



SYNOPSYS[®]

Our Technology, **Your Innovation**[™]

Synopsys Cautionary Statement Regarding Forward Looking Statements

This presentation contains certain forward-looking statements within the meaning of the federal securities laws with respect to the proposed transaction between Synopsys and Ansys, including, but not limited to, statements regarding the proposed transaction; the anticipated market demand and outlook, products and business lines of Synopsys, Ansys and the combined company, and the benefits of and cost and revenue synergies from the proposed transaction to Synopsys; combined company financial information; long-term leverage and debt paydown targets; short-term and long-term financial targets of Synopsys, Ansys and the combined company; Synopsys' expectations and objectives; strategies related to Synopsys' and Ansys' products, technology and services; market, software, opportunities, strategies and technological trends and their potential impacts on total addressable markets, products and business lines, such as artificial intelligence; customer demand and market expansion of each of Synopsys and Ansys and the combined company; Synopsys' planned product releases and capabilities; industry growth rates; the current and projected total addressable markets of Synopsys and certain of its segments, Ansys and the combined company; and Synopsys' plans to divest its Software Integrity Group ("SIG") segment. These forward-looking statements generally are identified by the words "believe," "project," "expect," "anticipate," "estimate," "intend," "strategy," "future," "opportunity," "plan," "may," "should," "will," "would," "will be," "will continue," "will likely result," and similar expressions or the negatives of these words or other comparable terminology to convey uncertainty of future events or outcomes. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties.

Many risks, uncertainties and other factors could cause actual future events to differ materially from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to: (i) the completion of the proposed transaction on anticipated terms and timing, anticipated tax treatment and unforeseen liabilities, future capital expenditures, revenues, expenses, earnings, synergies, economic performance, indebtedness, financial condition, losses, pricing trends, future prospects, credit ratings, business and management strategies which may adversely affect each of Synopsys' and Ansys' business, financial condition, operating results and the price of their common stock, (ii) the failure to satisfy the conditions to the consummation of the proposed transaction, including the adoption of the merger agreement by the stockholders of Ansys and the receipt of certain governmental and regulatory approvals on the terms expected, in a timely manner, or at all, (iii) the risk that such regulatory approvals may result in the imposition of conditions that could adversely affect, following completion of the proposed transaction (if completed), the combined company or the expected benefits of the proposed transaction (including as noted in any forward-looking financial information), (iv) uncertainties as to access to available financing (including any future refinancing of Ansys' or the combined company's debt) to consummate the proposed transaction upon acceptable terms and on a timely basis or at all, (v) the occurrence of any event, change or other circumstance that could give rise to the termination of the merger agreement, (vi) the effect of the announcement or pendency of the proposed transaction on Ansys' or Synopsys' business relationships, competition, business, financial condition, and operating results, (vii) risks that the proposed transaction disrupts current plans and operations of Ansys or Synopsys and the ability of Ansys or Synopsys to retain and hire key personnel, (viii) risks related to diverting either management team's attention from ongoing business operations of Ansys or Synopsys, (ix) the outcome of any legal proceedings that may be instituted against Ansys or Synopsys related to the merger agreement or the proposed transaction, (x) the ability of Synopsys to successfully integrate Ansys' operations and product lines, (xi) the ability of Synopsys to implement its plans, forecasts, expected financial performance and other expectations with respect to Ansys' business or the combined business after the completion of the proposed mergers and realize the benefits expected from the proposed transaction (if completed) as well as manage the scope and size of the combined company, (xii) the ability of Synopsys to manage additional debt and debt covenants as well as successfully de-lever following the proposed transaction and the outcome of any strategic review and any resulting proposed transactions, (xiii) risks associated with third party contracts containing consent and/or other provisions that may be triggered by the proposed transaction, (xiv) uncertainty in the macroeconomic environment and its potential impact on the semiconductor and electronics industries, (xv) uncertainty in the growth of the semiconductor, electronics and artificial intelligence industries, (xvi) the highly competitive industries Synopsys and Ansys operate in, (xvii) actions by the U.S. or foreign governments, such as the imposition of additional export restrictions or tariffs, (xviii) consolidation among Synopsys' customers and within the industries in which Synopsys operates, as well as Synopsys' dependence on a relatively small number of large customers, (xix) the evolving legal, regulatory and tax regimes under which Ansys and Synopsys operate and (xx) restrictions during the pendency of the proposed transaction that may impact Ansys' or Synopsys' ability to pursue certain business opportunities or strategic transactions. The foregoing list of risks, uncertainties and factors is not exhaustive. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements.

You should carefully consider the foregoing factors and the other risks and uncertainties that affect the businesses of Synopsys and Ansys described in the "Risk Factors" section of their respective Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and other documents filed by either of them from time to time with the SEC, including Synopsys' registration statement on Form S-4 (File No. 333-277912) with the SEC on March 14, 2024. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. All forward-looking statements by their nature address matters that involve risks and uncertainties, many of which are beyond Synopsys' and Ansys' control, and are not guarantees of future results. Readers are cautioned not to put undue reliance on forward-looking statements, and Synopsys and Ansys assume no obligation and do not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise, unless required by law. Neither Synopsys nor Ansys gives any assurance that either Synopsys or Ansys will achieve its expectations.

Ansys Cautionary Statement Regarding Forward-Looking Statements

This presentation contains certain “forward-looking statements” within the meaning of the federal securities laws, including Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements are based on Ansys’ current expectations, estimates and projections about the expected date of closing of the proposed transaction and the potential benefits thereof, its business and industry, management’s beliefs and certain assumptions made by Ansys and Synopsys, all of which are subject to change. In this context, forward-looking statements often address expected future business and financial performance and financial condition, and often contain words such as “expect,” “anticipate,” “intend,” “plan,” “believe,” “could,” “seek,” “see,” “will,” “may,” “would,” “might,” “potentially,” “estimate,” “continue,” “expect,” “target,” similar expressions or the negatives of these words or other comparable terminology that convey uncertainty of future events or outcomes. All forward-looking statements by their nature address matters that involve risks and uncertainties, many of which are beyond our control, and are not guarantees of future results, such as statements about the consummation of the proposed transaction and the anticipated benefits thereof. These and other forward-looking statements, including the failure to consummate the proposed transaction or to make or take any filing or other action required to consummate the transaction on a timely matter or at all, are not guarantees of future results and are subject to risks, uncertainties and assumptions that could cause actual results to differ materially from those expressed in any forward-looking statements. Accordingly, there are or will be important factors that could cause actual results to differ materially from those indicated in such statements and, therefore, you should not place undue reliance on any such statements and caution must be exercised in relying on forward-looking statements. Important risk factors that may cause such a difference include, but are not limited to: (i) the completion of the proposed transaction on anticipated terms and timing, including obtaining shareholder and regulatory approvals, anticipated tax treatment, unforeseen liabilities, future capital expenditures, revenues, expenses, earnings, synergies, economic performance, indebtedness, financial condition, losses, future prospects, business and management strategies for the management, expansion and growth of Ansys’ and Synopsys’ businesses and other conditions to the completion of the transaction; (ii) failure to realize the anticipated benefits of the proposed transaction, including as a result of delay in completing the transaction or integrating the businesses of Ansys and Synopsys; (iii) Ansys’ ability to implement its business strategy; (iv) pricing trends, including Ansys’ and Synopsys’ ability to achieve economies of scale; (v) potential litigation relating to the proposed transaction that could be instituted against Ansys, Synopsys or their respective directors; (vi) the risk that disruptions from the proposed transaction will harm Ansys’ or Synopsys’ business, including current plans and operations; (vii) the ability of Ansys or Synopsys to retain and hire key personnel; (viii) potential adverse reactions or changes to business relationships resulting from the announcement or completion of the proposed transaction; (ix) uncertainty as to the long-term value of Synopsys’ common stock; (x) legislative, regulatory and economic developments affecting Ansys’ and Synopsys’ businesses; (xi) general economic and market developments and conditions; (xii) the evolving legal, regulatory and tax regimes under which Ansys and Synopsys operate; (xiii) potential business uncertainty, including changes to existing business relationships, during the pendency of the transaction that could affect Ansys’ or Synopsys’ financial performance; (xiv) restrictions during the pendency of the proposed transaction that may impact Ansys’ or Synopsys’ ability to pursue certain business opportunities or strategic transactions; (xv) unpredictability and severity of catastrophic events, including, but not limited to, acts of terrorism or outbreak of war or hostilities, as well as Ansys’ and Synopsys’ response to any of the aforementioned factors; and (xvi) failure to receive the approval of the stockholders of Ansys. These risks, as well as other risks associated with the proposed transaction, are more fully discussed in the proxy statement/prospectus to be filed with the U.S. Securities and Exchange Commission in connection with the proposed transaction. While the list of factors presented here is, and the list of factors presented in the proxy statement/prospectus will be, considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward looking statements. Consequences of material differences in results as compared with those anticipated in the forward-looking statements could include, among other things, business disruption, operational problems, financial loss, legal liability to third parties and similar risks, any of which could have a material adverse effect on Ansys’ or Synopsys’ consolidated financial condition, results of operations, or liquidity. Neither Ansys nor Synopsys assumes any obligation to publicly provide revisions or updates to any forward-looking statements, whether as a result of new information, future developments or otherwise, should circumstances change, except as otherwise required by securities and other applicable laws.

Important Information and Where to Find It

This presentation relates to a proposed transaction between Synopsys and Ansys. In connection with the proposed transaction, Synopsys filed a preliminary registration statement on Form S-4 (File No. 333-277912) with the SEC on March 14, 2024, that included a prospectus with respect to shares of common stock of Synopsys to be issued in the proposed transaction and a proxy statement of Ansys and is referred to as the proxy statement/prospectus. Each party may also file other documents regarding the proposed transaction with the U.S. Securities and Exchange Commission (the “SEC”). The registration statement has not yet become effective and the proxy statement/prospectus included therein is in preliminary form. This presentation and the information contained herein is not a substitute for the proxy statement/prospectus or registration statement or any other document that Synopsys or Ansys may file with the SEC. The definitive proxy statement/prospectus (if and when available) will be mailed to all Ansys stockholders. INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE REGISTRATION STATEMENT, PROXY STATEMENT/PROSPECTUS AND ALL OTHER RELEVANT DOCUMENTS FILED OR THAT WILL BE FILED WITH THE SEC IN CONNECTION WITH THE PROPOSED TRANSACTION, AS WELL AS ANY AMENDMENTS OR SUPPLEMENTS TO THESE DOCUMENTS, CAREFULLY AND IN THEIR ENTIRETY IF AND WHEN THEY BECOME AVAILABLE BECAUSE THEY CONTAIN OR WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION.

Investors and security holders may obtain free copies of the registration statement, proxy statement/prospectus and all other relevant documents filed or that will be filed with the SEC by Synopsys or Ansys through the website maintained by the SEC at www.sec.gov.

The documents filed by Synopsys with the SEC also may be obtained free of charge at Synopsys’ website at <https://investor.synopsys.com/overview/default.aspx> or upon written request to Synopsys at Synopsys, Inc., 675 Almanor Avenue, Sunnyvale, California 94085, Attention: Investor Relations Department. The documents filed by Ansys with the SEC also may be obtained free of charge at Ansys’ website at <https://investors.ansys.com/> or upon written request to kelsey.debrynn@ansys.com.

Participants in Solicitation

Synopsys, Ansys and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from Ansys’ stockholders in connection with the proposed transaction. Information about Ansys’ directors and executive officers and their ownership of Ansys’ common stock is set forth in Ansys’ proxy statement for its 2023 Annual Meeting of Shareholders on Schedule 14A filed with the SEC on March 28, 2023. To the extent that holdings of Ansys’ securities have changed since the amounts printed in Ansys’ proxy statement, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Information about Synopsys’ directors and executive officers is set forth in Synopsys’ proxy statement for its 2024 Annual Meeting of Stockholders on Schedule 14A filed with the SEC on February 16, 2024 and Synopsys’ subsequent filings with the SEC. Additional information regarding the direct and indirect interests of those persons and other persons who may be deemed participants in the proposed transaction may be obtained by reading the preliminary proxy statement/prospectus filed on March 14, 2024 by Synopsys and the final version and any other relevant documents that are filed with the SEC relating to the proposed transaction. You may obtain free copies of these documents as described in the preceding paragraph.

No Offer or Solicitation

This presentation is for informational purposes only and is not intended to and shall not constitute an offer to buy or sell or the solicitation of an offer to buy or sell any securities, or a solicitation of any vote or approval, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made, except by means of a prospectus meeting the requirements of Section 10 of the U.S. Securities Act of 1933, as amended.

Non-GAAP Financial Information

This presentation contains certain forward looking financial measures that are not in accordance with the U.S. generally accepted accounting principles (“GAAP”). It also includes future estimated ranges for non-GAAP expenses, non-GAAP tax rate, non-GAAP earnings per diluted share and free cash flow.

- Adjusted EBITDA (“Adj. EBITDA”) is calculated as GAAP Operating Income excluding depreciation and amortization, stock compensation, non-qualified deferred compensation plan, acquisition-related costs and restructuring charges
- Free Cash Flow (“FCF”) is calculated as cash provided from operating activities less capital expenditures and capitalization of software development costs
- FCF Margin is calculated as FCF for a period divided by revenue for the same period
- FCF Margin Expansion is calculated as the difference in FCF margins between two periods
- Unlevered Free Cash Flow (“uFCF”) is calculated as Free Cash Flow excluding tax-effected cash net interest
- uFCF Margin is calculated as uFCF for a period divided by revenue for the same period
- Non-GAAP Earnings Per Share (“EPS”) is calculated as GAAP net income excluding amortization of intangible assets, stock compensation, acquisition-related costs, restructuring charges, and legal matters, adjusted for the difference between GAAP and non-GAAP tax rates, divided by fully diluted outstanding shares
- Non-GAAP EPS CAGR is calculated as the average annual growth rate of non-GAAP EPS over a period of time
- Non-GAAP Operating Income is calculated as GAAP Operating Income, excluding amortization of intangible assets, stock compensation, non-qualified deferred compensation plan, acquisition-related costs and restructuring charges
- Non-GAAP Operating Margin is Non-GAAP Operating Income for a period divided by revenue for the same period

Synopsys continues to provide all information required in accordance with GAAP but acknowledges evaluating its ongoing operating results may not be as useful if an investor is limited to reviewing only GAAP financial measures. Synopsys and Ansys present non-GAAP financial measures to provide their investors with an additional tool to evaluate Synopsys’ and Ansys’ respective operating results in a manner that focuses on what Synopsys and Ansys each believe to be their respective core business operations and what Synopsys and Ansys each use to evaluate their respective business operations and for internal budgeting and resource allocation purposes. These non-GAAP measures may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles, and management exercises judgment in determining which items should be excluded in the calculation of non-GAAP measures. The presentation of non-GAAP financial information is not meant to be considered in isolation from, as superior to or as a substitute for the directly comparable financial measures prepared in accordance with GAAP. These non-GAAP financial measures are meant to supplement, and be viewed in conjunction with, the corresponding GAAP financial measures.

When possible with respect to non-GAAP financial measures presented with respect to historical periods, Synopsys provides a reconciliation of its historic non-GAAP financial measures to its most closely applicable GAAP financial measures in the documents filed with the SEC. Synopsys is unable to provide a reconciliation of certain non-GAAP projections, targets and guidance measures to the corresponding GAAP measures on a forward-looking basis because doing so would not be possible without unreasonable effort due to, among other things, the potential variability and limited visibility of the excluded items and expectations as to the financial of performance of Synopsys upon the completion of the proposed transaction. For the same reasons, Synopsys is unable to address the probable significance of the unavailable information. Synopsys is presenting forward looking non-GAAP financial measures for illustrative purposes and may not report on this basis going forward.

Combined company measures for historical periods are based on combining Synopsys’ historical financial results and Ansys’ historical financial results, as applicable, without pro forma adjustments and are included for illustrative purposes in order to provide investors with estimates of what the combined company results could have been. Combined company estimates are not pro forma financial measures, are not prepared in accordance with Regulation S-X under the U.S. Securities Act of 1933, as amended, and are not necessarily indicative of the results that actually would have been realized had Synopsys and Ansys been a single entity during the relevant periods.

Other Key Business Metrics

Annual Contract Value (“ACV”) is a key performance metric for Ansys and is useful to investors in assessing the strength and trajectory of the business. ACV is a supplemental metric to help evaluate the annual performance of the business. Over the life of the contract, ACV equals the total value realized from a customer. ACV is not impacted by the timing of license revenue recognition. ACV is used by Ansys’ management in financial and operational decision-making and in setting sales targets used for compensation. ACV is not a replacement for, and should be viewed independently of, GAAP revenue and deferred revenue as ACV is a performance metric and is not intended to be combined with any of these items. There is no GAAP measure comparable to ACV.

ACV is composed of the following: 1) the annualized value of maintenance and subscription lease contracts with start dates or anniversary dates during the period, plus; 2) the value of perpetual license contracts with start dates during the period, plus; 3) the annualized value of fixed-term services contracts with start dates or anniversary dates during the period, plus; 4) the value of work performed during the period on fixed-deliverable services contracts.

Unleashing Growth in the Era of Pervasive Intelligence

Shankar Krishnamoorthy

General Manager, Corporate Staff
EDA Group, Synopsys

SYNOPSYS®

Our Technology, Your Innovation™

37 Years of Advancing Chip Design

Leader in software &
hardware for chip design

Broadest portfolio of reusable
chip design components (IP)

#12 global software
company by revenue



\$5.96B*
Revenue (TTM)

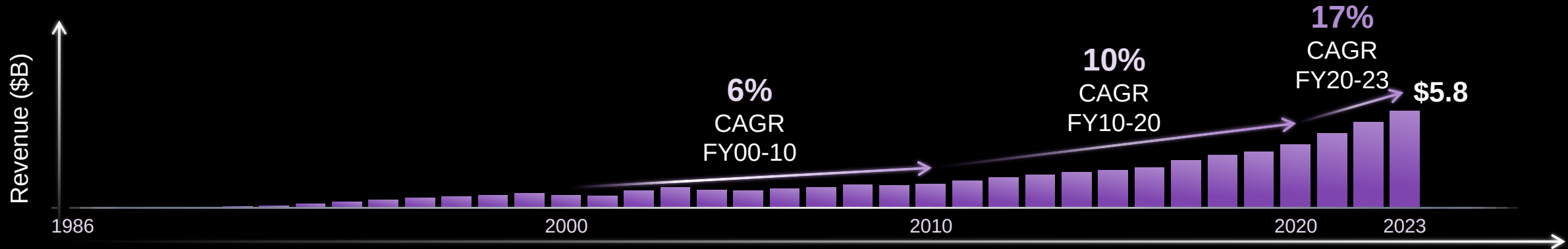
~19K*
Employees

3,407
Patents

27%
R&D Investment

* Excluding SIG

Delivering Outstanding Shareholder Value Creation



Strategic Priorities

Technology and
Innovation Leadership

Industry-Leading Growth

Margin Expansion¹

FY20 – FY23 Results

- 3nm/2nm leadership across EDA stack
- Enabling the multi-die industry transition
- Pioneering AI and Cloud in EDA
- Next-gen IP across all leading foundries
- Leader in hardware assisted verification

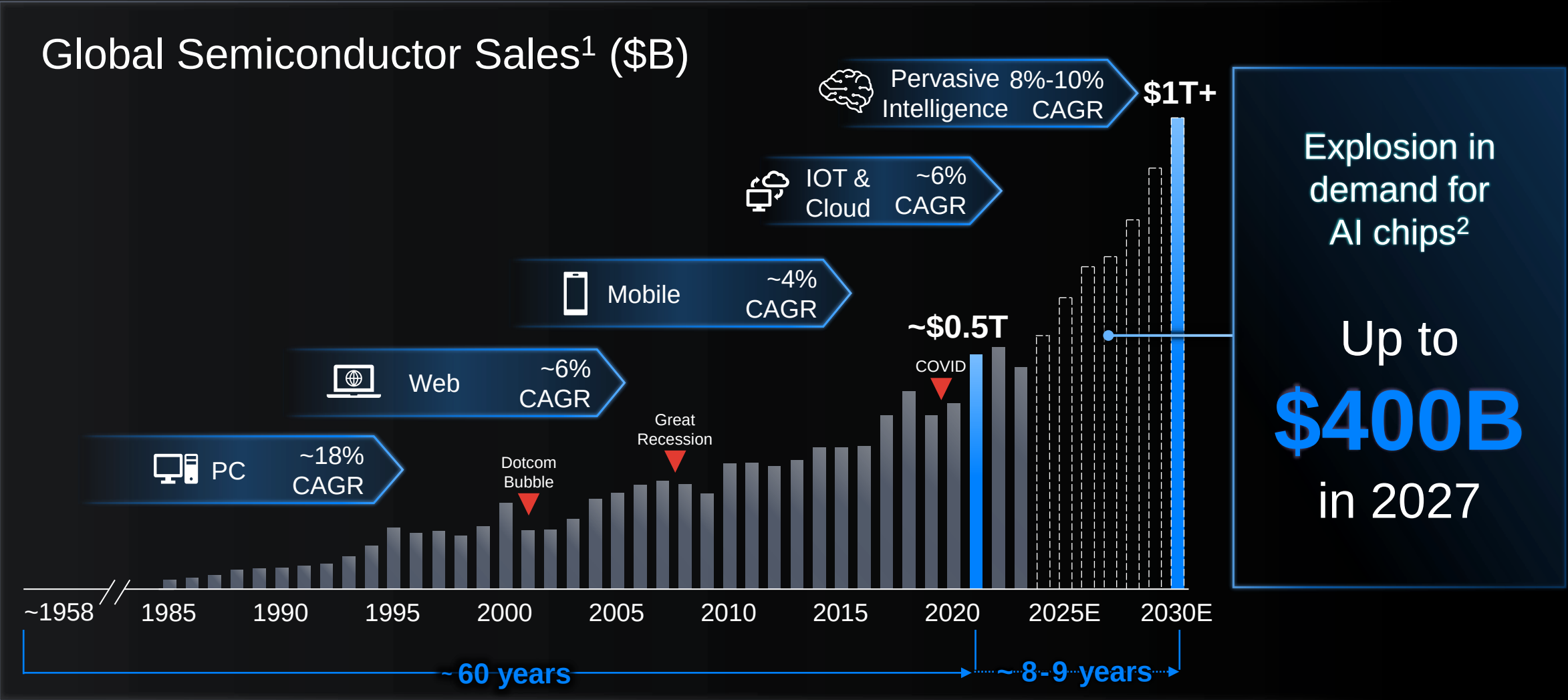
- 17% revenue CAGR
(>300bps above Synopsys' TAM CAGR)

- ~700bps non-GAAP operating margin increase
- 26% non-GAAP EPS CAGR

Sources: ESDA, Ipnest, Synopsys Financials, publicly disclosed financials for "Magnificent 7" and other indices

1. See appendix for a reconciliation of non-GAAP operating margin expansion and non-GAAP EPS CAGR to their most directly comparable measures reported under GAAP as well as information regarding how these measures were calculated

Sharp Acceleration in Semiconductor Demand



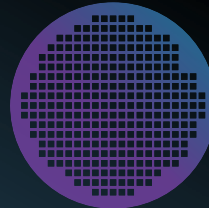
1. Sources: SIA/WSTS (historicals); forecasts based on Gartner, TechInsights, IBS, SIA/WSTS and consensus analyst forecasts for leading semiconductor companies
2. Sources: Gartner, AMD, Nvidia, Intel, Goldman Sachs

Powering the Era of Pervasive Intelligence



Artificial intelligence

Exponential productivity and efficiency gains



Silicon proliferation

More silicon content everywhere



Software-defined systems

New applications, new methodologies

Silicon-to-Systems Design Solutions

New design paradigms to accelerate innovation

Creating a Leader in Silicon to Systems Design Solutions

SYNOPSYS®

Leader in Semiconductor Design

+

Ansys

Leader in Simulation & Analysis

Enhances and
accelerates Silicon to
Systems strategy

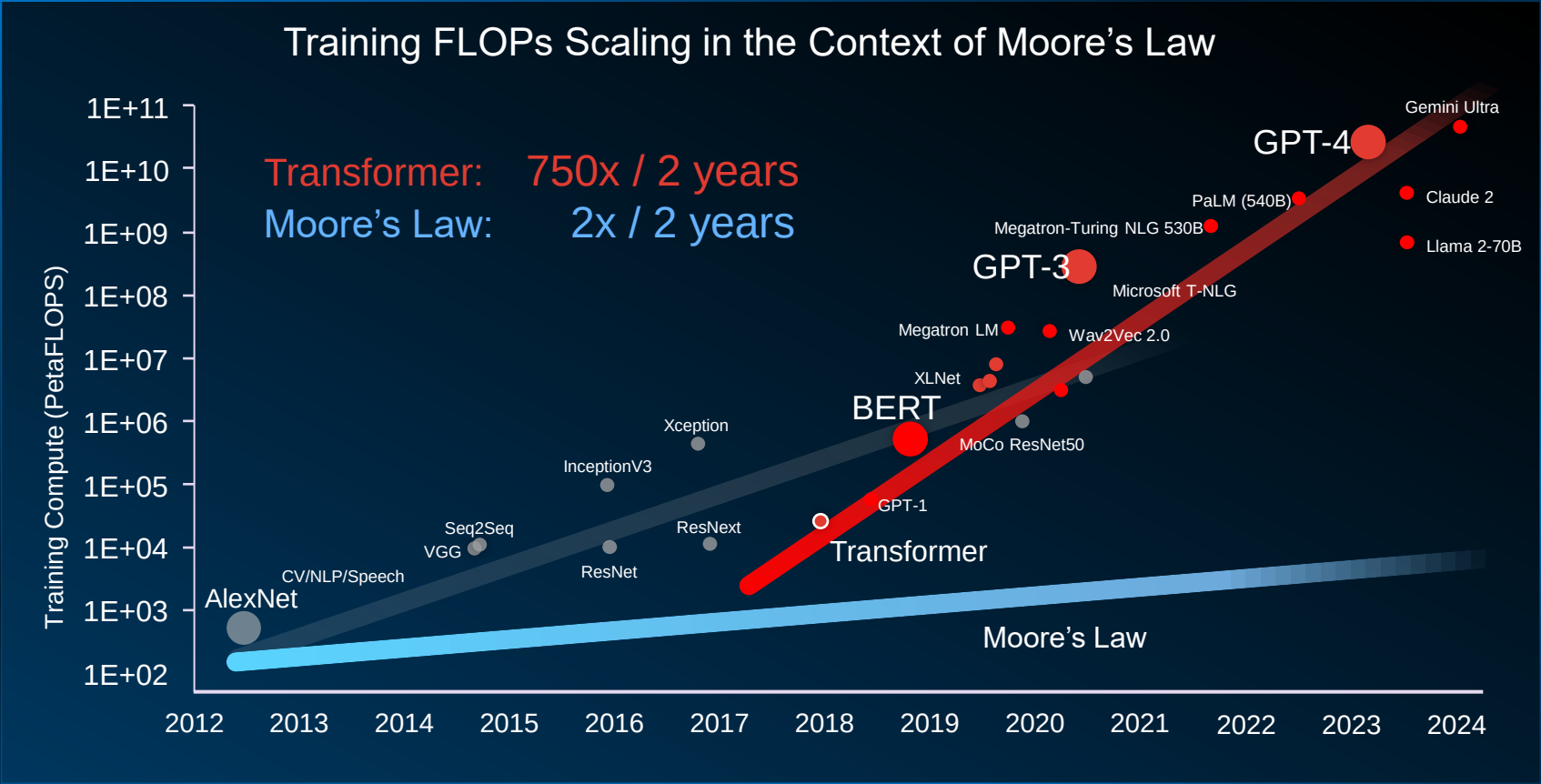
Expands TAM to
~\$31B, growing at
~13% CAGR¹

Extends pioneering AI
and Cloud leadership
in EDA and simulation

Pervasive Intelligence Pushing Compute Limits

\$1B*

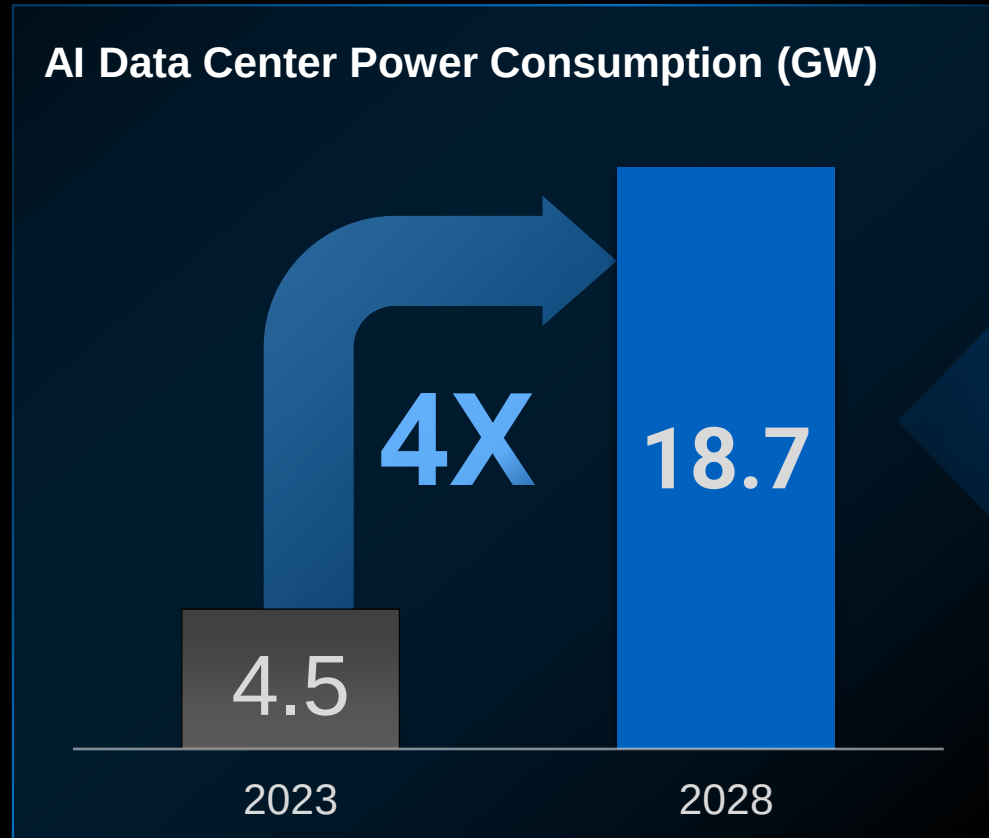
Training Next-Gen
Foundation Models



Source: Blog "AI and Memory Wall", Amir Gholami, 2021 and 2024 AI Index Report, Epoch, 2023

Source: AWS, James Hamilton

...Driving Unprecedented Power Consumption



Source: Schneider Electric, December 2023

nVIDIA H100 GPU
700 Watts*

Source: Schneider Electric, December 2023

* Thermal Design Power

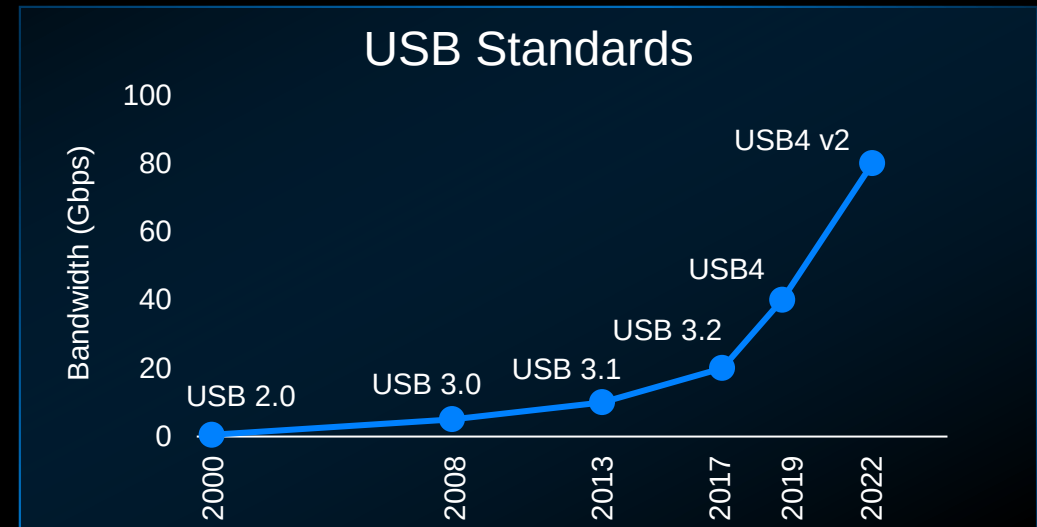
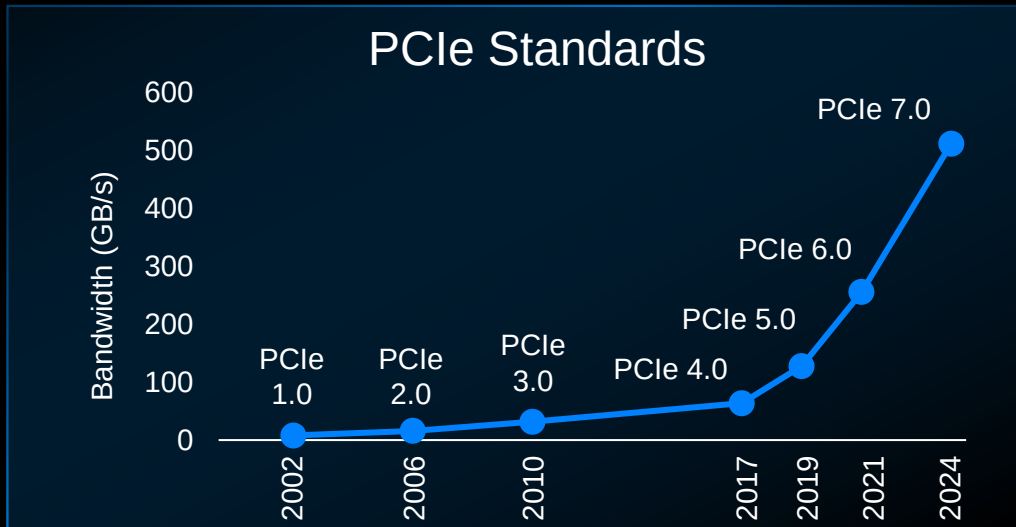
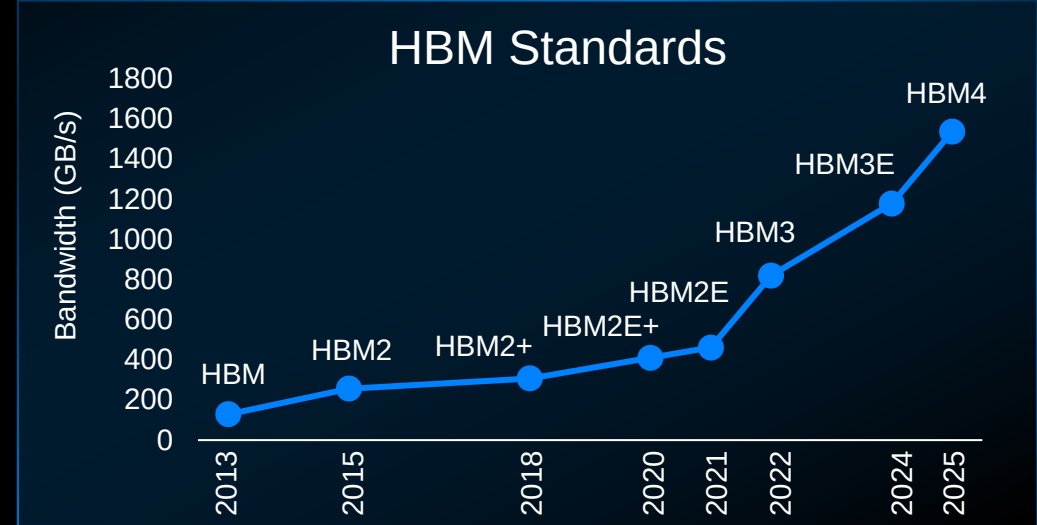
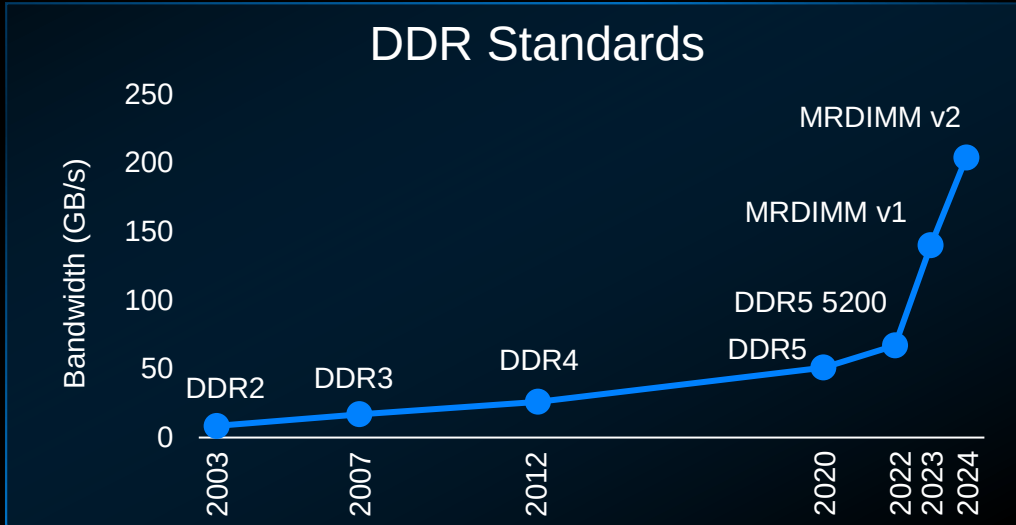
Energy to train GPT-4
50 GWh

Source: RISE Research Institutes of Sweden, Oct 2023

ChatGPT request vs Google search
10X More Power

Source: International Energy Agency, January 2024 report

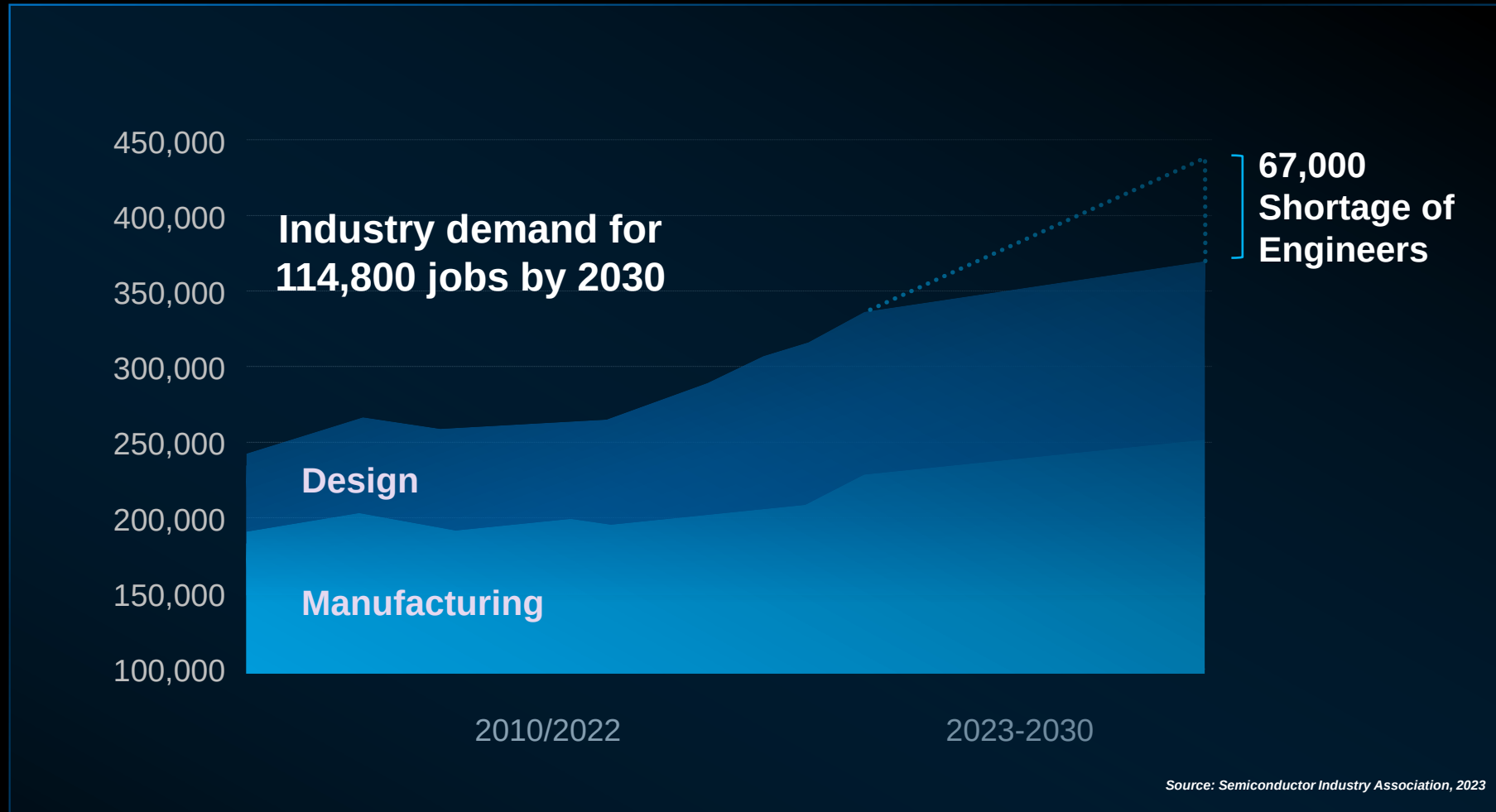
... Driving Memory and Interface Limits



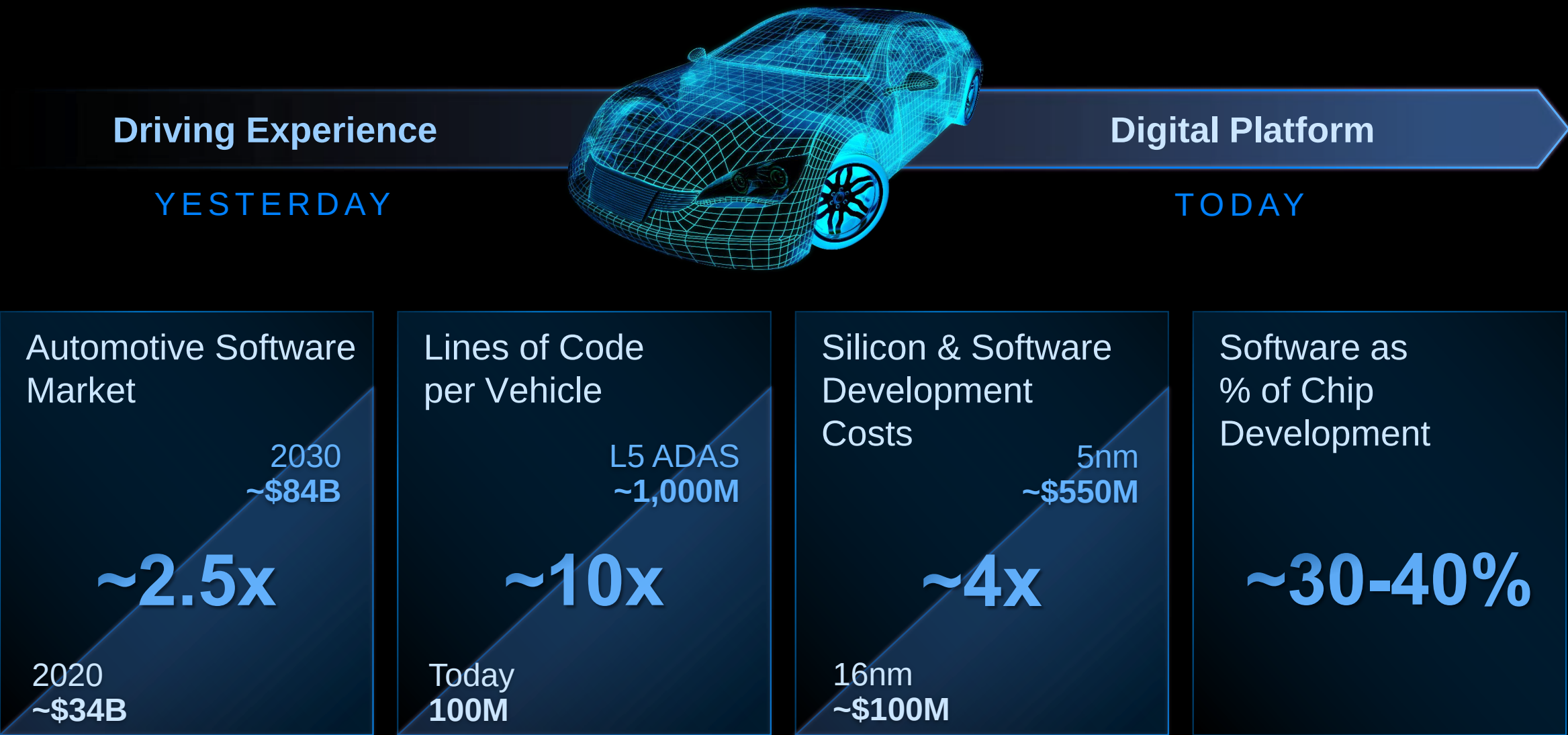
Source: Meta, OCP Summit Presentation Nov 2021

Source: Standards Bodies

... and Compounded by Talent Shortage



Software Explosion: Cars to Digital Platform



Source: Automotive Software and Electronics 2030 (McKinsey, Jul 2019); Levers to Unleash Value (Volkswagen, Jan 2020); Computer on Wheels (Roland Berger, Q1 2020)

Process Scaling Gains Lagging Compute Growth Needs

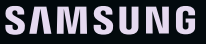

Grace Hopper GH200


MI300


Clearwater Forest

Trillion
 10^{+12}
Market Needs

+10 ~ 15% speed
+10 ~ 30% power


GAA Technology, Advanced Package


N2, 3D Fabric


18A, EMIB/Foveros

Angstrom
 10^{-10}
Moore's Law

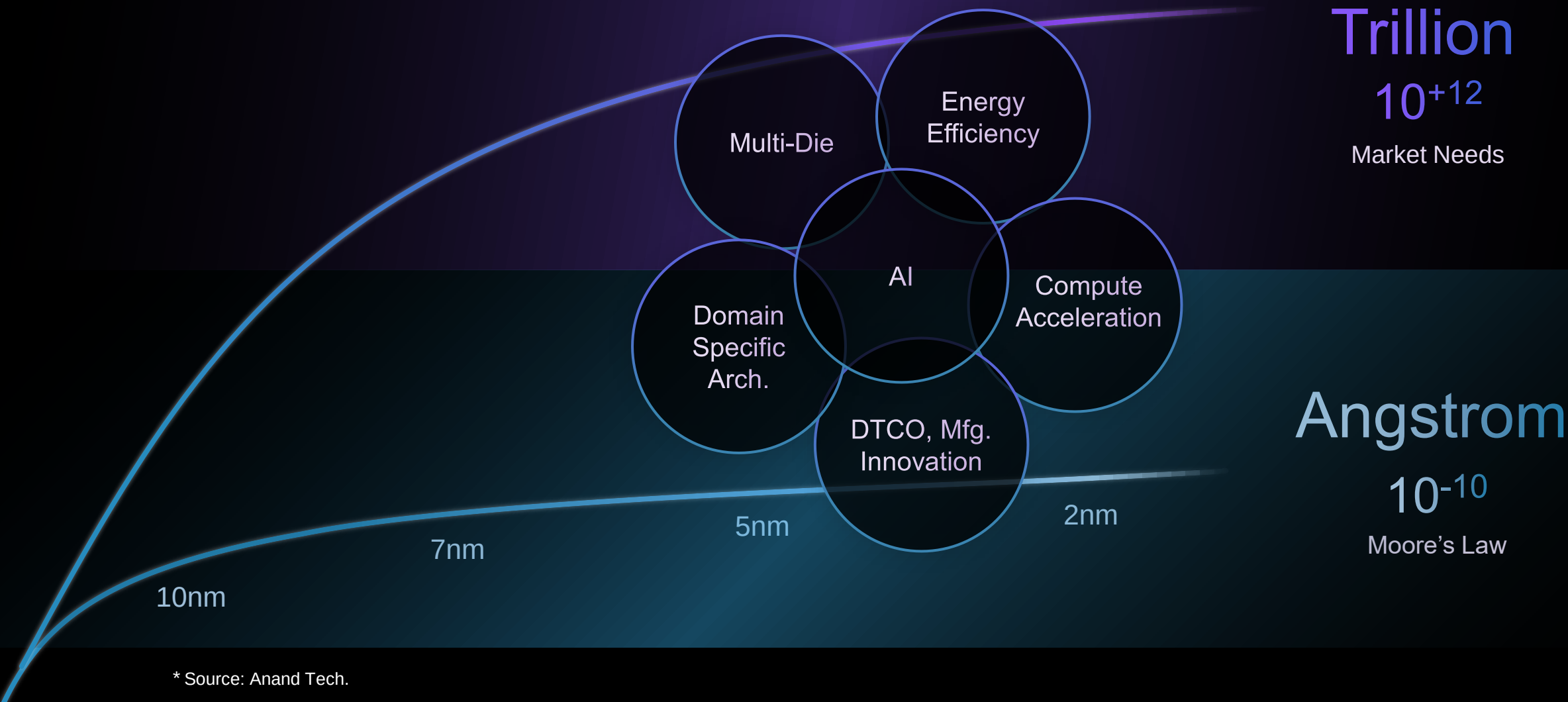
10nm

7nm

5nm

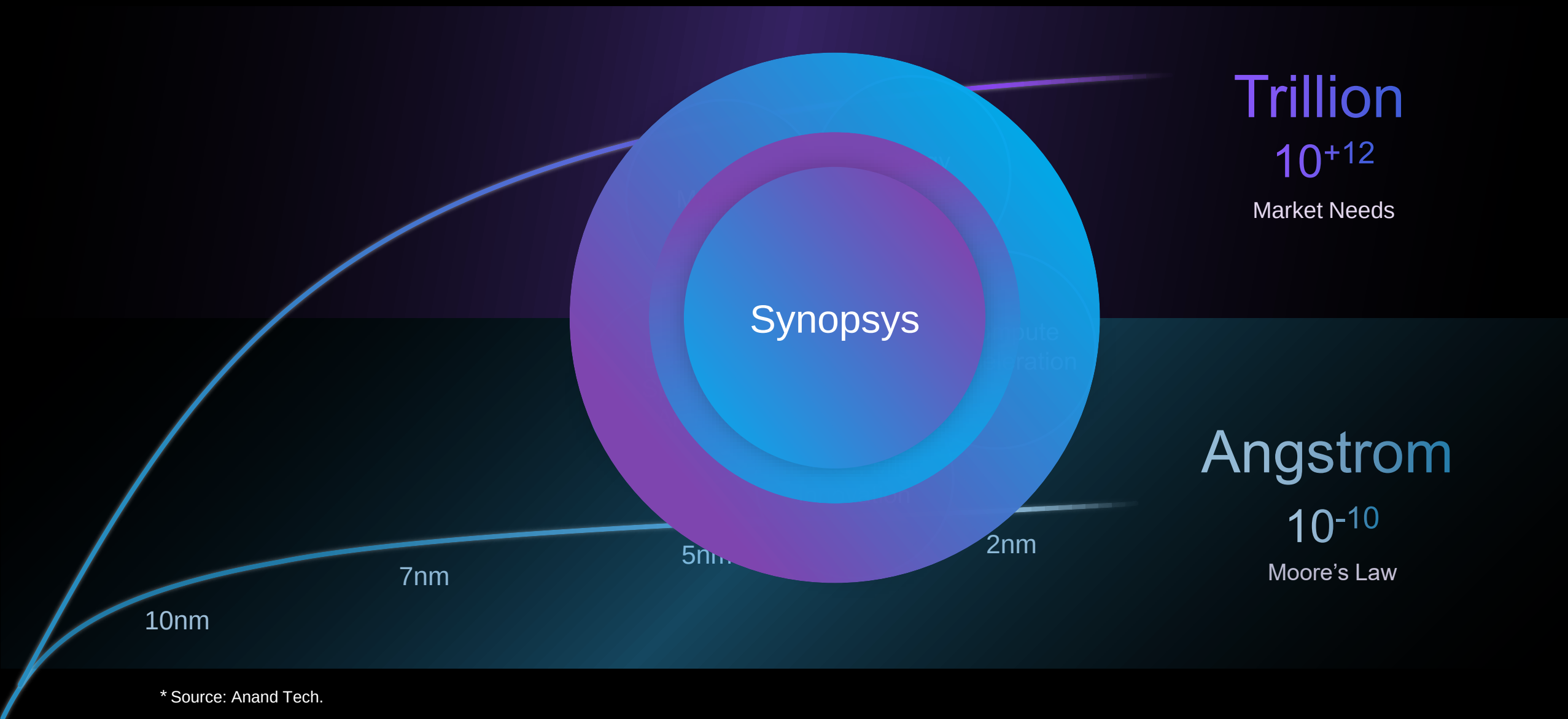
* Source: Anand Tech.

Multiple Innovations Closing the Gap



* Source: Anand Tech.

Synopsys is Mission Critical to Enabling these Innovations





SYNOPSYS: MISSION CRITICAL FOR NVIDIA SILICON SUCCESS

DECADES OF COLLABORATION ACROSS FULL EDA SUITE POWERS ACCELERATED COMPUTING

13x

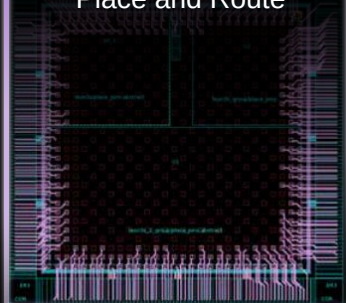
Verification
Functional Verification



- Synopsys VCS
- NVIDIA L40
- NVIDIA Grace Hopper

10x

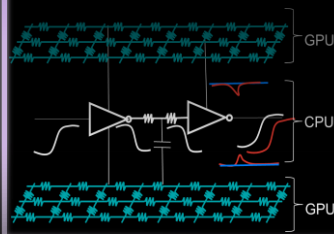
Design
Place and Route



- Synopsys Fusion Compiler
- NVIDIA Grace Hopper

15x

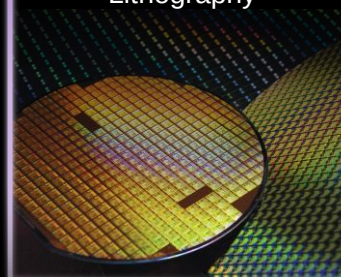
Simulation
SPICE Simulation



- Synopsys PrimeSim
- NVIDIA Hopper
- NVIDIA Grace Hopper

15x

Manufacturing
Computational
Lithography



- Synopsys Proteus
- NVIDIA cuLitho
- NVIDIA Grace Hopper

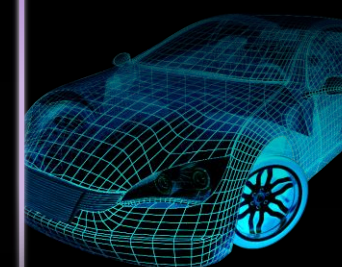
Generative AI
Industry's 1st LLM-
Based GenAI EDA
Solution



- Synopsys.ai
- NVIDIA NeMo & NIM
- NVIDIA DGX

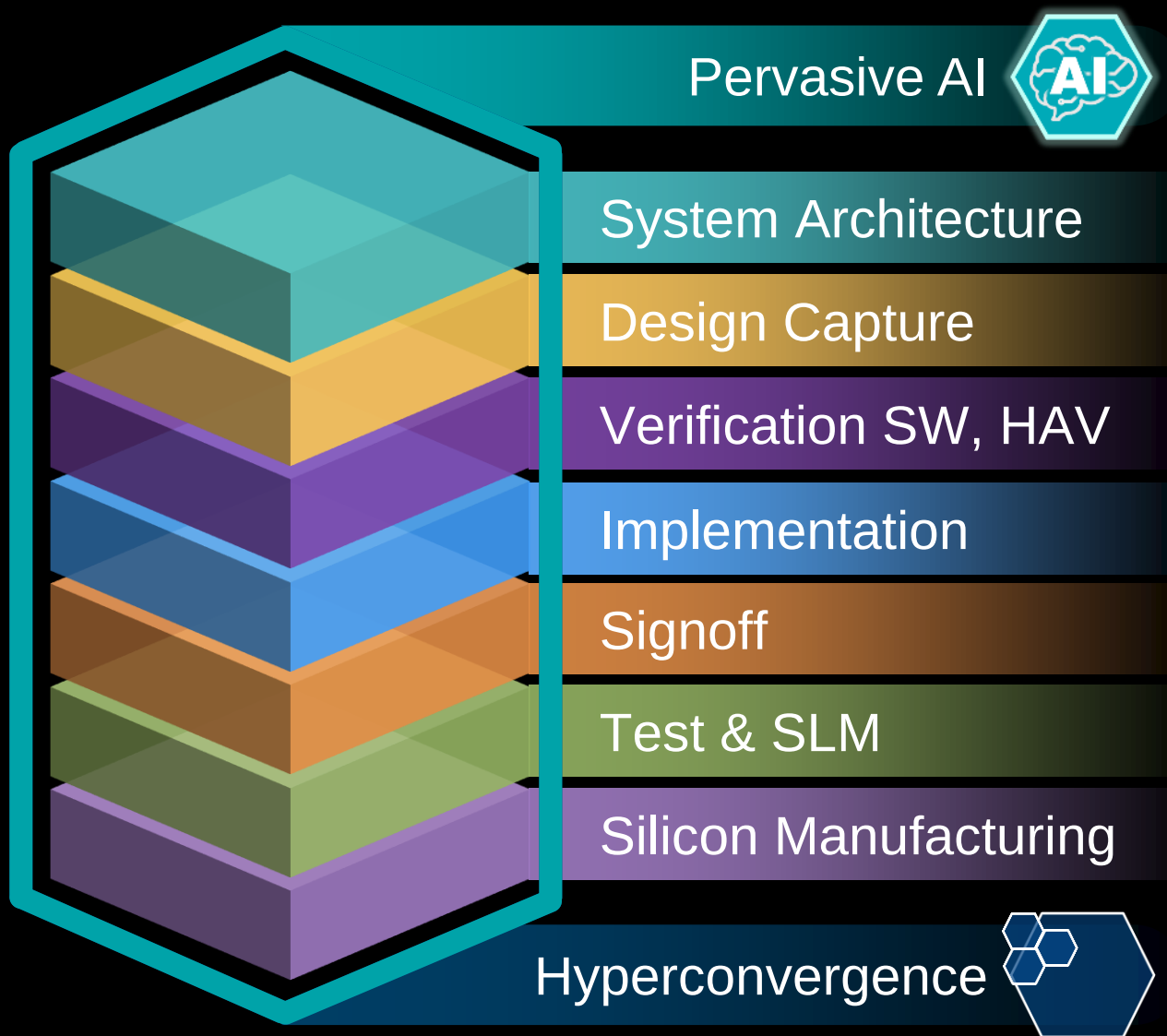
**Systems
Software**

Testing & Validation of
Automotive Software



- Synopsys Electronics Digital Twin, vECU, TPT
- NVIDIA Omniverse

AI-Powered Full-Stack EDA Portfolio



#1 in EDA, 30+ years of EDA investment

Leader in Digital Design and Verification

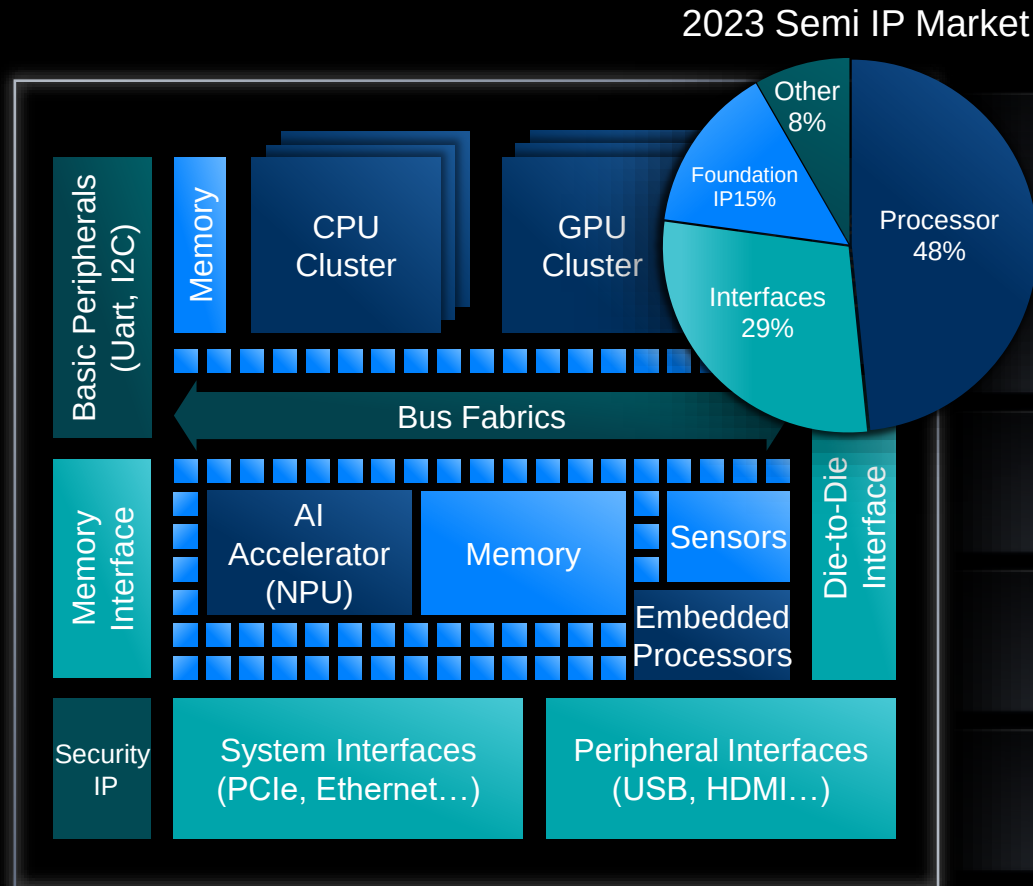
Leader in Hardware-Assisted Verification (HAV)

Leader in GPU-Accelerated Analog Verification

Gold Standard in Signoff and TCAD

Pioneer in Silicon Lifecycle Management

Broadest IP Portfolio with Prominent Positions in Key Blocks



Broadest IP portfolio, 25 years in the making

A decade of sustainable, profitable growth

Leader in Interfaces and Foundation IP

Indexed to the fastest-growing segments

Highest quality IP portfolio with the best support

Trusted provider with scope and scale to meet customer needs across markets

We are an AI Company Unlocking
Customer Productivity Gains

Positioned to Realize Value Creation Potential from AI

1

Surge in AI Chip Designs

- 2.5x increase in AI chip design starts since 2018
- Largest exposure to this segment
 - **EDA**: Leader in Digital
 - **IP**: Leader in Interfaces

2

AI-Enabled EDA Across Full Stack

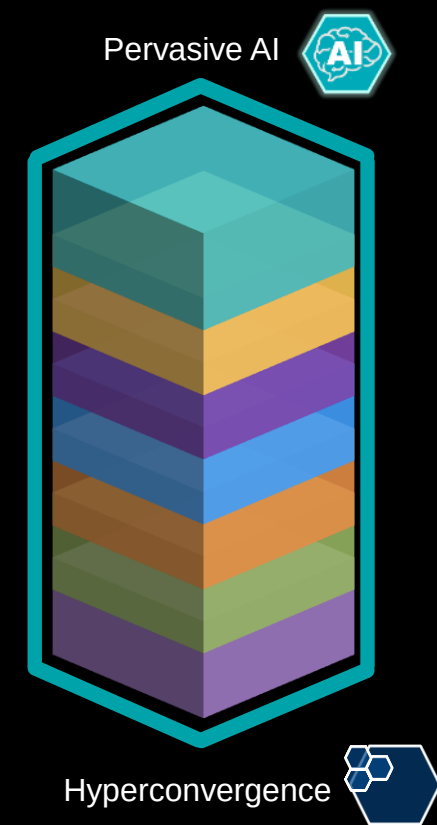
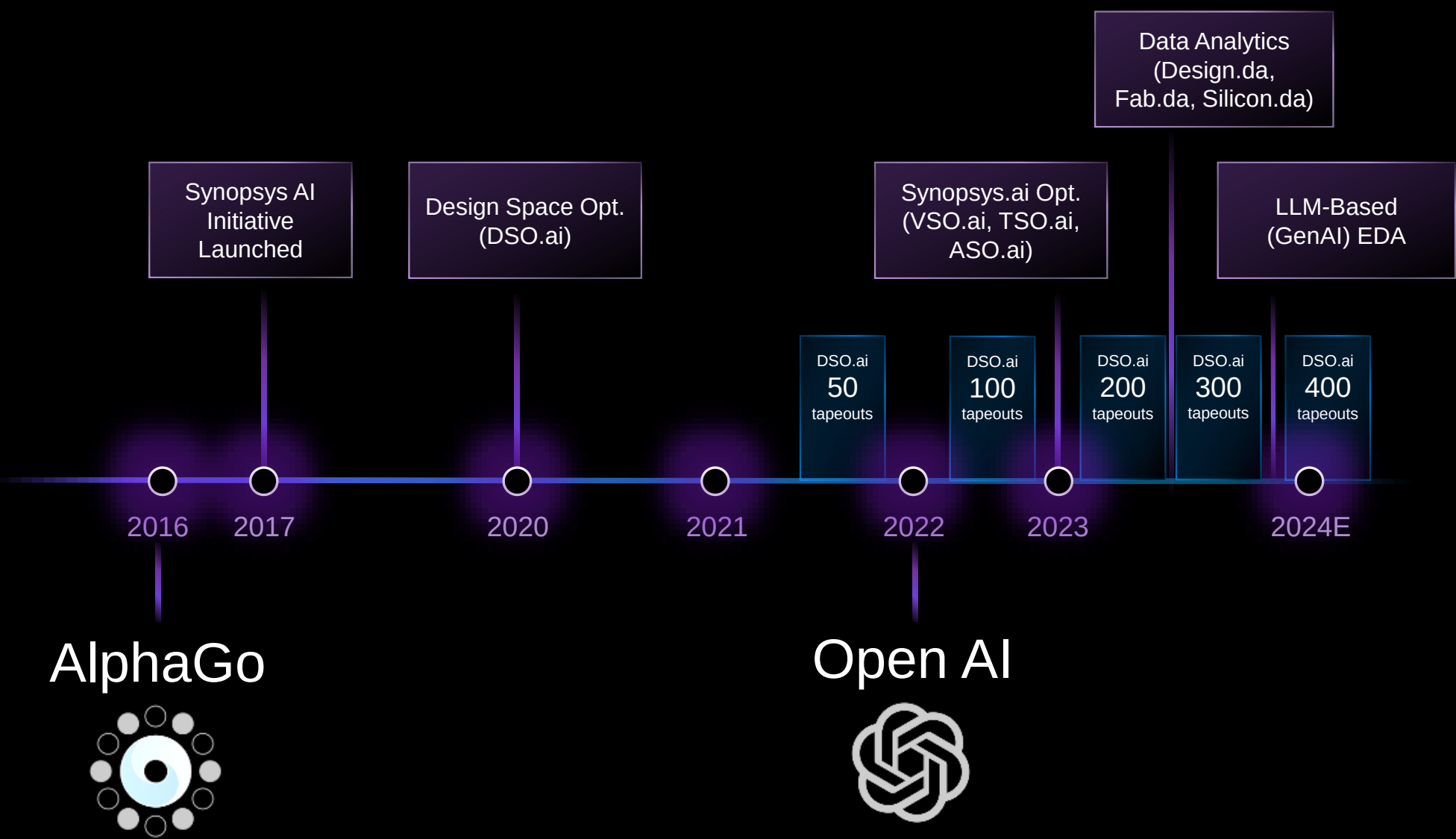
- Pioneer since 2020
- Expanding industry-leading suite including GenAI
- Strong adoption momentum
- Initial monetization proof points

3

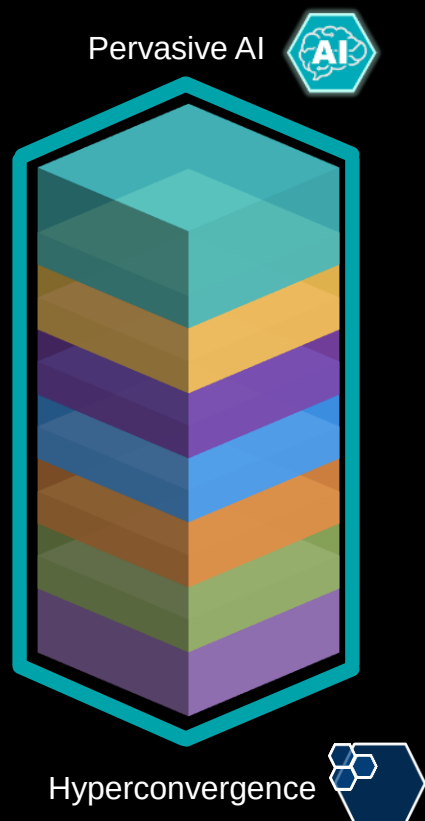
AI-Driven Operational Transformation

- Center of Excellence driving GenAI roadmap
- **Engineering**: GitHub Copilot rollout + Code review assistant
- **Other functions**: 20+ use cases in active pilots

Blistering Pace of AI Innovations



Synopsys.ai : Pioneering AI-Driven Design Across Full Stack

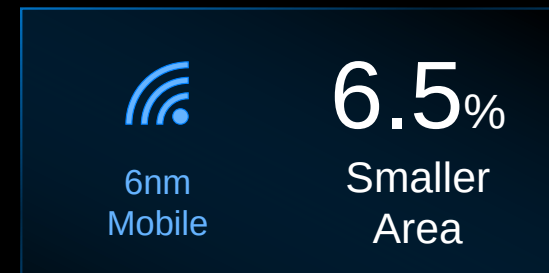
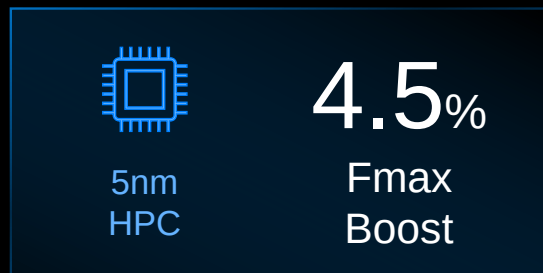
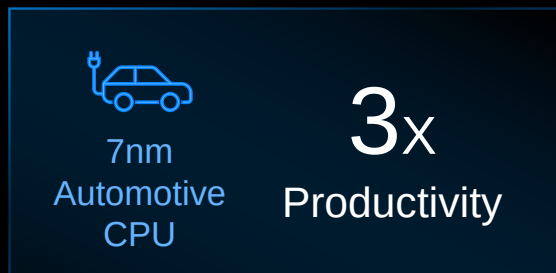
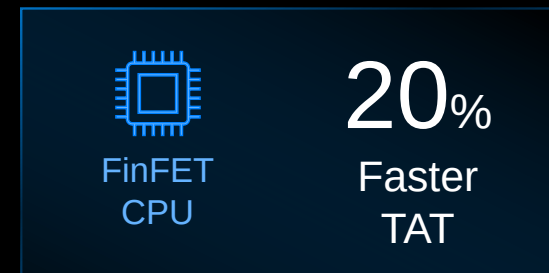


Generative AI	Generative		Collaborative		
	Generate RTL, Test Bench, Formal Verification Collateral		Expert answers Expert root causes		
	LLM-Based Productivity Boost and Automation				

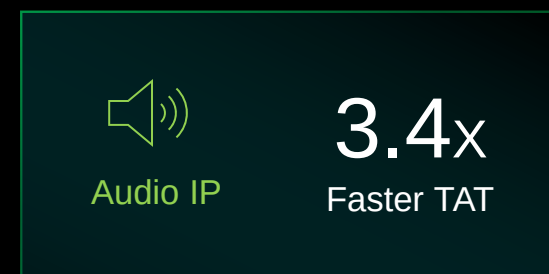
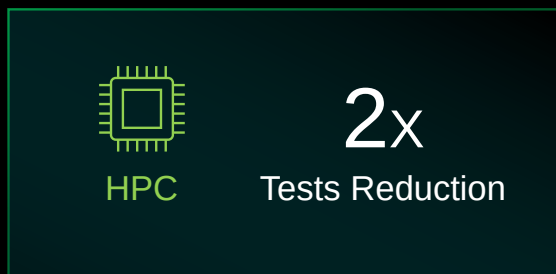
AI-driven optimization	DSO.ai™	VSO.ai™	TSO.ai™	ASO.ai™	3DSO.ai™
	10% better performance per watt	4x TAT for same coverage	25% average pattern count reduction	3x TAT for node migration	10x productivity for multi-die
	Better Quality of Results and Time to Results with AI in Tools				

Market Leaders Realizing Significant Gains from Synopsys.ai

DSO.ai*



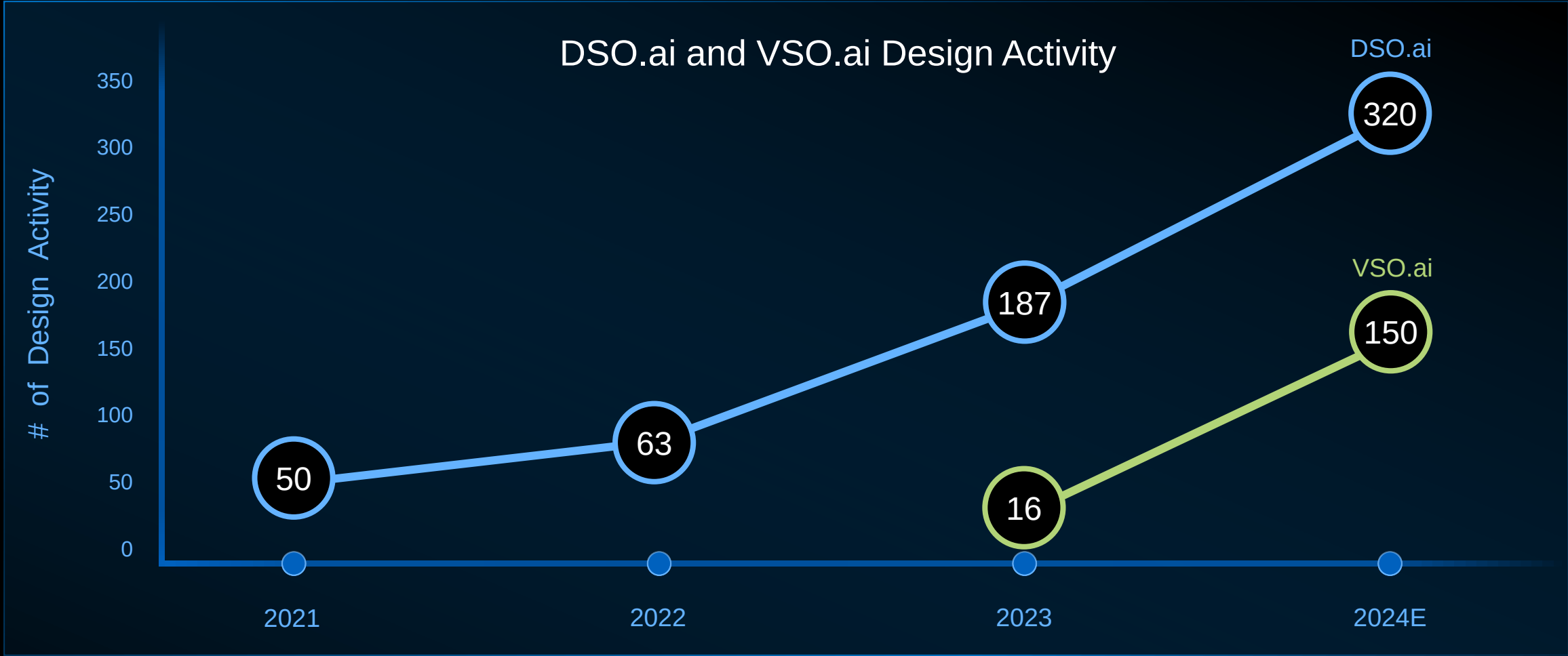
VSO.ai*



*Based on results from deployments at:

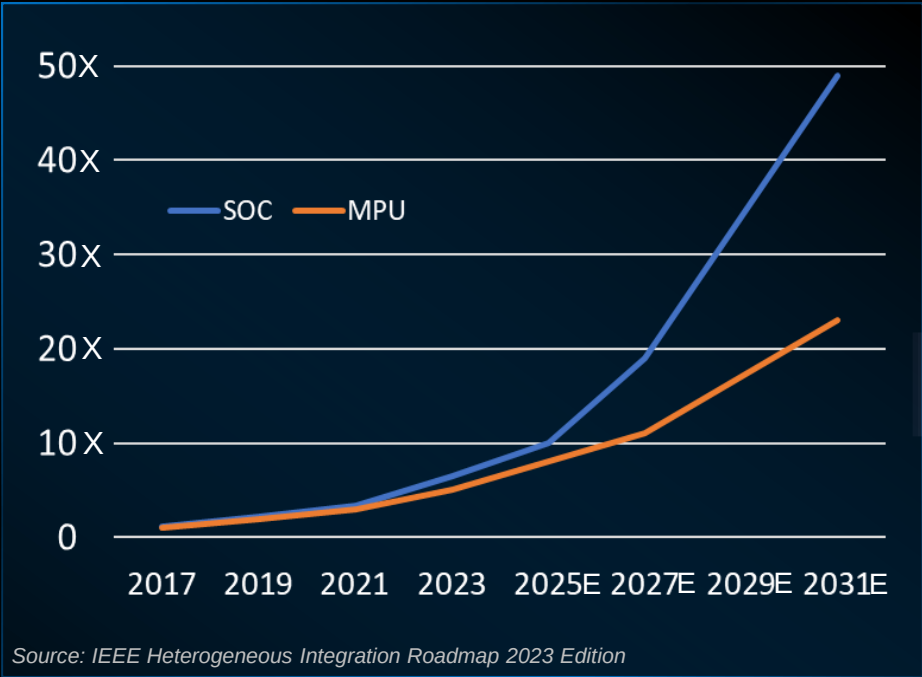


Rapid Adoption of AI-Driven Optimization



TSO.ai Lowers Cost of Testing a Chip

Exponential Growth in Test Times



Die test time directly proportional
to test pattern count



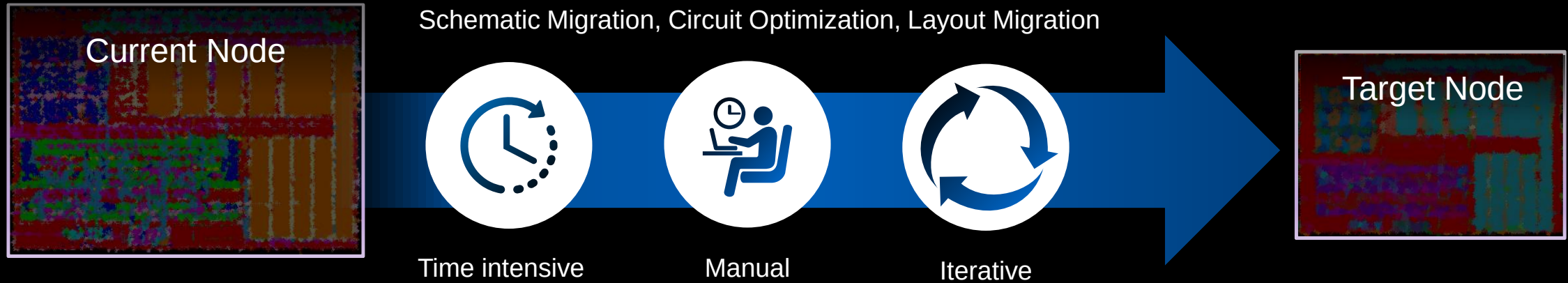
 Flash Memory	56% Stuck-at Pattern Reduction
 Flash Memory	25% Average Pattern Reduction
 Mobile/Auto GPUs	~14% SEQ Test Cycle Reduction

Based on Results from Deployments at
Leading Customers

KIOXIA

SAMSUNG

Accelerating Analog Migration with ASO.ai



Accelerating Analog Migration with ASO.ai



3X Overall TAT
Improvement

Accelerating Analog Migration with ASO.ai



3X Overall TAT
Improvement


7nm
Connectivity IP

8x
Faster Time to
Optimized Circuit


22nm
mmWave PA

10x
Faster migration and
RF Optimization


22nm
Analog IP

5x
Faster TTR with
improved QOR

Enabled at Leading Customers and Foundries

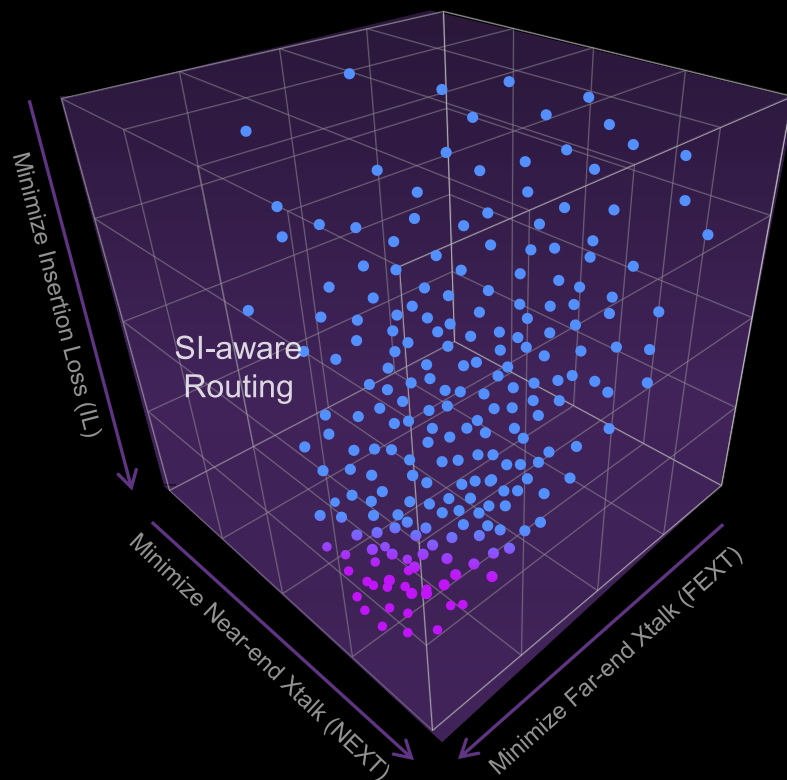
intel

SAMSUNG



AI-driven Multi-Die Design Space Optimization with 3DSO.ai

Industry's first autonomous exploration and optimization of 2.5D/3DHI design space



10X Productivity Boost
Superior QoR



HBM3
Memory

10x

Faster time to best
case SI-aware routing



HBM3
Memory

33%

Improved Eye
Diagram @8Gbps



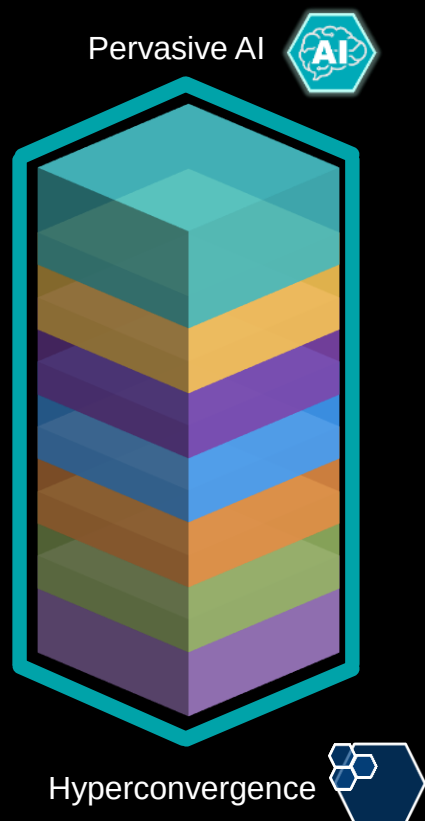
UCIe

11%

Reduced
Transmission Loss

Based on Results from Deployments at
Leading Customers

Synopsys.ai : Pioneering AI-Driven Design Across Full Stack



Generative AI	Generative	Collaborative
	Generate RTL, Test Bench, Formal Verification Collateral	Expert answers Expert root causes
	LLM-Based Productivity Boost and Automation	

Up to **8** hours spent searching for tool usage and optimization insights

Months spent in creating testbenches and other collaterals

Days spent in root cause analysis

Synopsys is Pioneering LLM-Based Solutions to Address These

LLM-Based EDA (GenAI) is a New Growth Opportunity



Knowledge
Assistant

Answer expert questions
on tools & workflows



Debug
Assistant

In-context Analysis &
Design Debug



Workflow
Assistant

Prescriptive Guidance &
Workflow recommendation



Collateral
Generation

Design Collateral Gen: RTL,
Testbench, Assertion creation



Leading
CPU Provider

35%

Productivity
Boost



Leading
GPU Customer

40%

Productivity
Boost



Leading
Memory Provider

2x

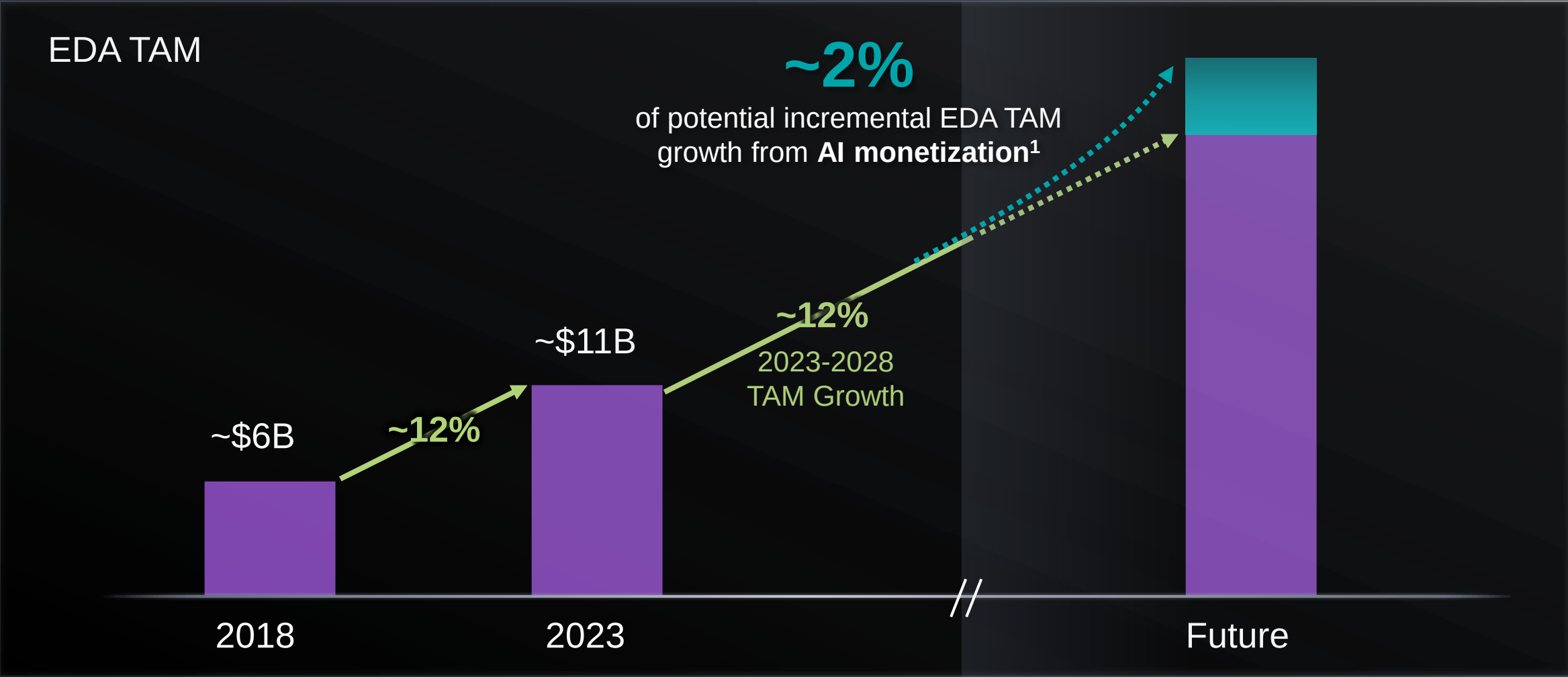
Productivity
Boost

“30% faster ramp-time for junior engineers without having to depend on expert engineers”

“The responses are at least 2x faster to expert queries than the search process”



Potential AI Impact on Future EDA TAM Growth



Source: Management estimates, excludes SIG
1. Assumes AI-enabled EDA is deployed across ~50% of EDA TAM and ~20% of contract uplift

In Closing

Pervasive Intelligence is projected to accelerate semiconductor demand

Synopsys is mission critical in the era of Pervasive Intelligence

Synopsys.ai gaining strong traction, delivering consequential results

Synopsys leadership in Gen AI opening new growth opportunities



SYNOPSYS[®]

Our Technology, **Your Innovation[™]**

THANK YOU

