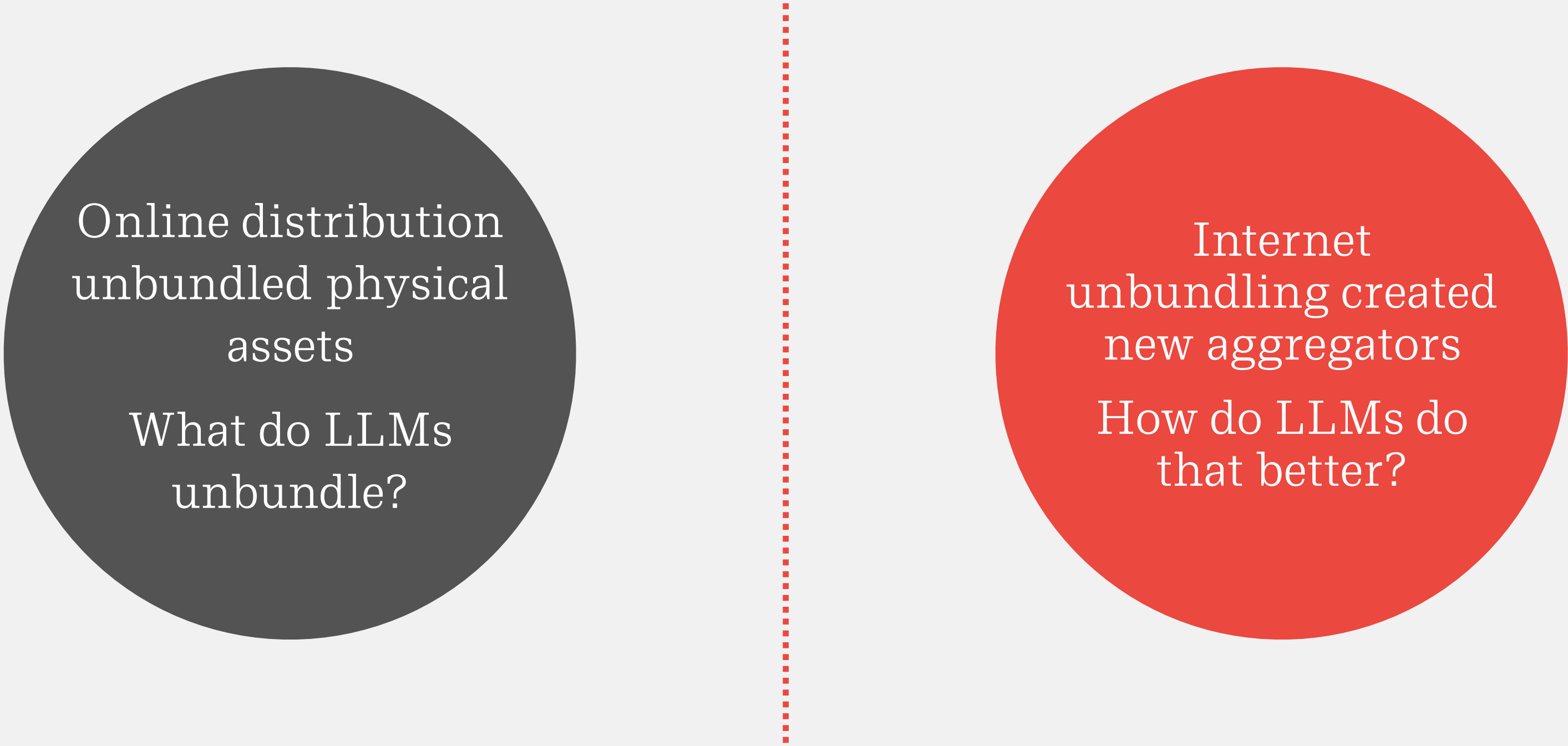
What next?

What comes after automating the obvious, easy things?



Where might we look for change?

What can LLM automation unbundle? What things did we not realise were bundles?



Online distribution
unbundled physical
assets

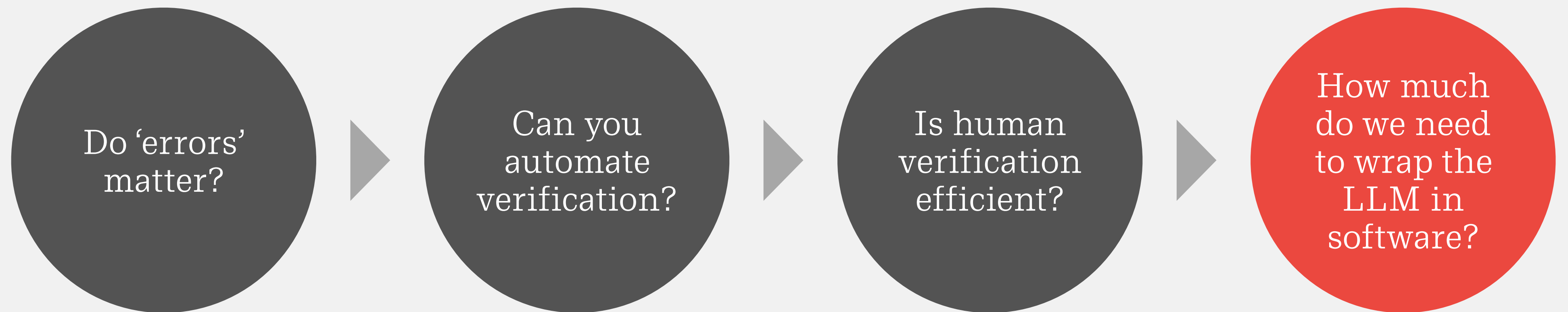
What do LLMs
unbundle?

Internet
unbundling created
new aggregators
How do LLMs do
that better?

“AI gives you infinite interns”


How do we use automation that makes ‘mistakes’?

We have no indication that error rates will go away, so where’s the human in the loop?



What do 'automated interns' change?

The Jevons paradox - applied price elasticity



Do you do the same work with fewer people?
Or more work with the same people?

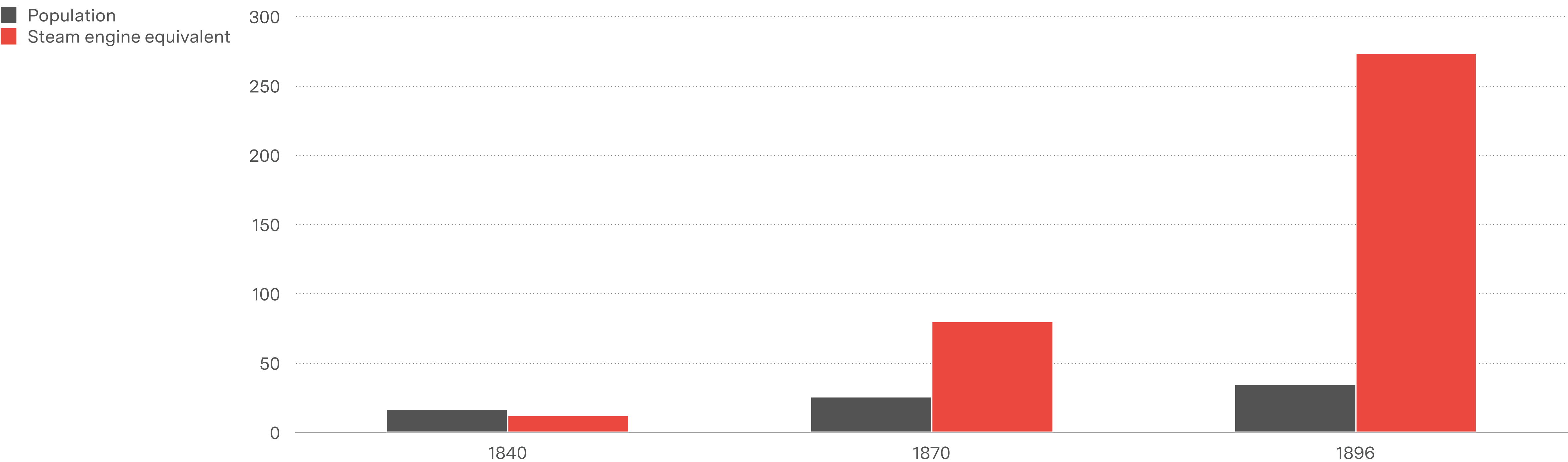
Was employing lots of people your moat?

What becomes possible when you don't need millions of people to do that?

300m interns? Jevons paradox at work

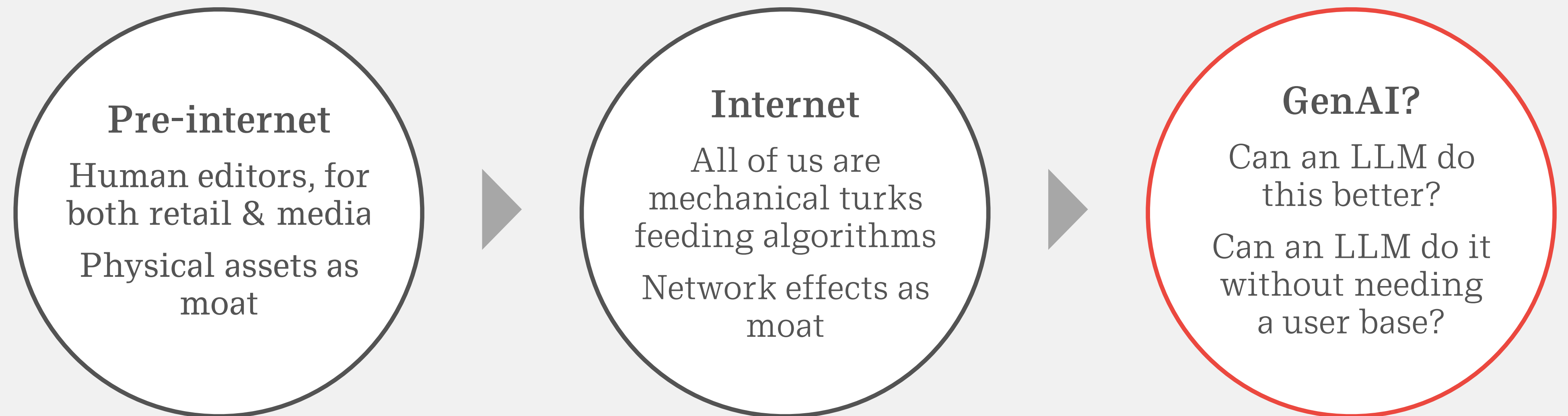
Steam engines gave Britain the equivalent labour of (very roughly) 5x its total population by 1900

UK population and steam engine labour unit equivalent (m)



Where's the human in the loop?

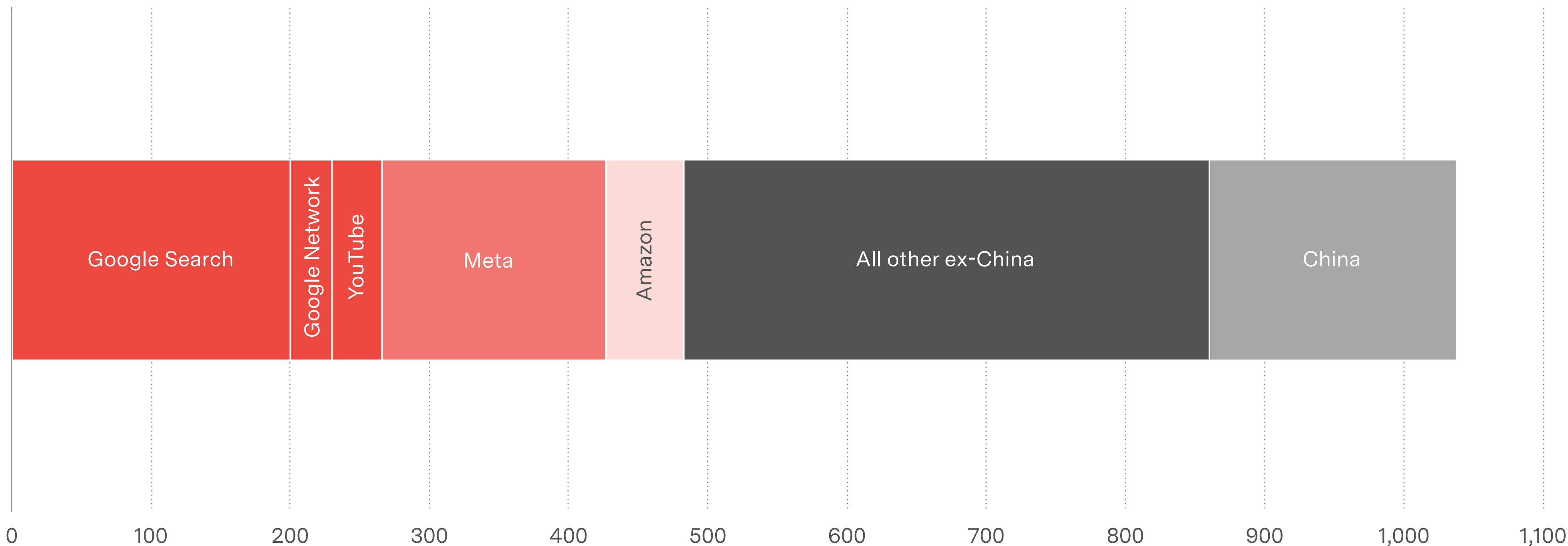
All recommendation systems today work by driving, capturing and analysing user activity



Value to capture!

Brands spend a trillion dollars a year to talk to consumers - plus rent, shipping, marketing, returns...

Global ad revenue, 2024 (\$bn)



Source: Companies, WPP Media
NB: 'China' represents spending in China, not global spending by Chinese companies

“Our new AI recommendation model drove 5% more ad conversions on Instagram and 3% on Facebook”

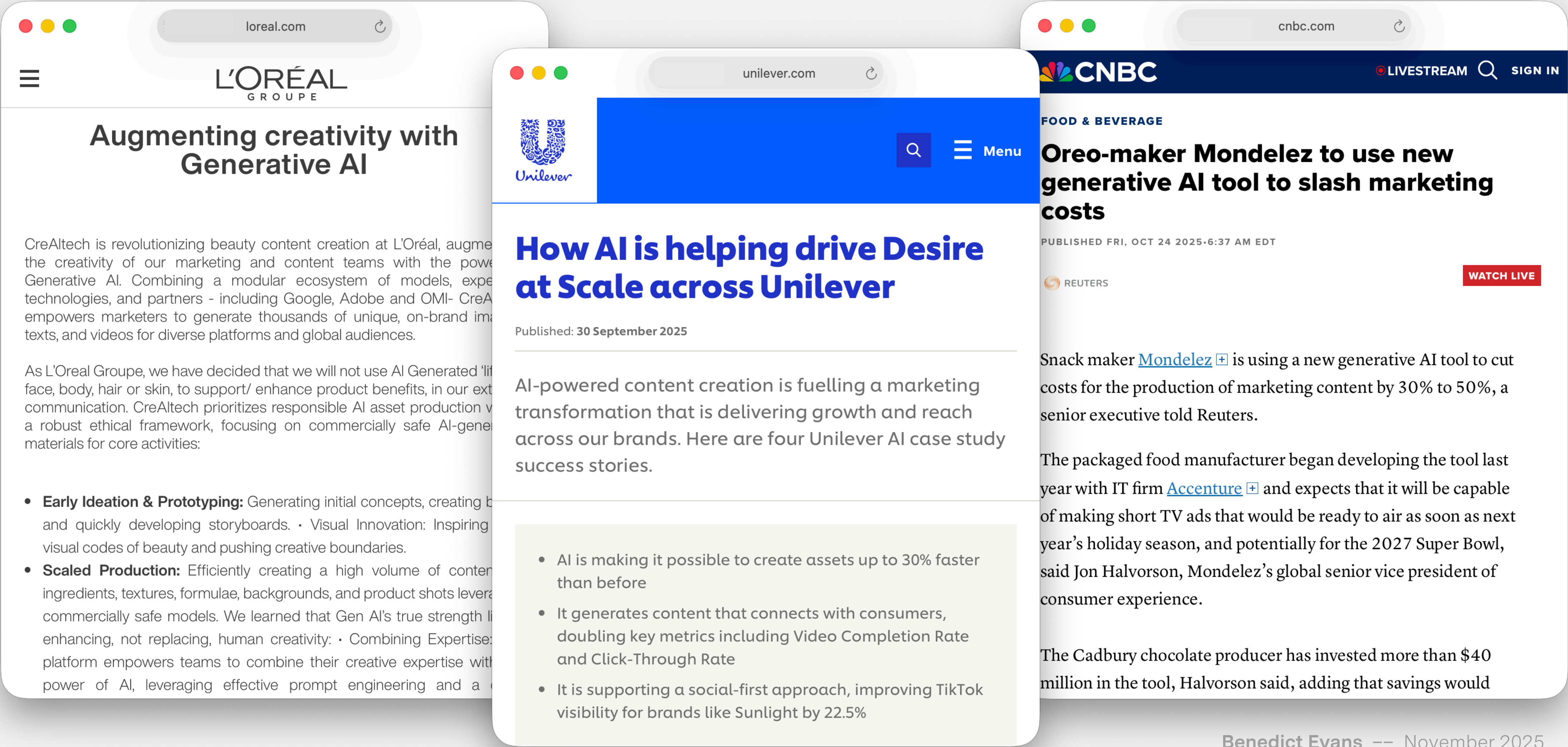
Meta, Q2 2025

“Advertisers that activate AI Max in Search campaigns typically see 14% more conversions”

Google, Q2 2025

Absorb the new thing, automate what you know

Ad asset creation costs ~\$100bn globally: now add 10-20x more assets and unlock cheap video for everyone



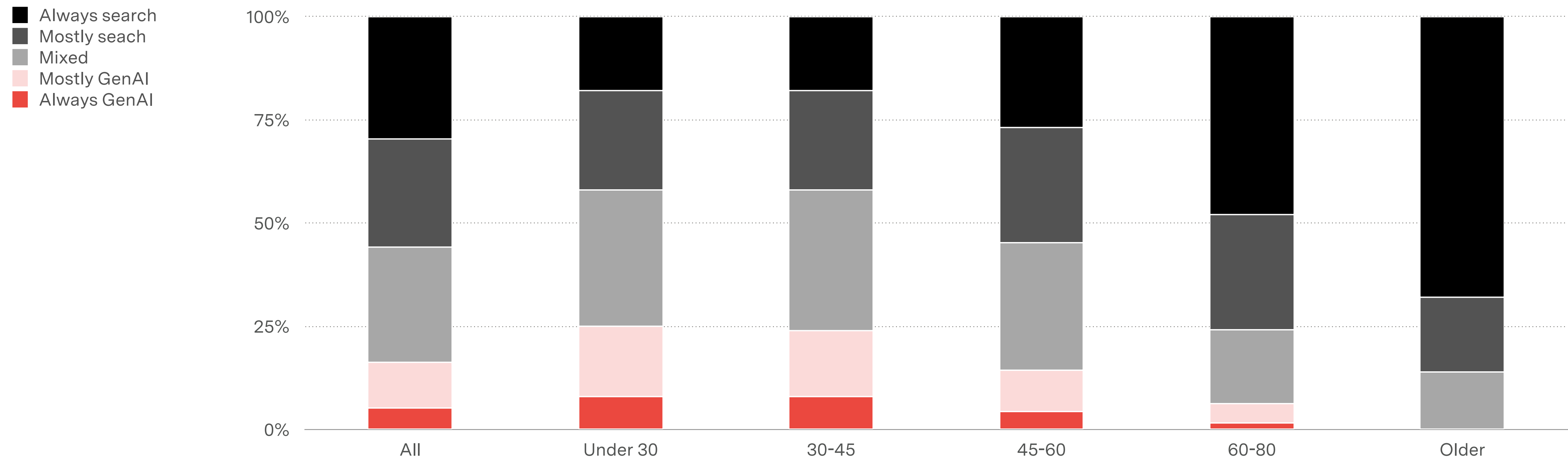
Old: “half of AI will be turning three bullet points into emails, and the other half will be turning emails into three bullet points”

New: half of AI will be turning three bullet points into 300 ads, and the other half...

Again, this is early

Use so far may be more additive and experimental than substitution (and this includes Gemini)

US consumer search preference (September 2025)

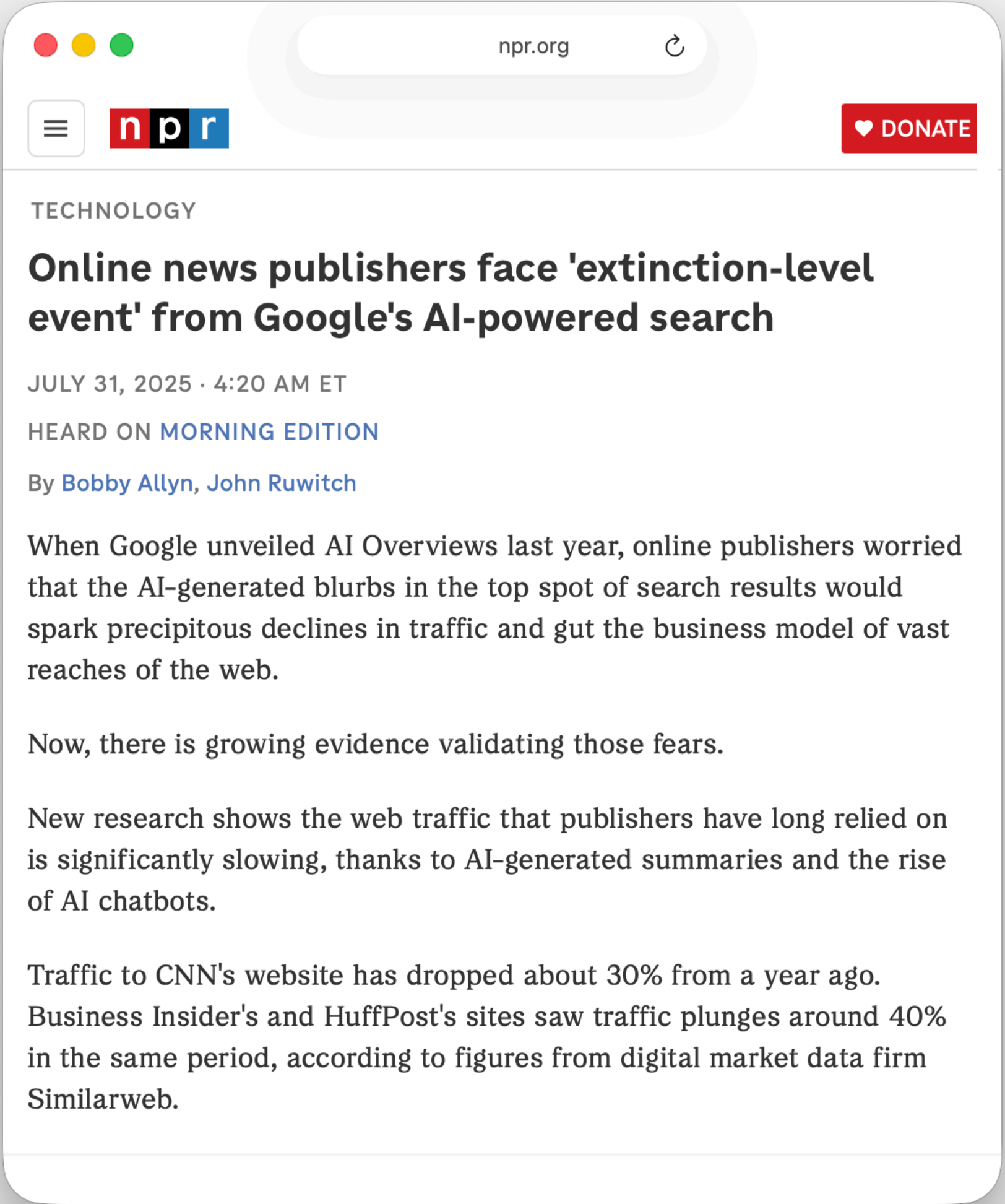


The web has been dying since 1997

Remember how early this is, and how hard it is to know how the new thing will work

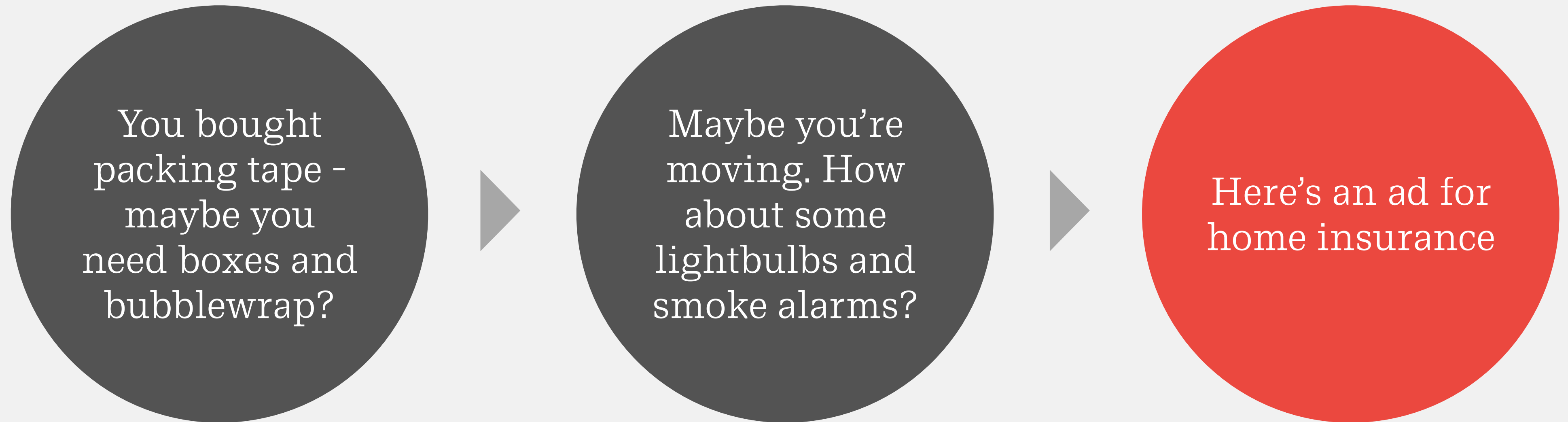


Source: Zeldman



But where are we going?

What if recommendations go from correlation to an understanding of what those SKUs really represent?



How do we know what we might want?

For 30 years we've had infinite product, infinite media and infinite retail

Now we have a machine that sees all of it, and sees us

What does it recommend?

Source: Morioka Shoten



And what gets unbundled?

What do you actually want? What are you trying to do? Why? What do you care about?



“What’s our *AI* strategy?”

Is this a question for the CIO? CMO? CEO?

Accenture? Publicis? Bain/BCG/McKinsey?

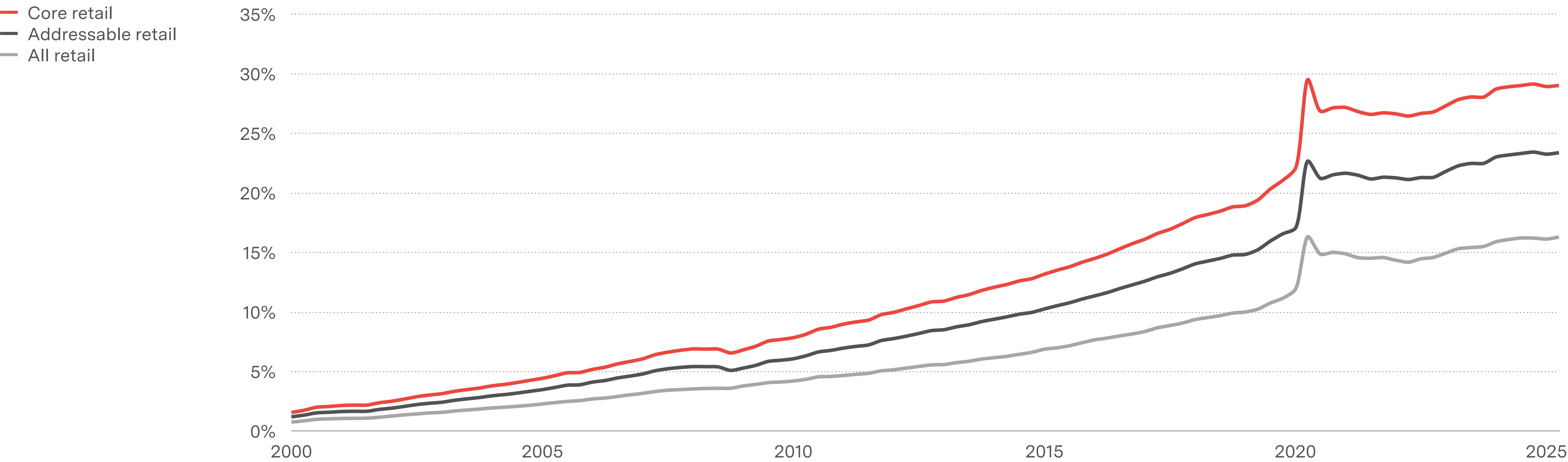
Is this a new tool or a new industry?

AI eats the world

The old stuff from before ChatGPT is still here

Excluding gas and grocery, 30% of US retail sales are now online

E-commerce as % US retail sales

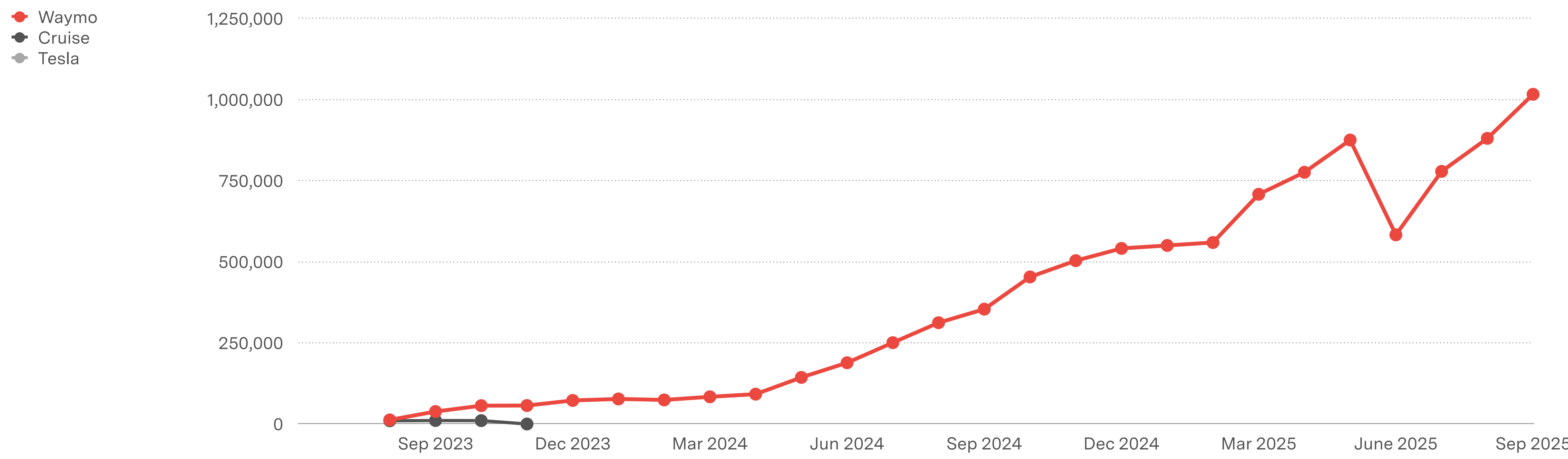


Source: US Census. Seasonally adjusted
‘Retail’ excludes restaurants & bars. ‘Addressable retail’ also excludes cars, car parts & service, and gasoline stations. ‘Core retail’ excludes grocery from addressable retail.

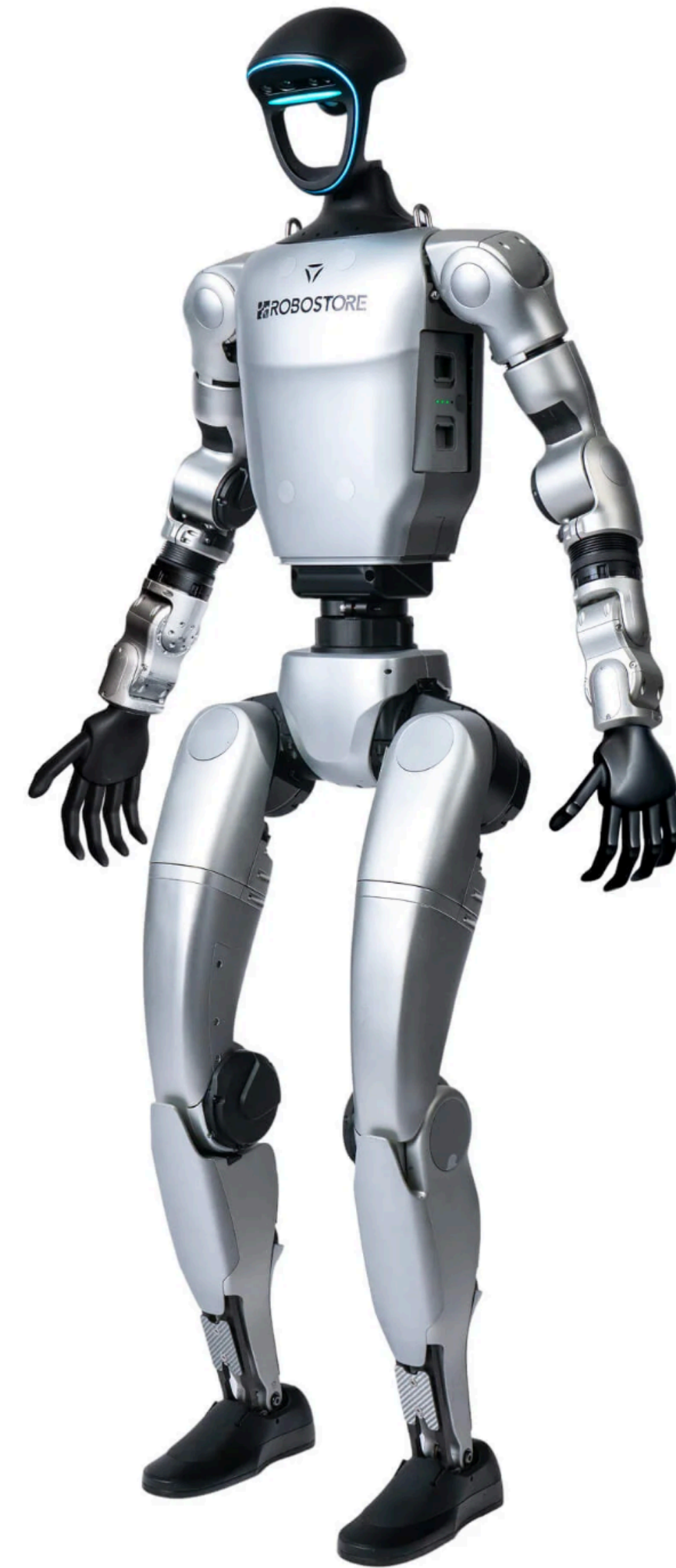
And all the *other* new stuff

After a decade of promises and tens of billions of dollars, ‘automatic cars’ might be starting to work

Monthly ‘robotaxi’ trips in California



Source: California Public Utilities Commission



How many times have we been here before?

We've had radical change (and bubbles) before
And we've also done automation before



150 Extra Engineers

An IBM Electronic Calculator speeds through thousands of intricate computations so quickly that on many complex problems it's just like having 150 EXTRA Engineers.

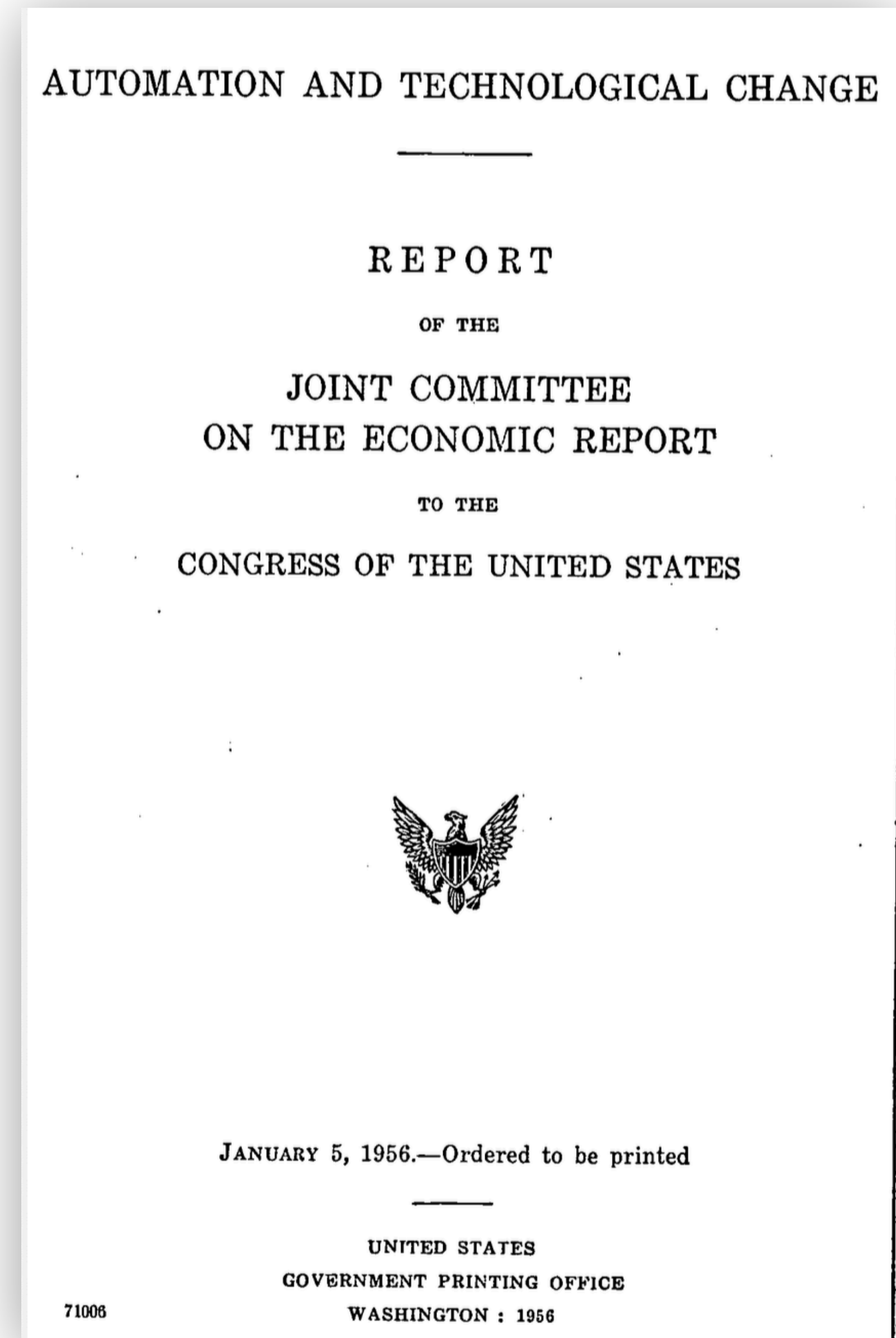
No longer must valuable engineering personnel . . . now in critical shortage . . . spend priceless creative time at routine repetitive figuring.

Thousands of IBM Electronic Business Machines . . . vital to our nation's defense . . . are at work for science, industry, and the armed forces, in laboratories, factories, and offices, helping to meet urgent demands for greater production.



‘Automation and technological change’, 1955

Source: US Congress report on automation, 1956



“Automation”

In the course of the hearings, the subcommittee considered specifically six different industrial situations in the metalworking, chemical, electronics, transportation, and communications industries, together with data processing and officework. These industries were selected merely as illustrative of the kind of problem which may be faced in the trend toward automation. There are, of course, many other industries which might have been studied with interest and profit had time permitted. The fact that these particular industries were chosen should not for a moment obscure the fact of rapidly advancing technology in other areas. To mention only a few such areas, one might cite the canning and bottling industries. One might cite also petroleum refining, the processing of commercial-bank paperwork, the basic steel industry, the use of ready-mixed concrete, coal mining, the use of electronically controlled elevators in our modern skyscrapers, and numerous others.

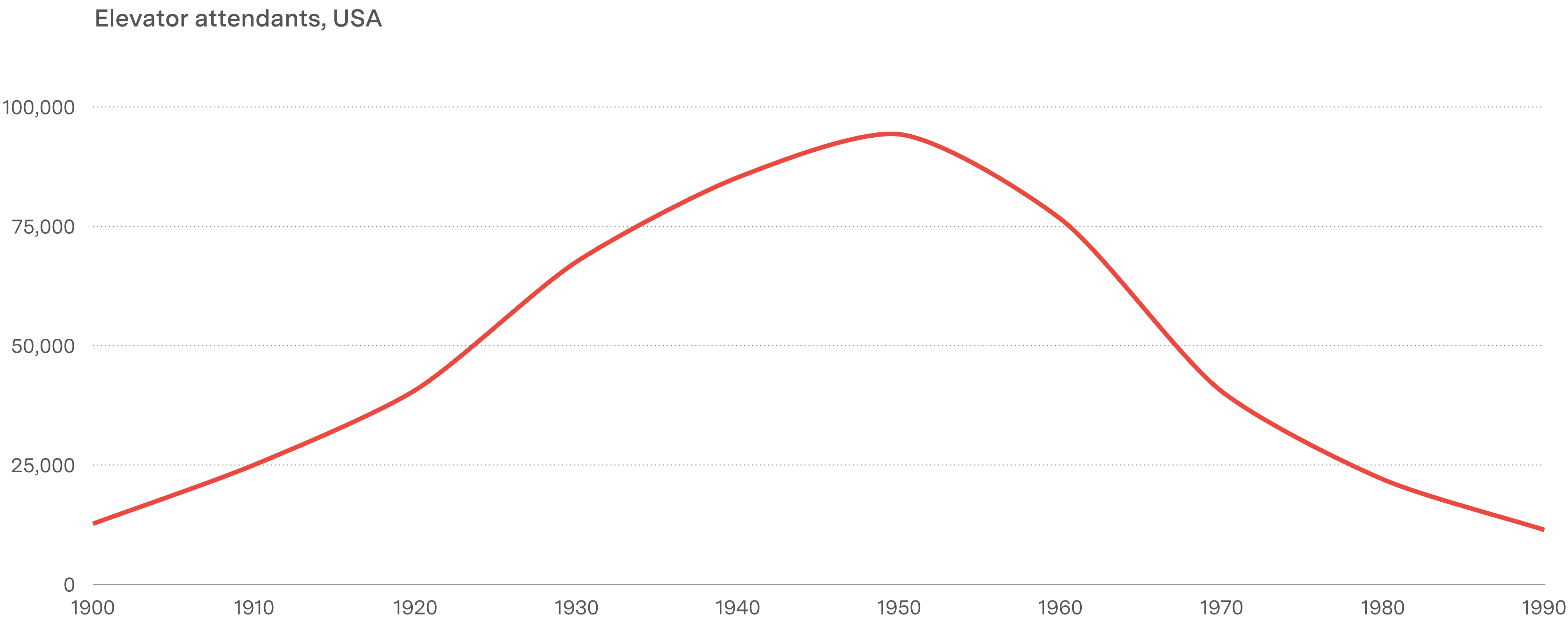
“Automation”



Source: Benedict Evans

When automation works, it disappears

Otis launched the ‘Autotronic’ automatic elevator in 1950



Source: US Census

“AI is whatever machines can’t do yet”

Larry Tesler, 1970

Thank you

What matters in tech? What's going on, what might it mean, and what will happen next?

I've spent 25 years analysing mobile, media and technology, and worked in equity research, strategy, consulting and venture capital. I'm now an independent analyst, and I speak and consult on strategy and technology for companies around the world. Mostly, that means working out the right questions.

For more, see www.ben-evans.com

Thank you

Benedict Evans

November 2025

www.ben-evans.com
