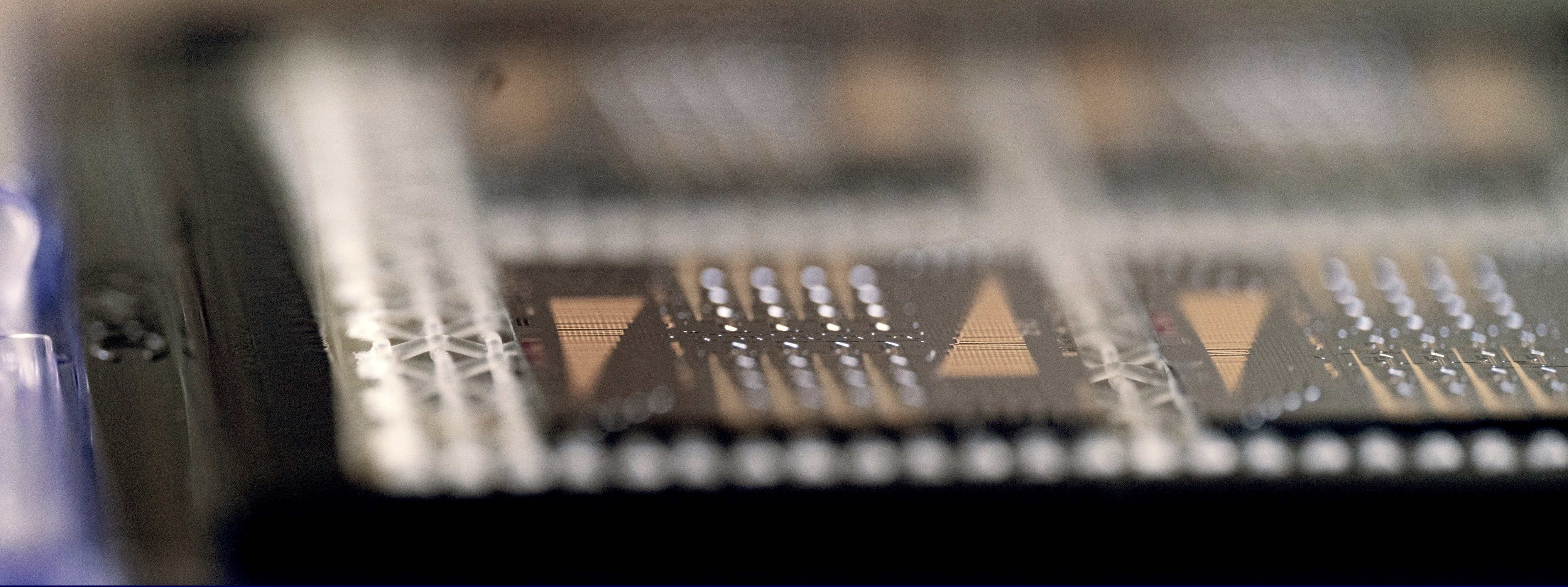


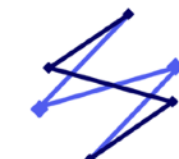
SALIENCE
LABS



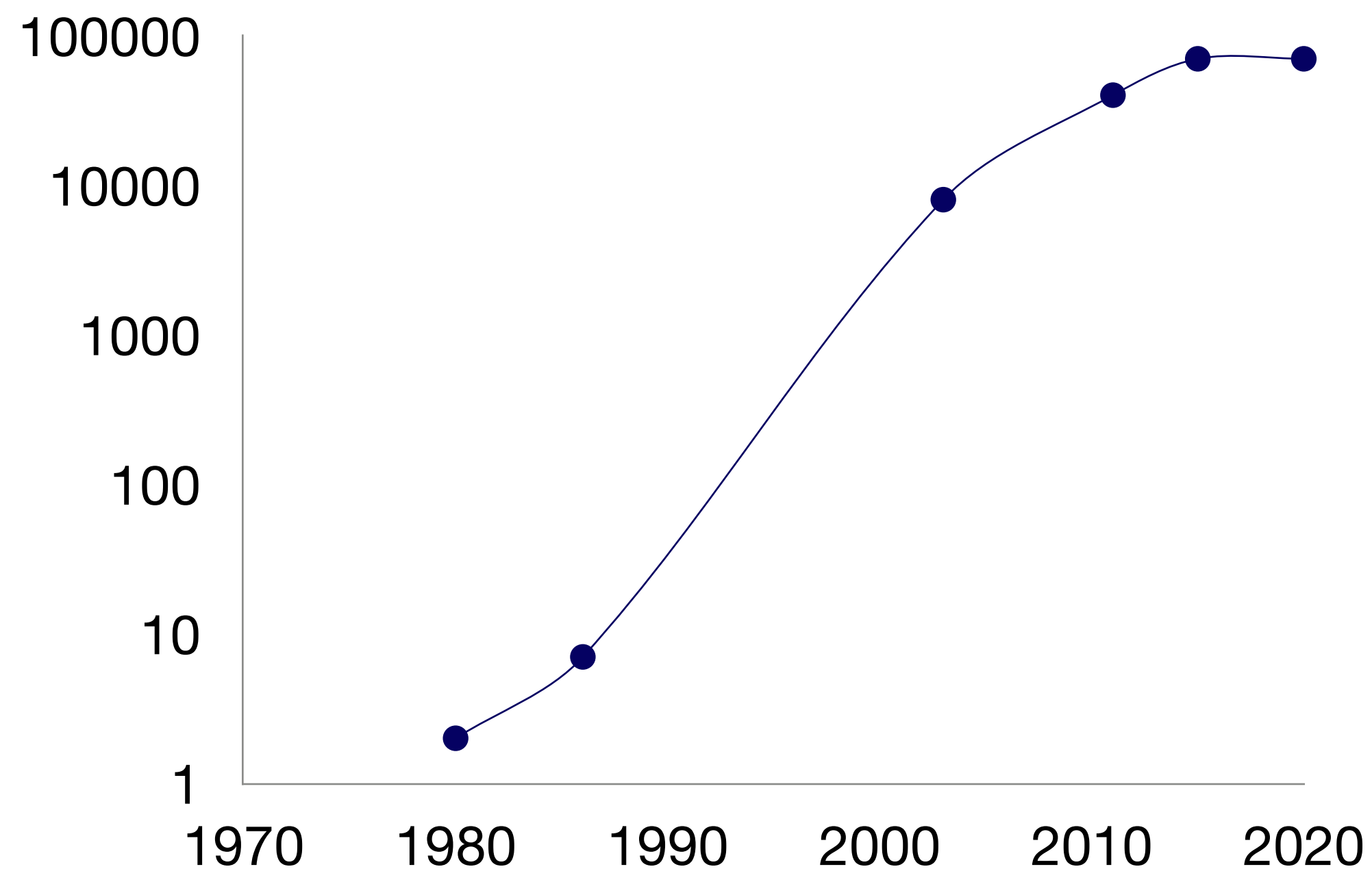
(EXA) SCALE COMPUTING.

THE MARKET NEEDS A NEW COMPUTE PLATFORM

 Processor performance:
Limited scaling

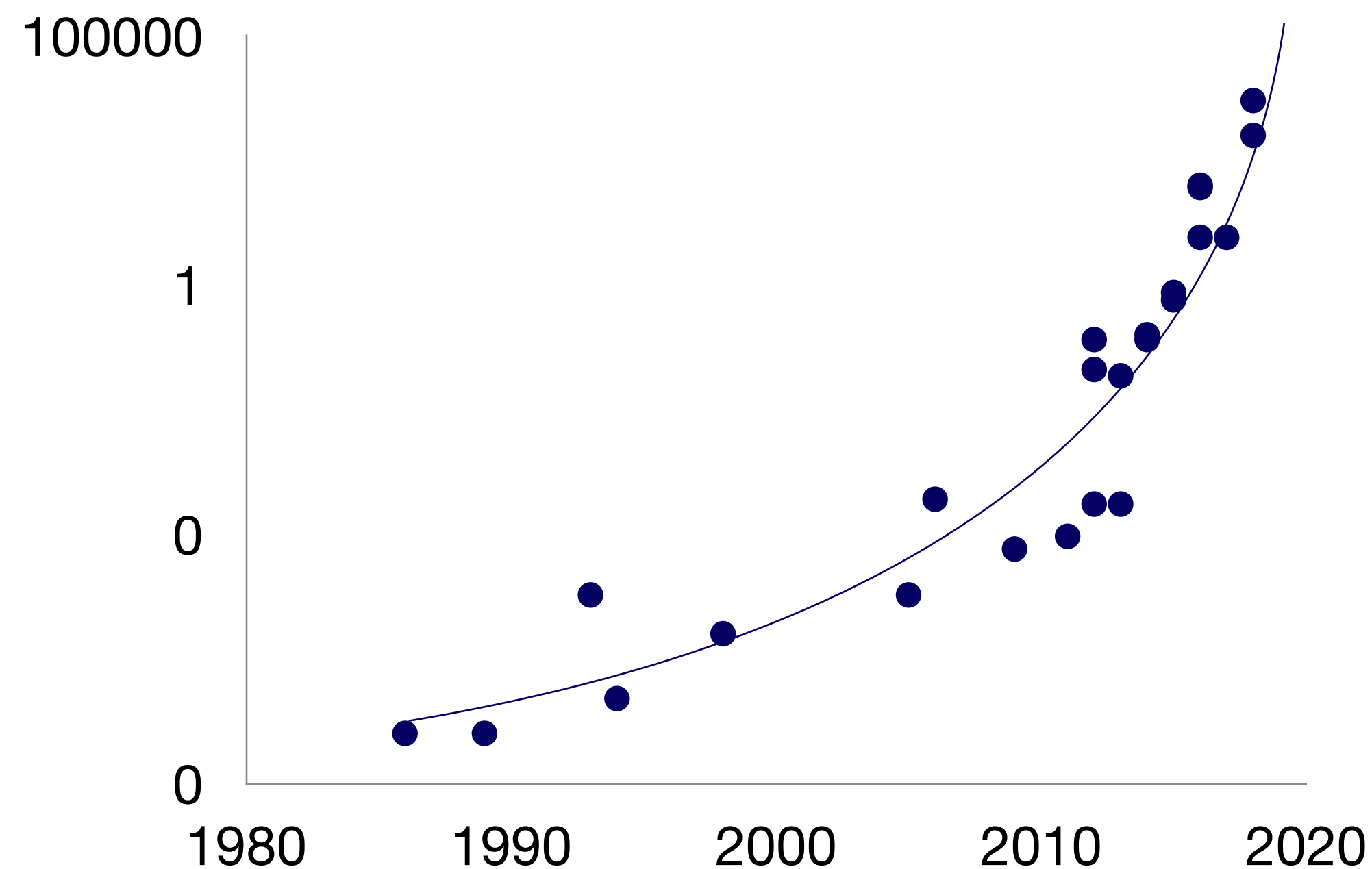
 AI compute requirements:
Double every 3.5 months

Performance vs VAX11



Source: David Patterson, Professor at UC Berkeley and Architect at Google

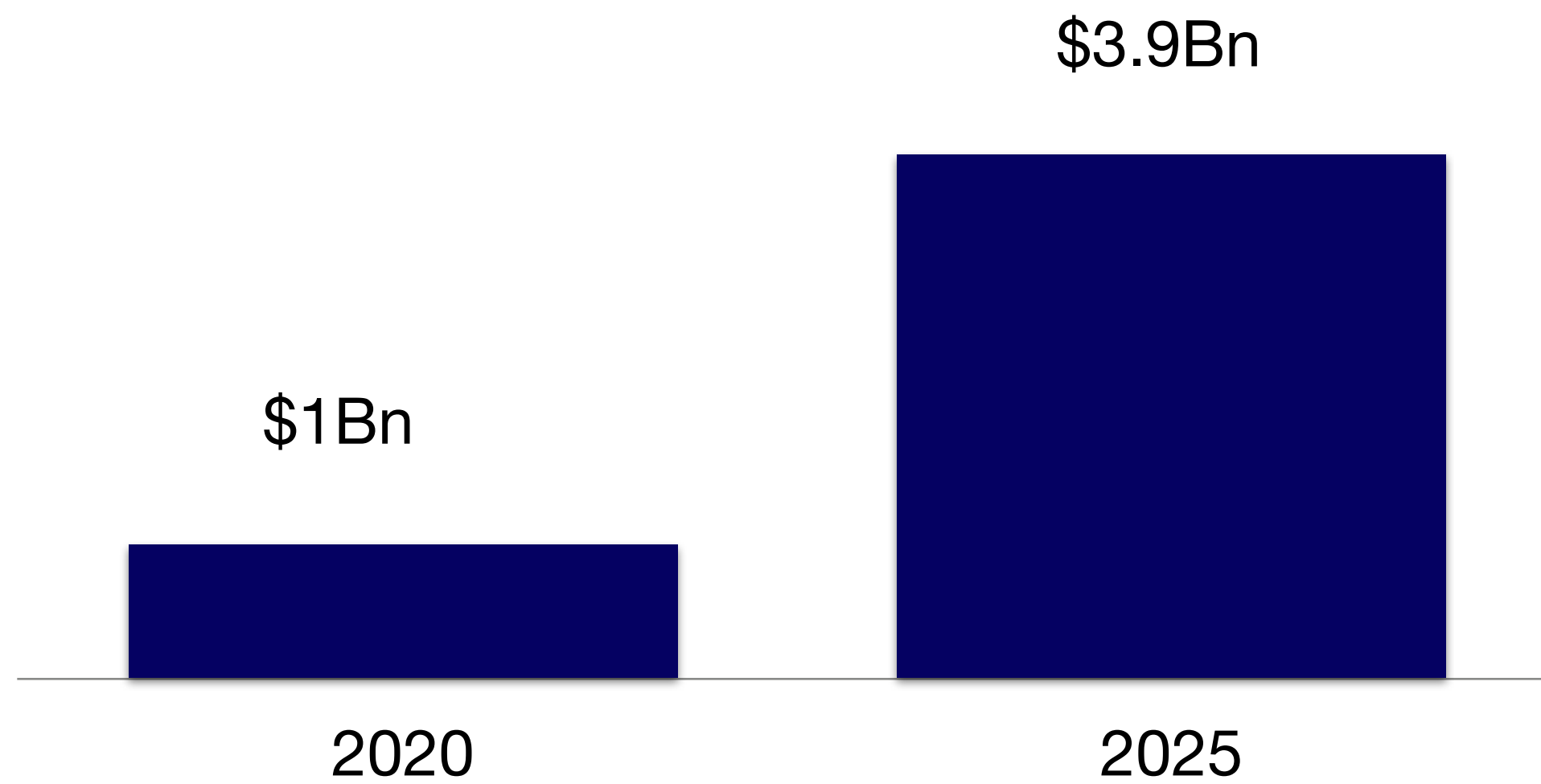
Petaflop Days



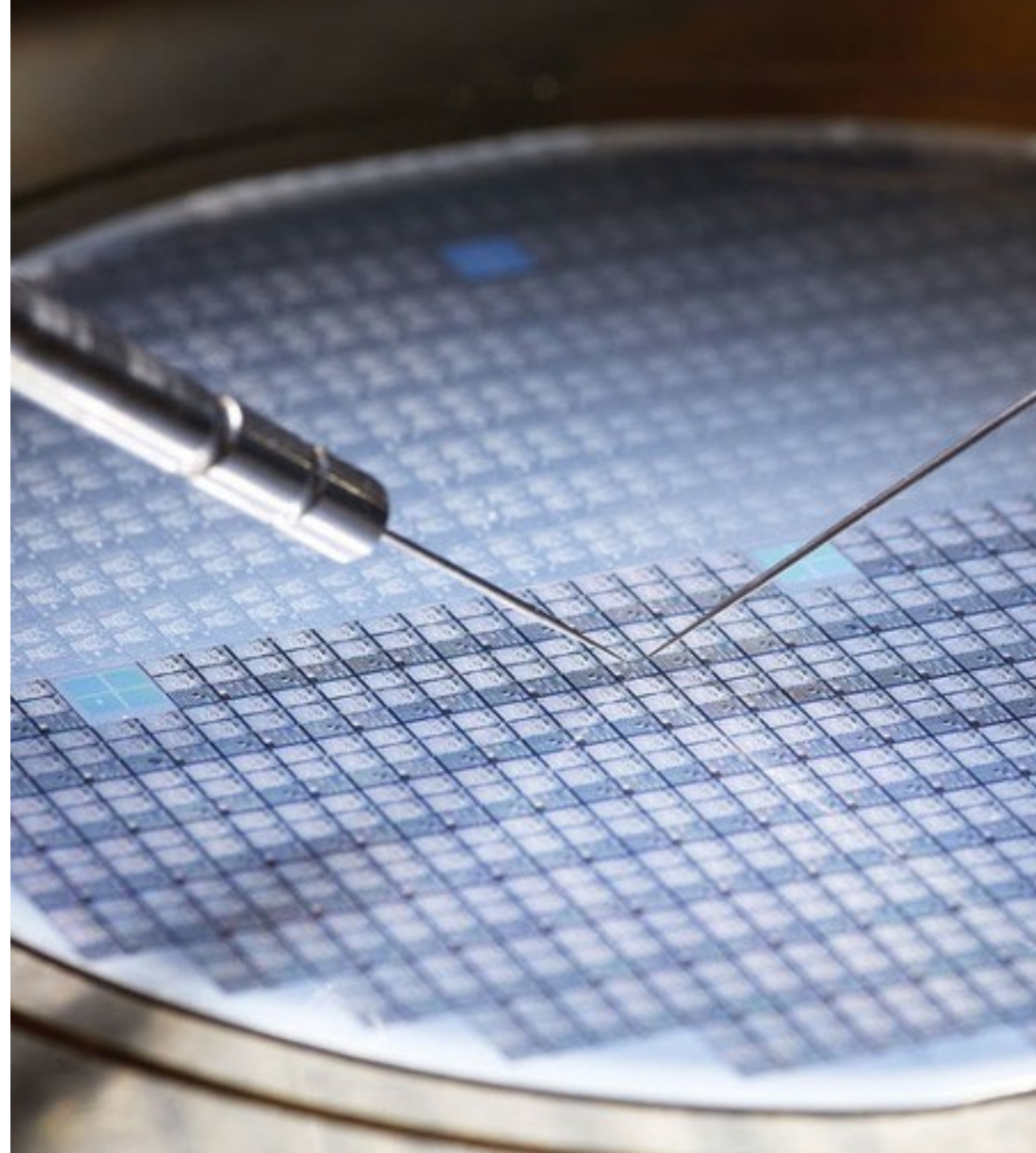
Source: OpenAI

RISE OF SILICON PHOTONICS

- ⚡ Silicon Photonics is compatible with CMOS fabrication
- ⚡ Manufacturing is already qualified, available for volume production

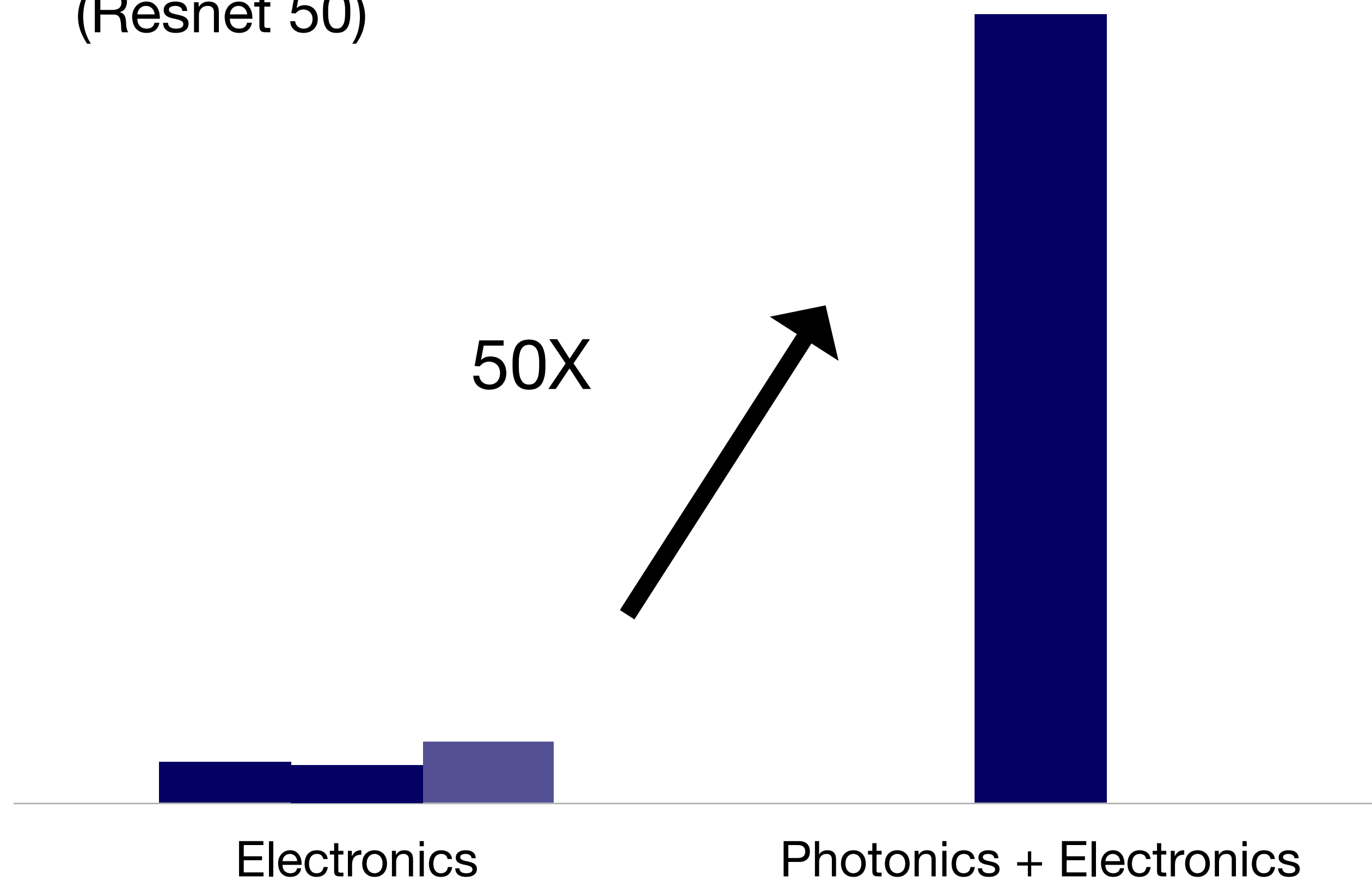


Silicon Photonics Products Market Size



COMPUTING WITH LIGHT: STEP CHANGE IN PERFORMANCE

Inferences per second per Watt
(Resnet 50)



PHOTONICS CORE REACHES
COMPUTE DENSITIES NOT
POSSIBLE WITH ELECTRONICS

50X MORE EFFICIENT

SCALE TO EXAOPS

SALIENCE'S PHOTONIC CHIP



SPEED

Run at 10-100 GHz, full matrix multiply in a single clock step

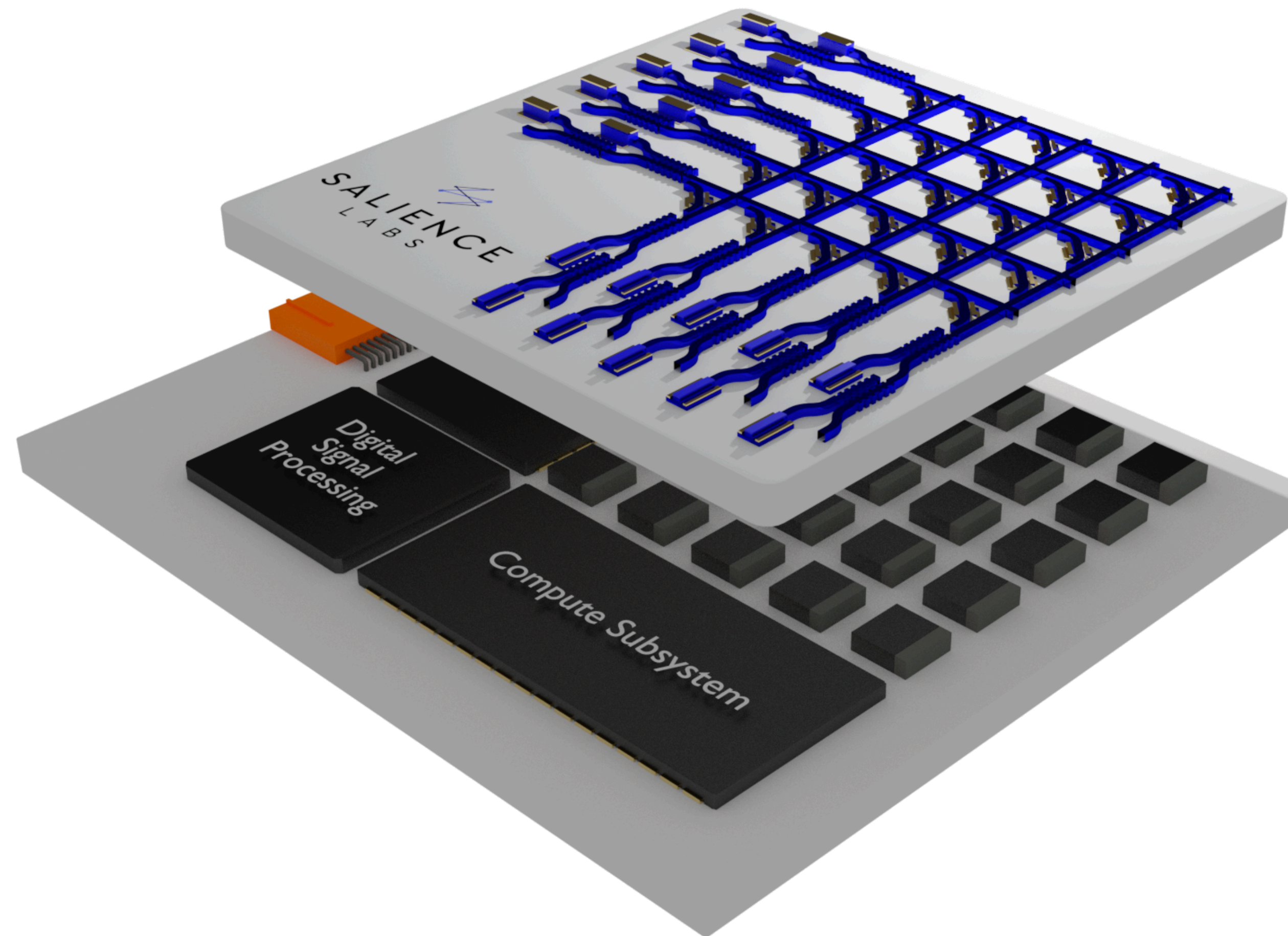
PARALLEL PROCESSING

Many vectors in a single shot on different wavelengths of light

SIMPLICITY

1-1 map of a matrix, no need for coherent light

SPEED OF PHOTONICS, FULL FLEXIBILITY OF ELECTRONICS

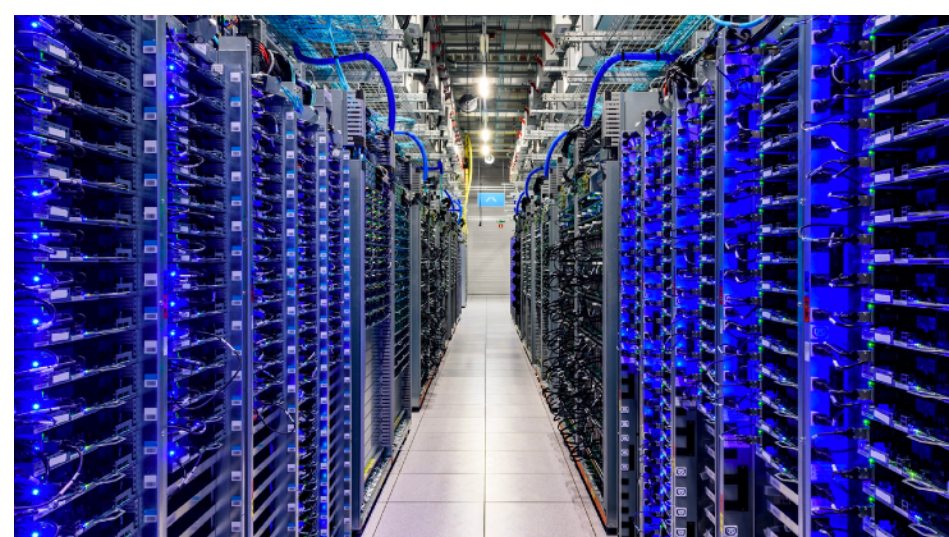


WHAT DOES A LOW POWER PETA-OP CHIP ENABLE?

EACH CARD ANALYSES 100K IMAGES PER SECOND

DATA CENTRE

~15% SERVER ATTACH
RATE BY 2025



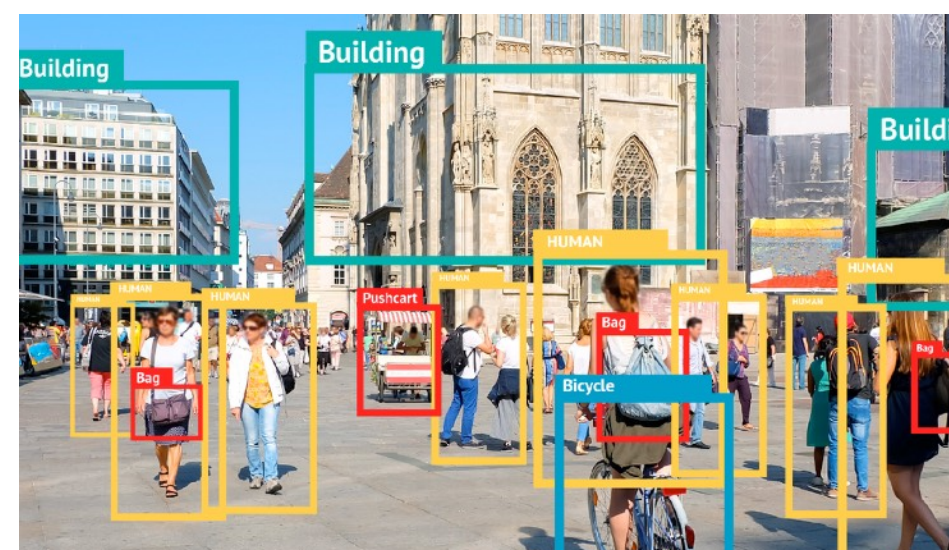
AUTONOMOUS DRIVING

IMPROVE ADAS



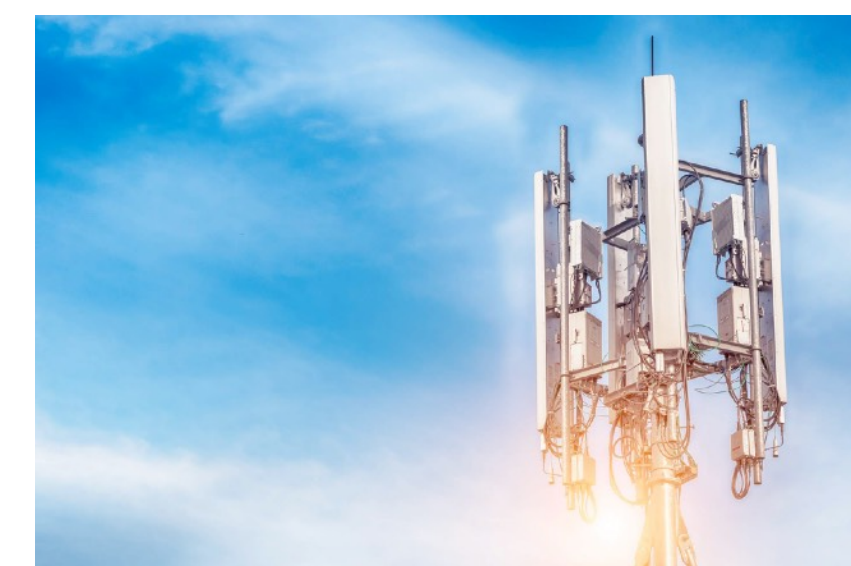
VISION

SECURITY AND
SURVEILLANCE



5G/6G BASE STATION

INCREASE SPECTRAL
EFFICIENCY



\$50B Market by 2025

COMPANY OPERATIONS:

CREATING RELENTLESSLY REPEATABLE PROCESSES

FROM DAY 1

COMPANY OPERATIONS:

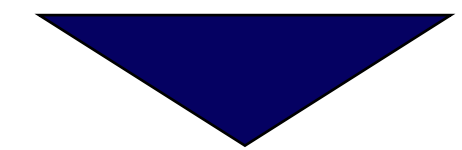
CREATING ~~RELENTLESSLY REPEATABLE~~ PROCESSES

FROM DAY 1

WHAT DOES IT MEAN TO BUILD A GREAT TEAM?



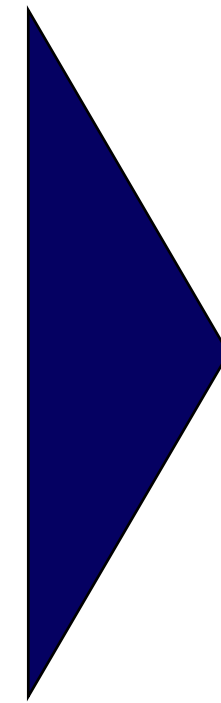
- Consistent Managers
- Optimizers
- Experts / Specialists



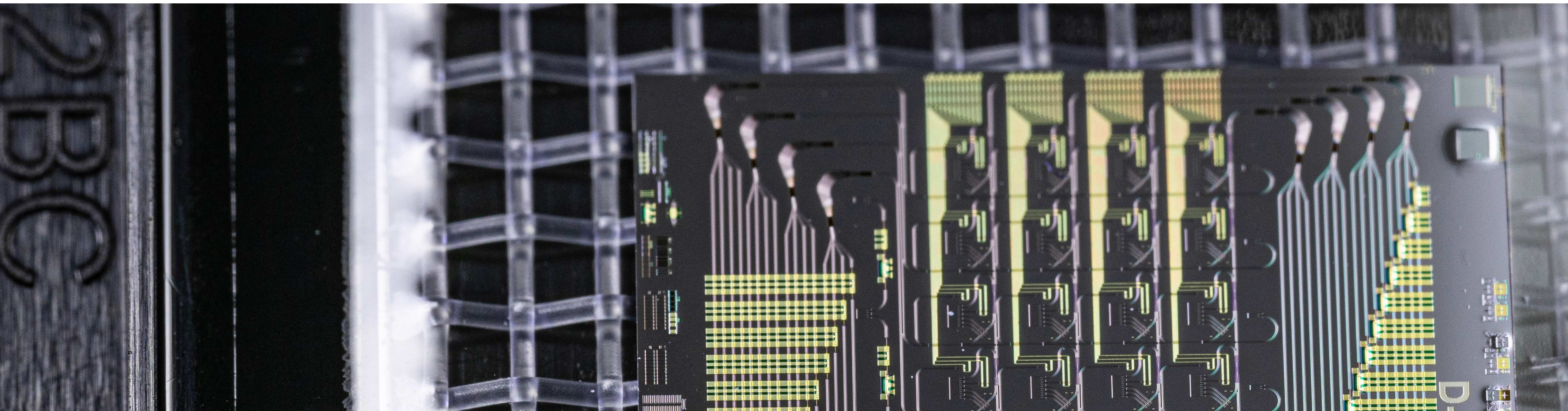
- Cross functional teams
- “Two pizza” teams
- Founders mindset

ECONOMIES OF SCALE VS ECONOMIES OF SPEED

- Quality through reduction of variability
- Economies of scale
- Process control e.g., Functional hands off
- Large programs

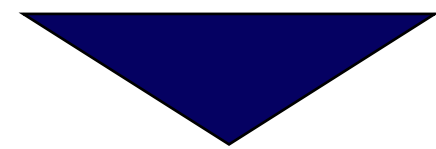


- Highly iterative, scientific process
- Build, measure, learn
- Economies of speed
- Portfolio of rapid experiments



CULTURE

- “Failure is not an option”
- Risk mitigation
- Compliance
- Predictability



- “Eat failure for breakfast”
- Productive failures
- Black swan farming



WE HAVE MORE IN COMMON THAN YOU THINK

LARGE ORGANISATION

PEOPLE

- Consistent Managers
- Experts / Specialists
- Optimizers

PROCESS

- Quality through reduction of variability
- Economies of scale

CULTURE

- “Failure is not an option”
- Risk mitigation
- Predictability



START-UP

- Cross functional teams
- Two pizza teams
- Founders mindset

- Build, measure, learn
- Economics of speed

- “Eat failure for breakfast”
- Productive failures
- Black swan farming

AND THAT'S ALL THAT MATTERS.

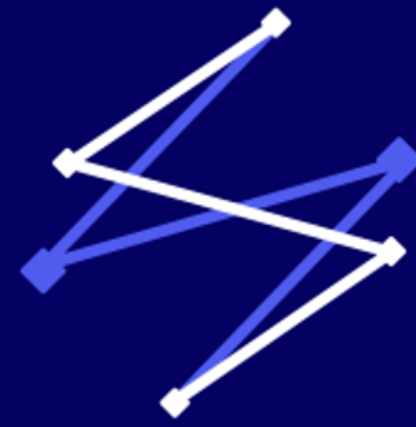
COMMITMENT TO
TRUTH

DISCIPLINE

EXCELLENCE

CONTINUOUS
IMPROVEMENT





SALIENCE
LABS