

AI eats the world

Benedict Evans

May 2025

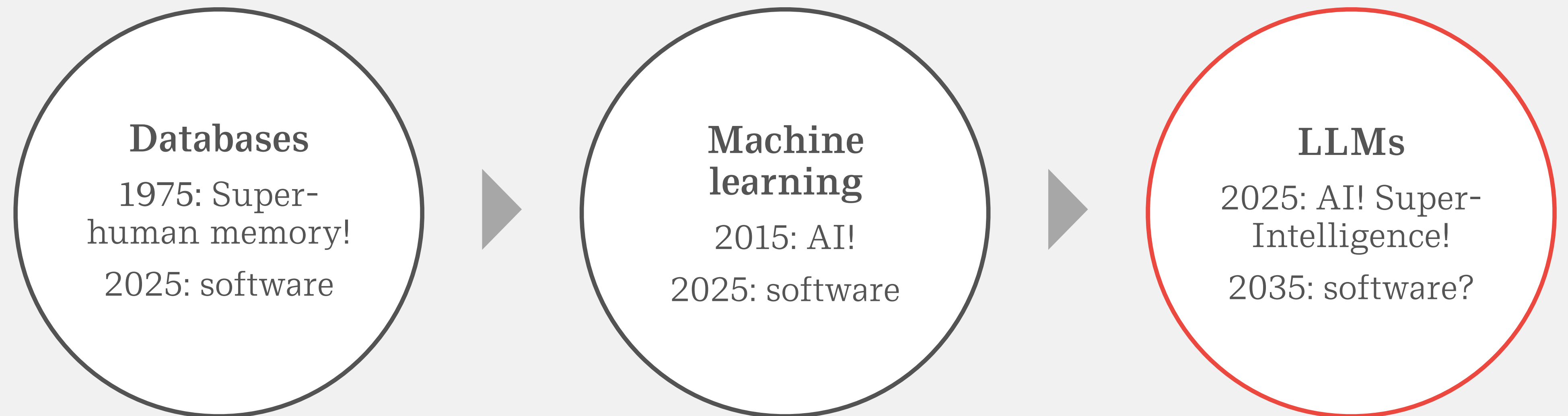
www.ben-evans.com

“AI is whatever machines can’t do yet”

Larry Tesler, 1970

Historically, once ‘AI’ works it’s just software

‘AI’ seems to mean whatever just started working, or maybe whatever almost works



Yes, but...

“In my lifetime, I’ve seen two demonstrations of tech that struck me as revolutionary: the GUI and ChatGPT”

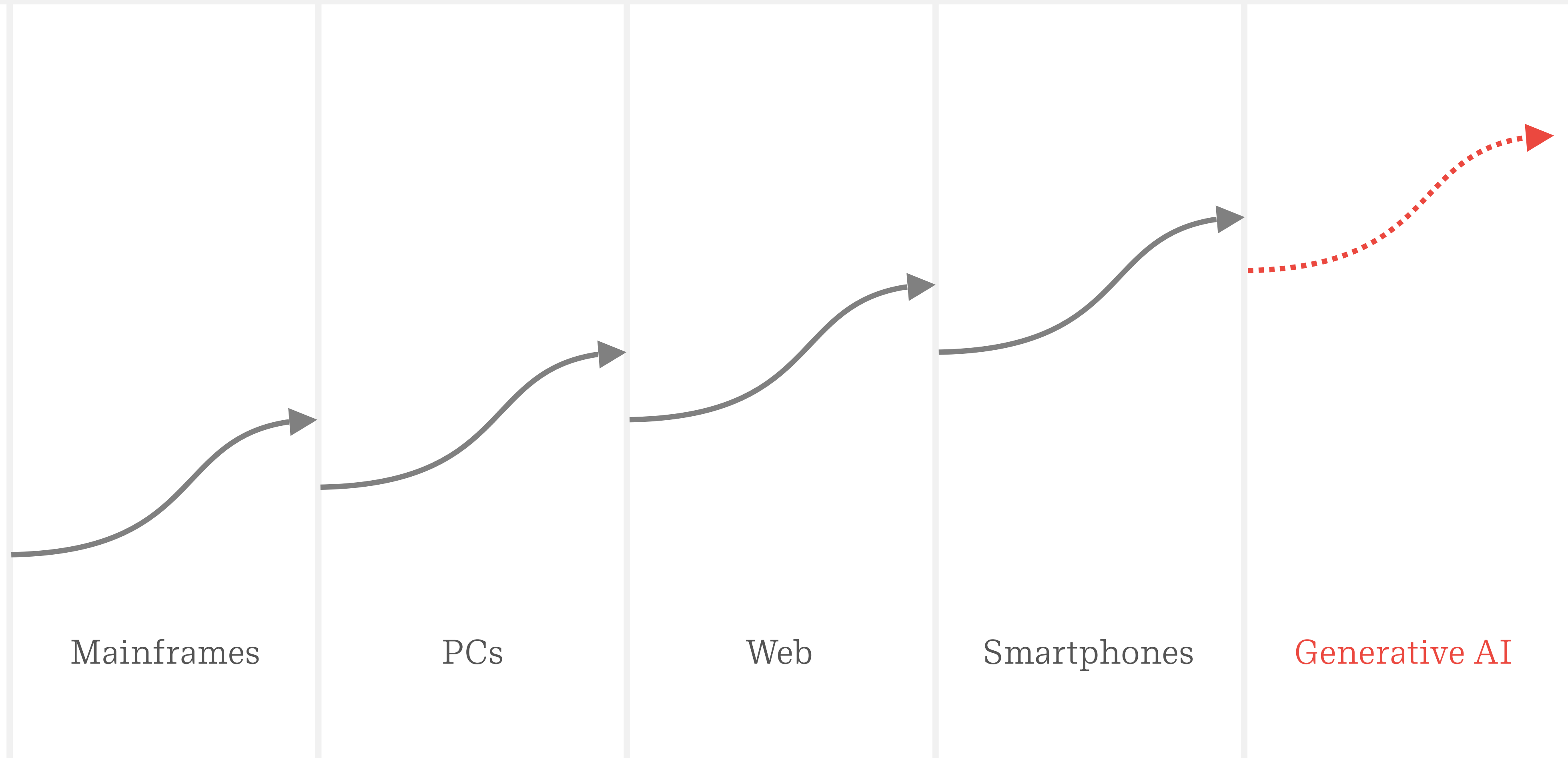
Bill Gates, March 2023

“The final race to AGI is afoot”

Sergey Brin, February 2025

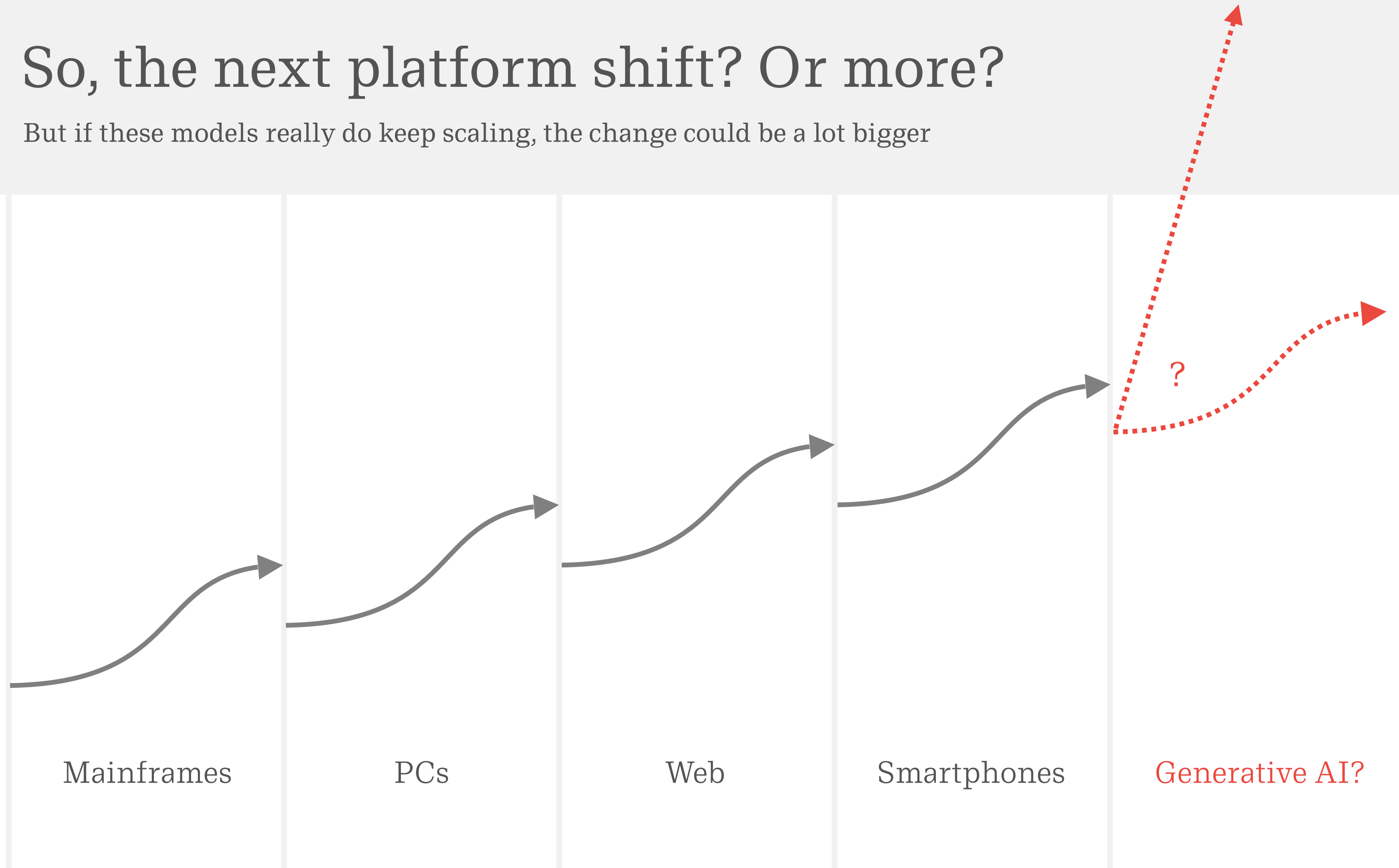
So, the next platform shift?

Every 10-15 years, a platform shift reshapes the tech industry



So, the next platform shift? Or more?

But if these models really do keep scaling, the change could be a lot bigger



What kind of a change is 'generative AI'?

Is this Everything, or just the New Thing?



“In from three to eight years we will have a machine with the general intelligence of an average human being”

Marvin Minsky, 1970

“AI is whatever machines can't do yet”

Larry Tesler, 1970

What's going on right now?

Two kinds of conversation - this is Something, but it might be Everything




Model
Building
+
Software
Deployment

“This will
transform
humanity!”

Model building

Two years of the model wars

Lots of investment, lots of progress, no apparent defensibility



Much more
capital

Pricing
collapse

Lots of new
stuff - agents,
multimodal,
'reasoning',
MCP etc

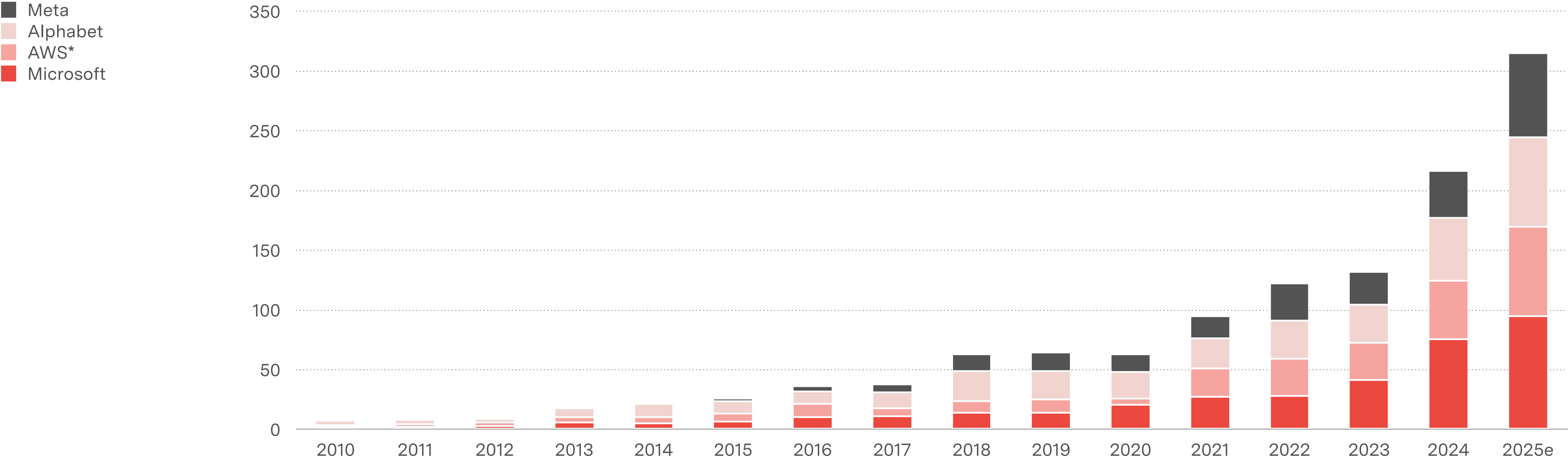
No obvious
moats

Open Source

FOMO drives a capex surge

If this is the centre of tech for the next decade, you don't want to miss it

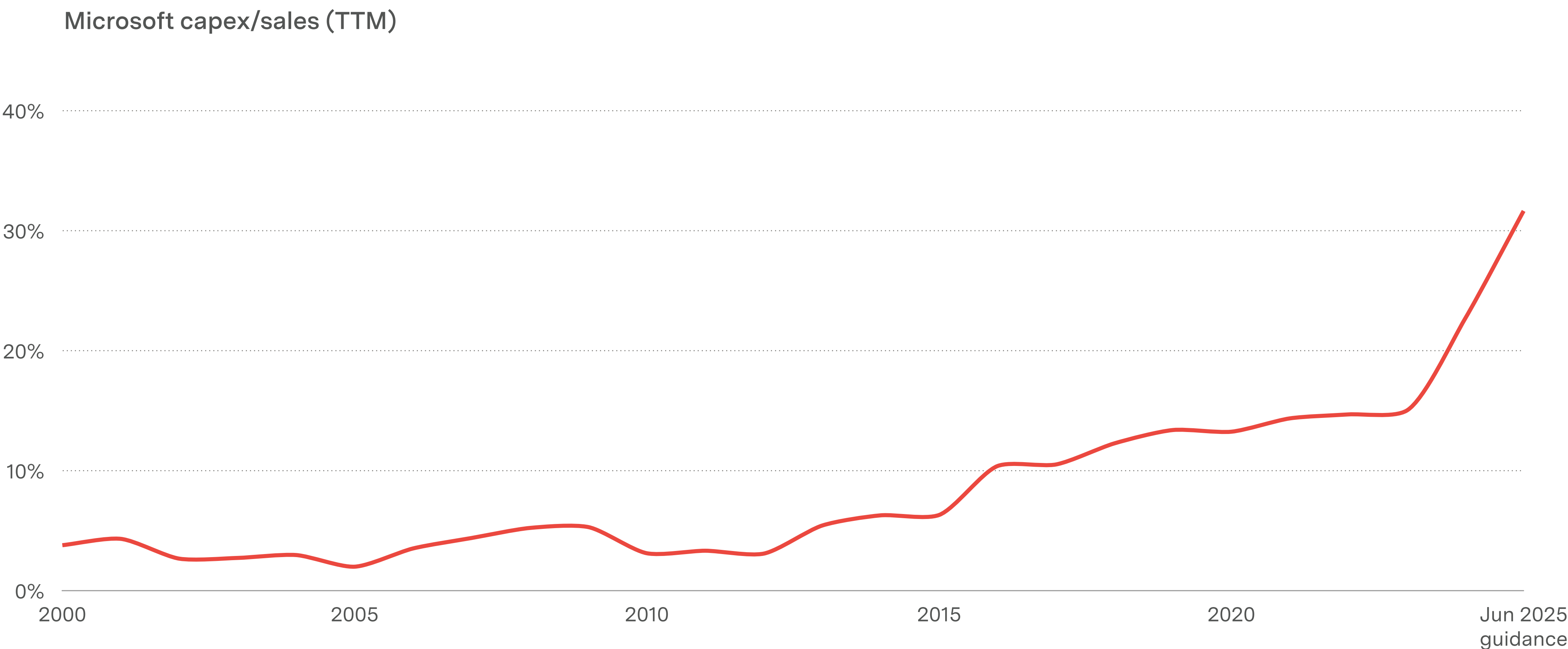
Capex (\$bn)



Source: Companies, company guidance. Includes capital leases
* Amazon does not break out AWS capex but reports it as 'the majority'

Microsoft's margin shift

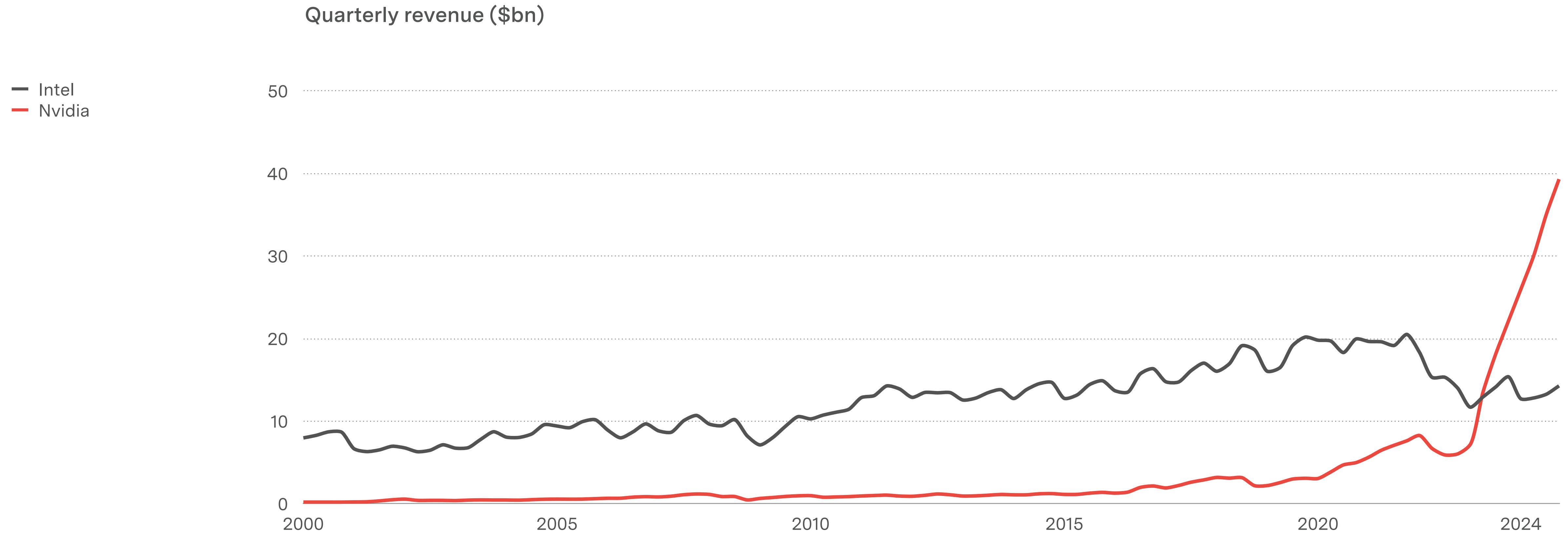
Remember when Microsoft's business was selling \$1 CDs for \$250 each?



Source: Microsoft. Includes capital leases

The Nvidia moat

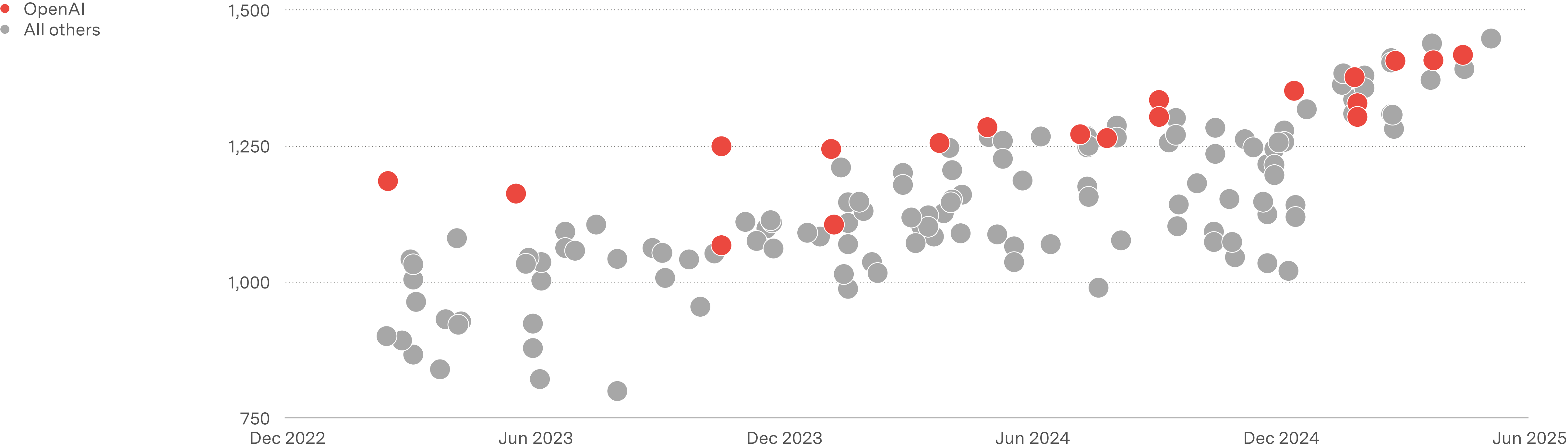
Nvidia tries to build a new Sun with custom compute and a software ecosystem. (This is also a TSMC chart)



Models themselves seem to be commodities

No apparent barriers to matching SOTA, and OpenAI’s first-mover lead has steadily eroded

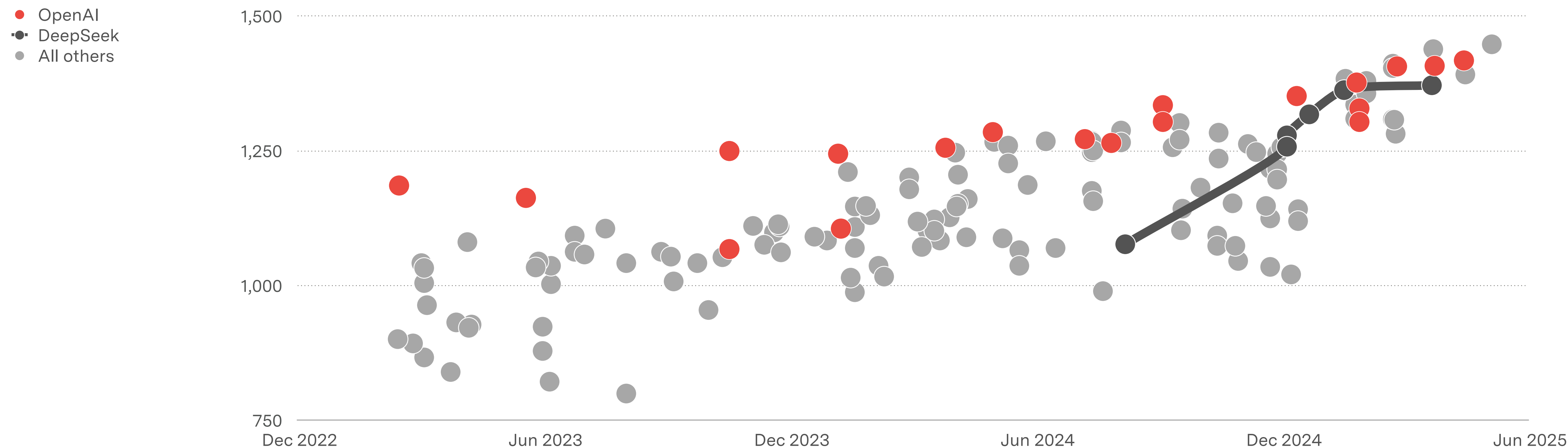
Model quality (LMArena) by release date



DeepSeek just proves the point

Open source (plus leaky sanctions and \$500m of capex) let a Chinese hedge fund rival the best labs

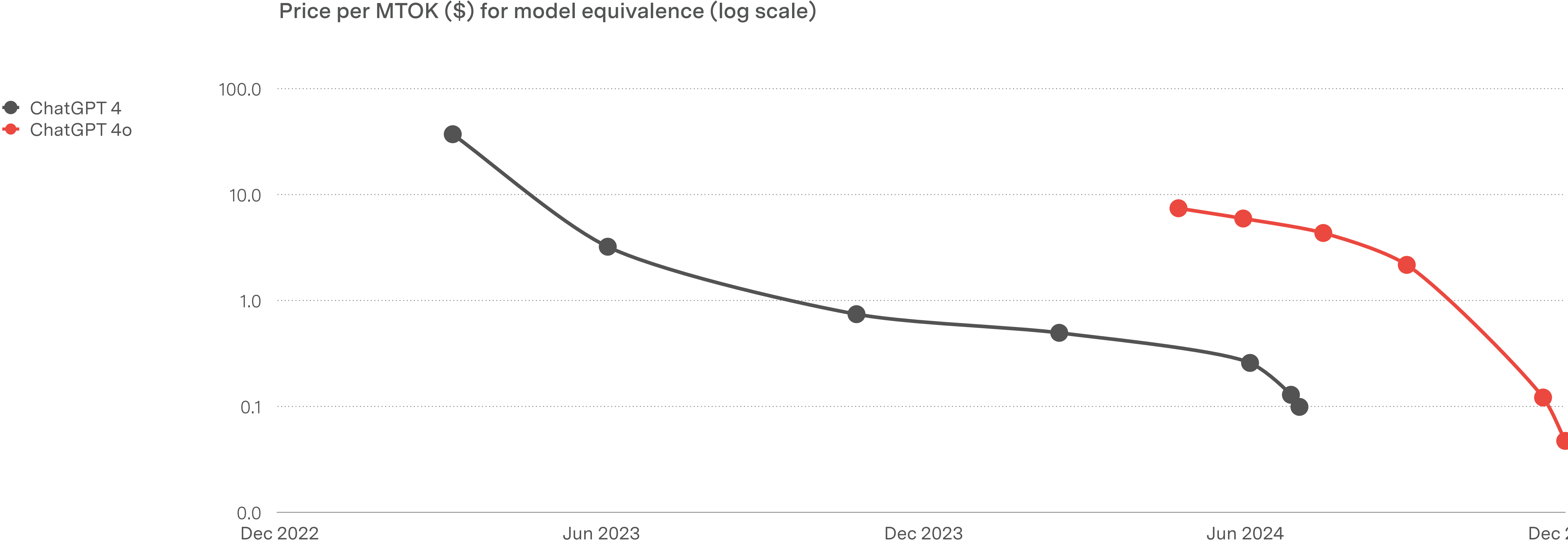
Model quality (LMArena) by release date



Source: Companies, LMArena

Ongoing price collapse

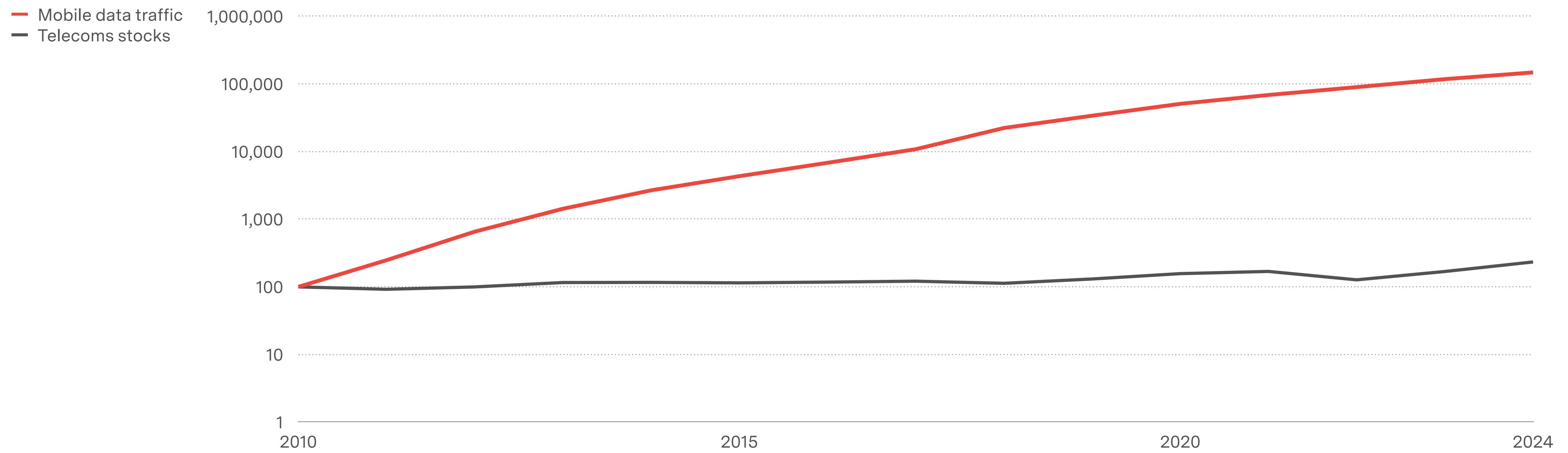
“An LLM is the most expensive and fastest-depreciating asset in tech history”



“The Jevons Paradox!”

Economics for beginners: lower prices generally mean more use, but not necessarily more revenue or profits

Global mobile industry since 2010 (indexed, log scale)

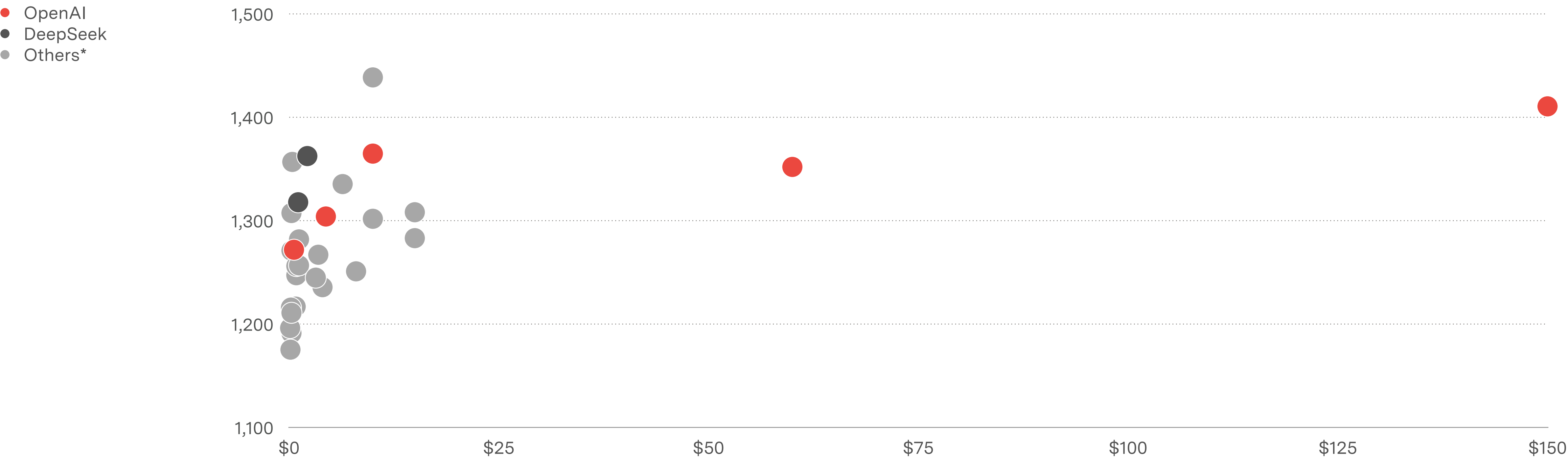


Source: Ericsson, MSCI World Telecommunications index

“Better, faster, cheaper: pick two”

Dozens of models trading cost versus performance, and pushing towards the edge

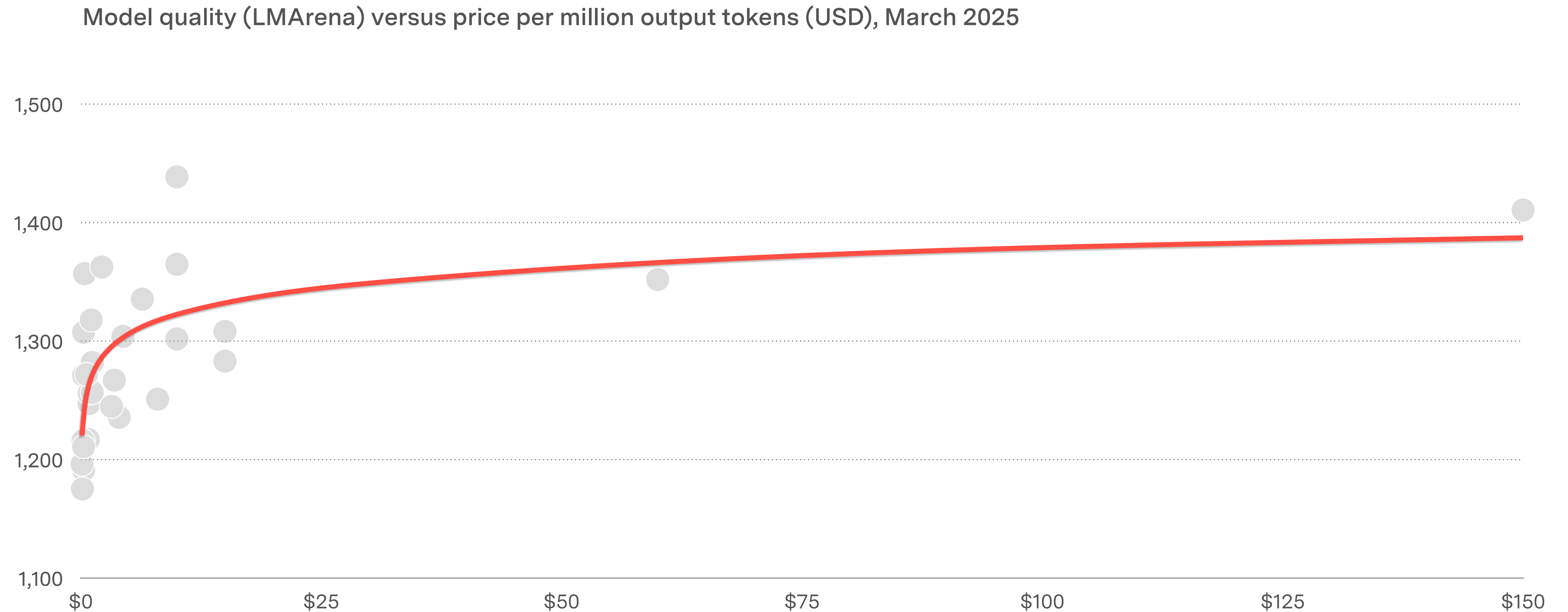
Model quality (LMArena) versus price per million output tokens (USD), March 2025



Source: Companies, LMArena
* Google, Meta, Amazon, Anthropic, Alibaba, Mistral, xAI

“Better, faster, cheaper: pick two”

Dozens of models trading cost versus performance, and pushing towards the edge



“Feeds & speeds” and a lot of acronyms

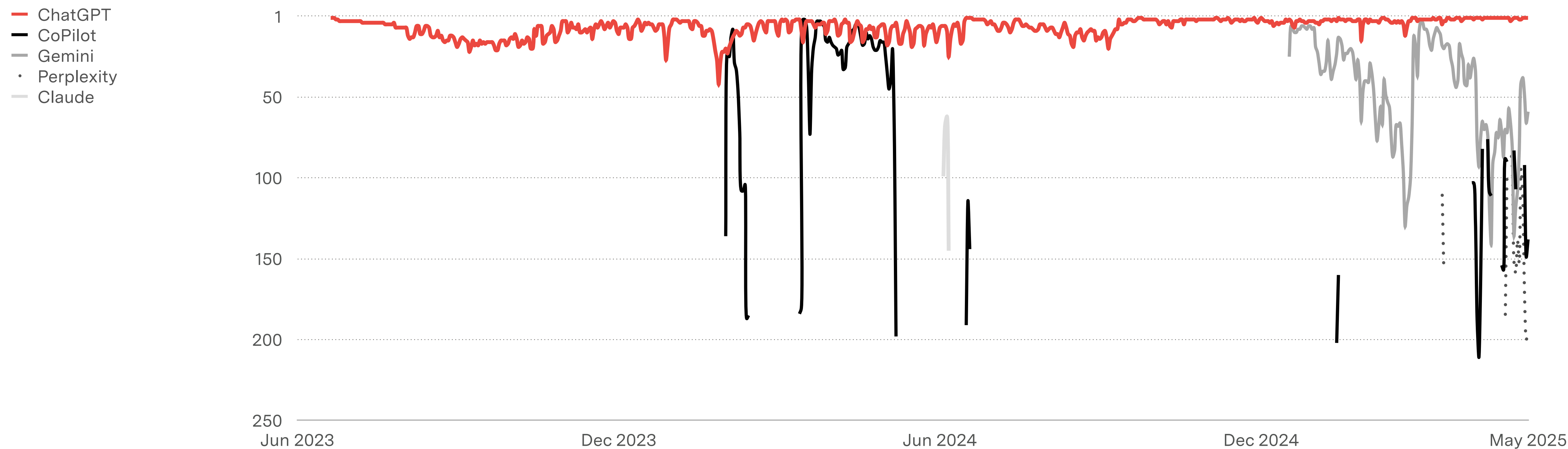
Hundred of models, dozens of benchmarks and acronyms - MTOk replaces MHz



Product, brand or distribution?

The models may be commodities, but ChatGPT is the only ‘AI’ brand with consumer awareness

Apple app store ranking, USA



Source: SimilarWeb

‘Big Tech’ strategies: “how do we use this?”

Incumbents always try to absorb the new thing into their existing strategies

**Build a
hardware
platform**

Nvidia

**Make it a
commodity**

Amazon, Meta

Sell the APIs

Amazon,
Google,
Microsoft

**Make it a
feature**

Google, Meta,
Microsoft, Apple

But what does this mean for the rest of us?

How many acronyms do you need to care about if you're not an Nvidia shareholder?



Massive
investment and
FOMO in tech

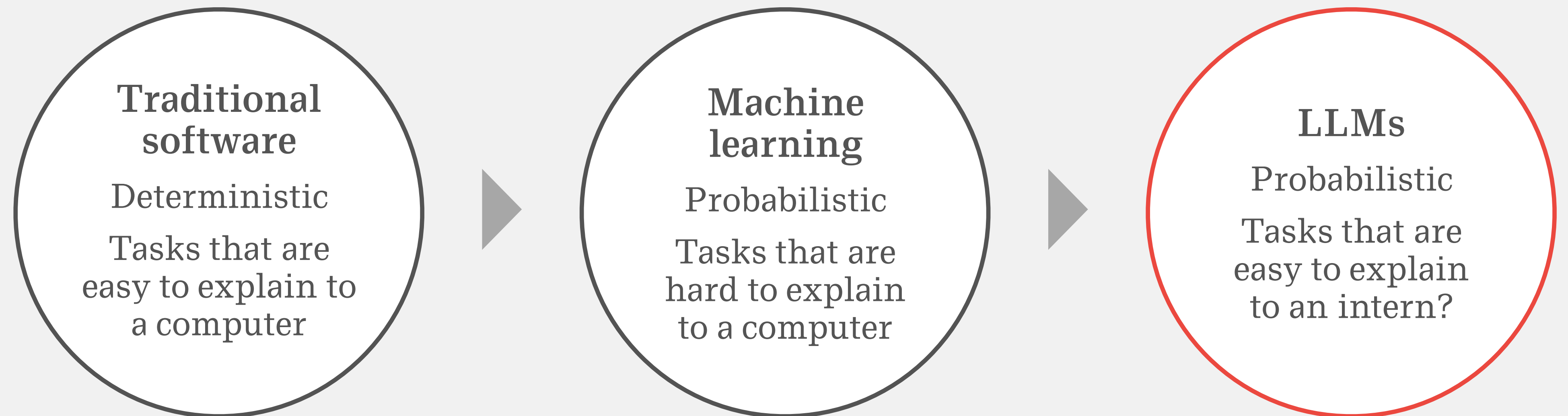
Models getting
better and
cheaper

Models are
commodities,
for now

Deployment

From deterministic to probabilistic software

LLMs change what we can expect from software



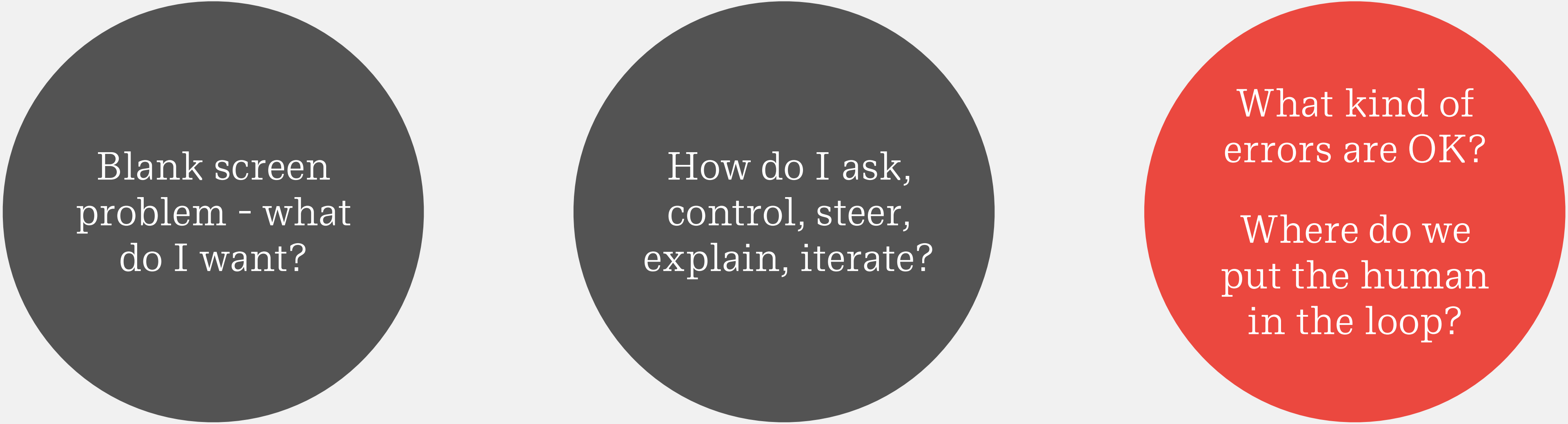
That sounds great, but...

What specifically can we do with tech that can automate things computers could never do before?

If the tech might get it wrong?

What do we do with this? How?

For most people in most kinds of job, it's not easy to work out what do with an LLM



Blank screen
problem - what
do I want?

How do I ask,
control, steer,
explain, iterate?

What kind of
errors are OK?

Where do we
put the human
in the loop?

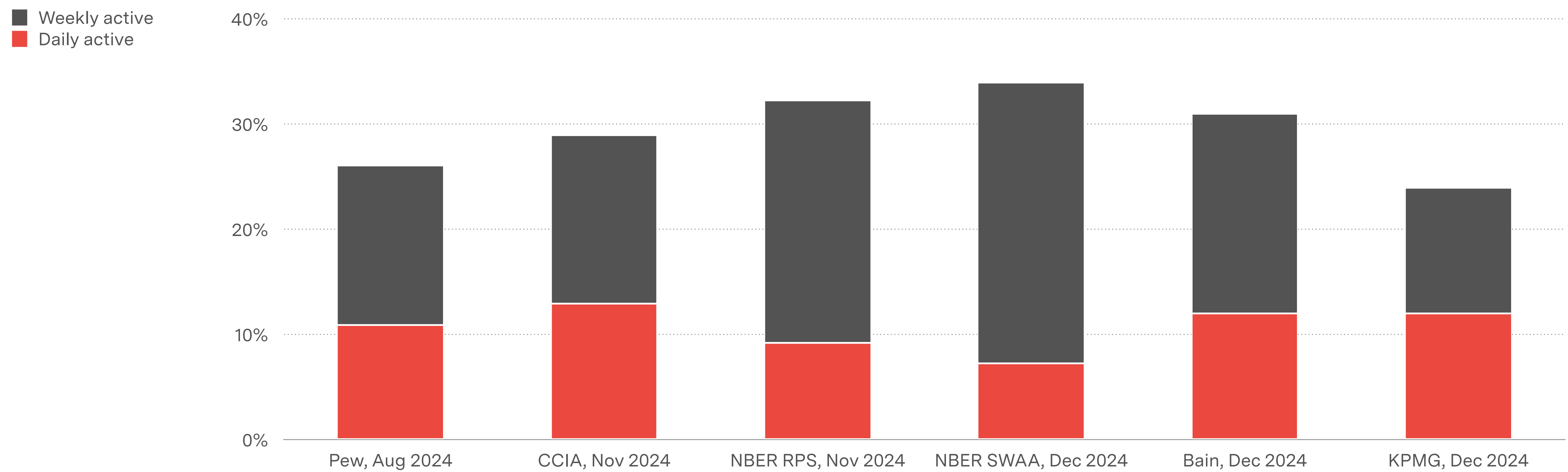
Do we use LLMs to control all of our traditional software?

Or are LLMs just another API to build software?

Do chatbots have product-market fit? Who for?

If this is life-changing, why is WAU/DAU so bad? Is this just a matter of time, or is this a product problem?

How many people use generative AI chatbots in the USA?

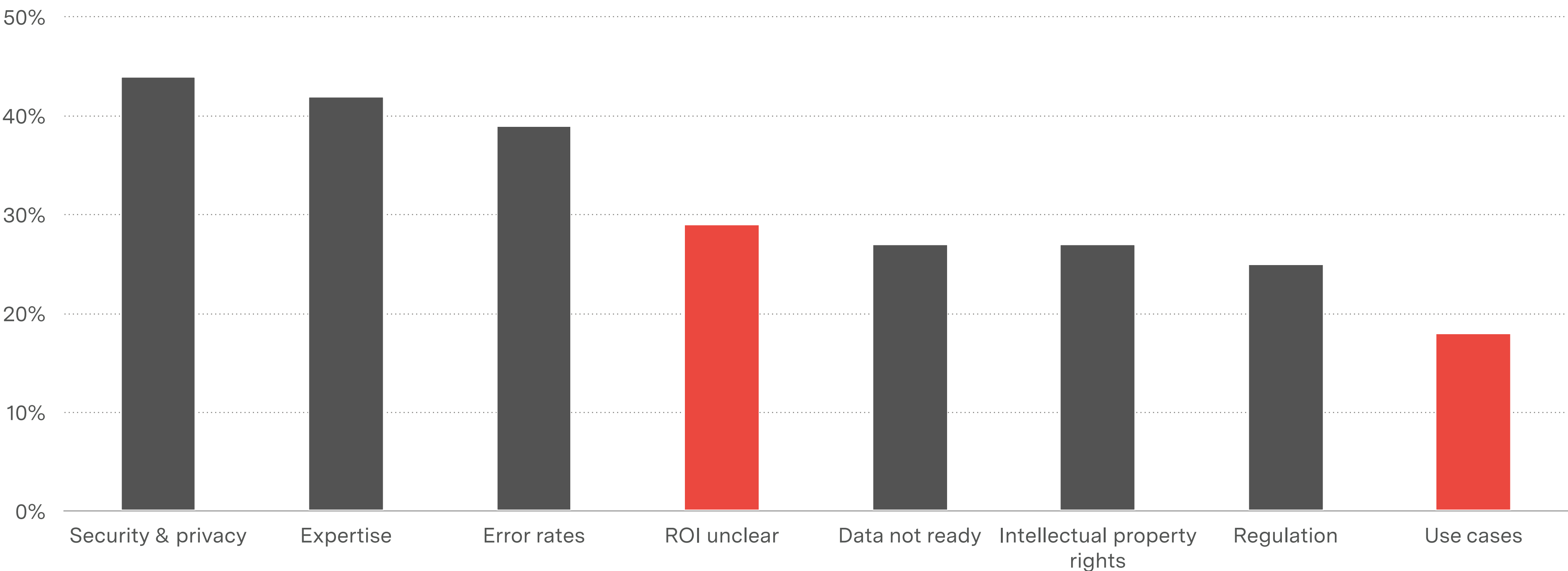


Source: Consumer surveys conducted as of date shown

Corporate hesitation

For enterprises, use cases are easier to see but implementation is hard

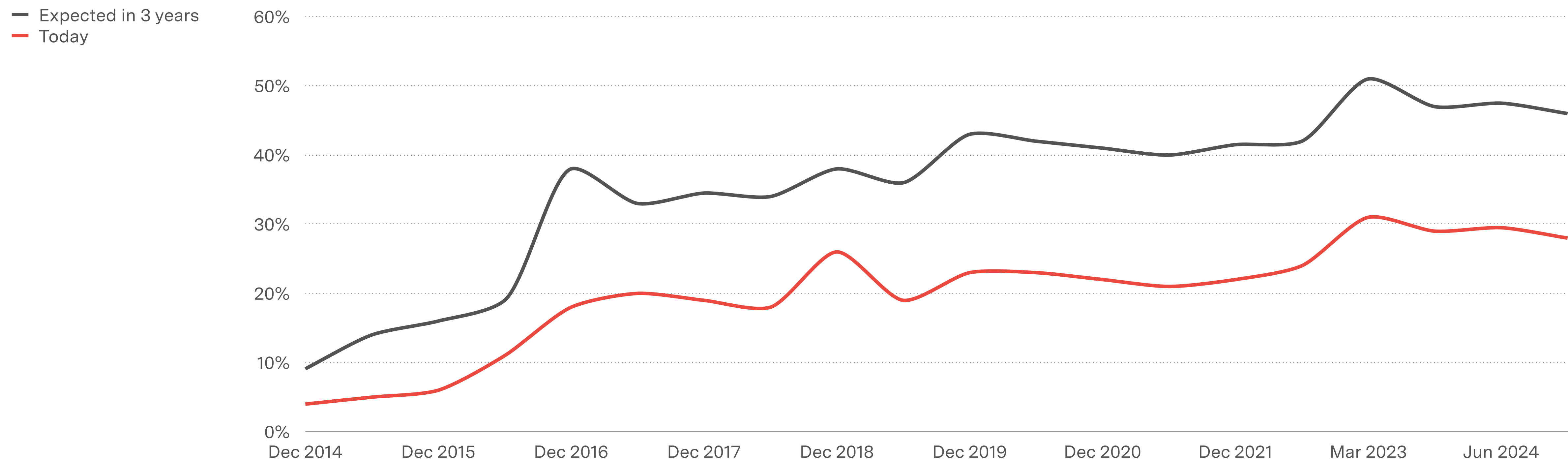
Enterprise reasons to delay LLM deployment, top three choices (December 2024)



The future always takes time

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

Enterprise workloads in public cloud



Source: Goldman Sachs CIO Survey

It's always different

Every platform shift looks like fundamental discontinuity

“What’s a use-case for 3G?”



Smartphones replace
PCs at 5-10x the scale

“Why would anyone trust
Amazon with their data?”



All new software is
built on the cloud

“LLMs are slow, expensive
and unpredictable”



True, but...

What's the standard pattern?

How do we *always* deploy new technologies?



Do you have that use case?

"VisiCalc took 20 hours of work for some people and turned it out in 15 minutes" - Dan Bricklin

Now, imagine a lawyer seeing it: "that's very clever, but I don't have that use case"



“I have that use case!”

Immediately, obviously useful for some professions and some workflows...

Coding

Errors easy to see
30%+ efficiency
gains already

Marketing

Errors easy to see
Many possible
answers

Customer support

(Use with
caution)

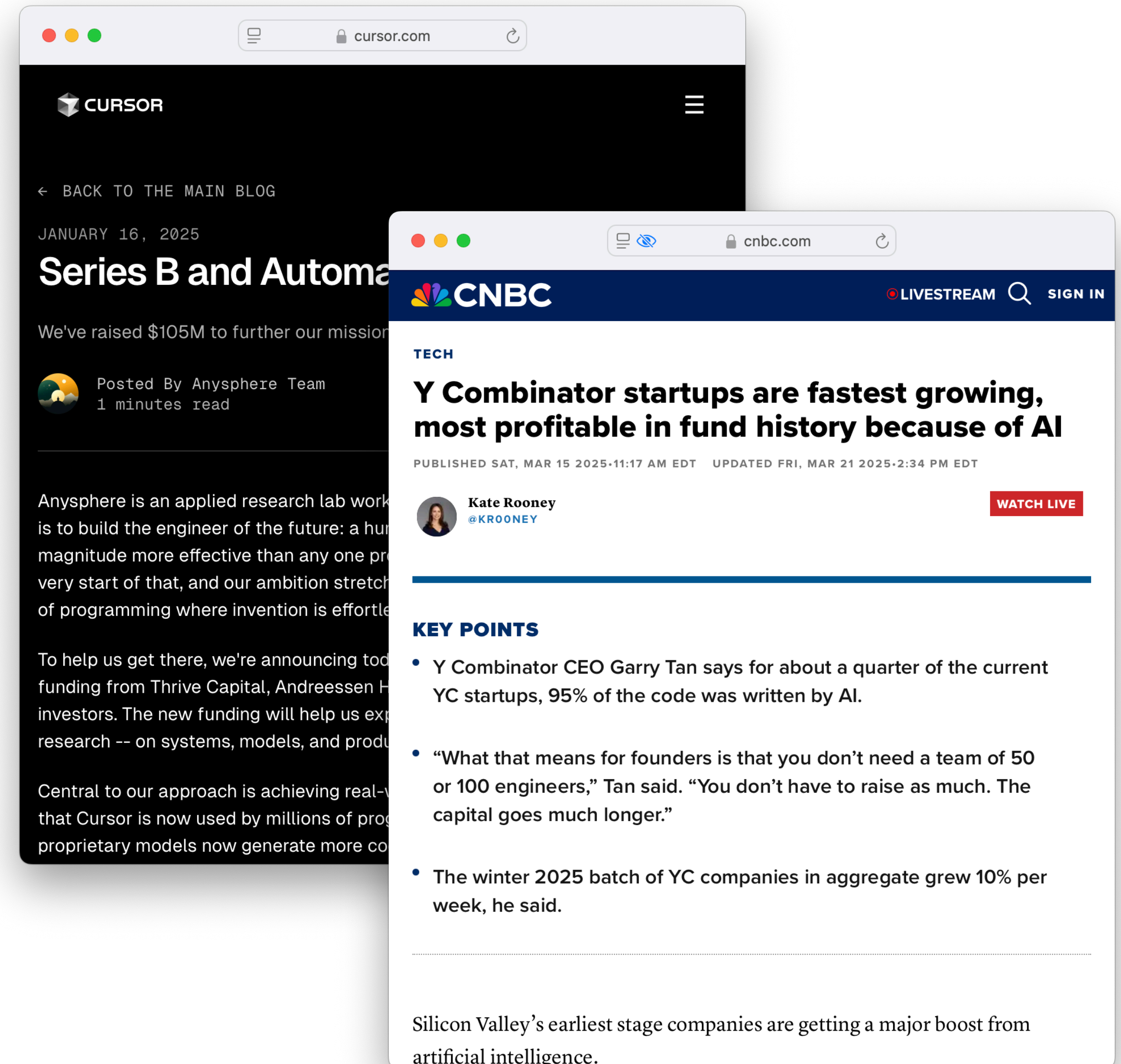
Early adopters

(Always a
limited market)

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?



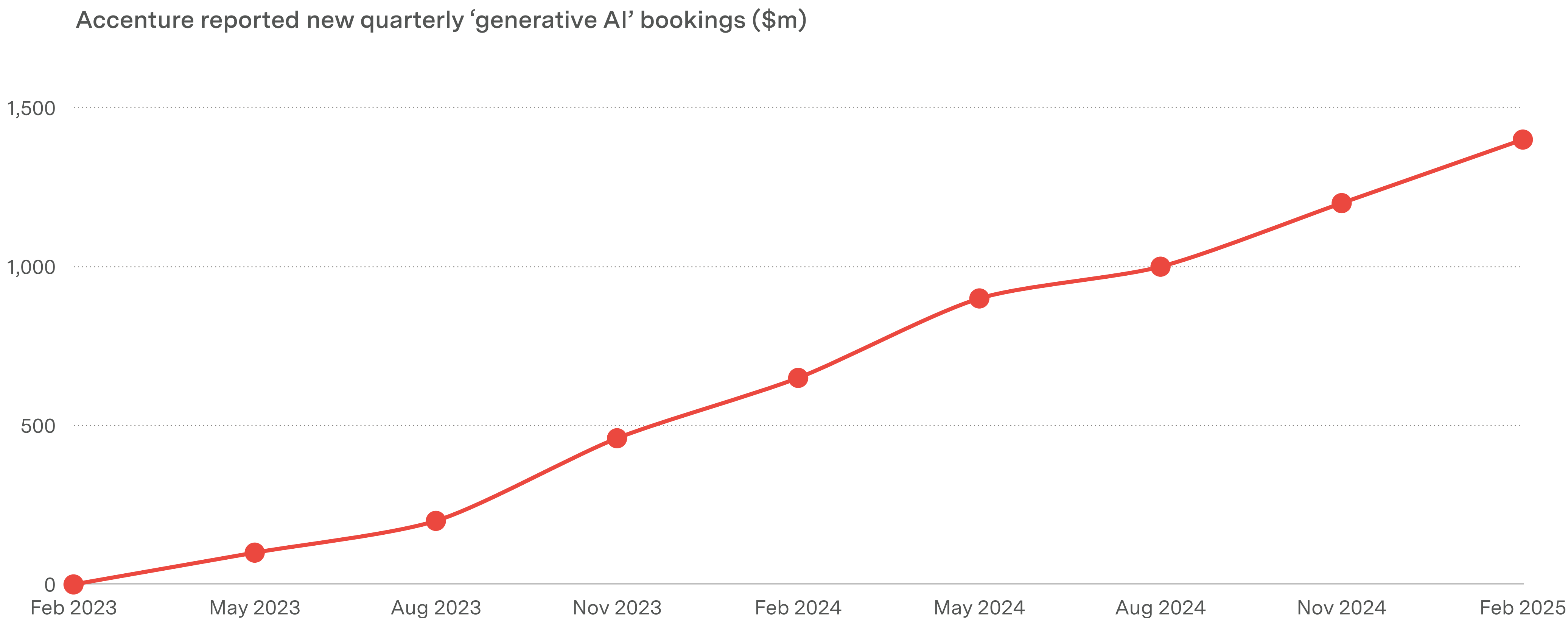
For everyone else...

“It’s not the customer’s job to know what they want. It’s our job to show it to them”

Steve Jobs

Digital transformation!

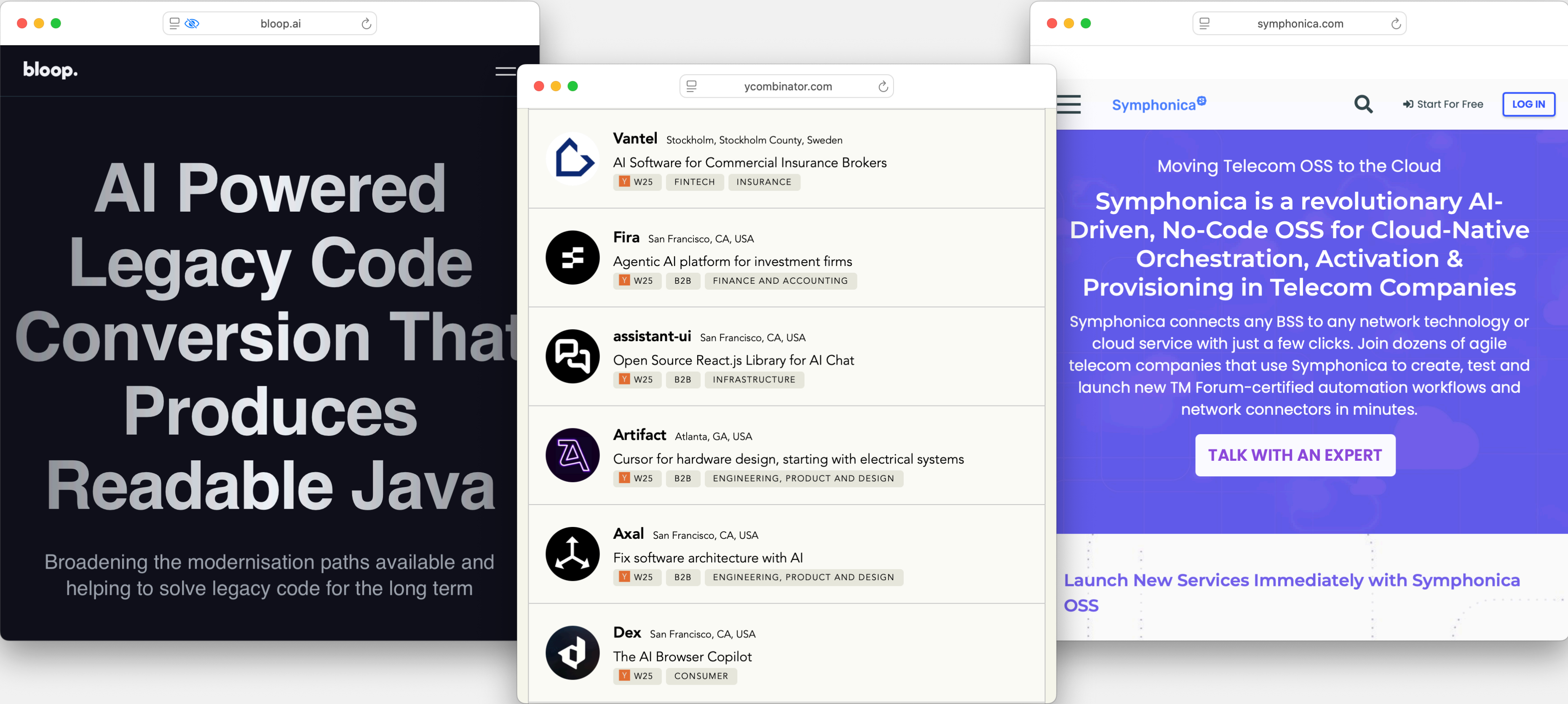
Dig into boring back-office processes and look for things to automate



Source: Accenture

Startups create use cases & unbundle incumbents

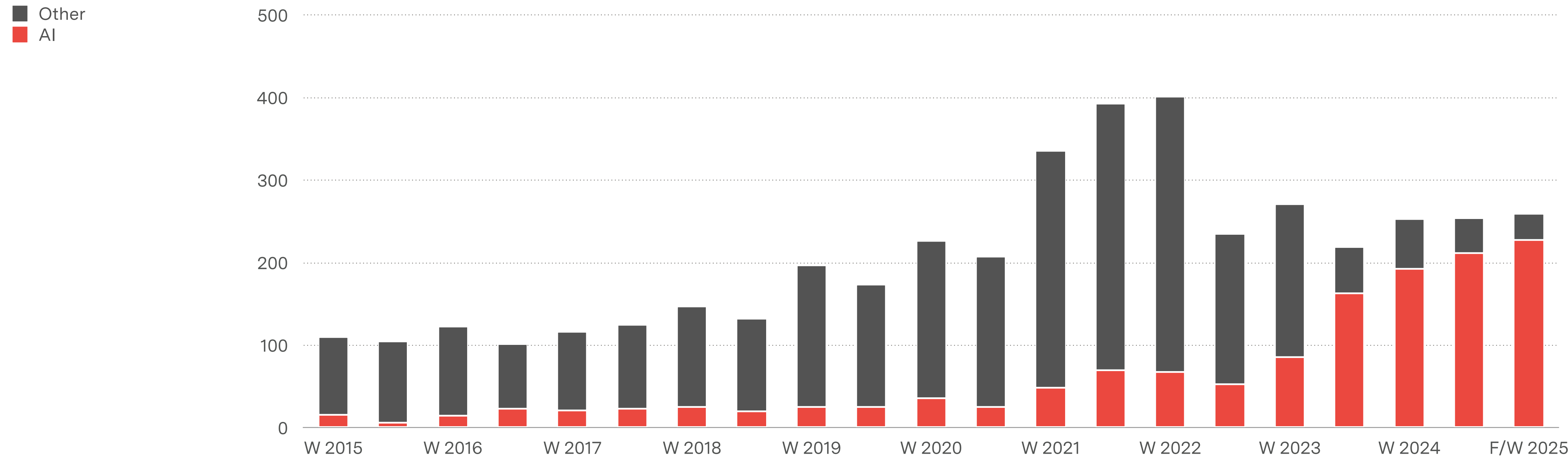
Unbundling Excel, Email and Oracle



(Almost) every new startup is AI

The coming wave of AI startups unbundling Excel, email and Oracle

Y Combinator startups by field

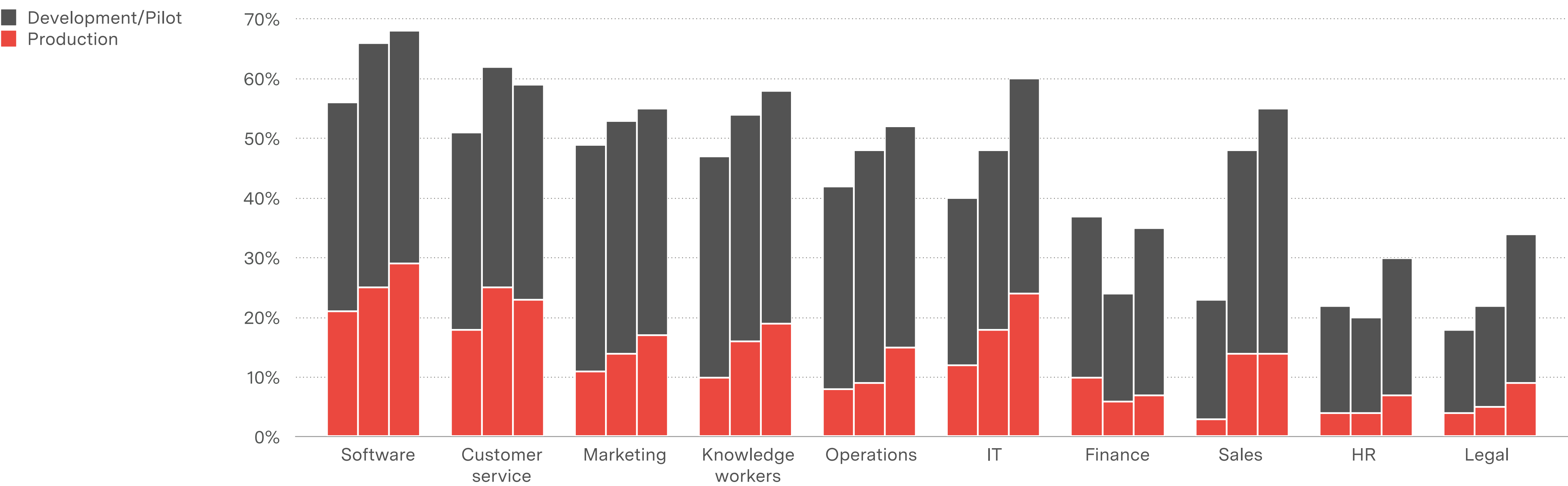


Source: Y Combinator

Everyone has a pilot

Enterprise software takes time, and come with early disappointments

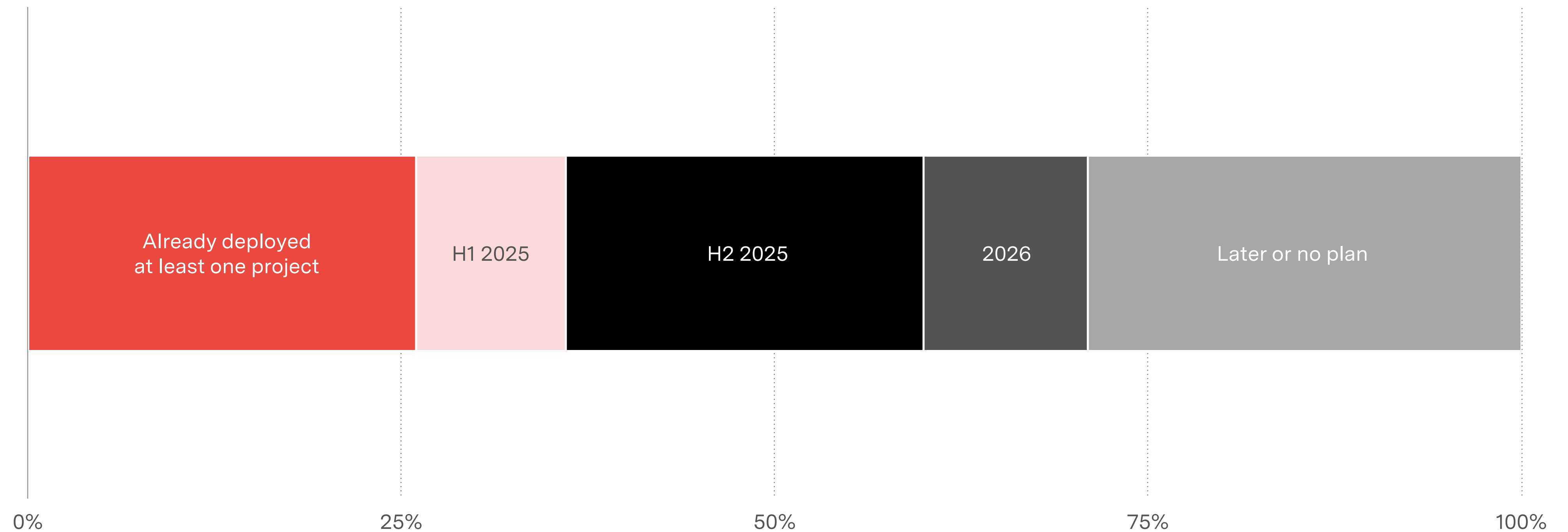
Enterprise use case adoption rates for generative AI: February, July & December 2024



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, March 2025



Platform shifts mean more tools

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



Is this a CIO question? CFO? CEO?

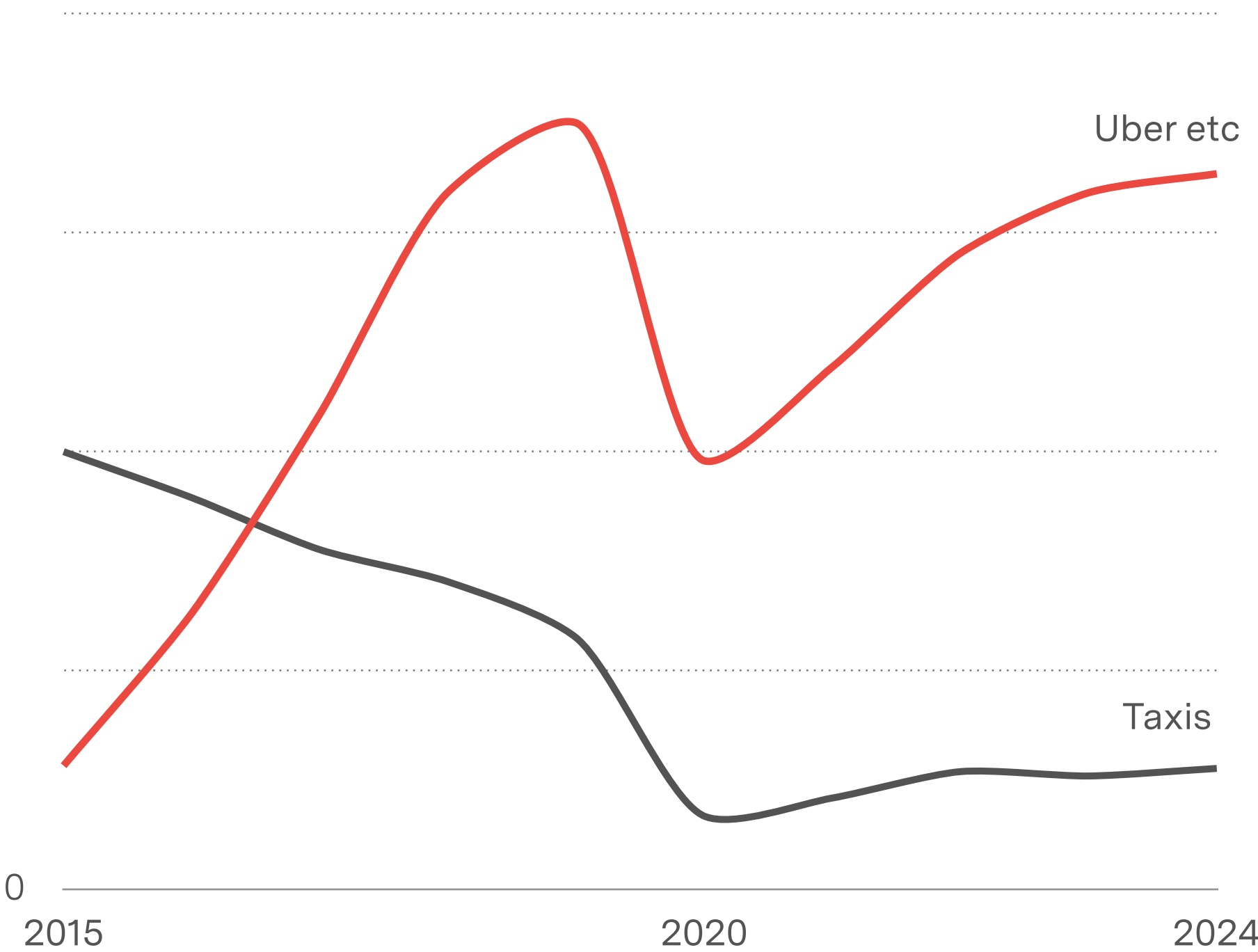
Is this an Accenture question? Or a Bain/
BCG/McKinsey question?

Is this top line or bottom line change? Or
a disruptive, existential threat?

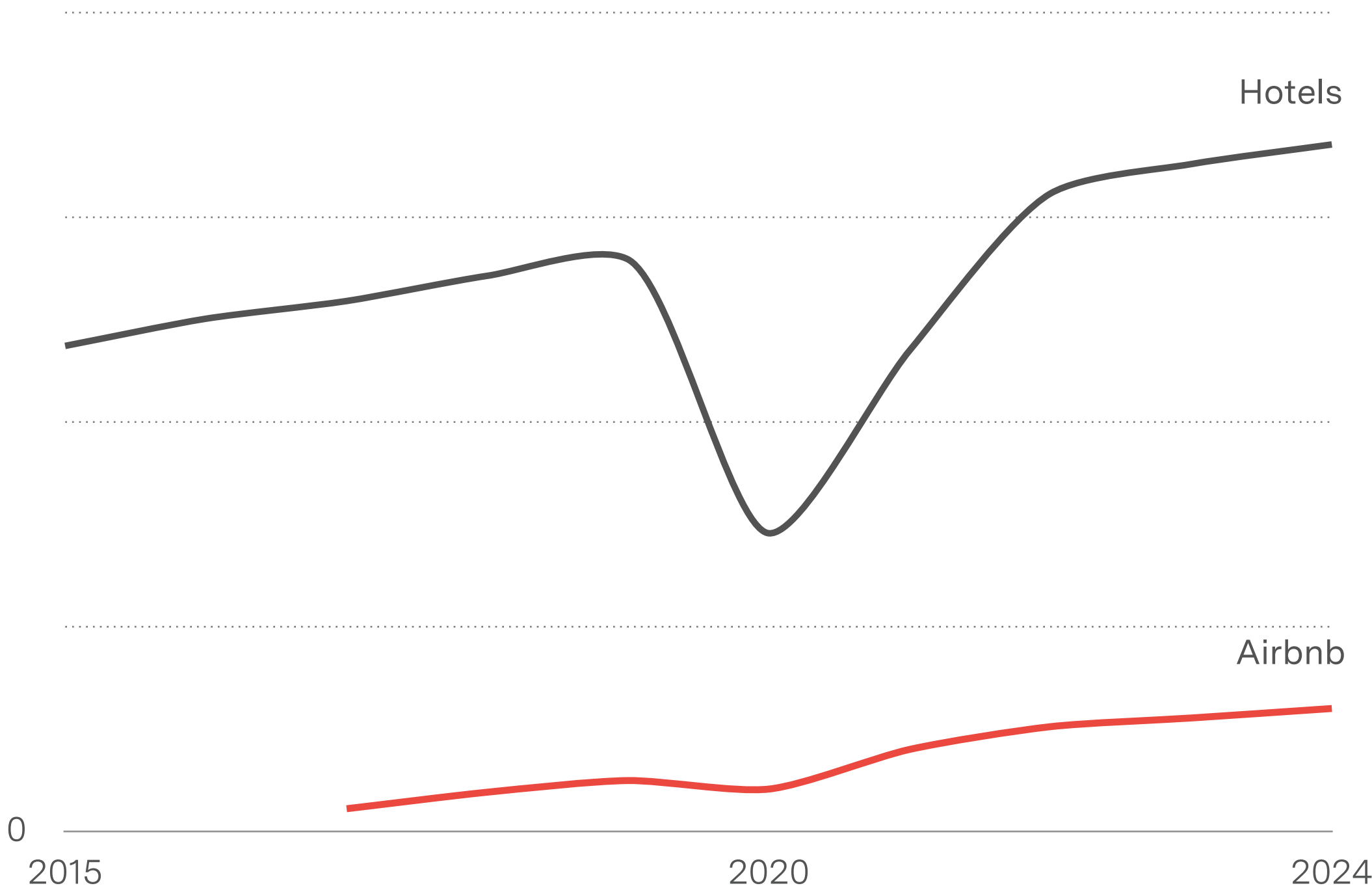
What kind of disruption, anyway?

‘Redefining the market’ can mean very different things

New York taxis versus Uber (trips per day)



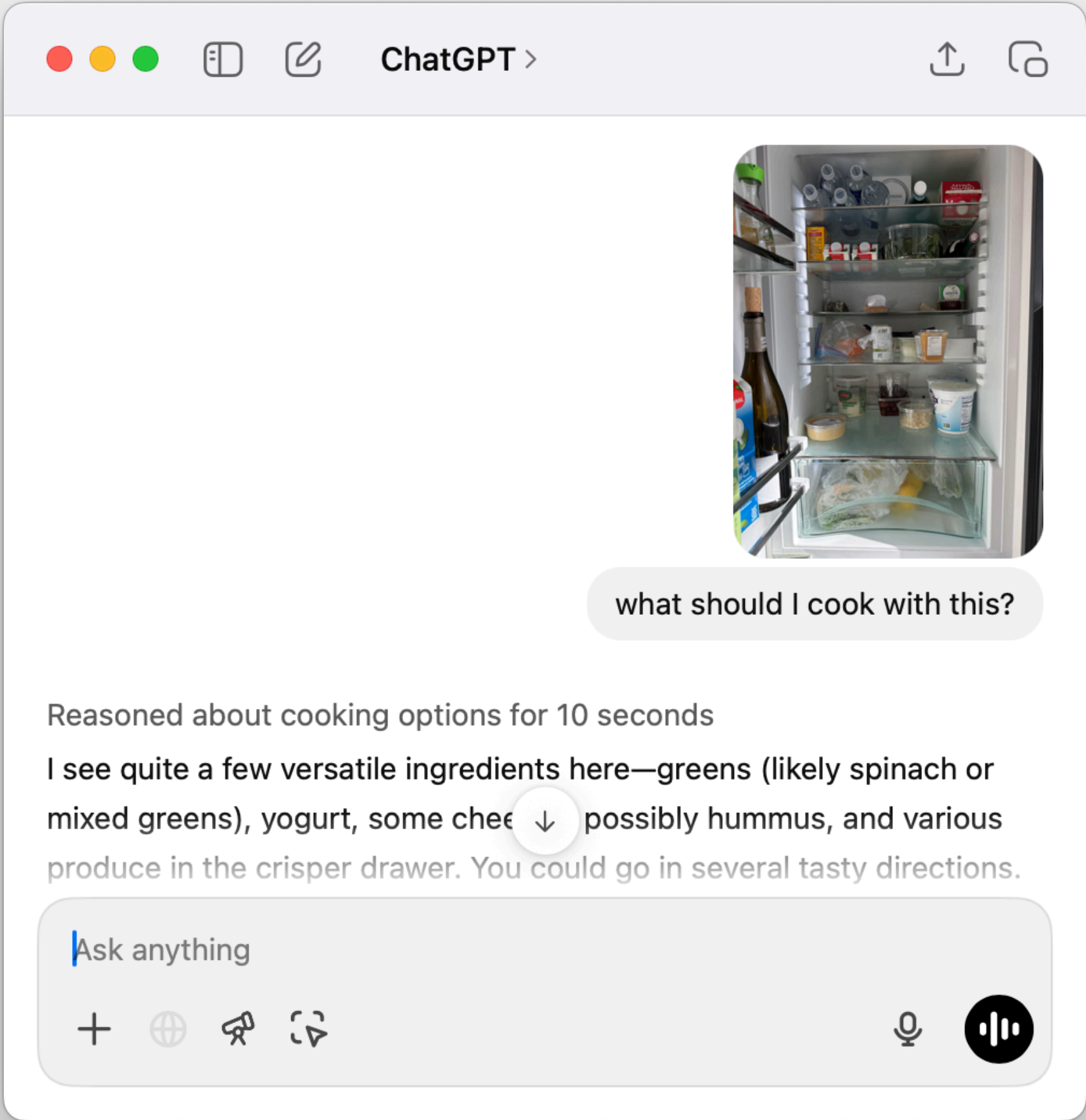
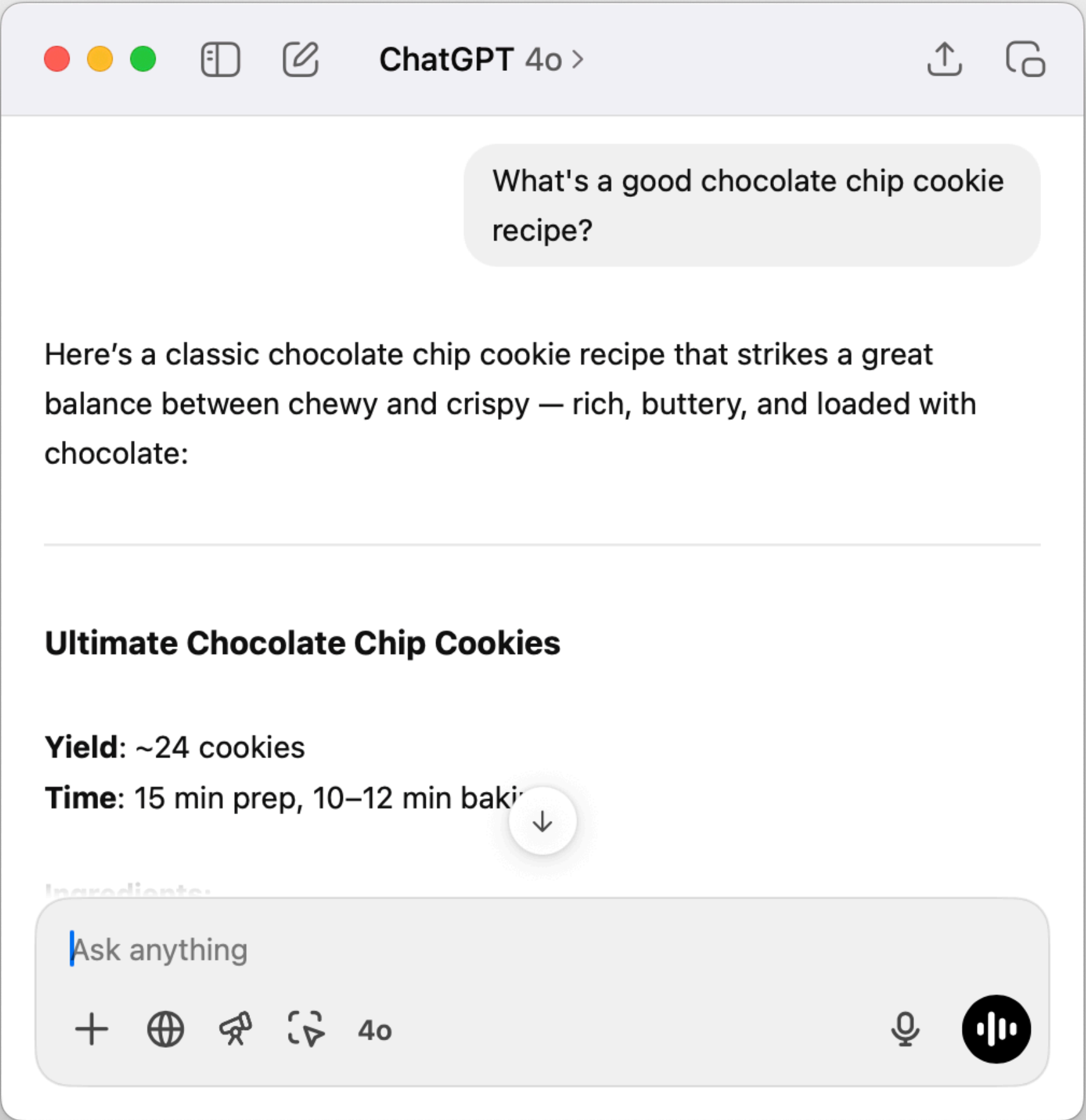
US hotels versus Airbnb (room revenue)



Source: TLC, Airbnb (NA GBV), Morgan Stanley

Can we change the question?

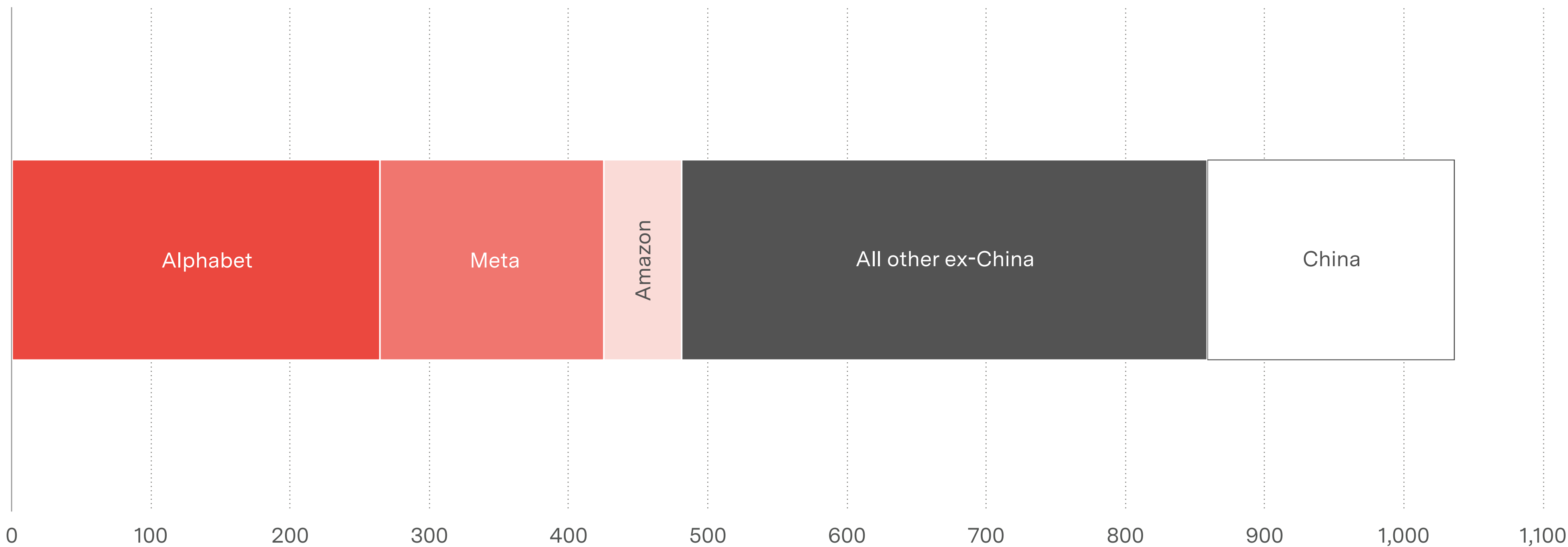
Do you replace Google, or ask something entirely new?



Where does the money go?

Brands spend a trillion dollars a year to talk to consumers - how does that money move around LLMs?

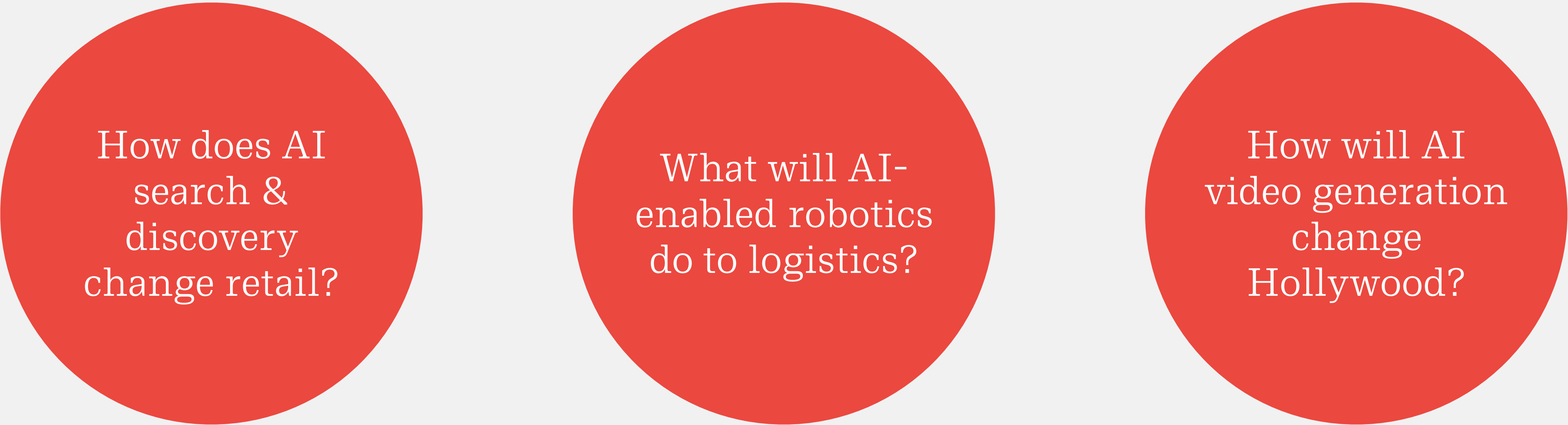
Global ad revenue, 2024 (\$bn)



Source: Companies, GroupM
NB: 'China' represents spending in China, not spending by Chinese companies

And what kinds of questions are these?

Tech changes the landscape for each industry, and then moves on



How does AI
search &
discovery
change retail?

What will AI-
enabled robotics
do to logistics?

How will AI
video generation
change
Hollywood?

Welcome to the next platform shift?

Posit: all AI questions have one of two answers

Will this just be like everything else? No-one really knows

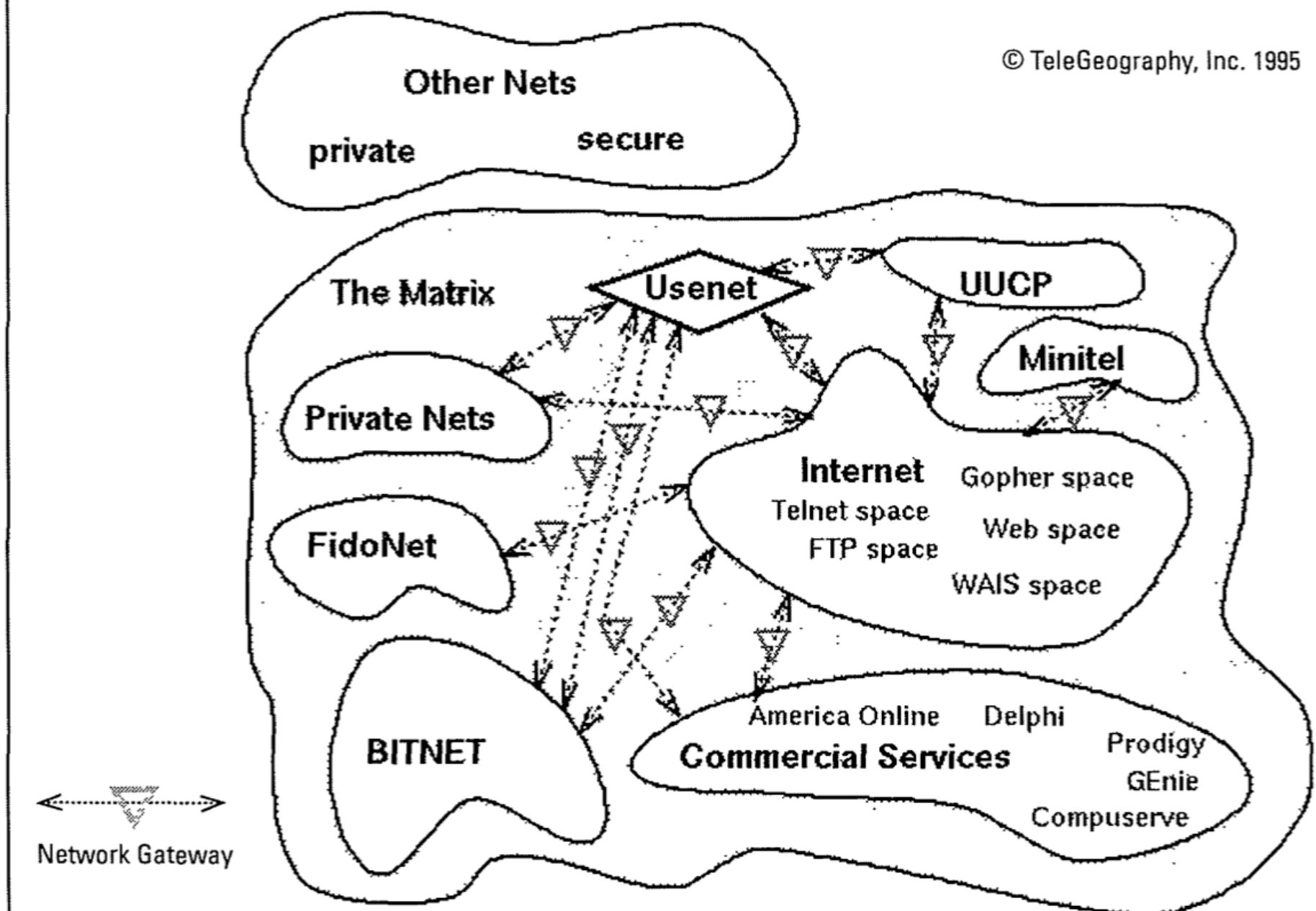


But no-one ever knows

What did we know about the future of the internet?

Figure 5. Network Gateways: A Cyberspace Divided

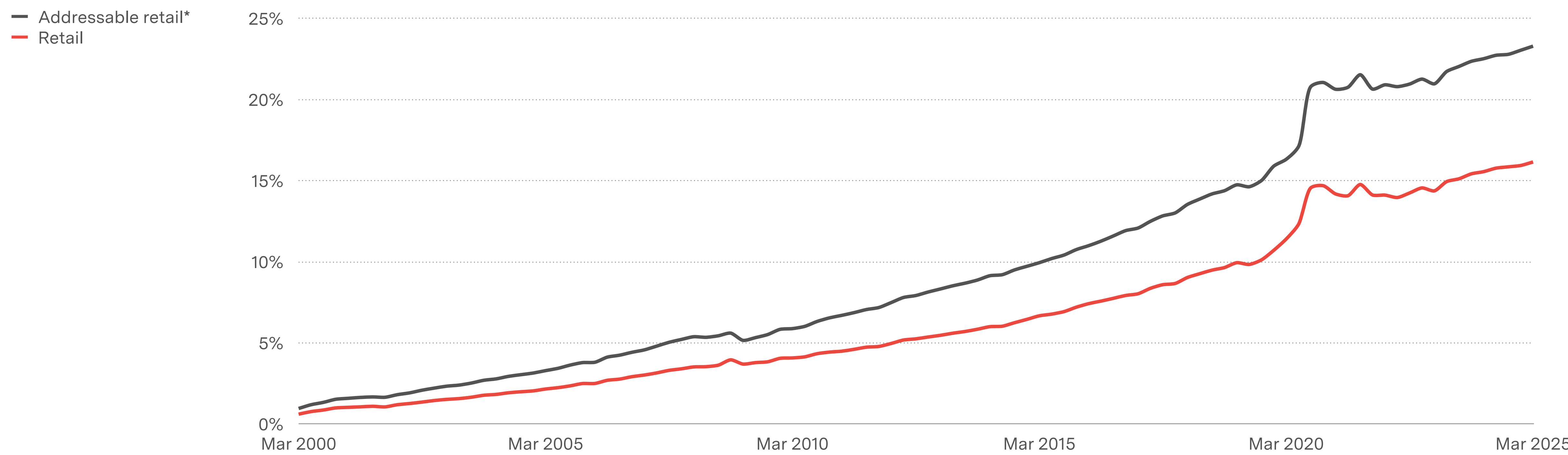
In this map, the major computer networks huddle in the mass of the Matrix, the term for the global collection of computer networks that can exchange electronic mail. The Internet serves as a common ground for much communication on-line, with commercial on-line services building gateways for electronic mail as well as other communication and data protocols to the Internet. Major national services such as France's Minitel (<http://www.minitel.fr/>) now provide gateway communication from their services to the Internet.



Meanwhile, all the old stuff is still there

The most boring chart in tech, with a brief exception - but this is trillions of dollars of global value

E-commerce as % US retail sales

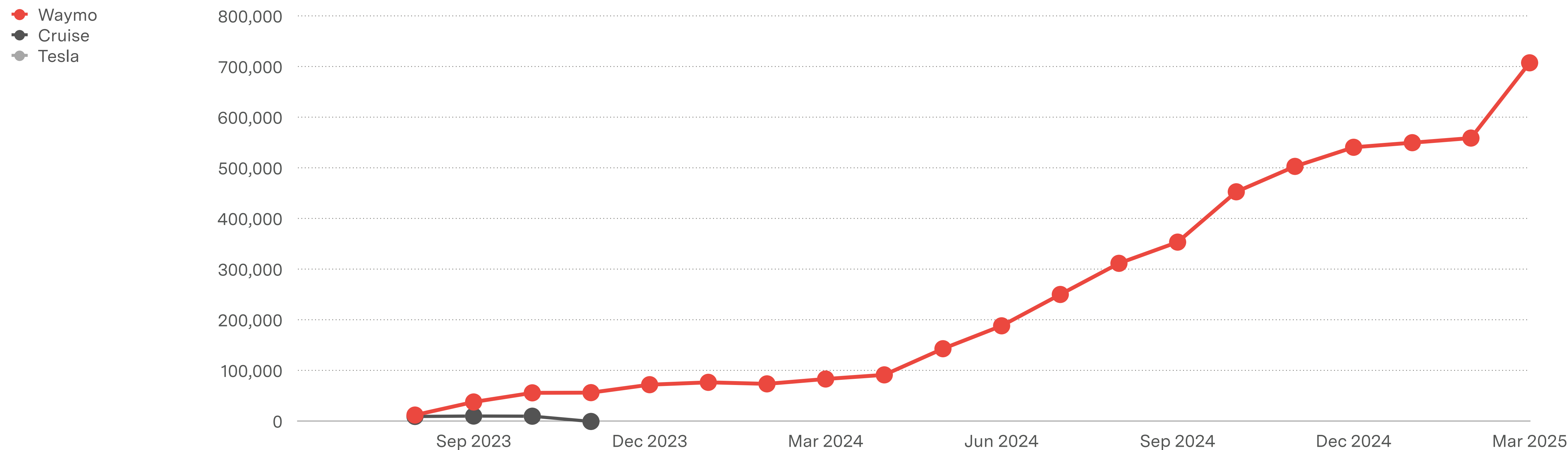


Source: US Census. Seasonally adjusted
* Excluding cars, car parts & gasoline

And all the *other* new stuff

After a decade of promises and tens of billions of dollars, AVs might be starting to work

Monthly 'robotaxi' trips in California



Source: California Public Utilities Commission

From dreams to deployment

What's already big, what's being built, and what comes next?



About

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

May 2025

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