

Welcome

Jose Cano, Global Head of IR

Agenda

Welcome	Jose Cano, Global Head of IR
The Next Leader of Connectivity for AI	Tony Pialis, Co-Founder and CEO
AI and Data Centre Megatrends	Tony Chan Carusone, CTO
Silicon IP	Jonathan Rogers, Co-Founder and SVP Engineering
Path to Billions	Charlie Roach, Chief Revenue Officer
Break	
IP, Chiplets and Custom Silicon	Mohit Gupta, SVP & GM Custom Silicon and IP
Connectivity Products – Multi-Billion Dollar Market	Babak Samimi, SVP & GM Connectivity Products
Financial Overview	Rahul Mathur, Chief Financial Officer
Closing Remarks	Tony Pialis, Co-Founder and CEO
QA Session	Executive team

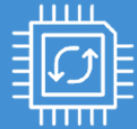
Safe Harbour

Certain statements included herein may constitute forward-looking statements within the meaning of the securities laws of certain jurisdictions. Certain such forward-looking statements can be identified by the use of forward-looking terminology such as “believes”, “expects”, “may”, “are expected to”, “intends”, “will”, “will continue”, “should”, “would be”, “seeks”, “anticipates” or similar expressions or the negative thereof or other variations thereof or comparable terminology. These forward-looking statements include all matters that are not historical facts. They include statements regarding Alphawave IP Group Plc’s (“Alphawave IP”) intentions, beliefs or current expectations concerning, amongst other things, its results in relation to operations, financial condition, prospects, growth, strategies and the industry in which it operates. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. Forward-looking statements are not guarantees of future performance and Alphawave IP’s actual results of operations, financial condition, and the development of the industry in which it operates, may differ materially from those made in or suggested by the forward-looking statements contained in this Presentation. In addition, even if Alphawave IP’s results of operations, financial condition, or the development of the industry in which it operates are consistent with the forward-looking statements contained in this Presentation, those results or developments may not be indicative of results or developments in subsequent periods. Important factors that could cause those differences include, but are not limited to customer demand, Alphawave IP’s innovation and R&D and technology capabilities, target market trends, industry trends, customer activities and end-market trends, market acceptance of Group technologies; increased competition; macroeconomic conditions; changes in laws, regulations or regulatory policies; and timing and success of strategic actions. These forward-looking statements speak only as of the date of this Presentation. As such, undue reliance should not be placed on forward-looking statements. Other than in accordance with legal and regulatory obligations, Alphawave IP undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

The Next Leader of Connectivity for AI

Tony Pialis, Co-Founder and CEO

Leadership in Connectivity and Compute



Silicon IP



**Custom
Silicon**



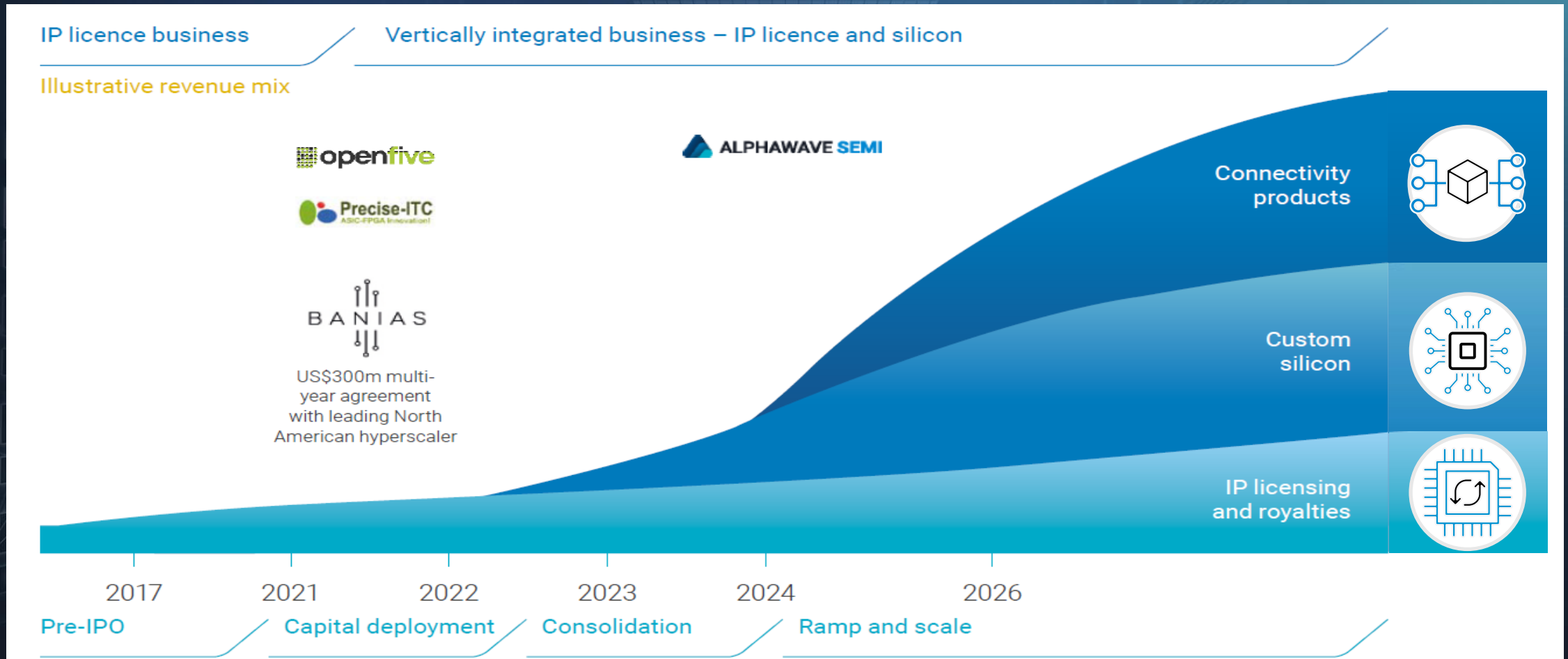
Chiplets



**Connectivity
Products**

Ultra-high-speed data connectivity for AI, compute and network architectures

Delivering on our Vision: Leading Connectivity for AI and the Data Centre

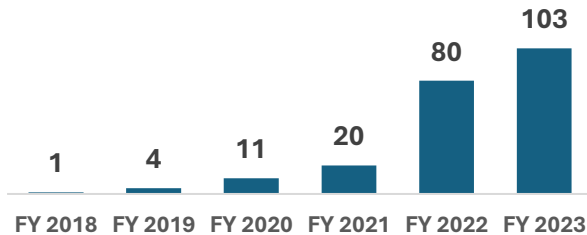


Alphawave's technology leadership and track record since 2017 underpins our future growth

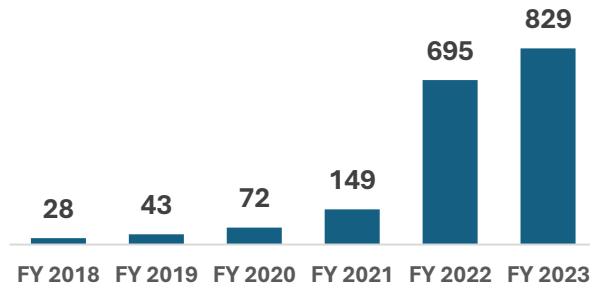
We Have Delivered Strong Growth Since Founding the Company in 2017



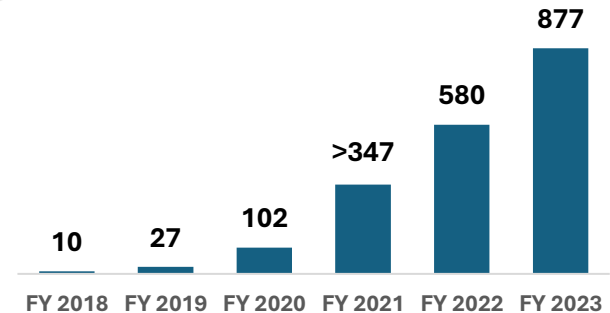
End Customers^{1,2}



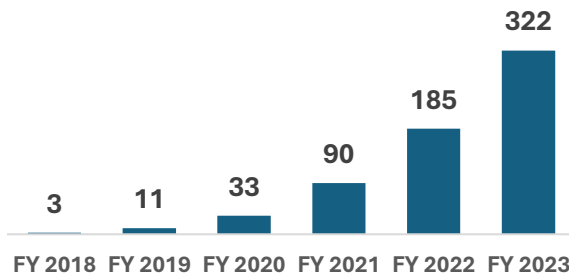
Employees²



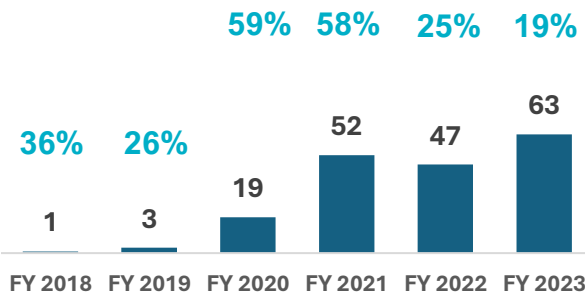
Cumulative Bookings² (US\$m)



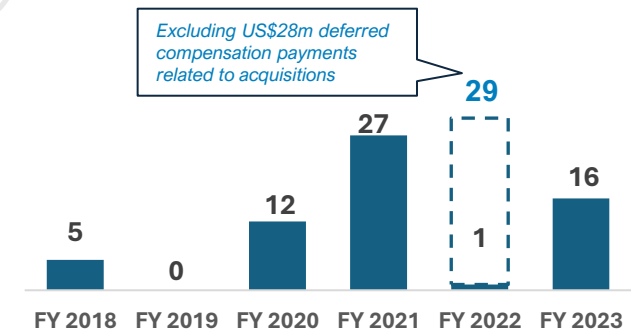
Revenue (US\$m)²



Adjusted EBITDA² (US\$m) & Margin



Cash generated from Operations^{2,3,4} (US\$m)



2024 is the year where we accelerate our growth as a vertically-integrated business

Leadership in Connectivity and Compute



Silicon IP



**Custom
Silicon**



Chiplets



**Connectivity
Products**

Ultra-high-speed data connectivity for AI, compute and network architectures

Relentless Growth in Data Consumption

AI at an Inflection Point

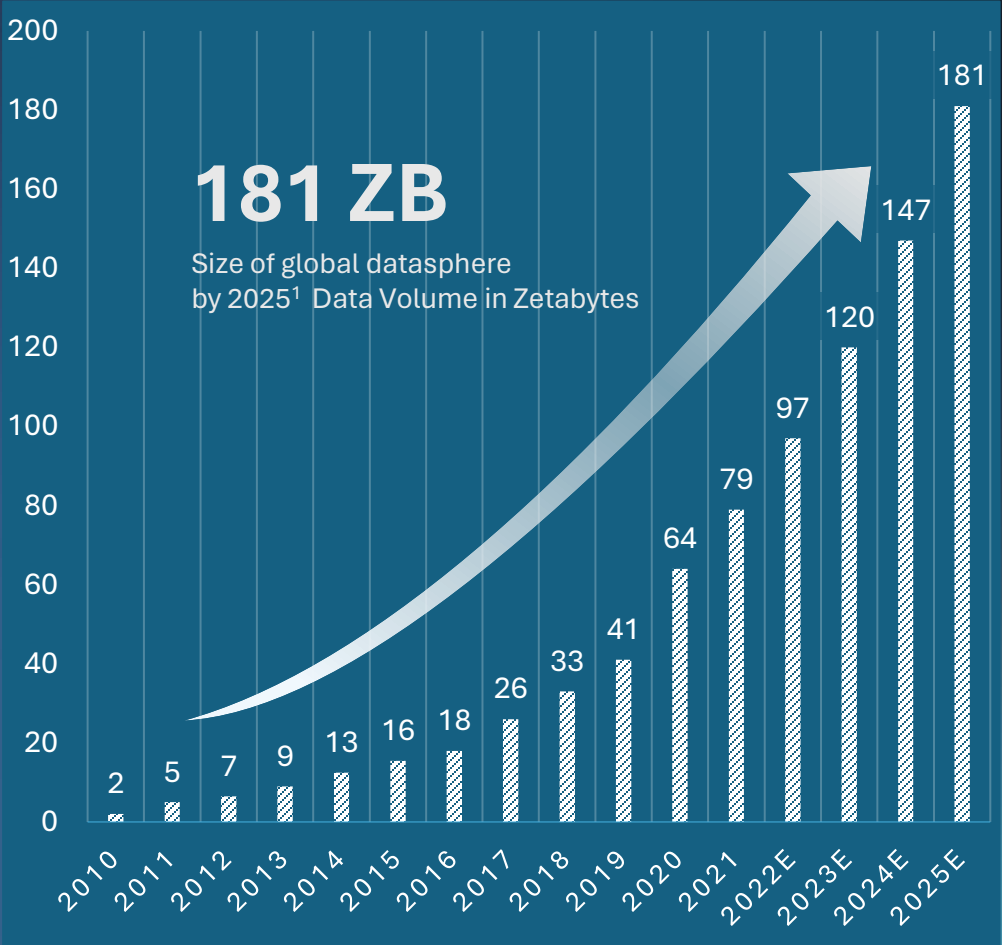
ChatGPT2.0
1.5 billion
parameters
40GB data

ChatGPT3.0
175 billion
parameters
45TB data
(one million feet of
bookshelf space)

ChatGPT4.0
trillion
parameters
Text + Images

*Completed in the
88th percentile of
the LSAT*

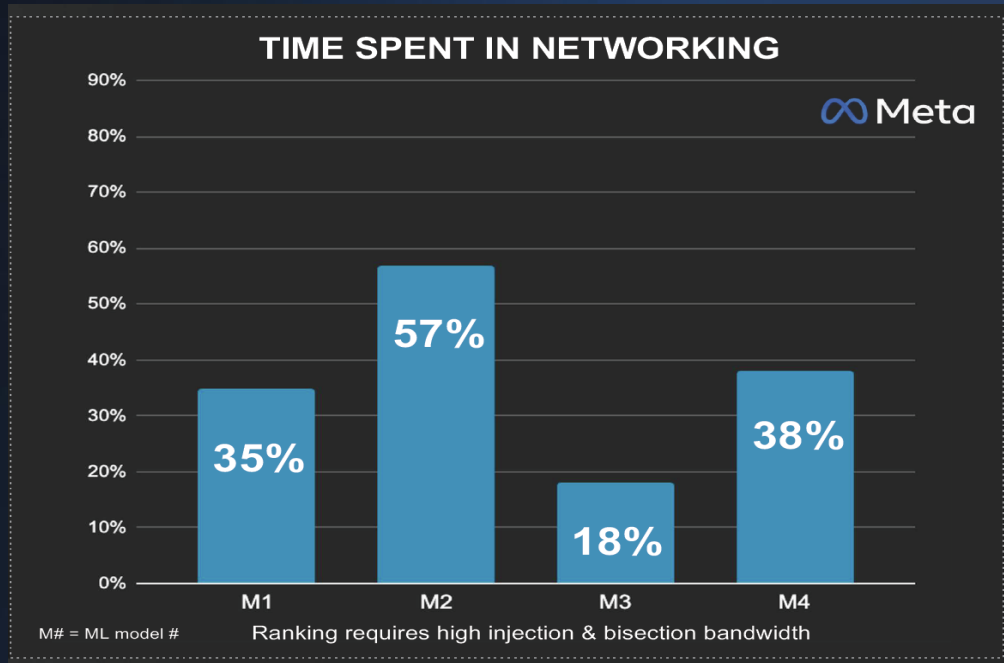
*6-months prior,
ChatGPT3.5
scored in the 37th
percentile for the
LSAT*



¹ The Data Centre Journey, From Central Utility To Centre Of The Universe (semiengineering.com). Source Statista
See slide 93 for all other references

...Drives Challenges for AI and The Data Centre

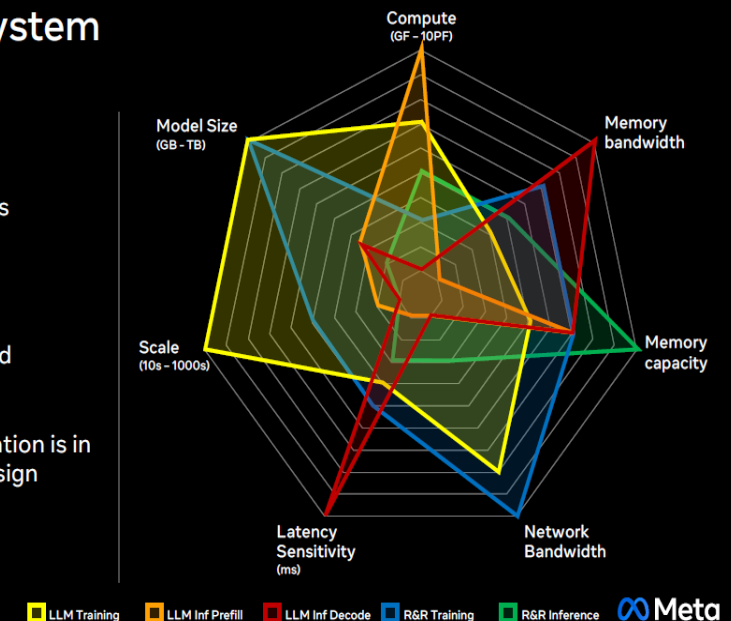
Connectivity



Custom Compute

Diversity of AI system requirements

- Difficult to serve all classes of models with a single system design point
- New models & parallelism techniques put unexpected pressures on AI systems
- The next frontier of innovation is in software/hardware co-design



Source AI Summit : “Leading with Open” Meta

AI requires dedicated hardware with maximum communication bandwidth

Data Centre Infrastructure is Pushed to the Limits

General Purpose GPU FOR AI: Hitting Limits



**Silicon limit -
Compute has hit
a wall**



**Single training
of Chat Gpt3
released 552
tons of CO2**



**\$100s of
millions
per training**

Investment Needed to Deploy ChatGPT Across Bing

\$4 billion

**8 GPUs per
server**



**20,000
servers**

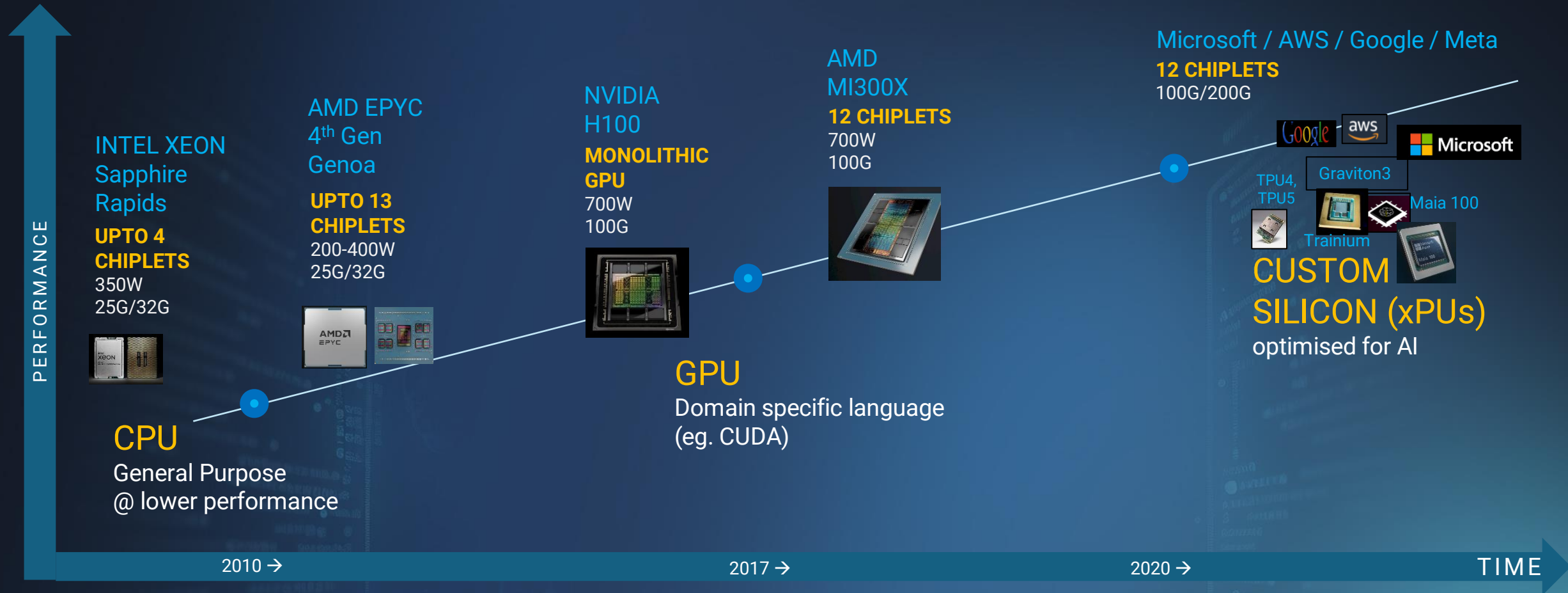


**\$10k-\$30k
cost of each
GPU**

* Estimate from New Street
Research

**US Data Centres expected to
consume 30GW incremental
power by 2030**

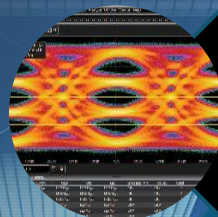
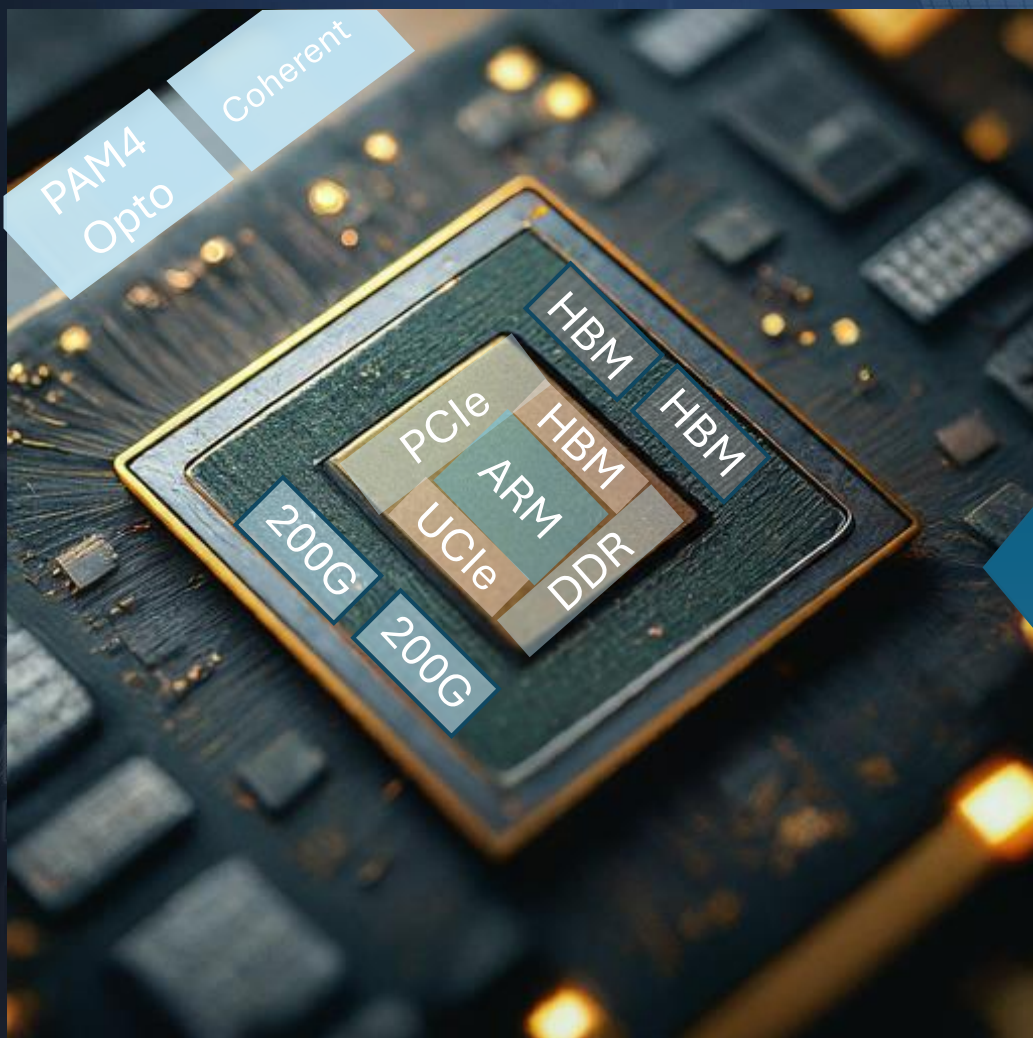
The Result: Evolution of Silicon for AI



Time: Denotes approximate introduction of first product in the category

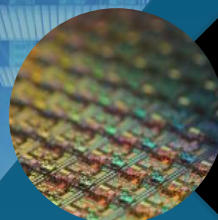
Until now – No one solutions provider possessed all of the technology to enable silicon for AI

Alphawave Has The Complete Silicon Solutions Stack



Silicon IP

- PCIe / CXL
- 224G / 112G Ethernet
- UCle / HBM



Custom Silicon

- 5nm, 4nm, 3nm and 2nm Nodes
- 2.5D and 3D advanced packaging
- ARM Total Design Partner



Chiplets

- IO Extender Chiplets
- ARM Neoverse Compute Chiplets
- Memory Chiplets



Connectivity Products

- PAM4, Coherent DSPs for 800G/1.6T Ethernet
- 112G, 224Gbps in silicon
- Going to 400G

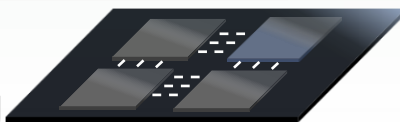
Chipllets - Next Evolution of Silicon IP

New Chiplet Design Paradigm

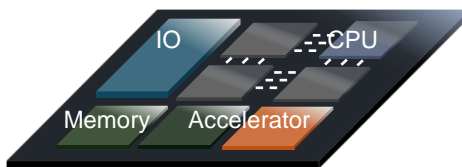
Monolithic is costly for AI and Data Centre in 3/2nm nodes



Chipllets with 2.5D/3DIC allow for greater compute and memory scaling



Customisable IO and Compute Chiplets Accelerate Time to Market



AI xPU CHIPLETS

IO Extender
Chipllets

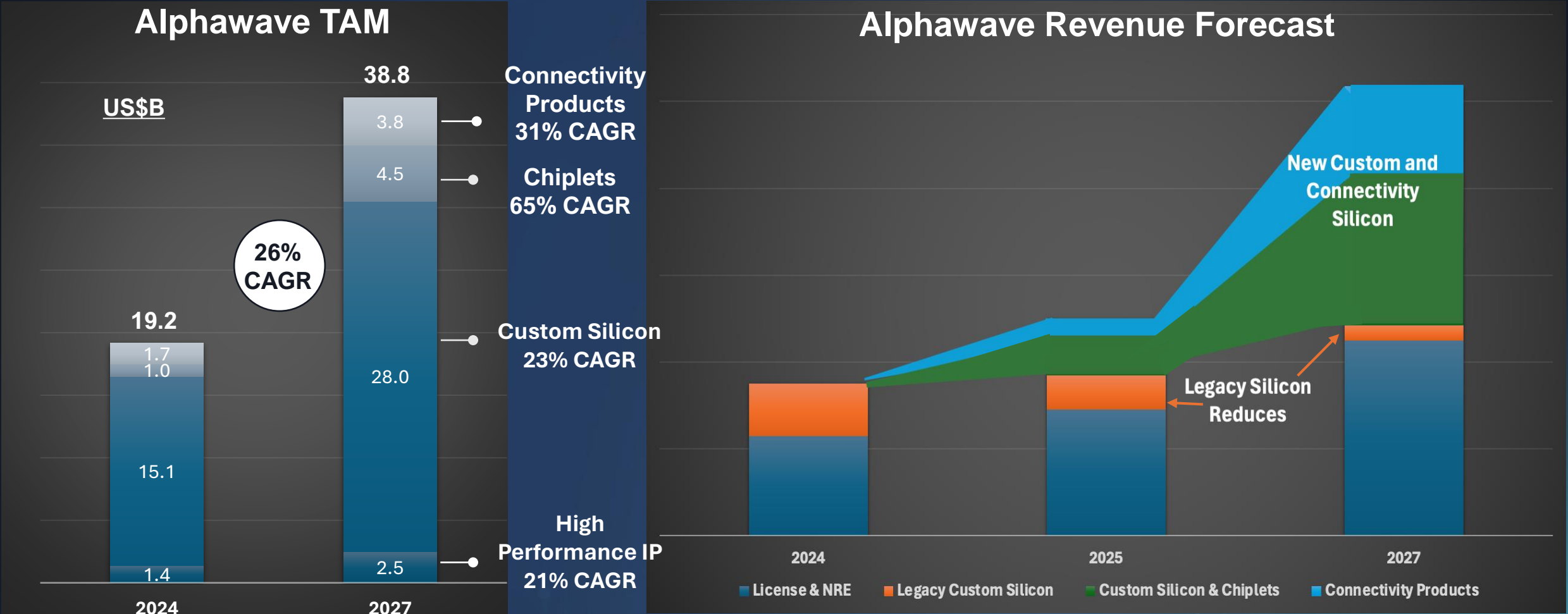
ARM
Compute
Chipllets

Memory
Chipllets

Co-
Package
Optics
Chipllets

Partnering with ARM to deliver a portfolio of Neoverse series compute and IO Chiplets

Alphawave Accelerates the AI “Industrial Revolution”



More than \$1B of silicon revenue potential from existing wins

Strengthening our Leadership and Governance

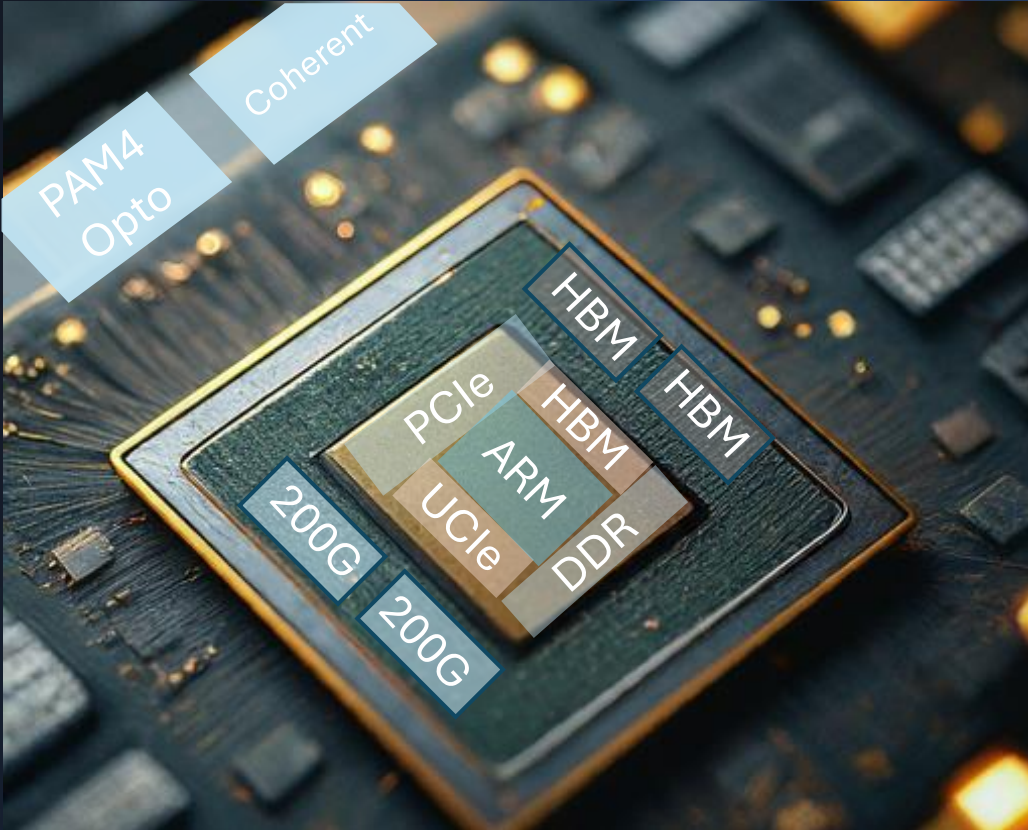
Execution in 2023

- **Management Focus:** Expanded and enhanced management team
 - Rahul Mathur: CFO
 - Charlie Roach: CRO + MARCOM
- **Efficiency Focus:** Began implementation of ERP system to drive more efficient integration
- **Governance Focus:** Began Board re-alignment to focus on core markets and capabilities

Execution in 2024 & Beyond

- **Capital Structure Focus:** Simplify our debt to maximise balance sheet strength while driving opportunities and flexibility
- **WiseWave Equity Sale:** Further strengthen balance sheet with WiseWave equity exit
- **Governance Focus:** Expand diverse Board capabilities in our key markets of AI and the Data Centre

Leveraging Our Core Strengths to Increase Value



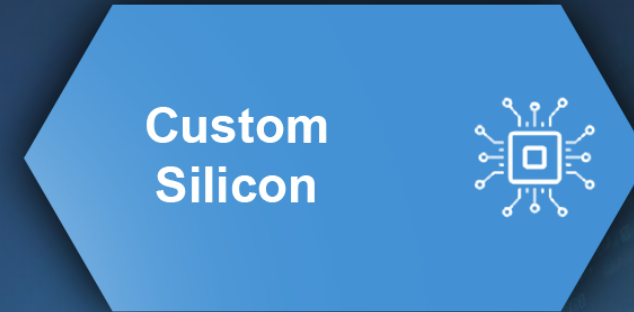
- Delivering leading technologies to AI
 - Built via chiplets and powered by custom silicon
 - Connecting high bandwidth optical and electrical fabrics for AI
- Disciplined investment in R&D to fuel further growth in high-margin products
- Expanding shareholder value through business delivery and balance sheet strengthening

We will deliver revenue at significantly enhanced scale, and at higher profit – Driving outsized shareholder value in 2024 and beyond

AI and Data Centre Megatrends

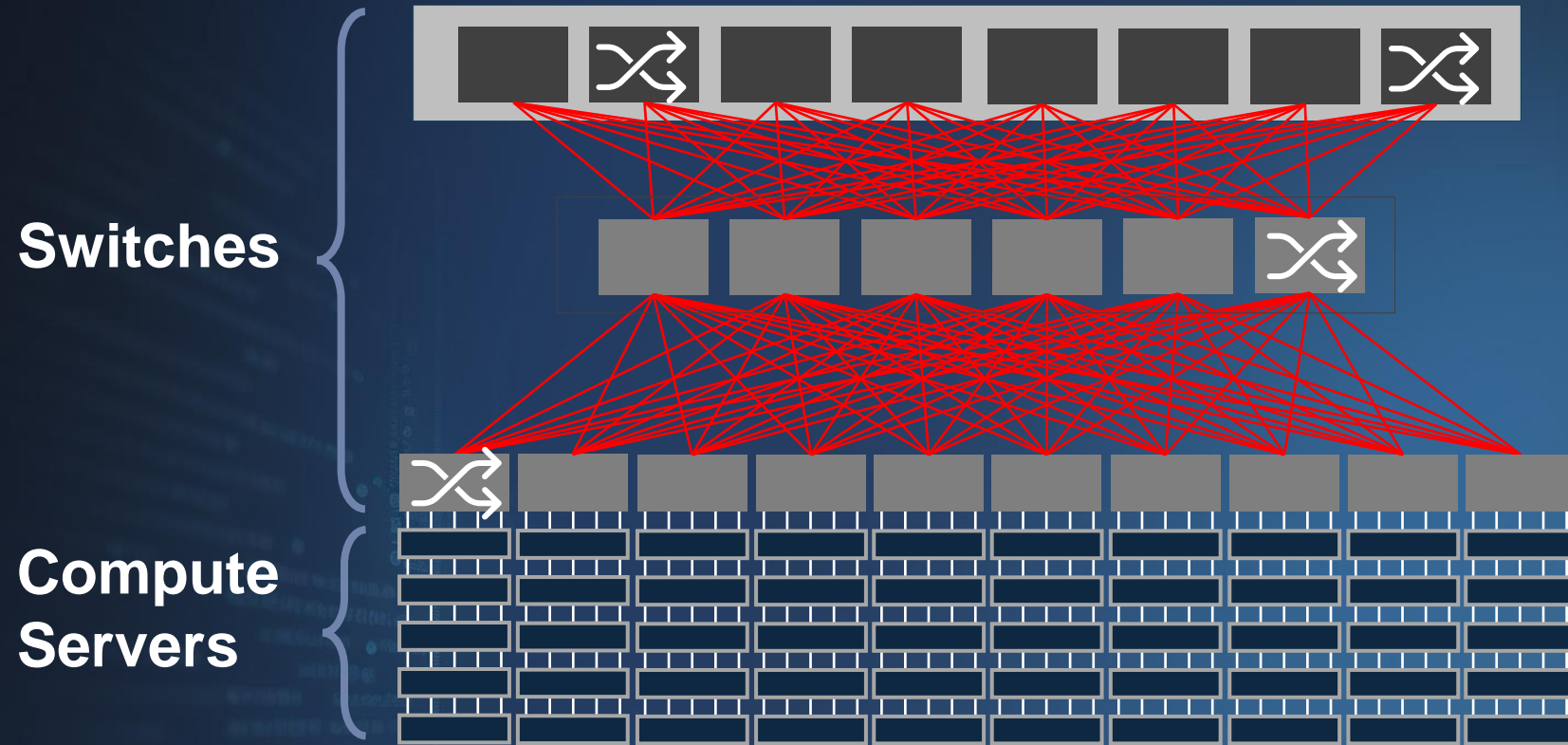
Tony Chan Carusone, CTO

Leadership in Connectivity and Compute



Ultra-high-speed data connectivity for AI, compute and network architectures

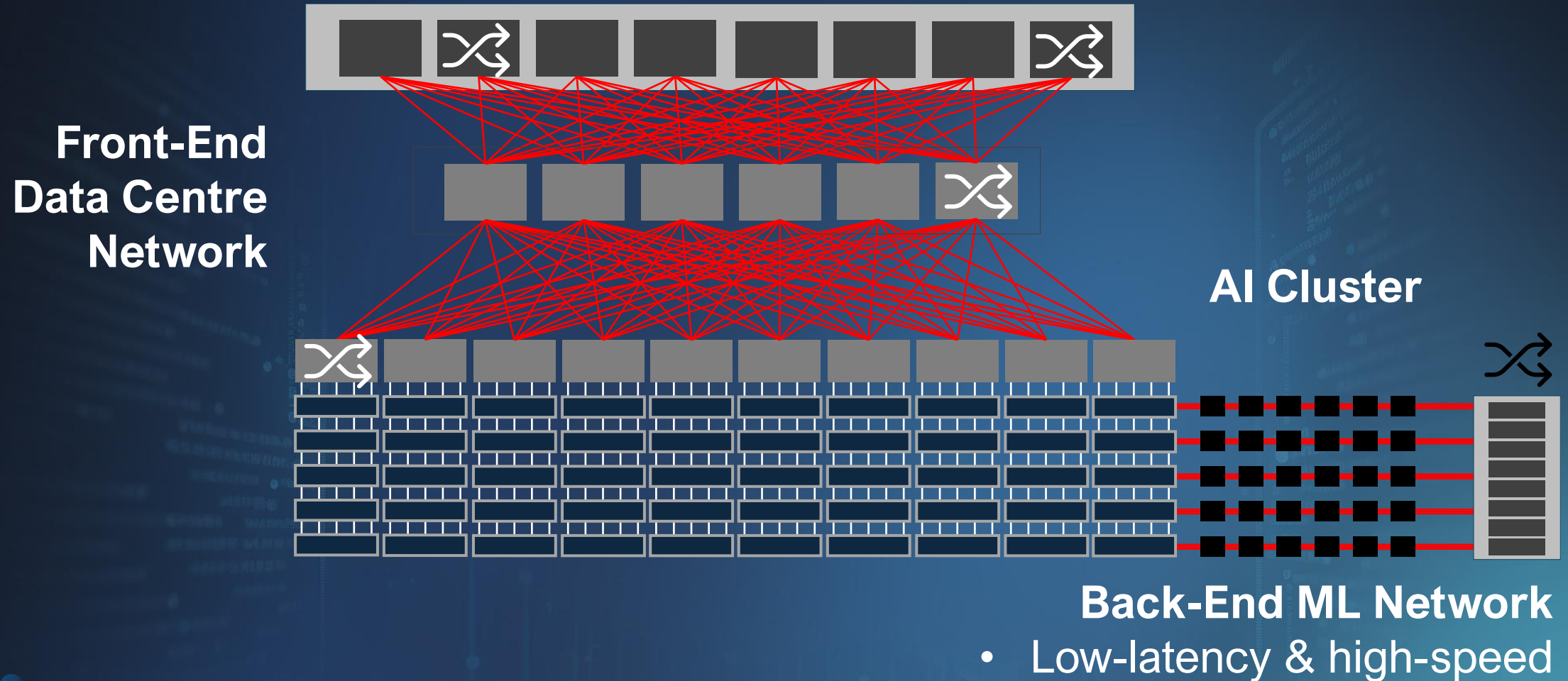
Evolving Data Centre Connectivity Landscape



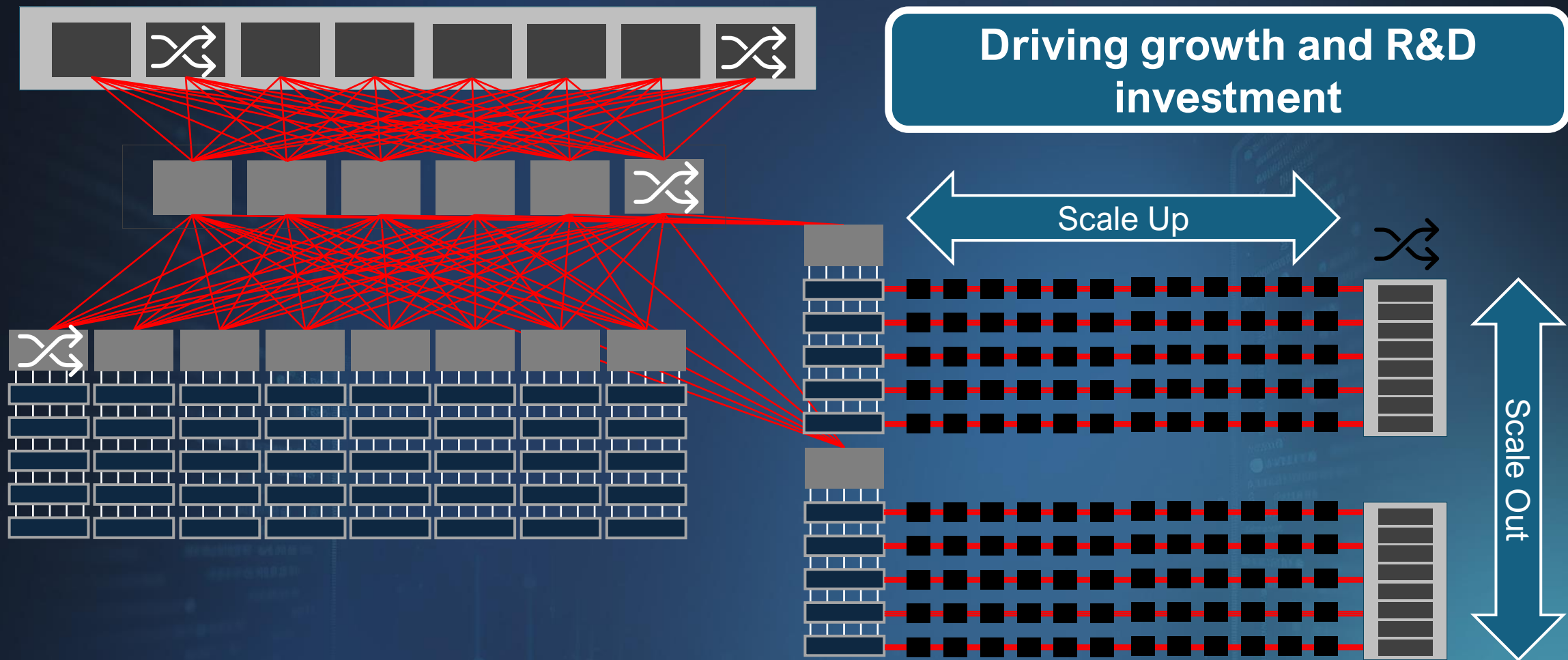
- Optical and electrical links
- Flexible and redundant networking

This evolution is accelerating and diversifying with AI deployment in the data centre

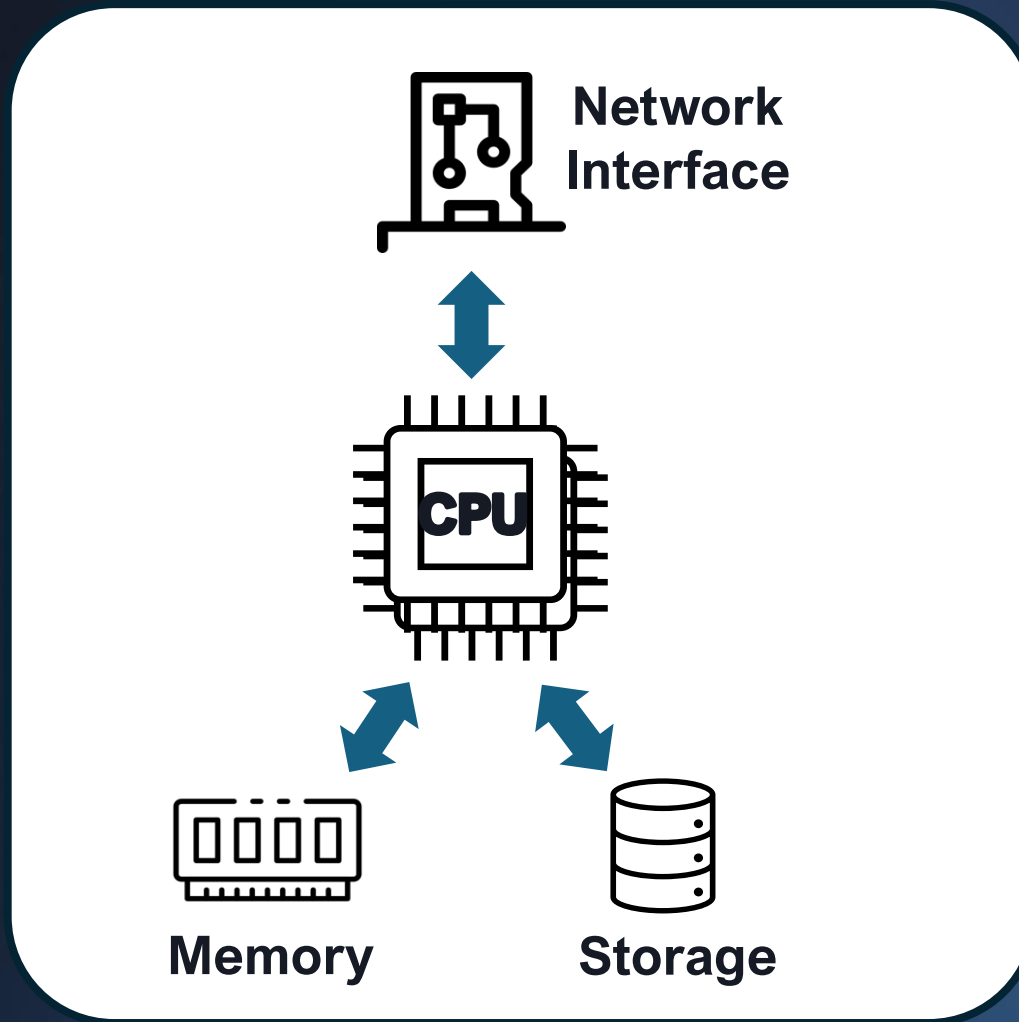
Proliferating Connectivity – AI in the Data Centre



Driving Large-Caliber Scaling Up and Scaling Out



Building the Modern Data Centre – Compute Nodes

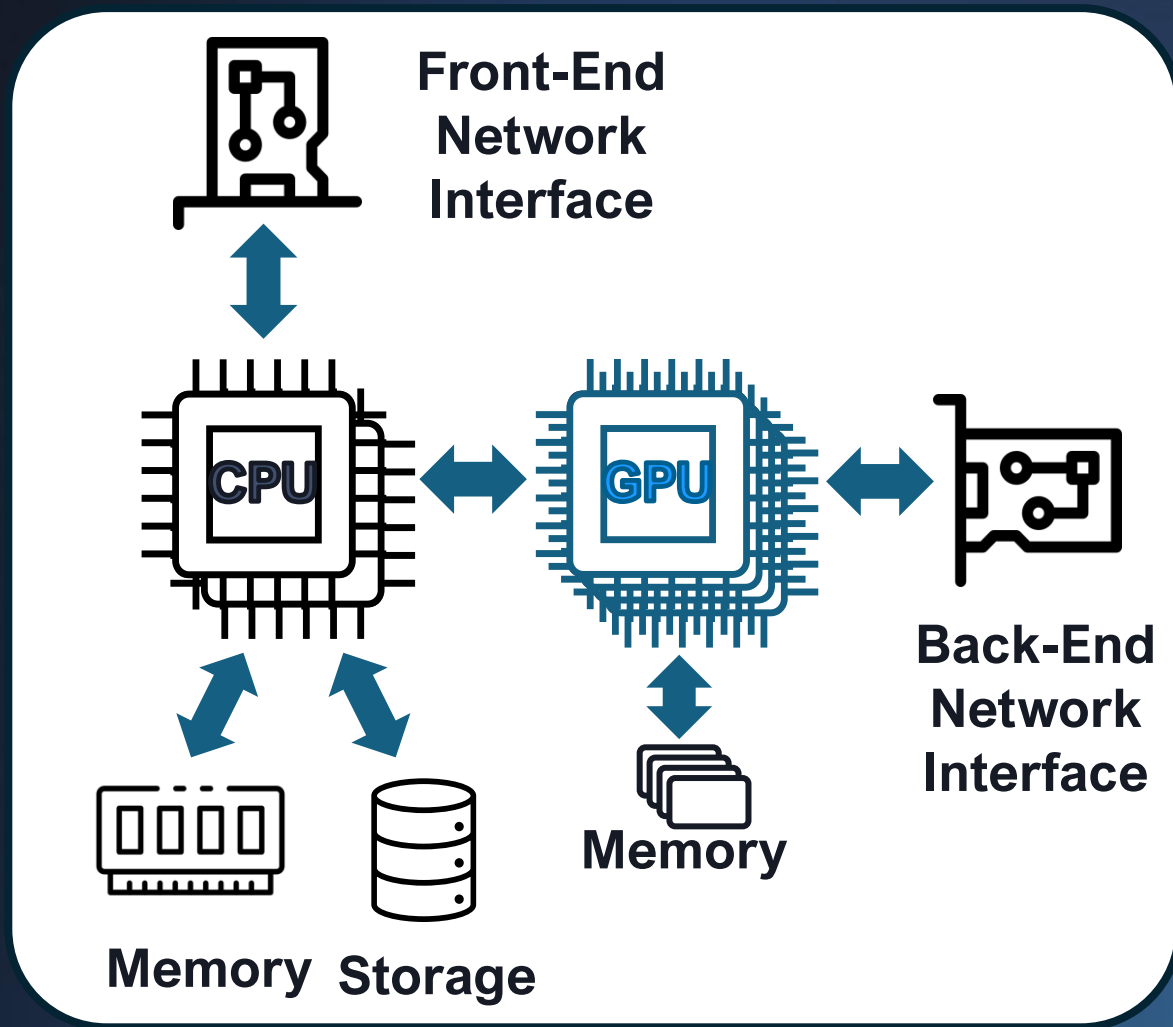


- Traditional compute server

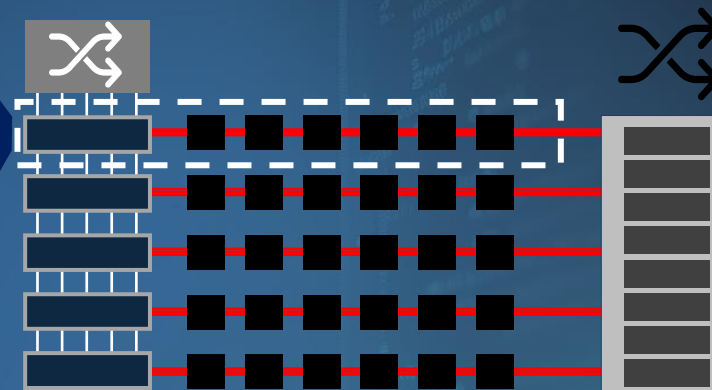


**Compute
Servers**

Building the Modern Data Centre – AI Compute Nodes

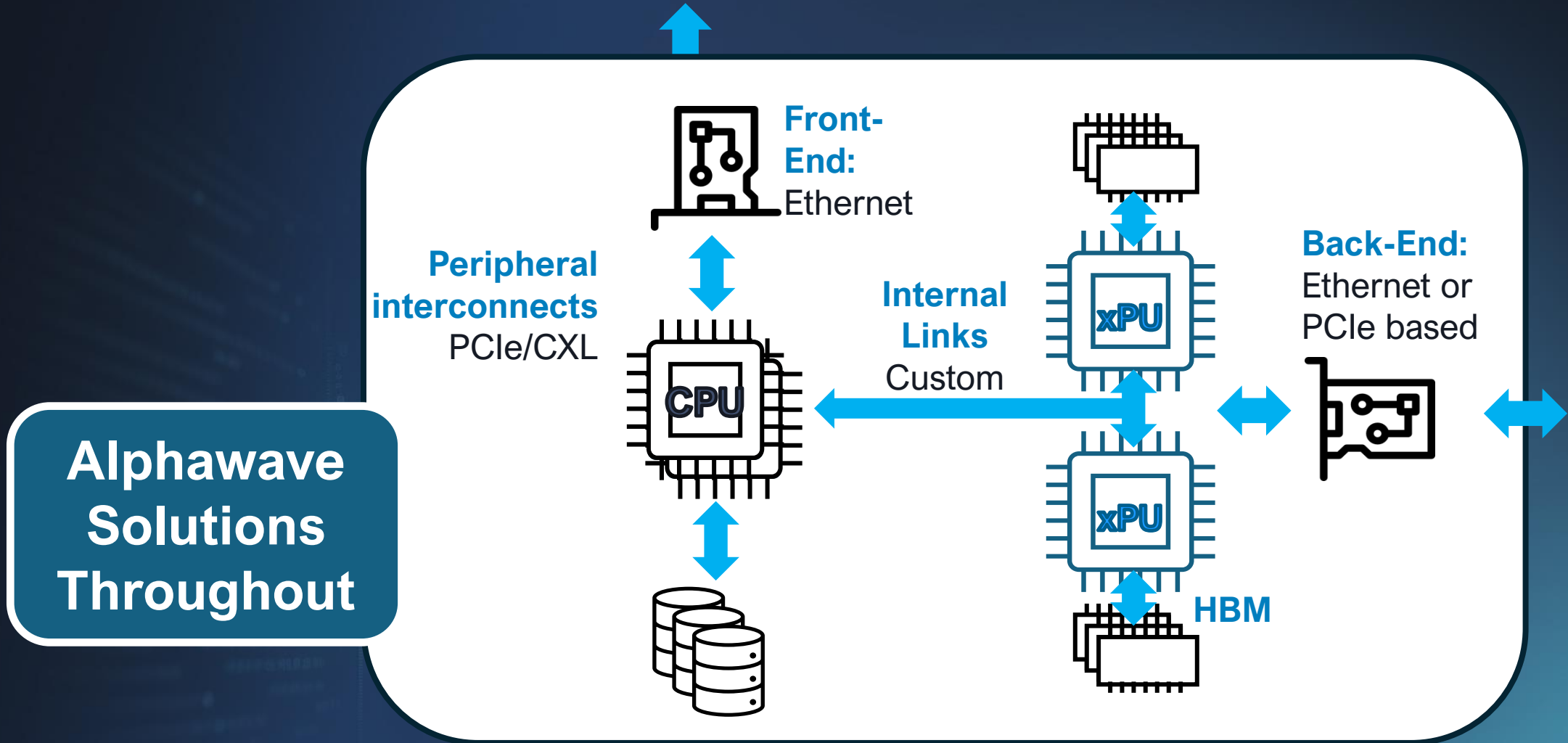


- Evolved for AI



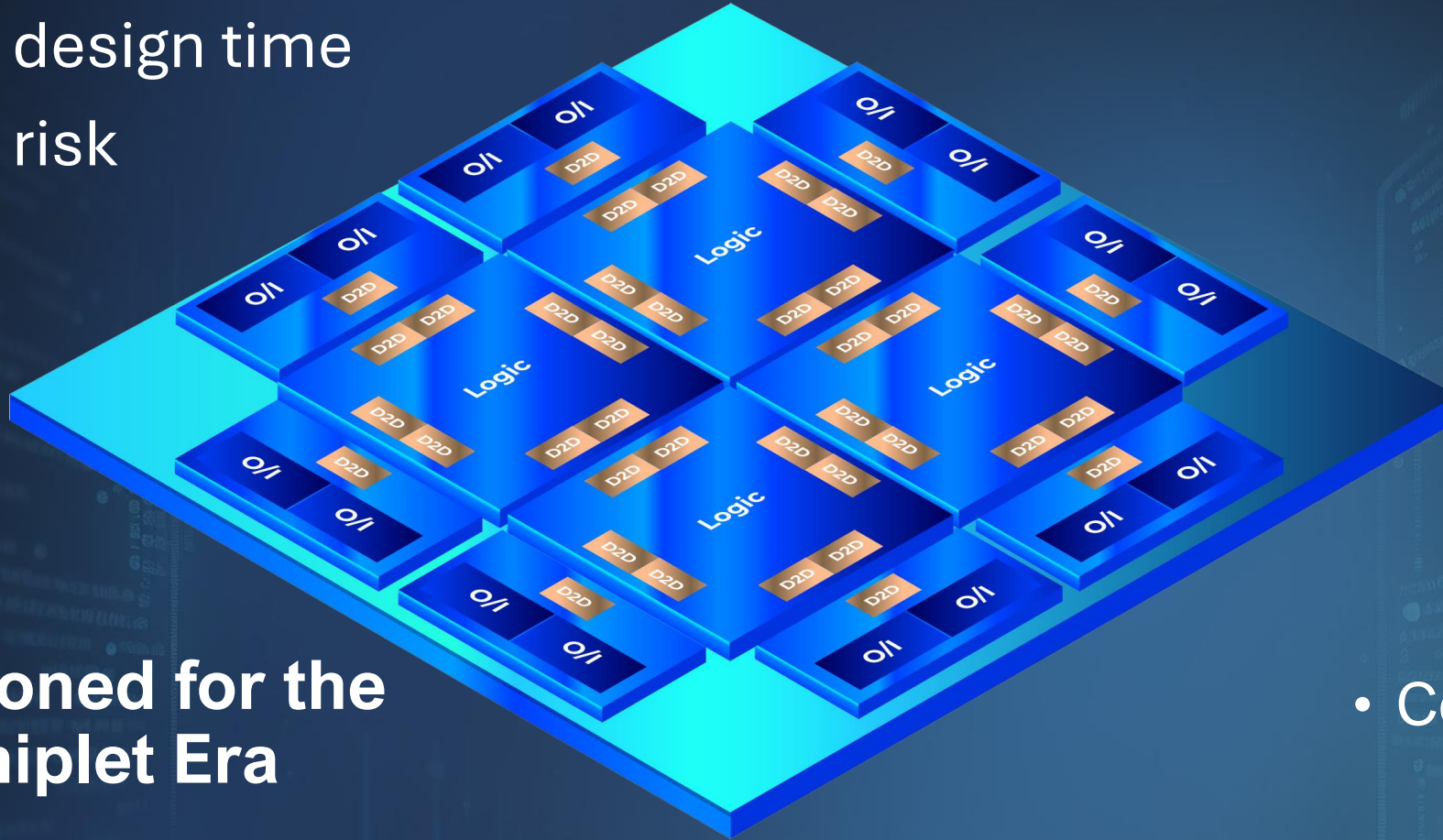
Back-End ML Network

Alphawave Delivers the Full AI Connectivity Suite



Accelerating the Cadence of Hardware Upgrades

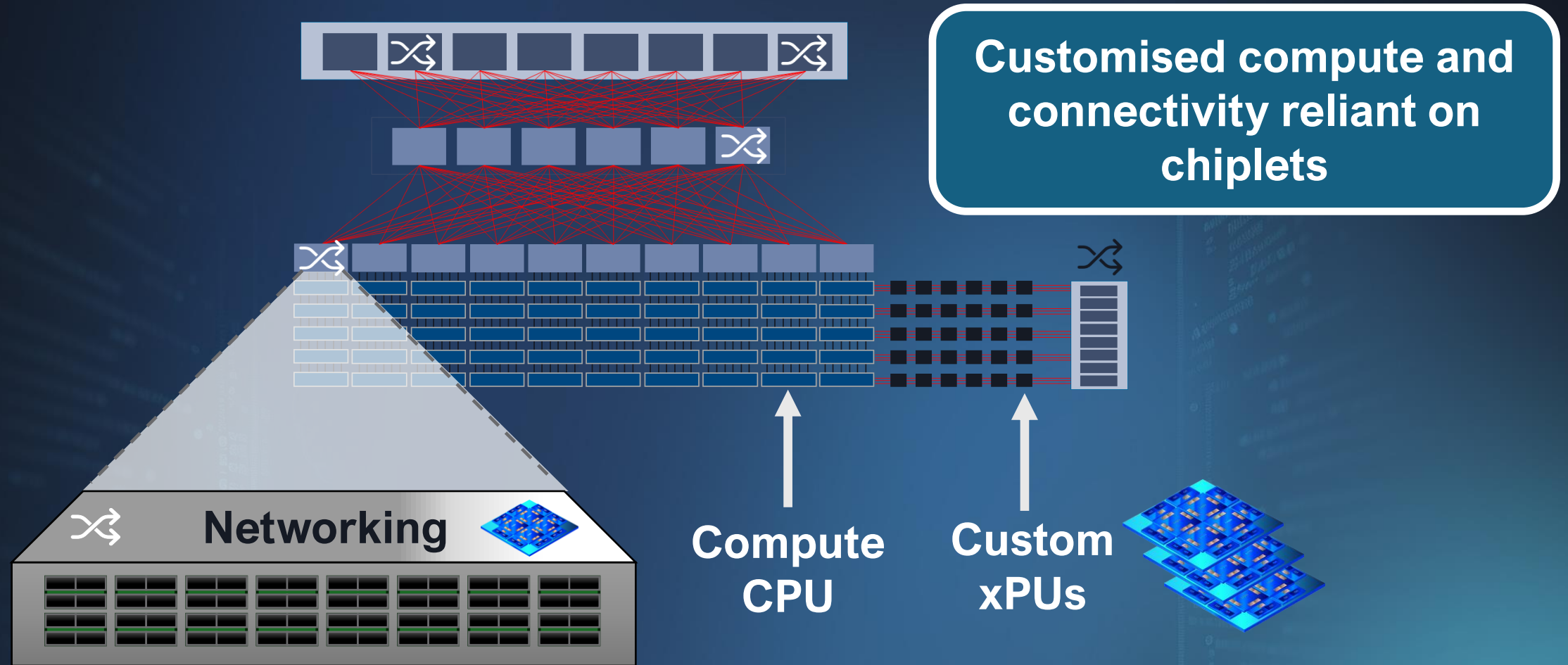
- Reduced design time
- Reduced risk



**Positioned for the
Chiplet Era**

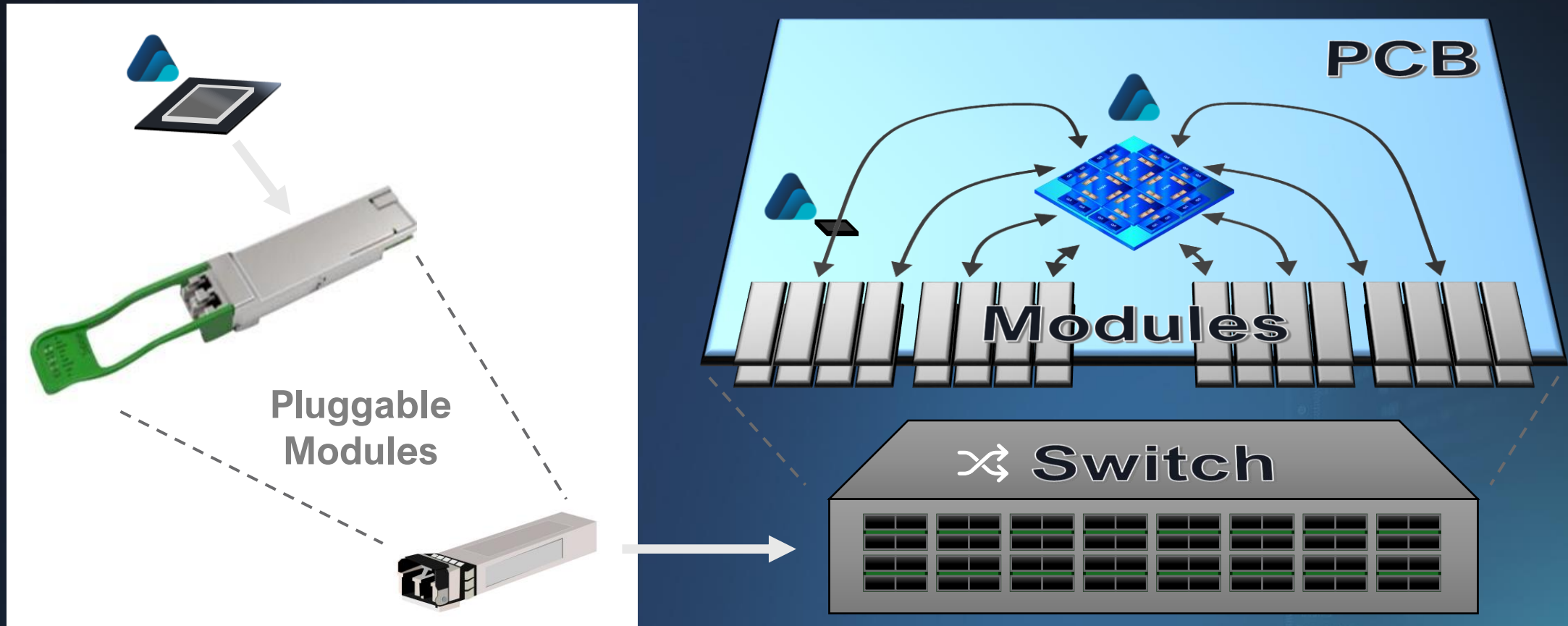
- Composability

Delivering Custom Silicon in the Data Centre



This presents new challenges for the networking infrastructure

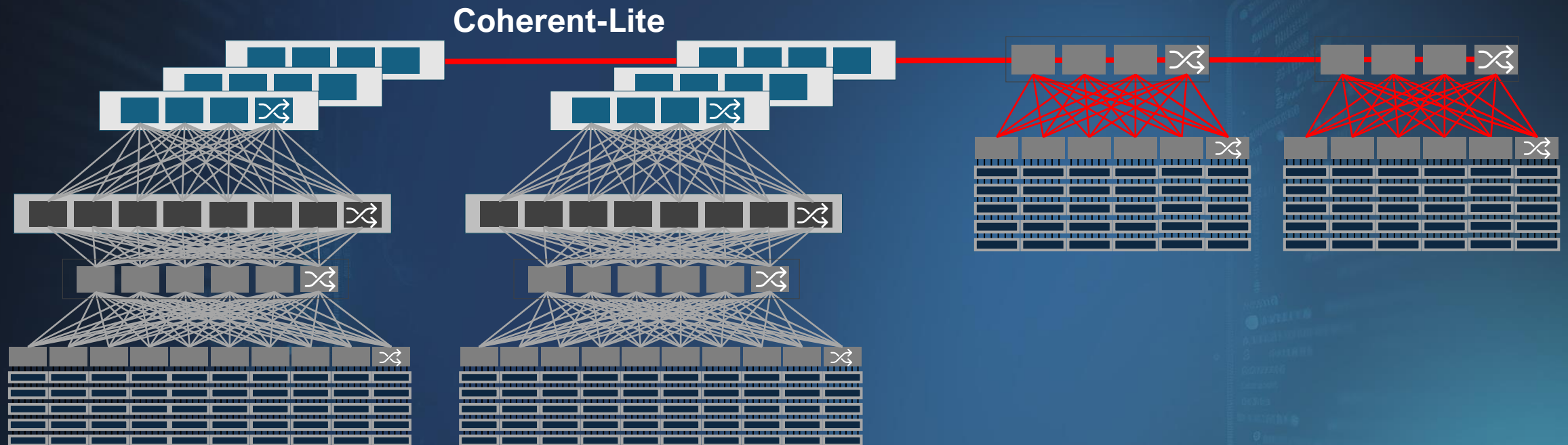
Alphawave has Solutions for These Networking Challenges



Industry-leading technology in volume deployment

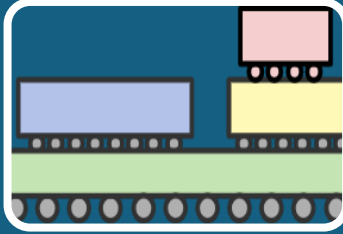
Evolution of Distributed Compute Drives New Requirements

AI at the edge requires geographically-distributed compute
with broadband connectivity



Future solutions are needed to address these new requirements

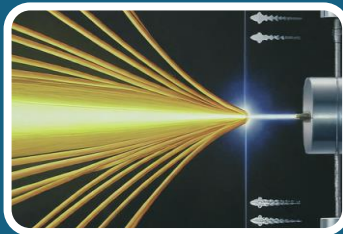
Alphawave is Investing in These Future Solutions



3D Silicon



Beyond 224G Connectivity



Coherent in the Data Centre

Alphawave is Expanding Technology Leadership



Alphawave's AI connectivity suite is enabling custom silicon:

- PCIe/CXL
- Ethernet
- UCIe / HBM



Alphawave chiplets are scaling AI in composable compute and networking chips



Optics technologies are evolving to meet new demands

Alphawave R&D

Jonathan Rogers, Co-Founder and Senior Vice President Engineering

Leadership in Connectivity and Compute



Silicon IP



Chiplets

Custom
Silicon



Connectivity
Products



Ultra-high-speed data connectivity for AI, compute and network architectures

R&D Engine Powering our AI and Data Centre Connectivity Businesses

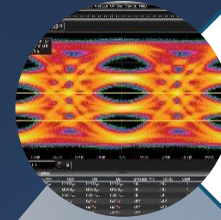


R&D Locations



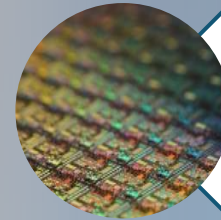
Leading experts in analog mixed-signal and DSP design

Team members with decades of experience building connectivity solutions



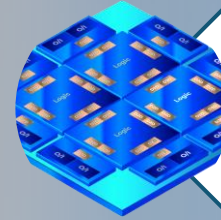
High-Speed Connectivity IP

- Data Rates up to 224Gbps
- Most advanced silicon processes
- Robust production track record



Driving Custom Silicon Business

- Full suite of proven differentiated IP subsystems for AI connectivity and compute challenges



Chiplet Innovation

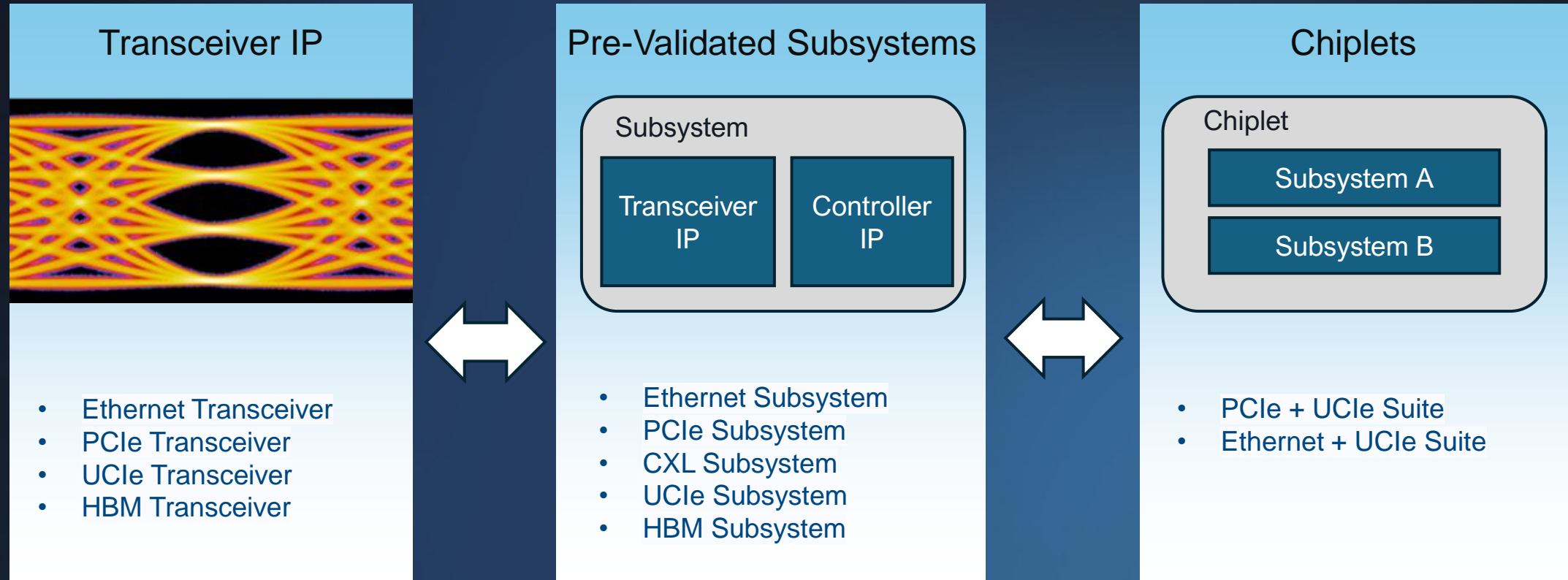
- 2.5D/3D advanced package expertise
- UCIe leaders at 32Gbps



Connectivity Products

- Directly driving optics from advanced CMOS
- WidEye™ DSP

Driving Evolution of IP at Alphawave



Alphawave has the transceivers, controllers and pre-validated subsystems for the AI data centre

Building Differentiated Connectivity IP

Our Connectivity IP Enables



Faster Speeds

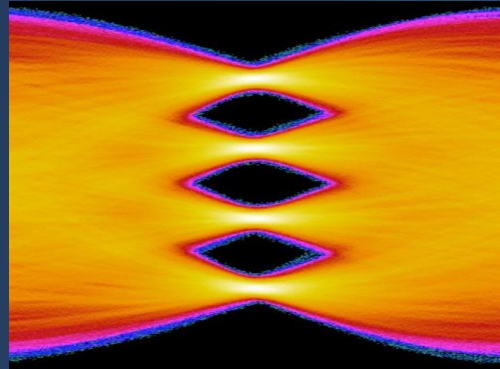


Lower Power



Lower Cost

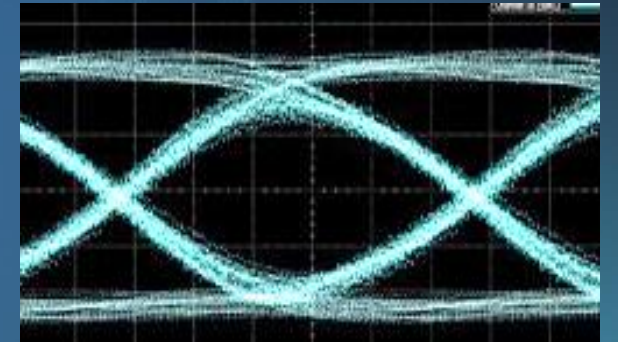
224Gbs AthenaCORE SerDes



WidEye™ DSP

24Gbs AresCORE UCle

**Low-Latency
Streaming
Controller**



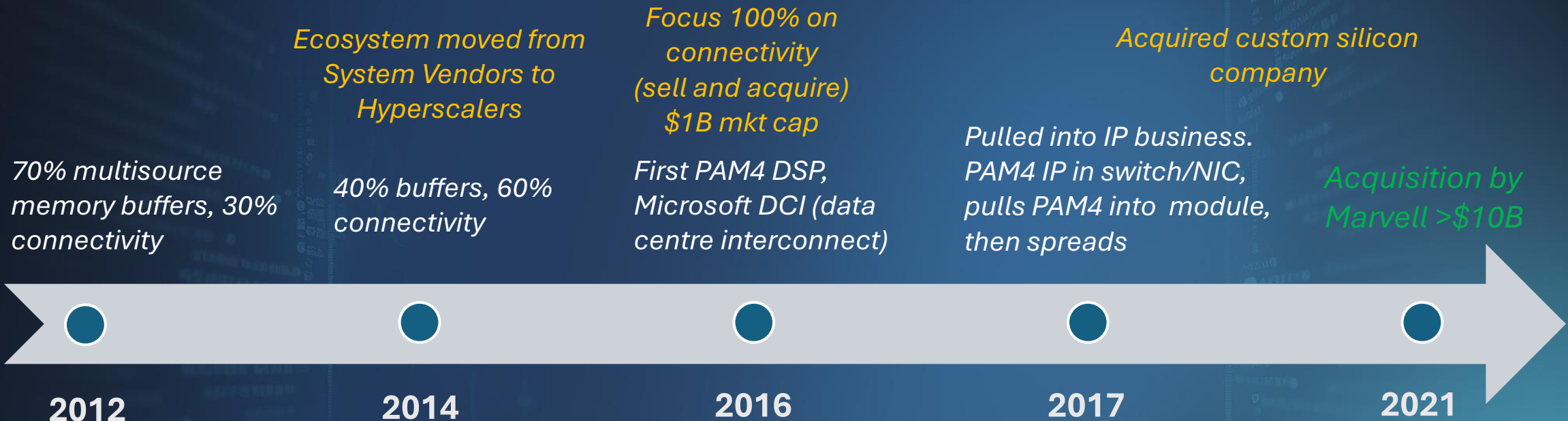
Delivering higher speeds, better performance for less power and area

Path to Billions

Charlie Roach, Chief Revenue Officer

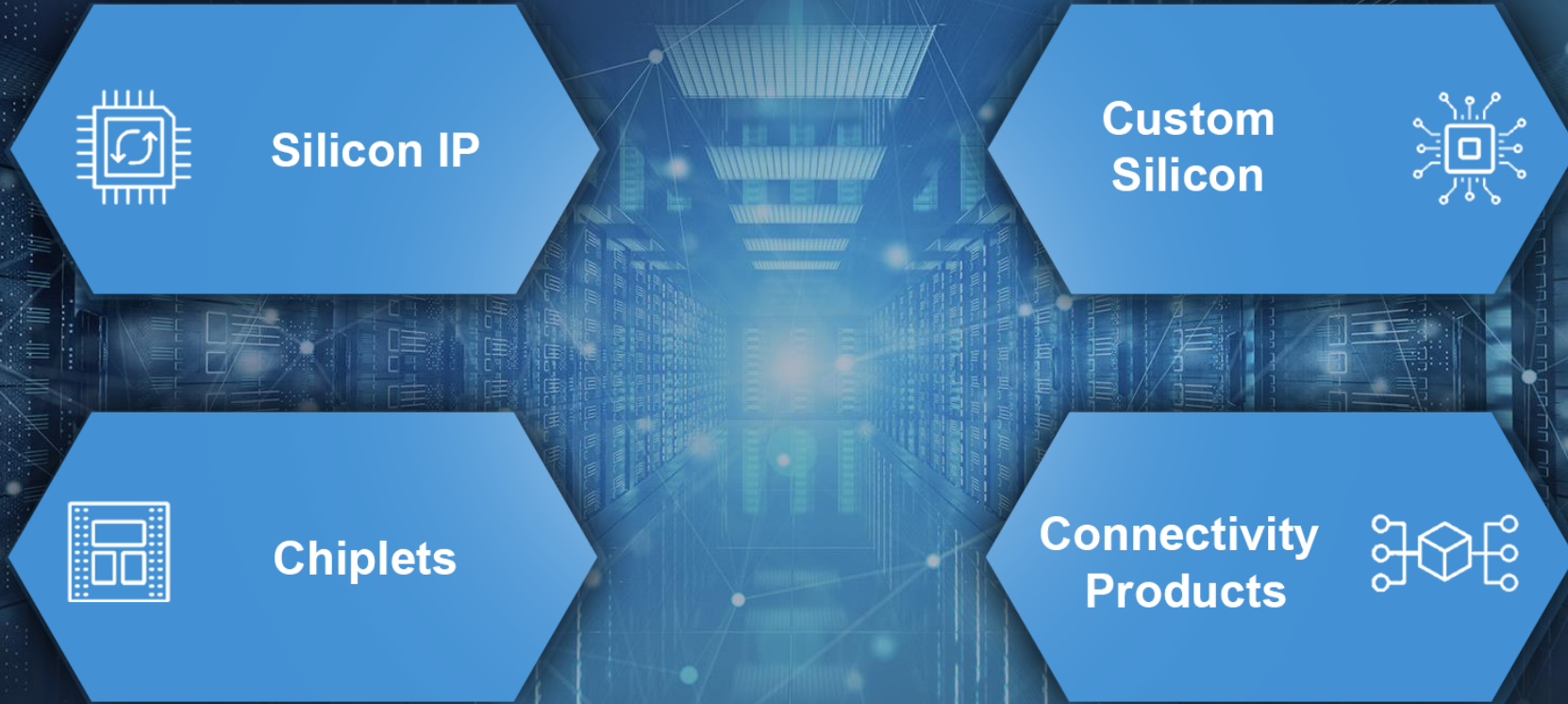
Connectivity Technology Creates Value

Inphi Worldwide Sales 2012-2021



Leadership in Connectivity and Compute

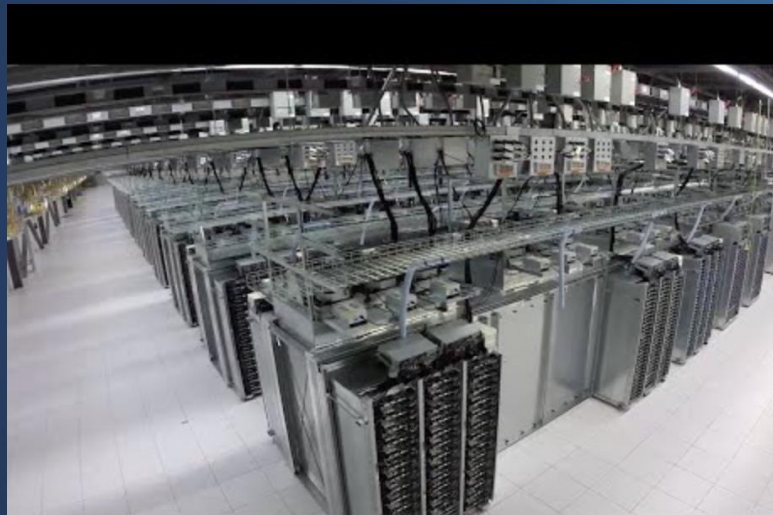
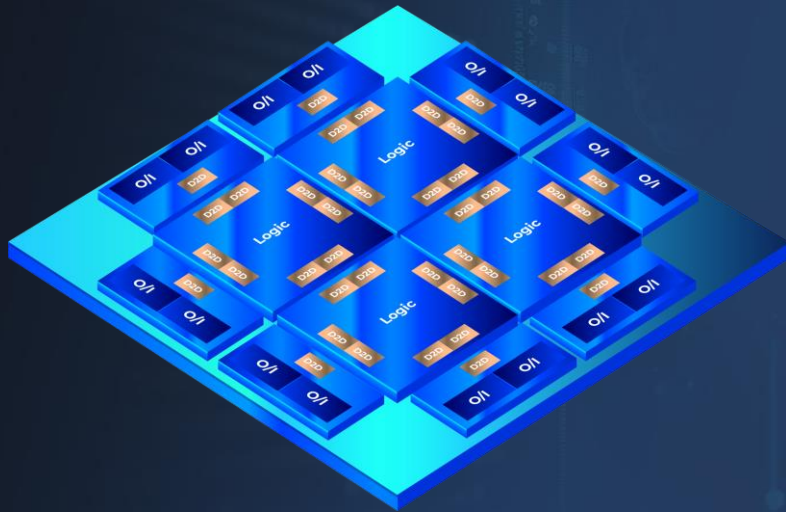
US Hyperscalers >50% of TAM



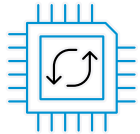
Ultra-high-speed data connectivity for AI, compute and network architectures

How Alphawave Wins: Technology Leadership

- For Hyperscalers, proven cutting edge connectivity technology wins
 - Connectivity of silicon from millimeters apart, to meters, and kilometers
 - Prefer technology from same company to de-risk mass deployment
 - Alphawave is the only complete connectivity supplier for IP, Custom Silicon, Chiplets and Connectivity products
 - Competition sells IP or silicon



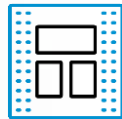
Four Connected Entry Points for Alphawave



Silicon IP

High Performance
Connectivity IP

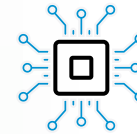
- PCIe/CXL
- Ethernet
- HBM



Chiplets

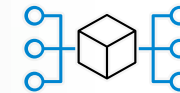
UCle™ Enabled

- IO Chiplet
- Memory Chiplet
- Compute Chiplet



Custom Silicon

- Spec to Silicon Capabilities
- Advanced 2.5D/3D Packaging
- Application Optimised IP Subsystems




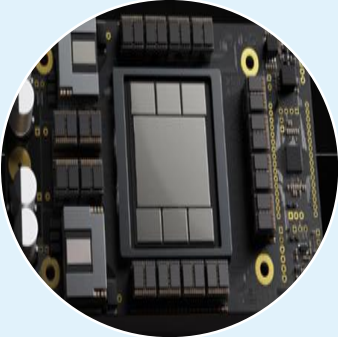
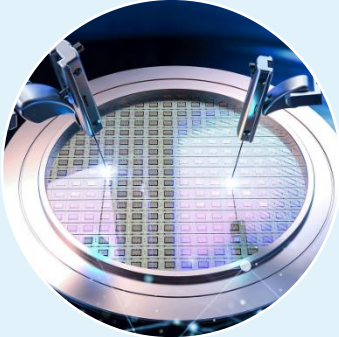

Connectivity Products

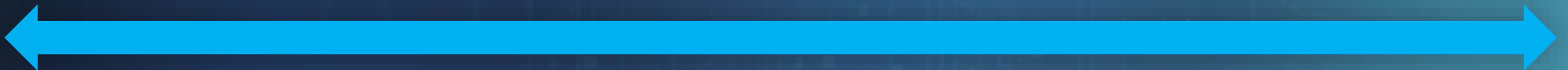
IPAM4 and Coherent
DSPs

Enables selling across the entire product portfolio – Directly or Ecosystem

Creating the Solutions Hyperscalers Specifically Request

Alphawave Is Working with the Entire Hyperscaler Ecosystem

			
Module/Cable Vendors	Data Centre Compute	Silicon Fabs	Compute Architecture
<ul style="list-style-type: none">• Copper and optical module vendors	<ul style="list-style-type: none">• AI, speciality processors and connectivity solutions	<ul style="list-style-type: none">• TSMC, Samsung and Intel	<ul style="list-style-type: none">• Compute architecture partners such as ARM



Hyperscalers Require Industry-Leading Standard Technology that is Customisable



Google Cloud Platform



Diversification of Data Centres

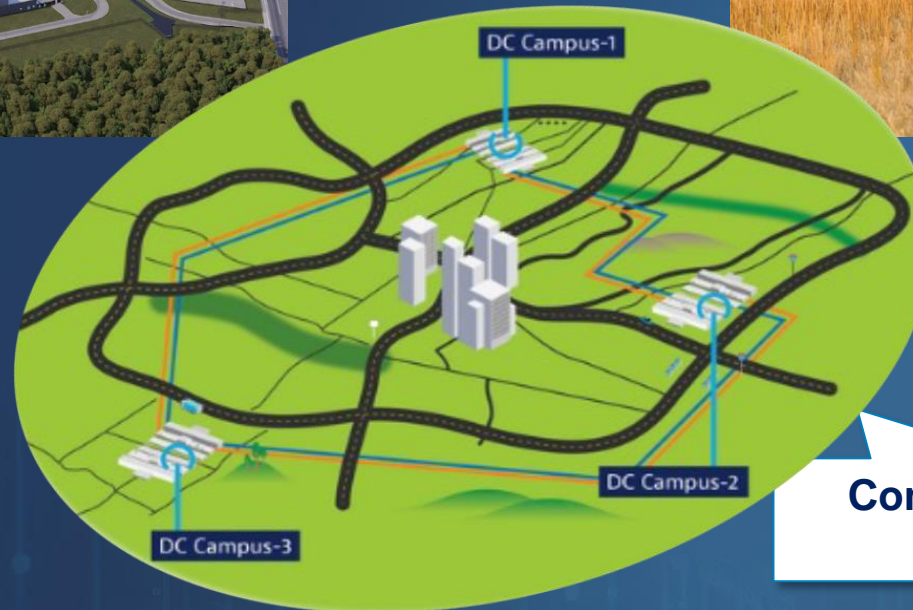
Think Phone vs Tablet vs Laptop



Campus connecting several buildings



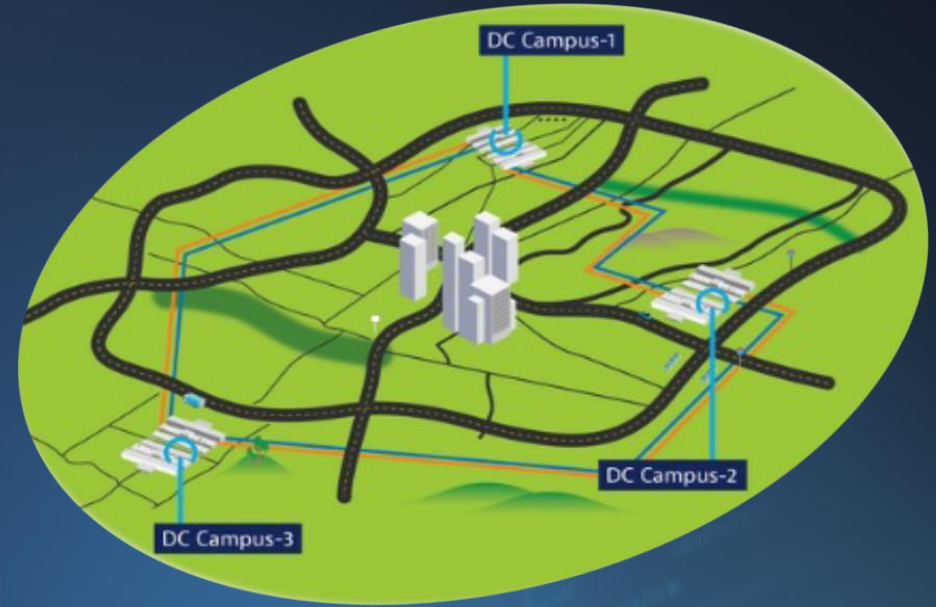
Large single building in remote location



Connected campuses around city

Use Technology Others Have Proven – DCI

- DCI (Data Centre Interconnect) Microsoft created the product category due to their unique application
- Now an industry standard called 400G and 800G ZR that all use



Hyperscalers Engage Smaller, Leading Technology Companies

- Flexible and responsive - Willingness for risk - Creativity
- Many of today's semiconductor companies' success can be traced to the development of solutions through early engagement with Hyperscalers
 - AI and compute
 - Switching
 - Module makers
 - Cable Vendors
 - Connectivity technology

Path to Billions

- Alphawave is aggressive - Technology leadership in all forms of data movement
 - Planes, trains, and automobiles
- Business and product customised for Hyperscalers and the ecosystem
 - Will sell you just the engine or change to electric
- Delivering mission-critical connectivity and compute essential to the AI revolution



Break – Back in 20 min



Silicon IP

Custom
Silicon



Chiplets

Connectivity
Products



Agenda

Welcome	Jose Cano, Global Head of IR
The Next Leader of Connectivity for AI	Tony Pialis, Co-Founder and CEO
AI and Data Centre Megatrends	Tony Chan Carusone, CTO
Silicon IP	Jonathan Rogers, Co-Founder and SVP Engineering
Path to Billions	Charlie Roach, Chief Revenue Officer
Break	
IP, Chiplets and Custom Silicon	Mohit Gupta, SVP & GM Custom Silicon and IP
Connectivity Products – Multi-Billion Dollar Market	Babak Samimi, SVP & GM Connectivity Products
Financial Overview	Rahul Mathur, Chief Financial Officer
Closing Remarks	Tony Pialis, Co-Founder and CEO
QA Session	Executive team

IP, Chiplets and Custom Silicon

Mohit Gupta, SVP & GM Custom Silicon and IP

Path to Billions

Leadership in Connectivity and Compute



Silicon IP



Chiplets

Custom
Silicon

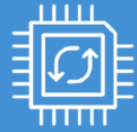


Connectivity
Products



Ultra-high-speed data connectivity for AI, compute and network architectures

Leadership in Connectivity and Compute



Silicon IP



Chiplets

Custom
Silicon



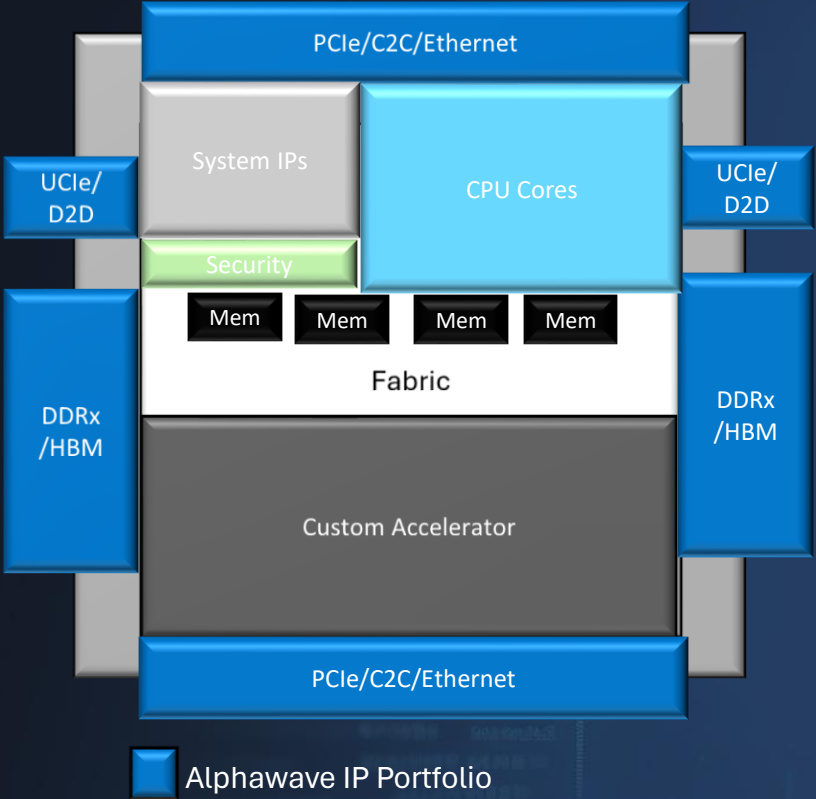
Connectivity
Products



Ultra-high-speed data connectivity for AI, compute and network architectures

Advanced Silicon IP is Fundamental for the AI Era

AI xPUs



Key Market Drivers

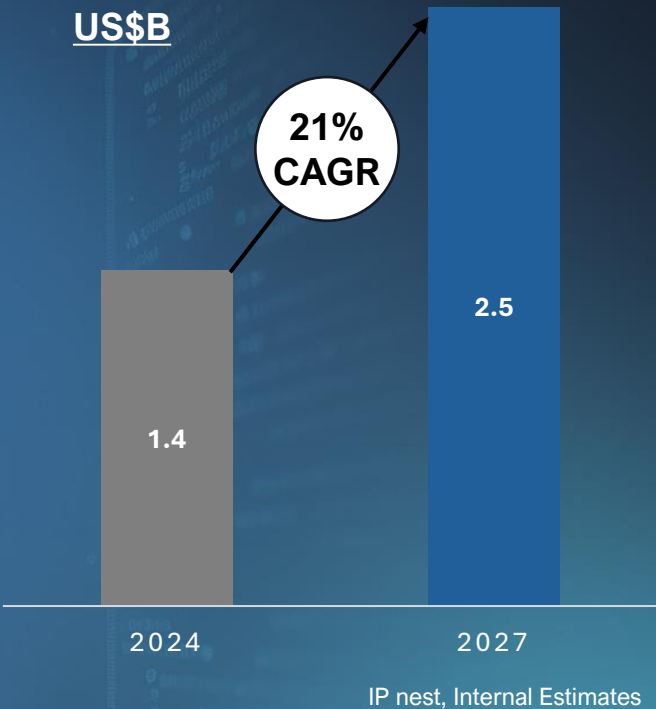
Custom Workloads:
New Chip Design Starts

Faster Scaling:
5nm → 3nm
→ 2nm → Angstroms

Multi Die Integration:
Requires Connectivity IP

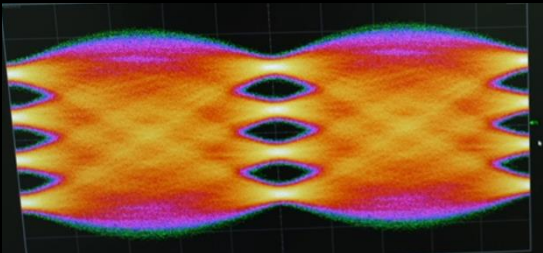
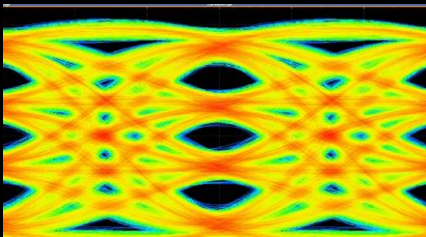
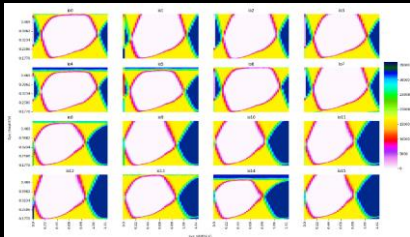
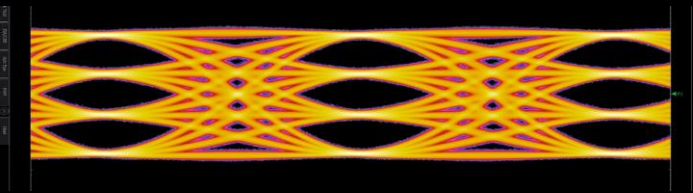
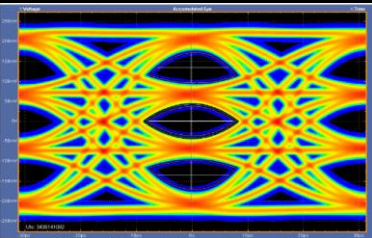
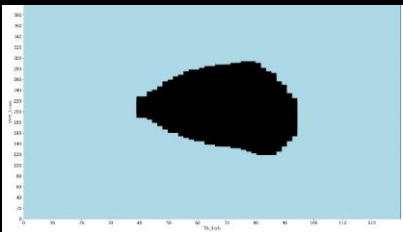
CONNECTIVITY IP TAM

US\$B



Silicon IP – High-margin business enabling standalone IP licensing & adjacent silicon revenue

Alphawave has a Full Suite of AI Silicon IP Subsystems

		
224Gbps	128Gbps/PCIe Gen7	UCle/D2D 24Gbps
		
112Gbps	PCIe Gen6/CXL3.x	HBM3e 9.2Gbps+

7/6nm

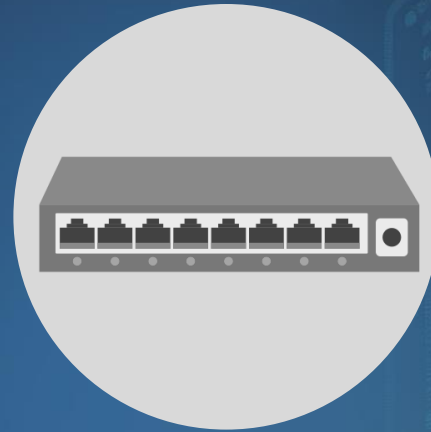
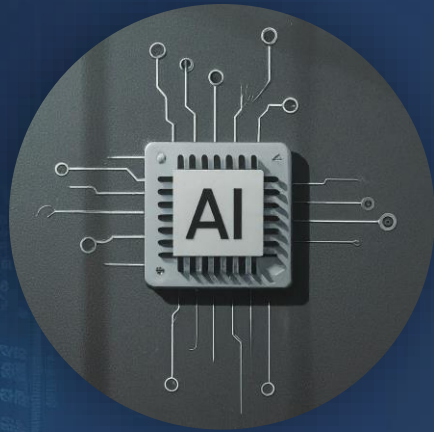
5/4nm

3/2nm

18/16/14A

Proven silicon IP subsystems – Lowers risk, reduces customer engineering efforts

Alphawave has a Rich History of Silicon IP Deployment



The Alphawave team has a >20-year industry track record of delivering the most advanced IPs

Leadership in Connectivity and Compute



Silicon IP



Custom
Silicon



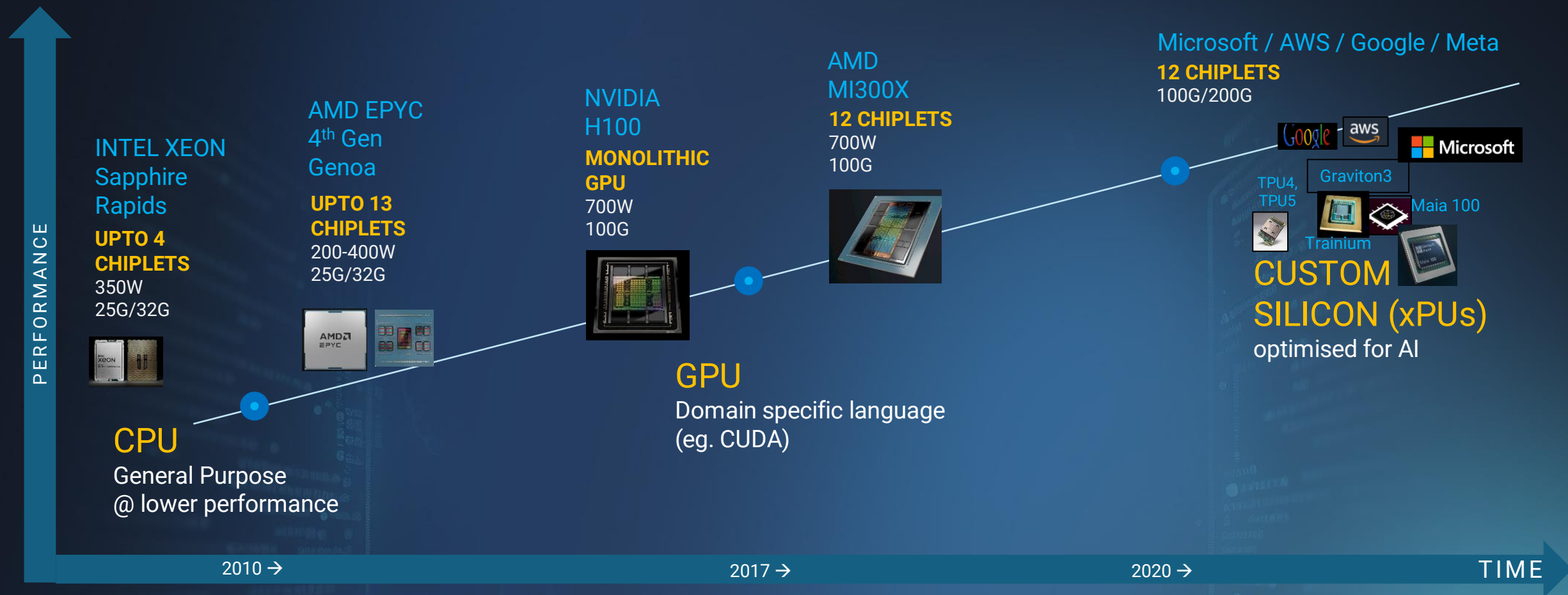
Chiplets



Connectivity
Products

Ultra-high-speed data connectivity for AI, compute and network architectures

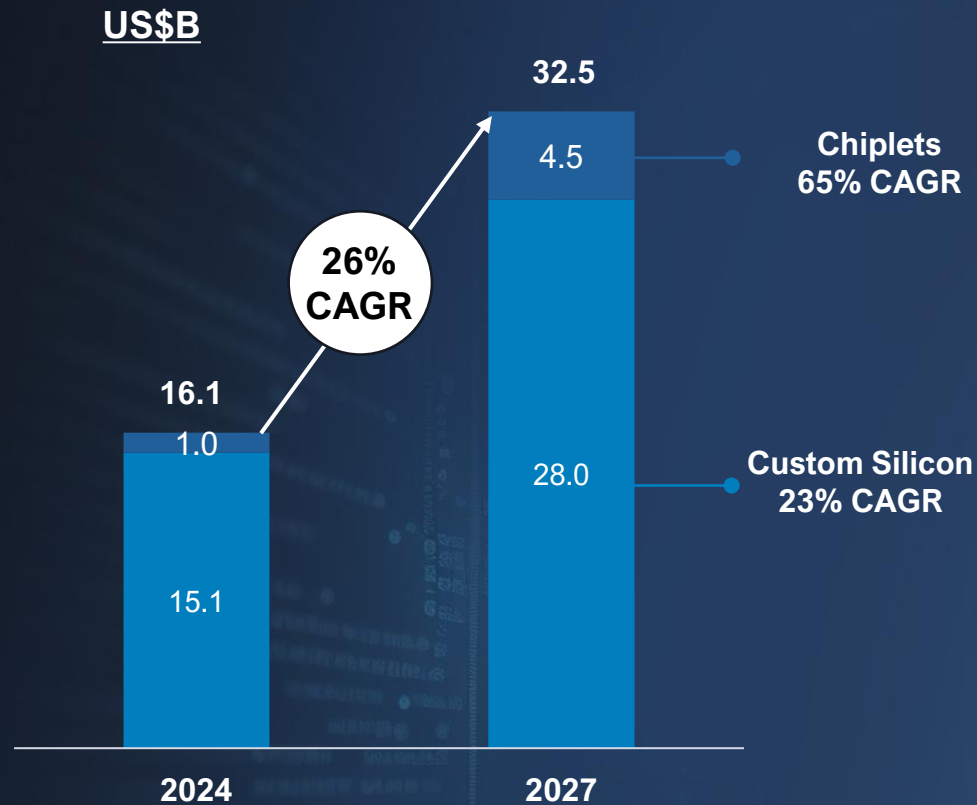
The Result: Emergence of Silicon for AI



Time: Denotes approximate introduction of first product in the category

Until now – No one solutions provider possessed all of the technology to enable silicon for AI

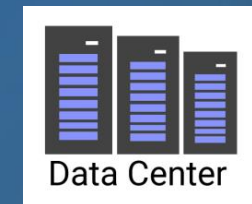
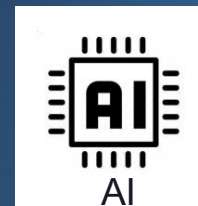
Growing Custom Silicon Market Driven by New AI Workloads



Semico Research Corporation, JP Morgan, IPNest, LightCounting, Internal Estimates

Maximising Performance with Optimised Power for Specific Use Cases

- Purpose-built custom SoCs leveraging high-speed connectivity with increasing levels of compute
- Targeted at high-end, data centre infrastructure market segments



- Optimised to specific use cases
 - AI LLM training and inference acceleration, video streaming servers, accelerators for public cloud, etc

Leveraging our Full Portfolio of Technologies for AI Silicon

Custom silicon and chiplet solutions optimised for AI workloads are essential to affordably scale compute and connectivity performance, achieve lower power, and faster time to market

Connectivity

Compute interfaces

PCIe 1.0-7.0
CXL 3.1+



Networking interfaces

112G/224G SerDes
Ethernet 400G/800G/1.6T



Memory interfaces

HBM3/4
DDR5 and LPDDR5/4x



Chiplet interfaces

UCIe 36G



Compute

High Perf. CPU Cores

ARM Total Design

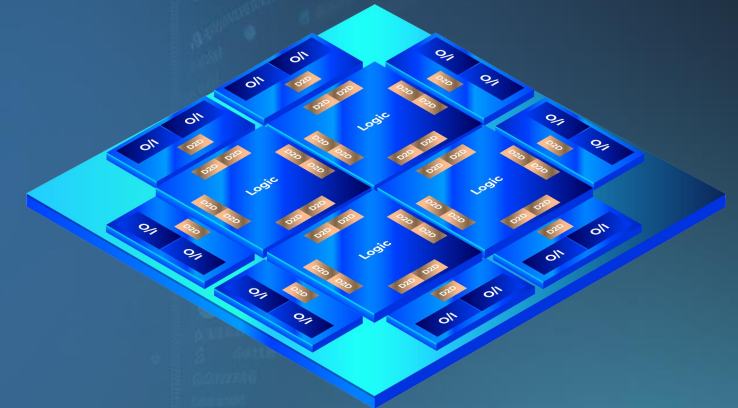
3/2nm PPA optimised

Fabric-IO latency optimised

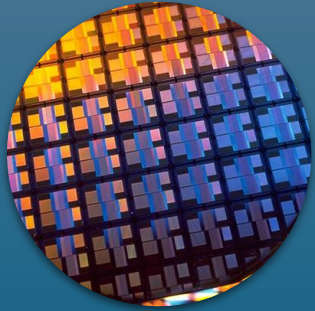
Compute Chiplets



AI Silicon Solutions

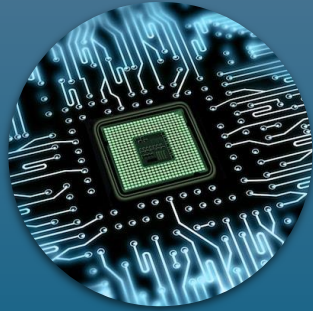


Alphawave's Complete Custom Silicon Platform for AI Silicon



Leading Process

- 7nm - Production
- 5nm - Ramping
- 3nm - Taping out
- 2nm - Enablement



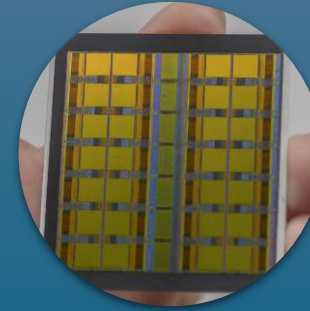
Proven Silicon IP

- 224G/112G Ethernet
- PCIe / CXL
- HBM/UCle
- Sub-systems



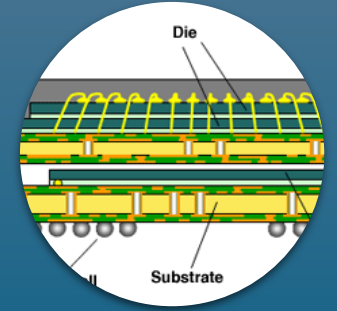
Ecosystem

- ARM Total Design
- Leading Foundries
- Design Flows
- Multi-geo OSATs



Pre-Built Chiplets

- Fast TTM
- Lower Risk
- \$ savings

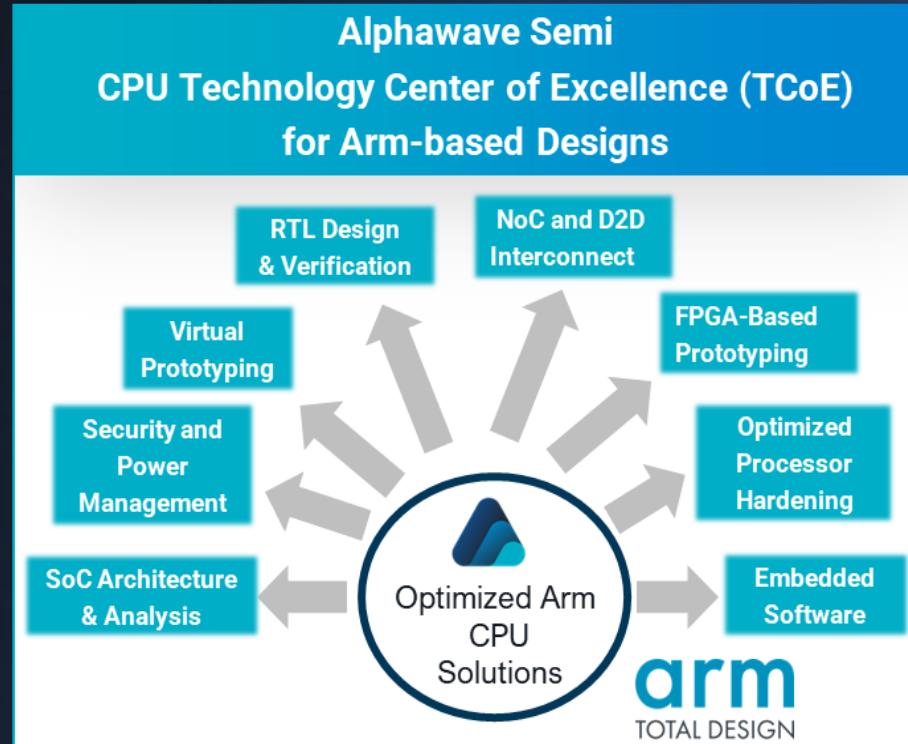


Adv. Packaging

- 2.5D/3DIC
- SI/PI
- Mechanical/Thermals

Significant R&D investments to enable long-term silicon revenues

Driving Partnership: Leveraging ARM to Enable AI xPUs



- Alphawave Semi joined as a founding IP and Custom Silicon member
- Provides accelerated path for specialised SoC solutions based on ARM Neoverse Compute Subsystems (CSS)
- Multiple ARM cores in production optimised for performance, power and area (PPA)
- Our connectivity IP seamlessly complements ARM IP
 - Supports ARM fabric interfaces such as AXI and CHI/CXS
 - Enables easy integration of advanced connectivity such as PCIe/CXL, HBMx, DDRx, Ethernet and UCIe

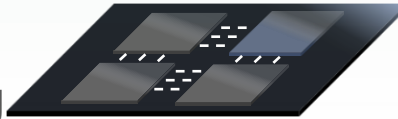
Chipelets – Next Evolution of Silicon IP

New Chipelet Design Paradigm

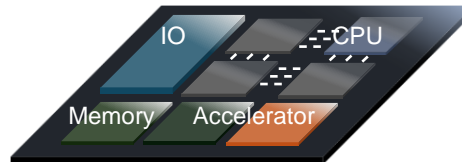
Monolithic is costly for AI and Data Centre in 3/2nm nodes



Chipelets with 2.5D/3DIC allow for greater compute and memory scaling



Customisable IO and Compute Chipelets Accelerate Time to Market



AI xPU CHIPLETS

IO Extender
Chipelets

ARM
Compute
Chipelets

Memory
Chipelets

Co-
Package
Optics
Chipelets

Partnering with ARM to deliver a portfolio of Neoverse series compute and IO chipelets

Scaled Acceleration for AI xPUs with Chiplets

1

Time to Market Advantage

30-50% Development time savings

Monolithic

Arch. & Definition

Logic & Physical Design

Fab & Qual/Test

Production

Chiplet-Based

Arch. & Definition

Logic & Physical Design

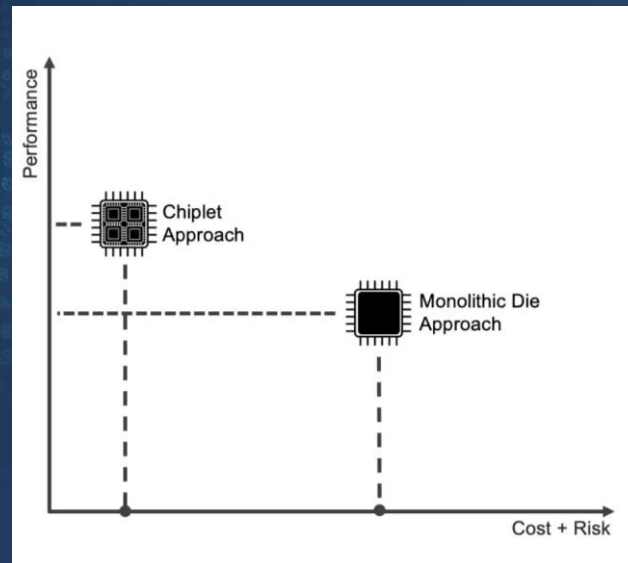
Fab & Qual/Test

Production

2

Lower Risk/Cost

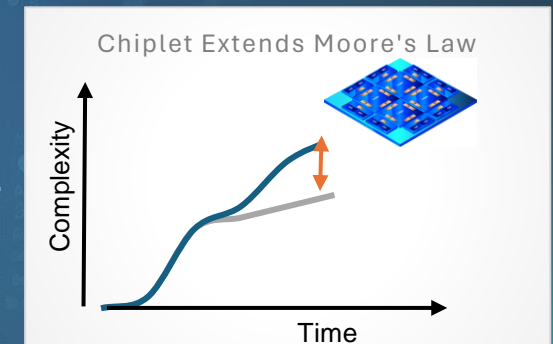
30-50% Cost savings



3

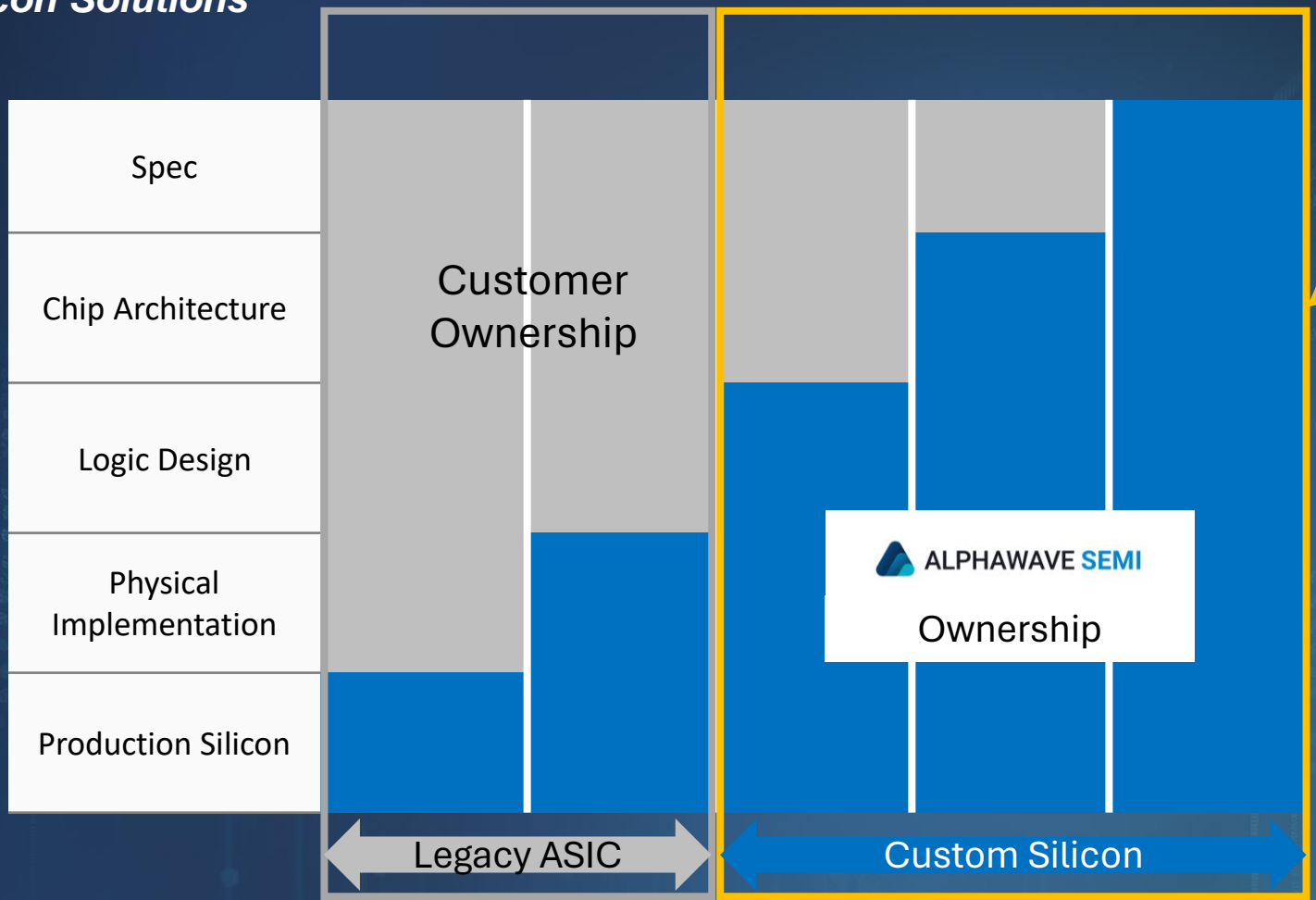
Accelerated Compute

Extends process scaling



Delivery Through Flexible and Valued-Added Business Model

Complete Spec-to-Silicon Solutions



AI Custom Silicon Engagements

Alphawave Already has Custom AI xPUs Design Wins Today



CHIPLET-BASED AI ACCELERATOR CHIP

Customer-provided accelerator IP

Alphawave portfolio of IP: UCIe/PCIe/Ethernet/HBM3e subsystems

4x main dies + 8 HBM3e



ARM NEOVERSE-BASED HPC CHIP

ARM compute subsystem

HBM3e/DDR/PCIe/UCIe subsystems

2x main dies + 4 HBM3e



MONOLITHIC AI ACCELERATOR CHIP

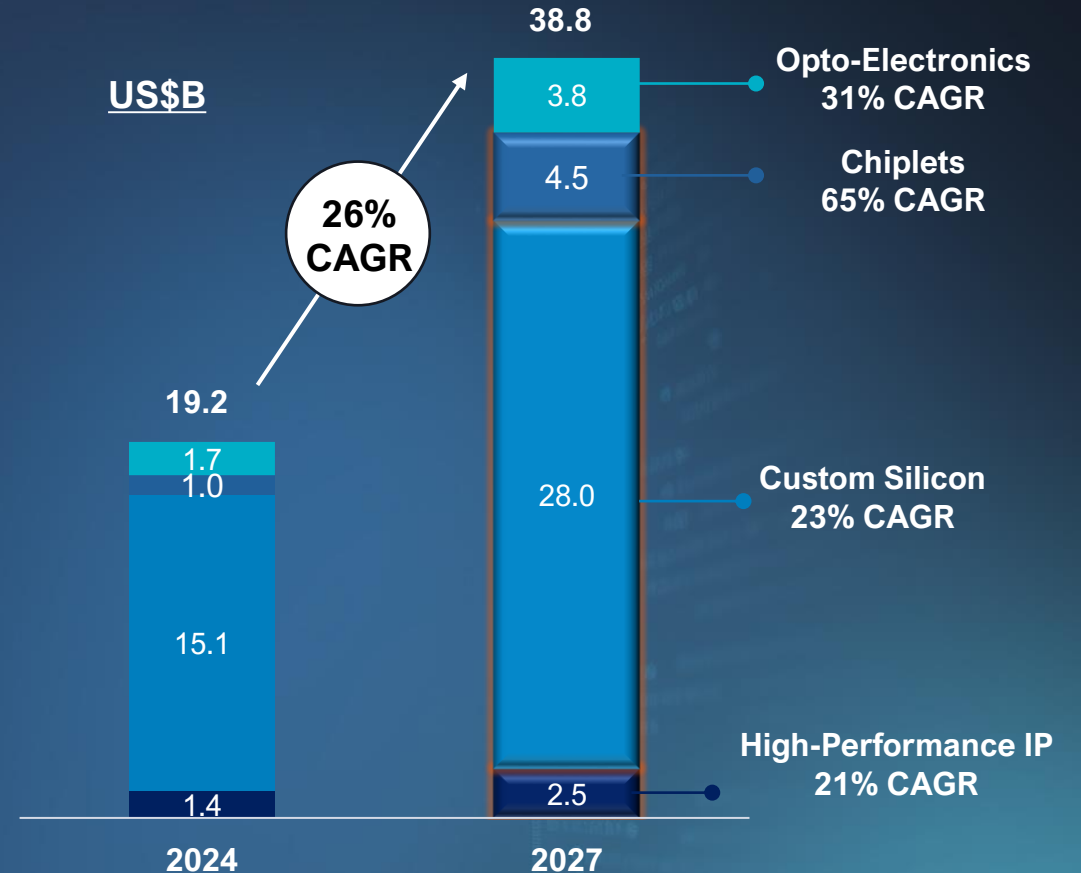
Performance opt. reticle size chip (>800 sqmm)

HBM3e/112G/PCIe subsystem

1x main die + 6 HBM3e

Execution Against a Massive Market Opportunity

- Generative AI “GenAI” driving the need for specialised silicon ~ \$35B market opportunity
- Early investment in process and IP enables a differentiation for long-term custom silicon revenue
- Initial success with xPU design wins across worldwide customer base
- Well positioned to deliver complex AI silicon leveraging Internal IP, chiplets and access to industry leading ecosystem



Semico Research Corporation, JP Morgan, IPNest ,LightCounting, Internal Estimates

Connectivity Products

– Multi-Billion Dollar Market

Babak Samimi, SVP & GM Connectivity Products

Leadership in Connectivity and Compute



Silicon IP

Custom
Silicon



Chiplets

Connectivity
Products



Ultra-high-speed data connectivity for AI, compute and network architectures

Intersection of GenAI and Accelerated Compute: Connectivity

GPU Capacity Outpacing Connectivity Bandwidth



**New Era of
GenAI Powered by
Accelerated Computing**

GenAI Megatrends Disrupting Connectivity Market



Catalyst for faster transition to 200G PAM4 (1.6T transceivers)



More optical ports: Each GPU = 3+ transceiver attach rate



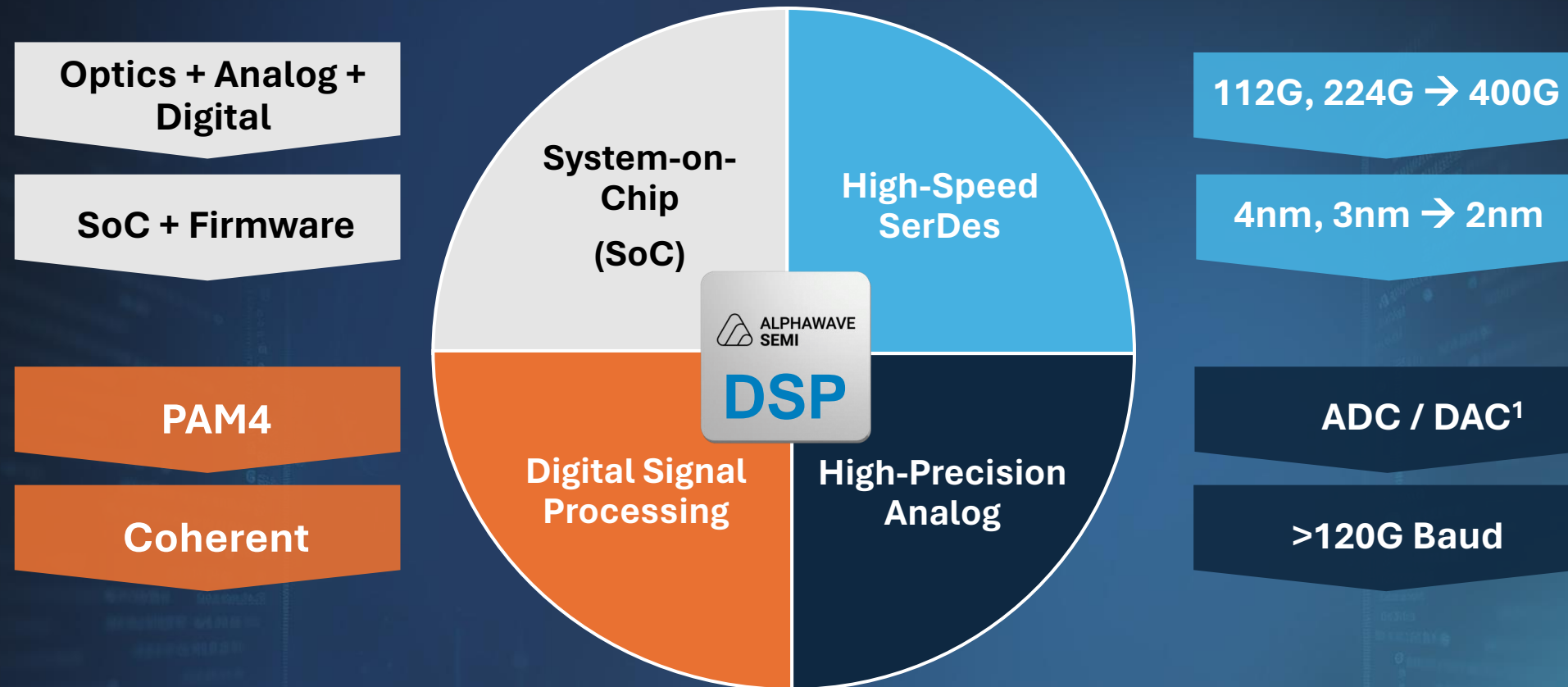
Distributed AI: 20km Coherent-Lite DCI links now in focus



Power/Energy: Necessitates move to 3nm now → 2nm for NGen

We Own the Critical Connectivity Assets

DSP is the processor to connectivity like GPU is the enabling processor of GenAI



WidEye™ DSP - Innovation Powering Our Differentiation

Building Connectivity Solutions for GenAI Data Centre



AEC



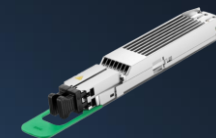
AOC



400G



800G



1.6T



Electrical DSP
PAM4

2m+



Optical DSP
PAM4

Up to 10km



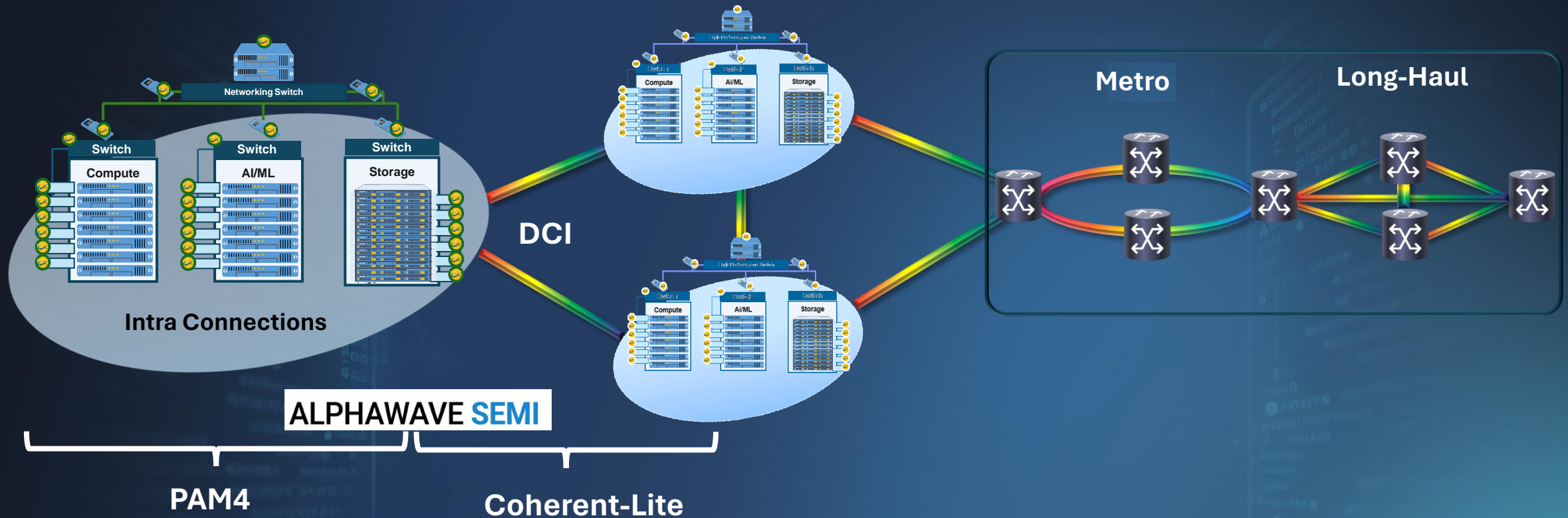
Optical DSP
Coherent-Lite

10km+

- Delivering to Hyperscalers' diverse optical and electrical applications
- Executing in leading edge 4nm, 3nm, soon in 2nm process nodes

Rapidly Growing Market Opportunity for Alphawave

Coherent-Lite Solves Bandwidth Gap for up to 20km Links



PAM4 and Coherent-Lite will coexist from 1.6T to 3.2T market inflections

Scaling our Layered Connectivity Products



Coherent Gen2



PAM4 Gen2



Coherent Gen1



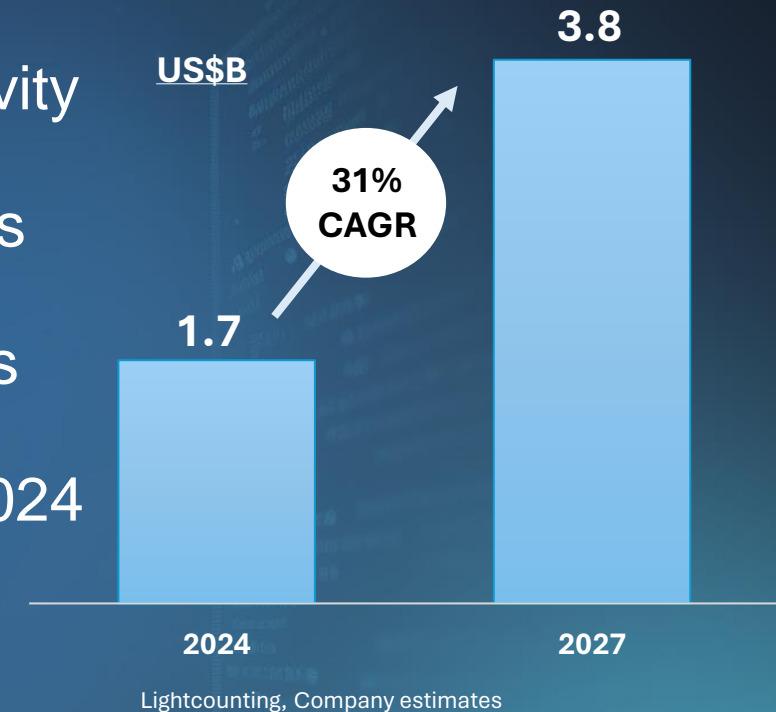
PAM4 Gen1



Massive Opportunity: Connectivity Products

- ~\$4B TAM for GenAI connectivity now addressable by us
- Hyperscalers seeking diverse supplier base for connectivity
- Uniquely positioned – have both PAM4 & Coherent DSPs
- Own all critical Analog, SerDes & DSP technology assets
- Secured initial purchase order with first revenue in 2H-2024

Opto-Electronics Connectivity Opportunity

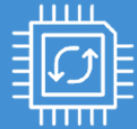


We have already won a >\$300m multi-year agreement with leading Hyperscaler

Financial Overview

Rahul Mathur, Chief Financial Officer

Leadership in Connectivity and Compute



Silicon IP



**Custom
Silicon**



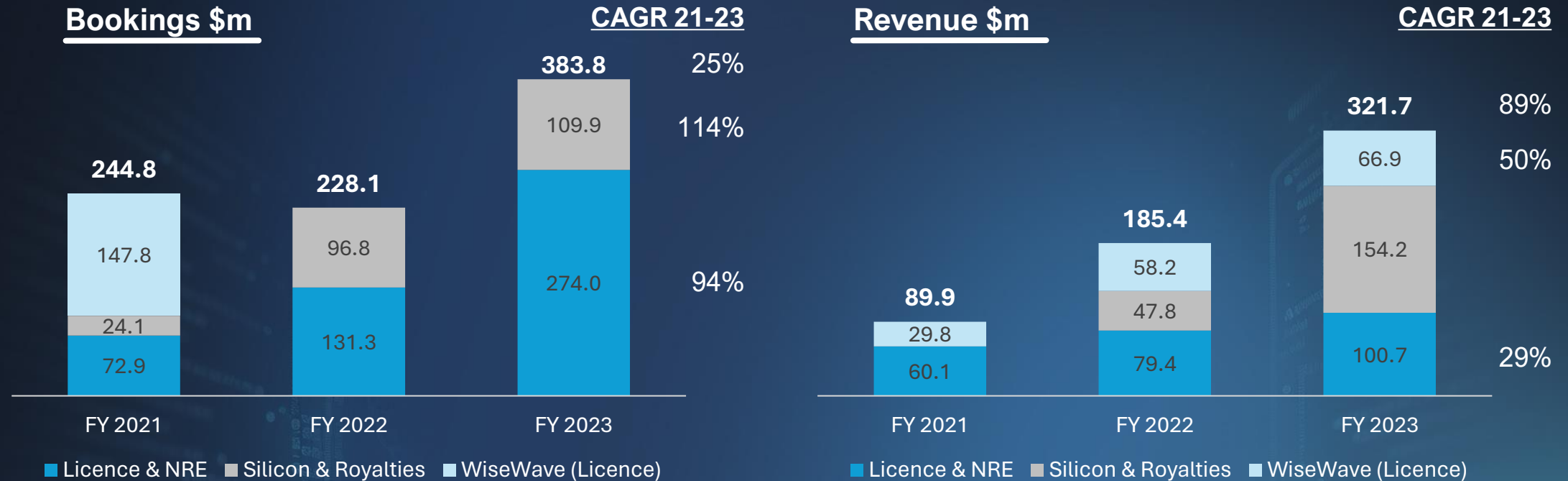
Chiplets



**Connectivity
Products**

Ultra-high-speed data connectivity for AI, compute and network architectures

We See Strong Growth in our End Markets in all Business Areas



- Bookings trend in all business areas supports long-term revenue growth
- Transitioning Custom Silicon to higher-margin non-China business
- Delivery of WiseWave SLA in FY23 sets stage for predictable growth

Strong FY23 Ending Backlog of \$355M Supports Long-Term Growth

Timing of Cash Inflows/Outflows and Revenue Recognition Determined by Business Model

Licence & NRE¹

Revenue recognised over development period on percentage of completion basis

- Typical pay-per-use IP licence US\$5m-US\$10m

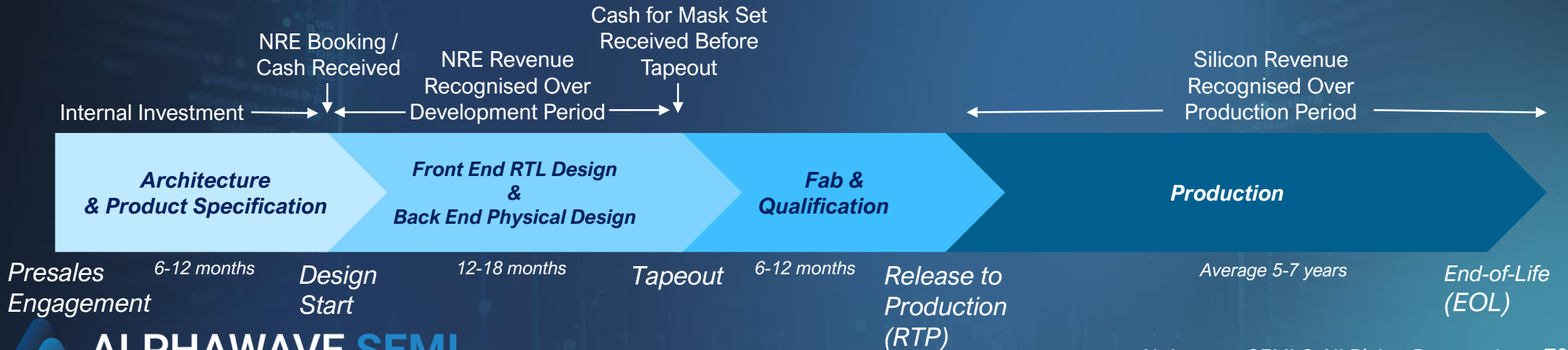
(\$m)	2023	2022
Bookings	\$274.0	\$131.3
Revenue	\$167.3	\$137.6
Ending Backlog	\$294.8	\$255.1

Silicon & Royalties

Revenue recognised on shipment

- Typical opportunity US\$50m+
- ~\$500m+ long-tail of silicon revenues not included in backlog
- Expect first Connectivity Products revenue in 2024

(\$m)	2023	2022
Bookings	\$109.9	\$96.8
Revenue	\$154.2	\$47.8
Ending Backlog	\$60.1	\$124.6



Continued Investment in Profitable Growth Drives Key P&L Metrics

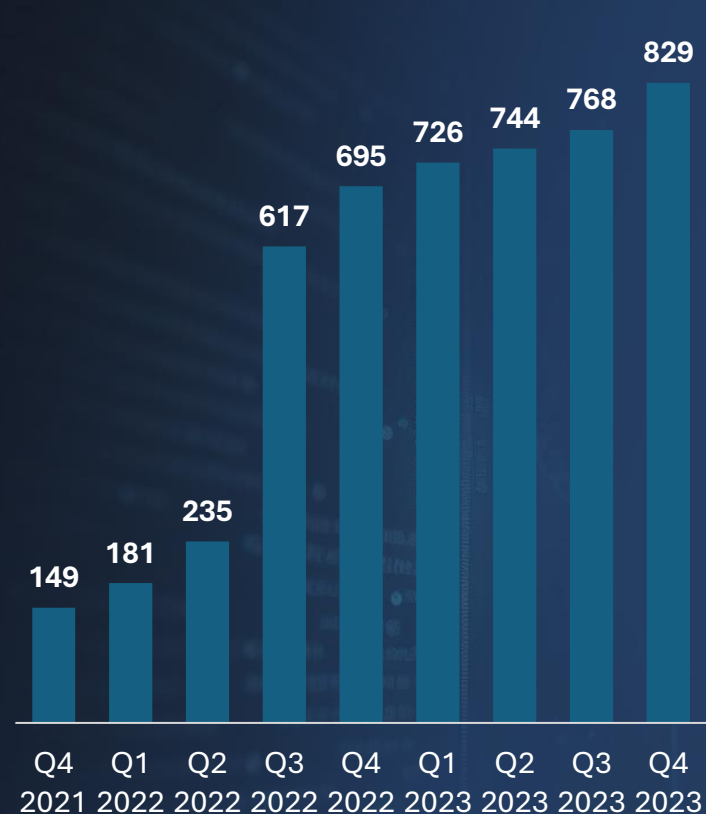
US\$m	FY 2023	FY 2022	Change	Comments
Revenue	321.7	185.4	74%	Growth with North American and APAC customers. Significant contribution from legacy OpenFive backlog.
Gross profit	165.4	124.6	33%	Change in business mix from delivery of OpenFive legacy backlog
Gross margin	51%	67%	(16)ppts	
R&D, S&M, G&A	(131.8)	(89.5)	47%	Annualised impact of increased headcount from the 2022 acquisitions and ongoing investment in the business to support growth
Adjusted EBITDA	62.6	46.8	34%	
Adjusted EBITDA %	19%	25%	(6)ppts	
Other expenses	(52.9)	2.5	nm	Share based payments increased year-on-year with increased headcount; substantial exchange gains in 2022
Depreciation and amortisation	(29.1)	(11.7)	150%	Annualised impact from assets acquired and additions

Due to rounding, numbers presented in the chart may not add up to the totals provided.

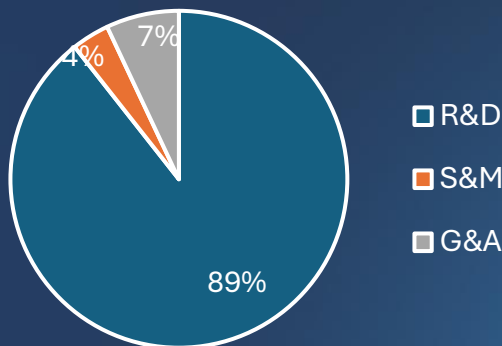
Investment Into R&D Extends Technology Leadership

Technology-Led Organisation – 89% Employees in R&D / Engineering

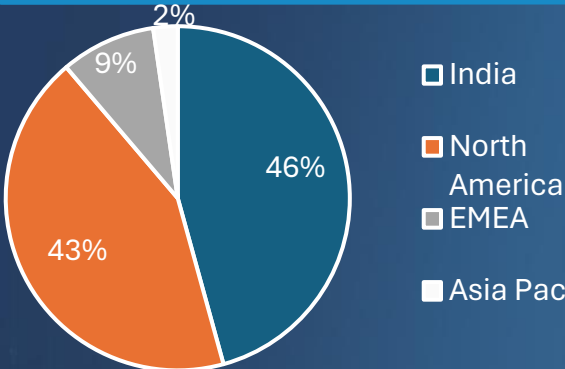
Number of Employees



By Function¹



By Region¹



¹ Due to rounding, percentages may not precisely reflect the absolute figures

- Focus on critical hires to support growth opportunities
- Targeting ~10% headcount growth in 2024
- US\$54.5m development costs capitalised in FY 2023 (FY 2022: US\$7.2m)

Main Locations



Management of Balance Sheet and Cash Flow: Finance Priorities

US\$m	FY 2023	FY 2022	Change	Comments
Cash & Cash Equivalents	101.3	186.2	(84.9)	Actively managing cash; low inventory and receivables balances
Loans and Borrowing	220.4	210.2	10.2	Attractive debt facility in place
Net Debt	(119.1)	(24.0)	(95.1)	Perpetually evaluating capital structure
Cash from Operations	16.0¹	1.0 ²	15.0	Not dependent on additional non-operating inflows
Working Capital Changes	(51.3)¹	(50.1)	(1.2)	Expect improvement in FY24 working capital
Capital Expenditures	18.6	4.2	14.4	Expect increase in FY24 CapEx for facility build outs
R&D Capitalisation	43.7¹	7.2	36.5	Significant investment in future products support long-term growth opportunity

1 Restated to reflect capitalisation of interest incorrectly included in both interest paid and capitalised development expenditure in the FY23 cash flow statement.

2 Excluding US\$28m deferred compensation payments related to acquisitions

Due to rounding, numbers presented in the chart may not add up to the totals provided.

Our Mid-Term Model and Guidance: Driven Bottom-Up

US\$	2024	2025
Revenues	\$345-365m	\$450m
Gross margin	c.50%	c.50%
Opex %	c.30%	c.25-30%
Adjusted EBITDA¹	Approx. \$70m	Approx. \$100m
Adjusted EBITDA %	c. 20%	c.20-25%
Capex (exc. Cap R&D)	c. 10%	c. 10%
Cap. R&D	~\$50-60m	~\$50-60m

- 2023-2025 revenue CAGR of ~20%
- We expect the revenue profile in 2024 to be back-end loaded and H1 2024 revenue to be below H1 2023, which saw a significant contribution from the legacy OpenFive backlog
- In H1 2024, we expect to invest in capital and R&D expenses as we continue to invest in our product business
- 2024 Capex increase driven by investment in own products

¹ 2024 assumes mid-point of the guidance range and 20% adjusted EBITDA margin;
2025 assumes US\$450m revenue and 20-25% adjusted EBITDA margin

Alphawave Growth in 2024 and Beyond

- Delivering mission-critical connectivity and compute essential to the AI revolution
- Addressing the insatiable demand from hyperscalers and world's leading semiconductor companies through:
 - Silicon IP
 - Custom silicon
 - Chiplets
 - Connectivity products
- Future growth fueled by disciplined investment in R&D for high-margin products

Powering the AI Revolution = Path to Billions

Leadership in Connectivity and Compute



Silicon IP



**Custom
Silicon**



Chiplets



**Connectivity
Products**

Ultra-high-speed data connectivity for AI, compute and network architectures

Appendix

Non-GAAP Metrics

See Notes 4 to the Consolidated Financial Statements Alternative Performance Measures H1 2023 Interim Report and FY 2023 Annual Report at <https://www.awaveip.com/en/investors/results-reports-presentations/>

- Bookings are a non-IFRS measure representing legally binding and largely non-cancellable commitments by customers to license our technology. Our bookings comprise licence fees, non-recurring engineering support and, in some instances, our estimate of potential future royalties. A portion of our bookings may not convert to revenue if those royalties do not materialise or customers are unable to pay us.
- Backlog is a non-IFRS measure representing our bookings less revenues recognised to date. It represents the revenue that we expect to collect in future years based only on our existing and legally binding orders. As new bookings are secured, our backlog will increase and as existing bookings are recognised as revenue, our backlog will decrease.
- Adjusted EBITDA is a non-IFRS financial measure defined as the Group's earnings before interest, taxation, depreciation and amortisation, adjusted to remove share-based payment charges and non-recurring operating expenses such as IPO-related costs (in 2021) and advisory costs associated with acquisitions. Adjusted EBITDA is reconciled in note 4 Alternative performance measures (APMs).