Beyond Mega Deals

Rethinking Growth and Capital Allocation Strategies

GSA Asia Pacific Executive Forum – Taiwan

5 November 2025

EY Parthenon

The race for AI supremacy coupled with geopolitical tension has raised **uncertainty** within the industry despite high market growth

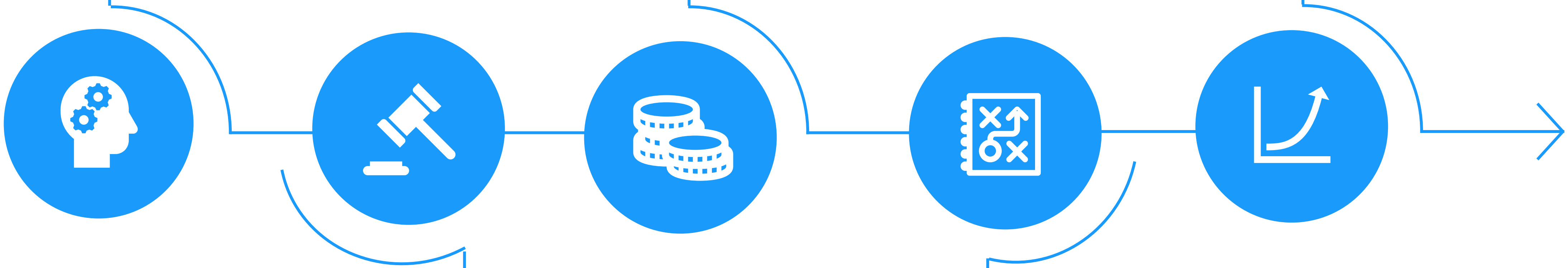
1 **AI advancements and the rise of computing** are fueling a semiconductor growth surge

2 **Geopolitical tensions** drive IP protectionism and regulatory scrutiny

3 **Capital shifts** towards R&D investment, supply chain resiliency and capital returns

4 **Alternative growth strategies** are needed to remain competitive and agile in the face of evolving markets

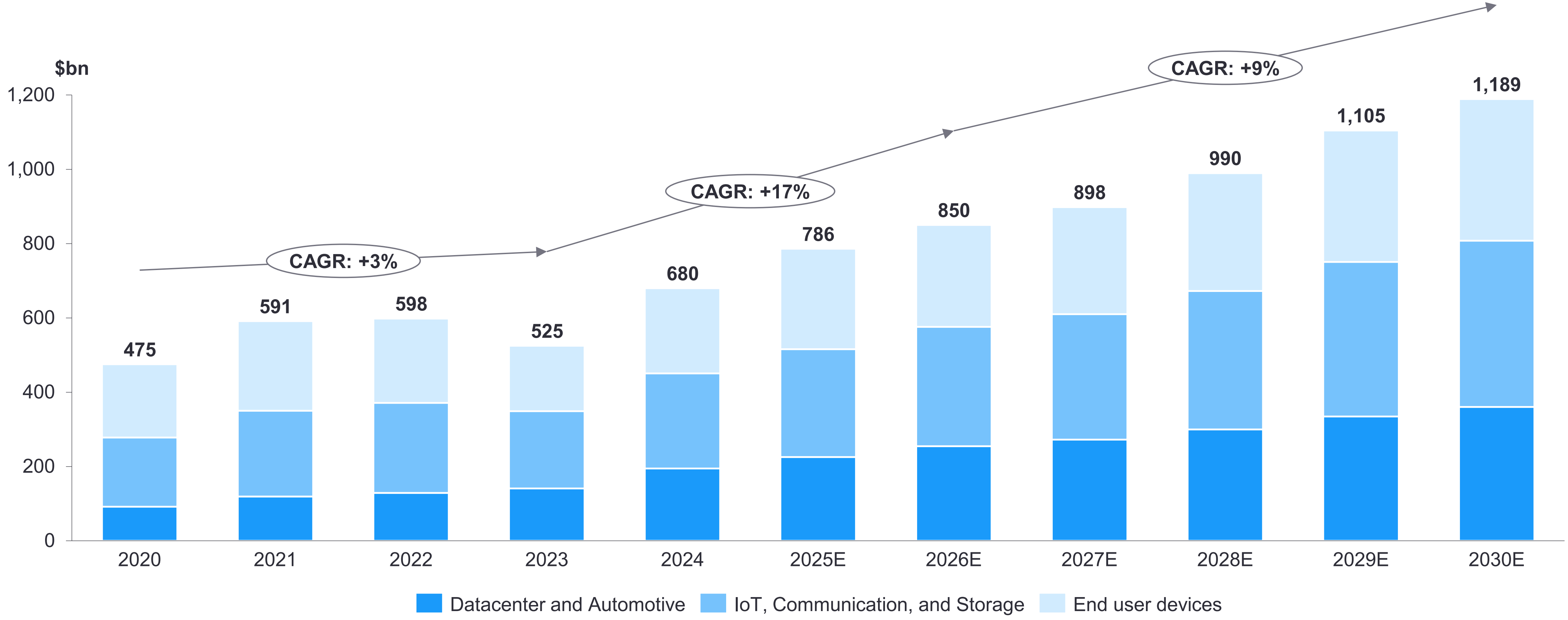
5 **Leaders translate uncertainties** into strategic momentum by adopting **agile operating models**



Source: EY-Parthenon analysis

The industry is **well-positioned** to reach $1 trillion+ in annual demand by 2030, even with a forecasted CAGR slowdown after 2026

Market Demand[1]

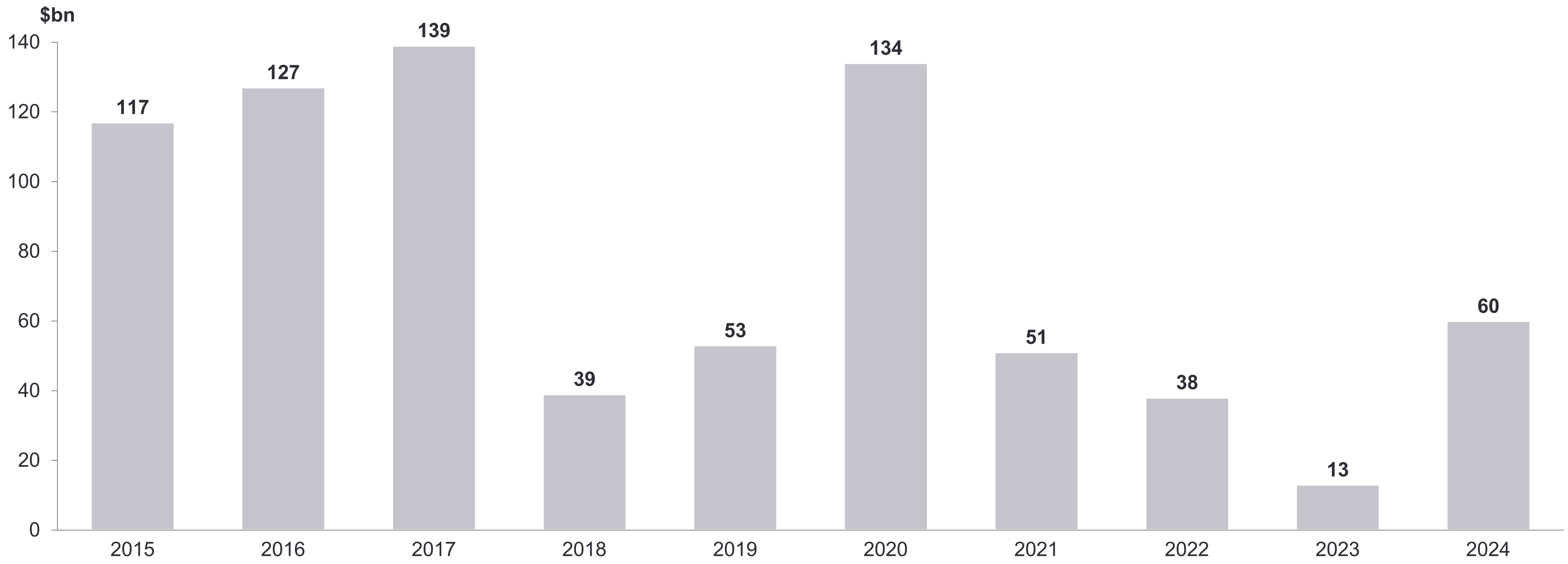


1. Market demand includes the aggregate annual value of (1) **Datacenters** – x86 servers and others; (2) **Automotive** – Si, SiC, GaN and others; (3) **IoT** – game consoles, smart TV & home, set top boxes, wearables, industrial electronics, aerospace defense, and other computing and consumer uses; (4) **Communication** – wireless infrastructure, SP switch & routers, WLAN access points, and others; (5) **Storage** – SSD storage, HDD, and others; (6) **End user devices** – 5G phones, 4G phones, mobile PCs (consumer & commercial), desktop PCs (consumer & commercial), media tablets, and others

Source: IDC Worldwide Semiconductor Market Forecast; Secondary research and EY-Parthenon analysis

Heightened scrutiny around cross-border activity has prompted a decline in mega deals, driving a **renewed focus** on alternate growth levers

Announced Semiconductor M&A[1]

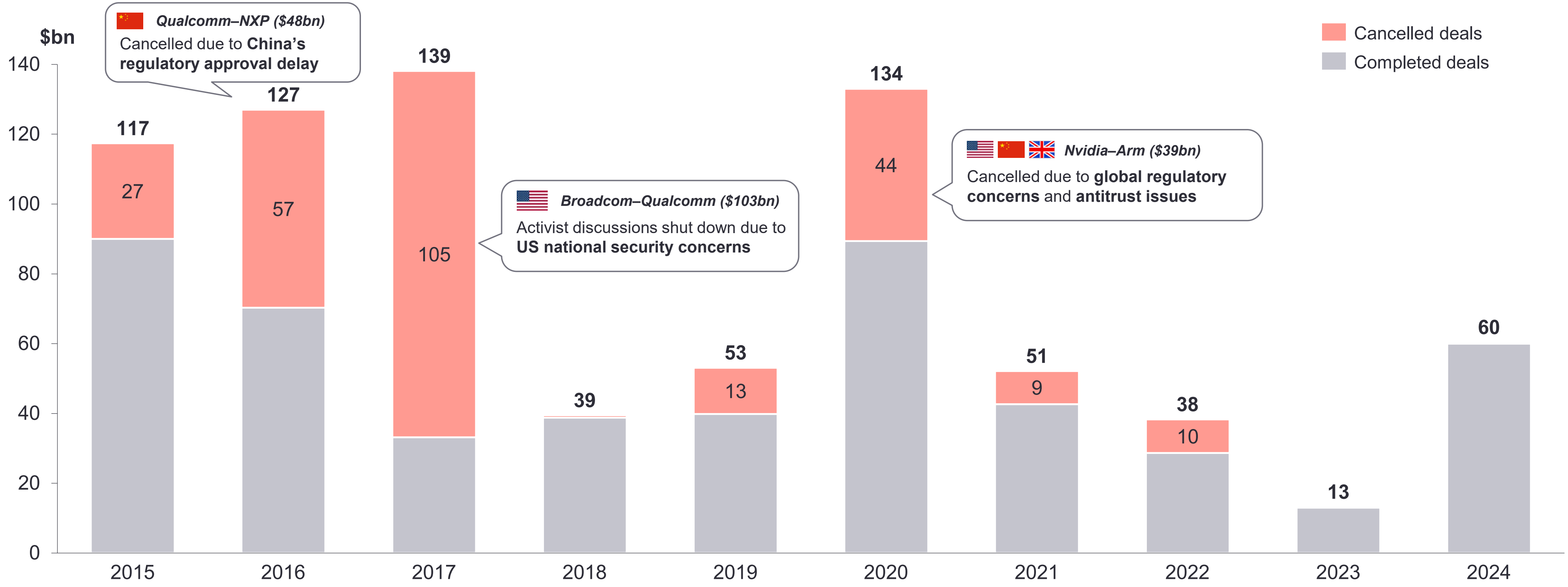


1. **M&A**: total net transaction value for completed and cancelled transactions (mergers, carve-out acquisitions, spin-offs / split-offs, private placements, and VC investments) for semiconductor IDMs / fabless, foundries, equipment makers, EDAs, raw material suppliers, and OSATs

Source: Public company filings; Secondary research and EY-Parthenon analysis

Heightened scrutiny around cross-border activity has prompted a decline in mega deals, driving a renewed focus on alternate growth levers

Announced Semiconductor M&A[1]: *Cancelled*



Number of deals cancelled (>$1bn)	5	5	1	–	3	2	3	2	–	–

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Source: Public company filings; Secondary research and EY-Parthenon analysis

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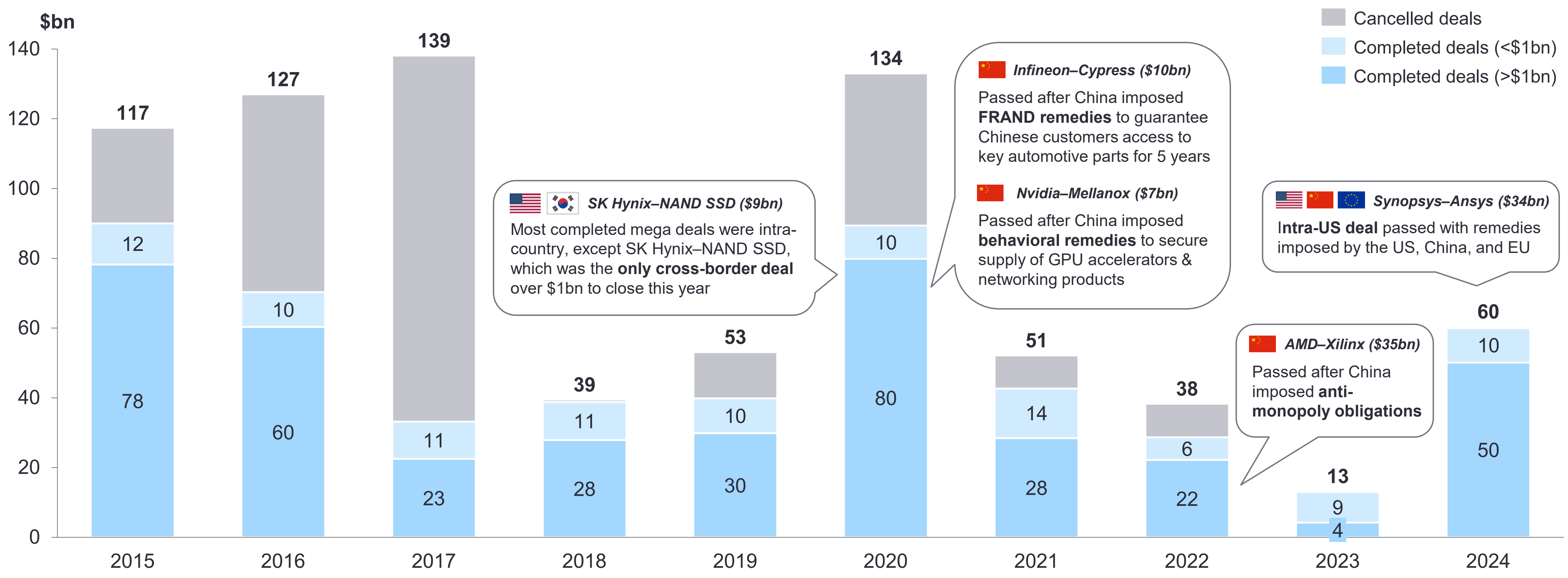
2 Heightened scrutiny around cross-border activity has prompted a decline in mega deals, driving a renewed focus on alternate growth levers

Announced Semiconductor M&A[1]: *Completed*



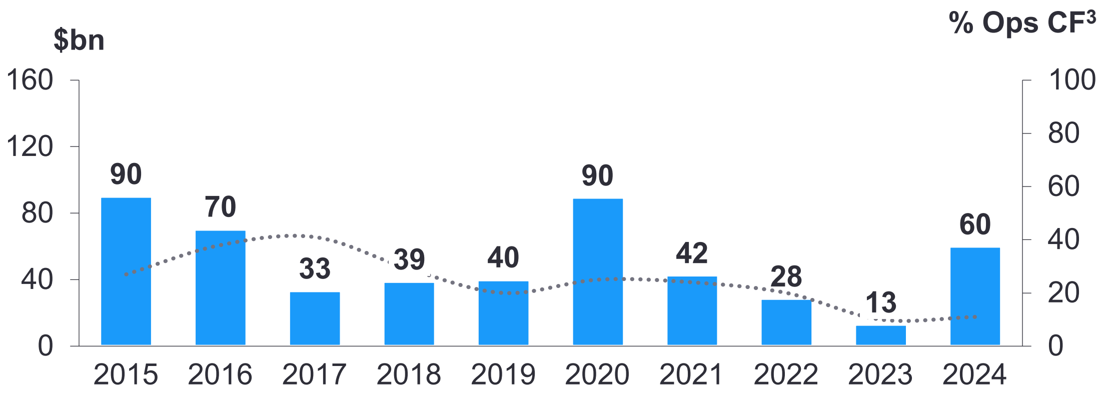
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of deals completed (>$1bn)	9	10	3	6	7	6	8	3	1	3

1. **M&A**: total net transaction value for completed and cancelled transactions (mergers, carve-out acquisitions, spin-offs / split-offs, private placements, and VC investments) for semiconductor IDMs / fabless, foundries, equipment makers, EDAs, raw material suppliers, and OSATs

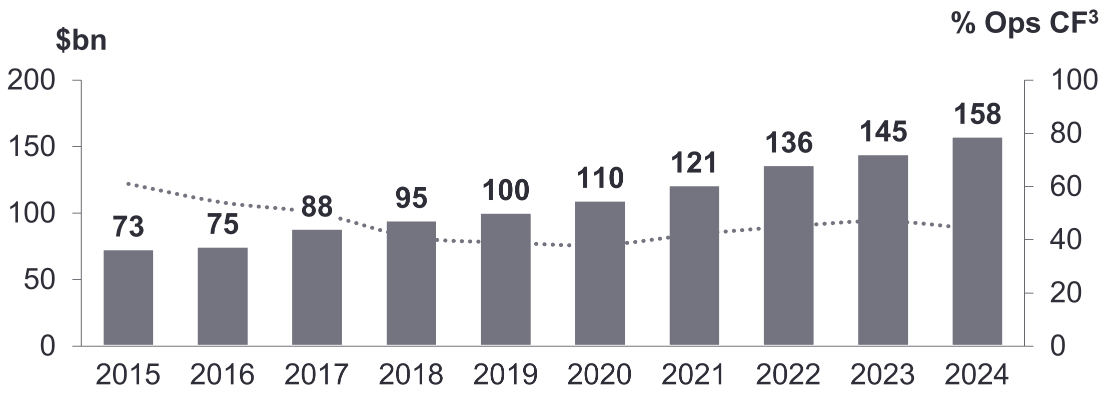
Source: Public company filings; Secondary research and EY-Parthenon analysis

Large-scale M&A has declined with **strategic capital flows shifting** in part to supply chain resiliency, technological sovereignty, and capital holders

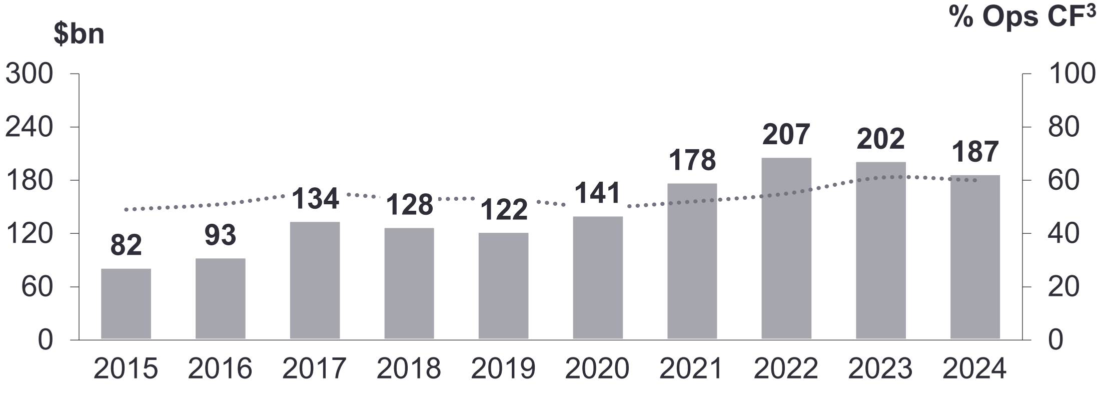
M&A[1]



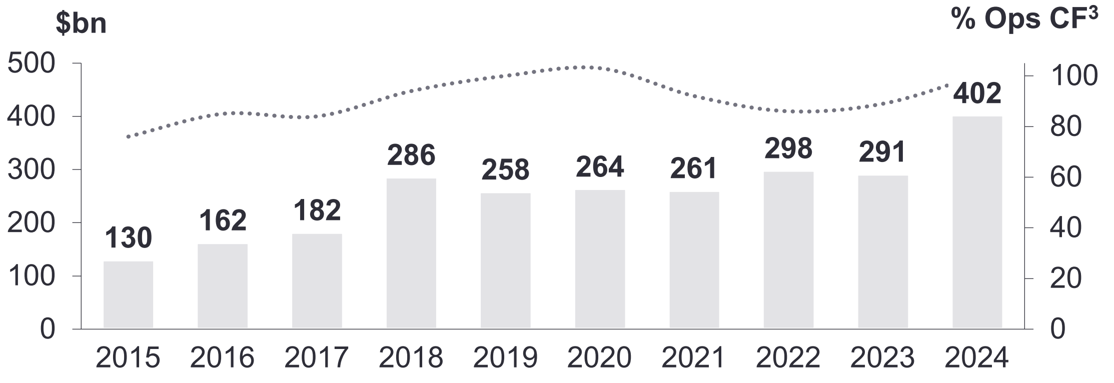
R&D



Capital Expenditures



Dividends, Share Buybacks, and Debt Repayment[2]



Note: Analysis includes semiconductor IDMs / fabless, foundries, equipment makers, EDAs, raw material suppliers, and OSATs

1. **M&A**: total net transaction value for completed transactions (mergers, carve-out acquisitions, spin-offs / split-offs, private placements, and VC investments)
2. **Dividends, Share Buybacks, and Debt Repayment**: common & preferred dividends paid, common & preferred shares repurchased, and long- & short-term debt repayment
3. Operating free cash flow trend line represents average trailing 3 years on an annualized basis

Source: Public company filings; Secondary research and EY-Parthenon analysis

Industry leaders are pursuing a **variety** of growth strategies

ILLUSTRATIVE

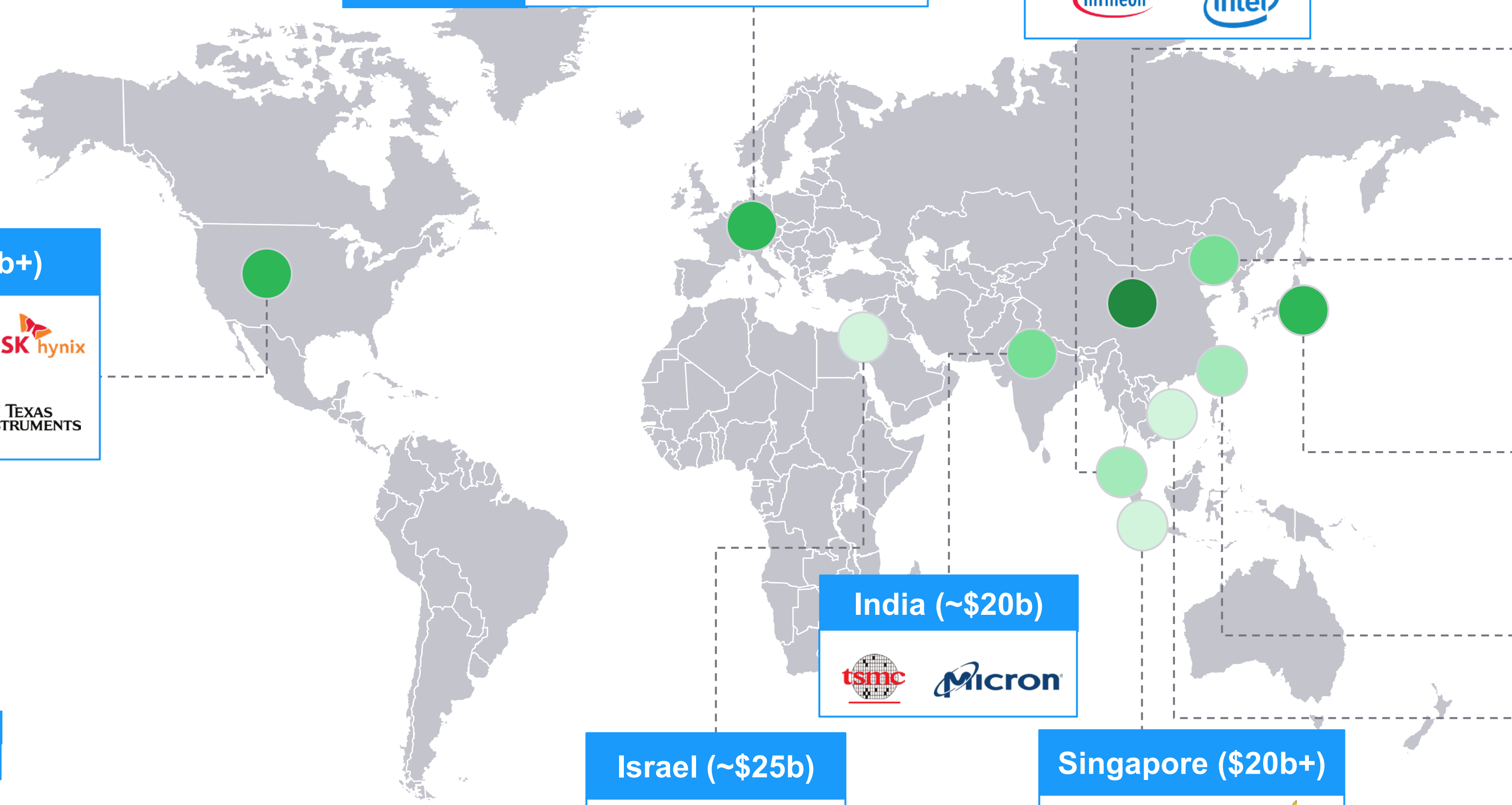
	Strategy	Companies	Example
Organic	**Capacity expansion**	intel, tsmc, Samsung Semiconductors	**Investments in manufacturing & design sites** in Arizona, Texas, and Japan
Organic	**Ecosystem partnerships**	AMD, OpenAI	**Open AI and AMD entered a multi-year partnership** to power OpenAI's next gen AI infrastructure across multi-gen AMD GPUs
Organic	**Industry alliances**	US-JOINT (3M, Resonac, ULVAC, KLA, TOWA, Kulicke & Soffa, TOPPAN, IMEC, tok, MLI, NAMICS)	**Joint3 unites 27 global leaders** in the semiconductor supply chain to form a robust specialized R&D hub
Organic	**Licensing & IP agreements**	Synopsys, Samsung Foundry	Synopsys and Samsung Foundry strengthened partnership via strategic licensing agreement for **3nm and 2nm process node IP**
Inorganic	**Vertical integrations**	NVIDIA, intel	Nvidia cash infusion and partnership with Intel to **drive performance stack end-to-end** by coupling CPUs and GPUs via NVLink
Inorganic	**Corporate venture capital**	Samsung Catalyst Fund	Samsung co-led **early-stage strategic financing in Tenstorrent** to accelerate next-gen AI chips and RISC-V innovation
Inorganic	**Talent tuck-ins**	AMD	AMD acquired Untether AI, **investing in talent capabilities** to boost AI inference and chip design expertise

Source: Secondary research and EY-Parthenon analysis

4

Public sector incentives are fuelling global manufacturing investments as companies ramp up capacity to address surging demand and production shortages

ILLUSTRATIVE



EU (~$100b)
GlobalFoundries, BOSCH, ST life.augmented, Infineon

Malaysia (~$25b)
Infineon, intel

China Mainland ($150b+)
SMIC, 华虹集团 HUAHONG GROUP

South Korea ($470b)
SAMSUNG, SK hynix

Japan ($65b)
tsmc, Micron, Rapidus

Taiwan ($100b+)
tsmc, UMC, ASE GROUP

Vietnam ($10b+)
Amkor Technology, intel

United States ($450b+)
tsmc, intel, GlobalFoundries, SK hynix, SAMSUNG, Micron, Texas Instruments

India (~$20b)
tsmc, Micron

Israel (~$25b)
intel

Singapore ($20b+)
NXP Semiconductors, VIS, Micron

Region (amount in $b)
Key investors

Public sector incentives[1]

Low — High

1. Scale is based on an absolute total dollar value of public sector incentives announced and planned
Source: Secondary research and EY-Parthenon analysis

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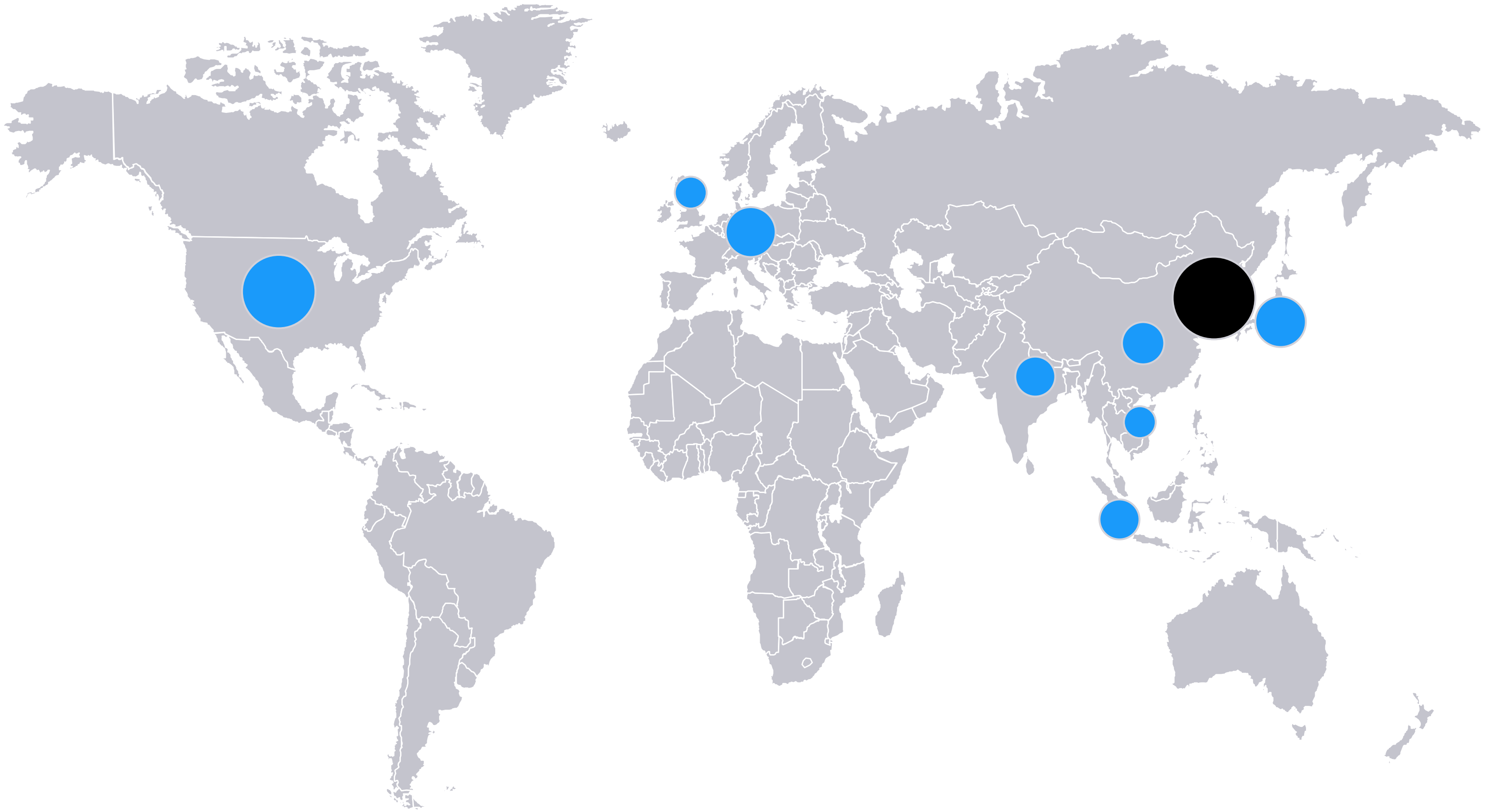
4 What started as a central operation within one nation has grown into multiple end-to-end operations and networks across several countries…giving rise to **Regionalization**



Nexus Investment flow

Bubble size indicates directional volume of anticipated investment

Source: Secondary research and EY-Parthenon analysis

EY Parthenon

5 Overcoming operational complexities will require market-led and customer-driven innovation, resilient, adaptive supply chains and a borderless talent model

Application-Centric Innovation

Supply Chain Resiliency

Fostering Talent Ecosystem

Source: Secondary research and EY-Parthenon analysis

5 Leaders must embed **operations and innovation** where their customers thrive, building agile ecosystems that anticipate market needs and accelerate regional impact

Application-Centric Innovation

Category	Impact	Example
Innovate alongside **markets**	… **to accelerate product development** and stay on the cutting edge	Synopsys, Samsung Foundry, AMD, OpenAI, intel, NVIDIA, Microsoft, OpenAI
Innovate alongside **customers**	… to **respond faster** to specialized requirements	MediaTek, vivo, oppo, Foxconn, Apple, tsmc, Apple, TEL Tokyo Electron, Toyota, Sony
Innovate alongside **ecosystems**	… by **aligning supply chains with customer needs** and strengthening local manufacturing and R&D capabilities	Infineon, Bosch, NXP Semiconductors, tsmc, Samsung, TEL Tokyo Electron

Source: Secondary research and EY-Parthenon analysis

Leaders must architect supply chains for **resilience** and adaptability, forging alliances and planning for uncertainty to secure growth in a dynamic global landscape

Supply Chain Resiliency

Category	Impact	Example
Diversify supply chain footprints	… **to reduce risk from geographic concentrations** and associated disruptions	Texas Instruments, Micron, Noveon, gm, Foxconn
Integrate business planning and **agility**	… to enable **faster response to market volatility**, accelerating decision and commitment times	Renesas, Altium, tsmc, Micron
Real-time risk management and digital supply chain mapping	… implementation of **digital twin, scenario planning and testing**	intel, Micron

Source: Secondary research and EY-Parthenon analysis

Leaders must adopt a borderless **talent mindset** by mobilizing skills across geos, redefining talent pools, and forging **unconventional** pathways to build resilient global ecosystems

Fostering Talent

Category	Impact	Example
Mobilize talent across borders	… **to build agility and accelerate fab ramp-ups** by moving expertise where it's needed most	TEL (Tokyo Electron), Samsung Semiconductors, ASML
Broaden the talent definition	… to **reduce operational bottlenecks** and strengthen the entire value chain beyond traditional engineering roles	Intel, IBM
Foster talent ecosystems	… to **build regional resilience and localized capability** that scales with demand, ensuring sustainable growth in new markets	TSMC, Intel, Micron

Source: Secondary research and EY-Parthenon analysis

Players that can translate complexities into strategic momentum are likely to prove as **resilient market leaders** with continued growth capture

Application-Centric Innovation

Establish **strategic presence** in key end-user verticals to gain firsthand insights into evolving needs

Supply Chain Resiliency

De-risk from geopolitical conflicts, regulatory, and trade uncertainties

Fostering Talent Ecosystem

Invest in mutually beneficial academic and research **partnerships**

Agility, innovation and collaboration is pivotal to driving industry growth

Thank you!