22nd Annual

AlixPartners

Global Automotive Outlook

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Key Themes for today

Agility is the competitive advantage of the next 5 years (at least)

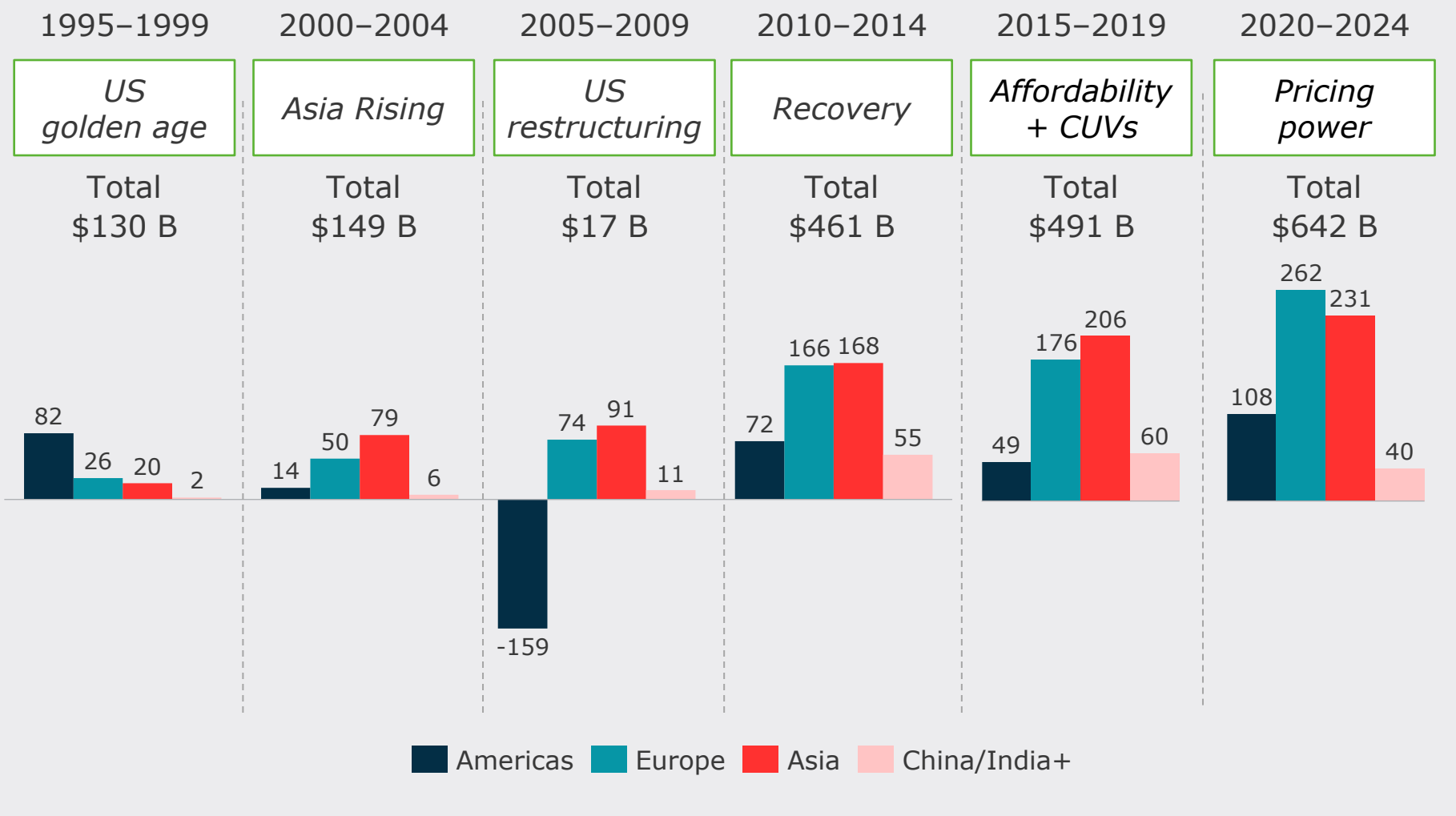
Europe is for sale – players need to be aware and active in the market

Trade challenges are key disruptive forces around the world

AI and **common real-time data are tools to catch up to Chinese players**

Automotive is heading into a disruptive era, requiring true agility

Historical comparisons of automaker net income by headquarter country location ($ billion)



2025-2029

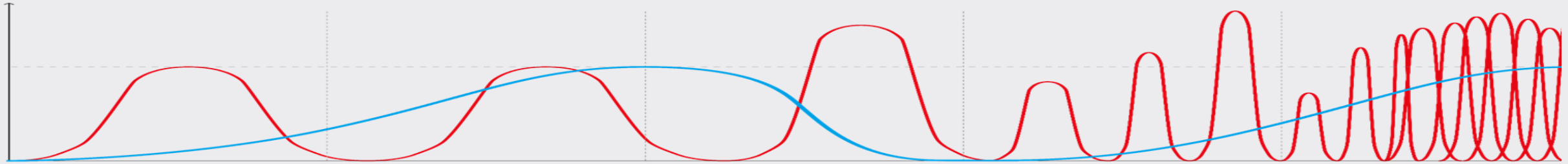
Next era?

- *Stagnating growth in the West*
- *BEV slowdown*
- *Chinese NEV OEMs*
- *Geopolitical tensions/tariffs*

FY 2009 GM Net Income = $104 B, deducted $128 B one-time restructuring gain, FY 2015 forward Chrysler, FCA NA, Stellantis NA included in Americas
Source: S&P Capital IQ by location of automaker headquarters, AlixPartners' analysis

Disruption cycles are accelerating, with shorter duration and greater impact

Major automotive industry disruptors

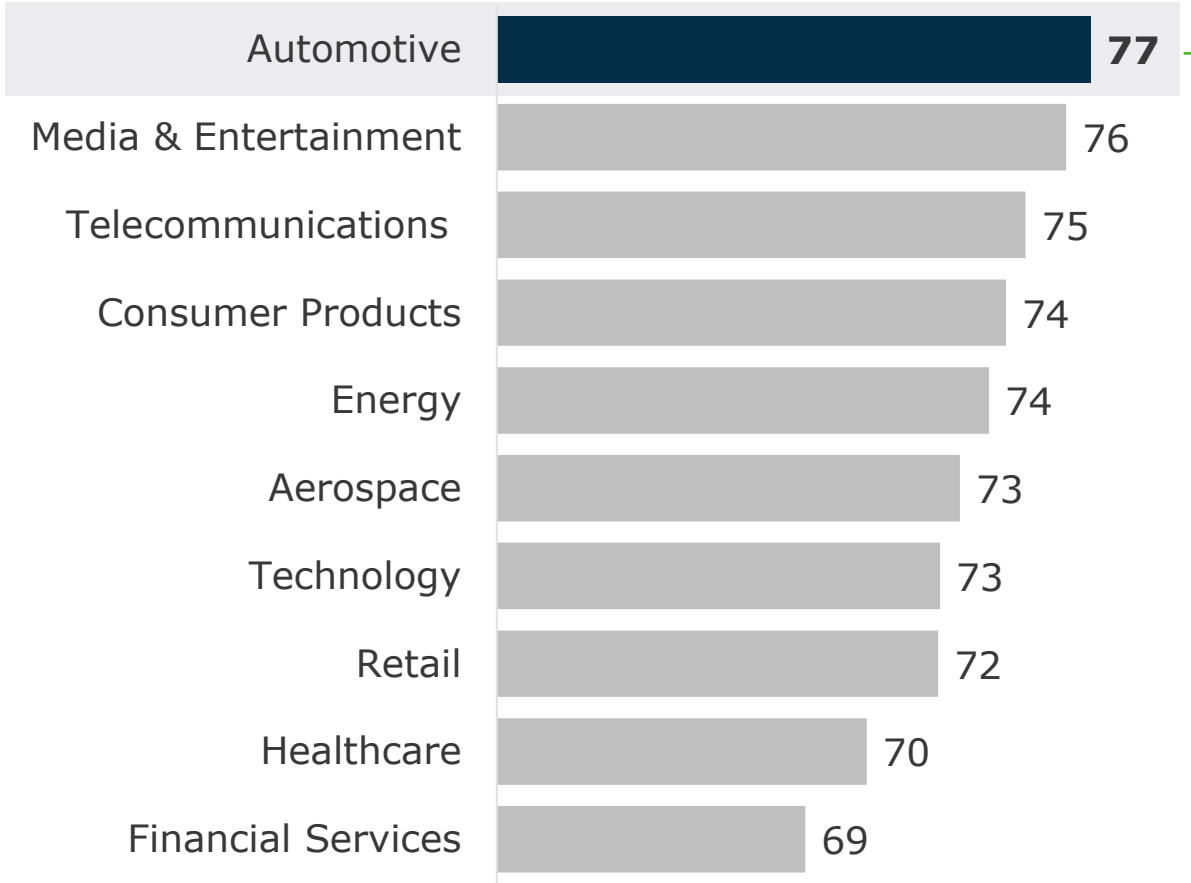


1980s	1990s	2000s	2010s	2020s
• Japanese OEMs • Lean • Robotics	• Korean OEMs • Globalization & free trade	• Dotcom bubble • Financial Crisis	• China emergence • Japan tsunami • New mobility • Tesla	• COVID-19 • Supply constraints • EV hype cycle • Ukraine/Iran • SDV • Trade tensions • Chinese NEV OEMs • Tariffs • Gen-AI surge

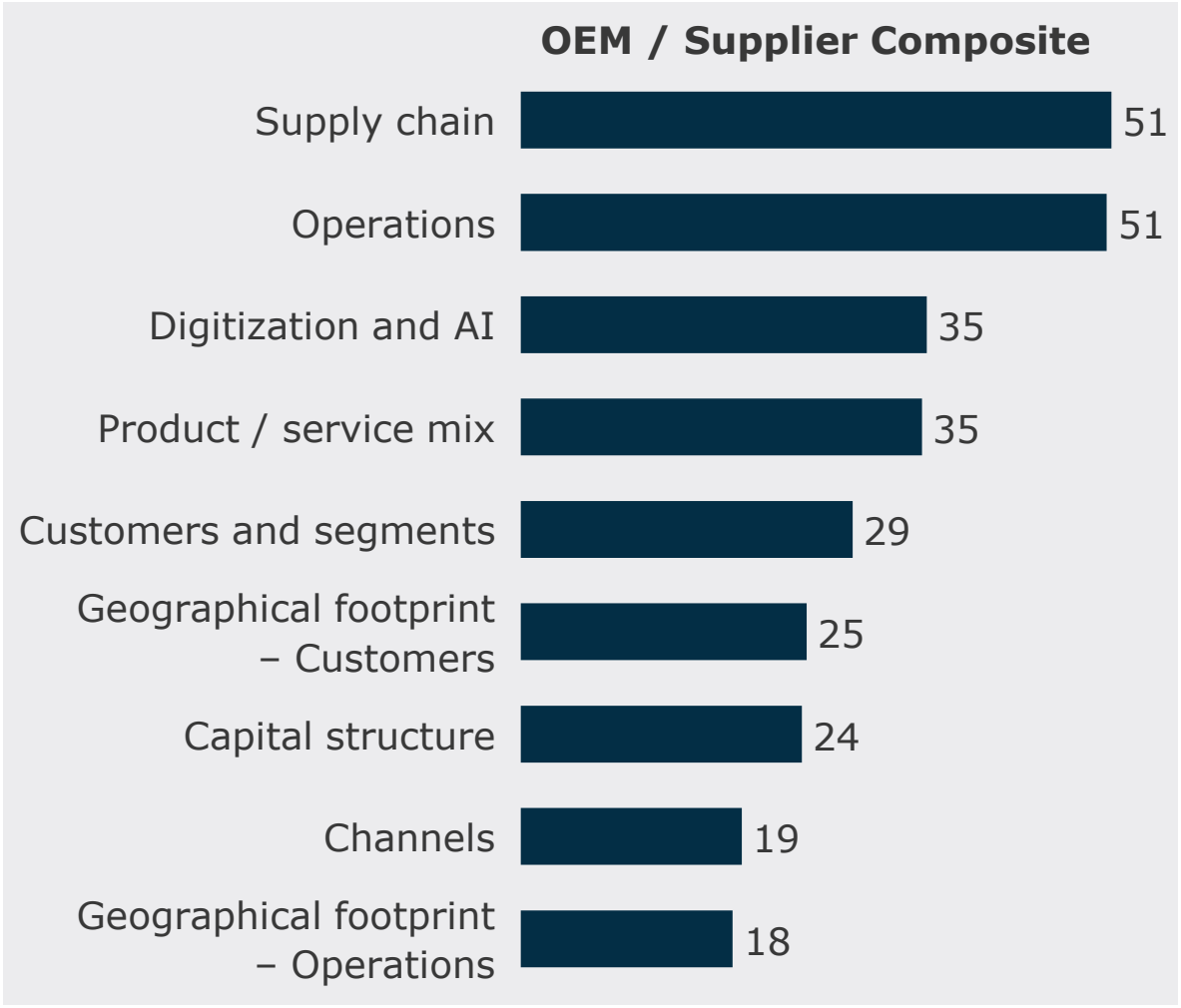
Economic Cycles Disruption Cycles

Automotive: The most disrupted industry in 2025

2025 AlixPartners Disruption Index Scores



Which parts of your business do you expect will change most over next year from disruptive forces?



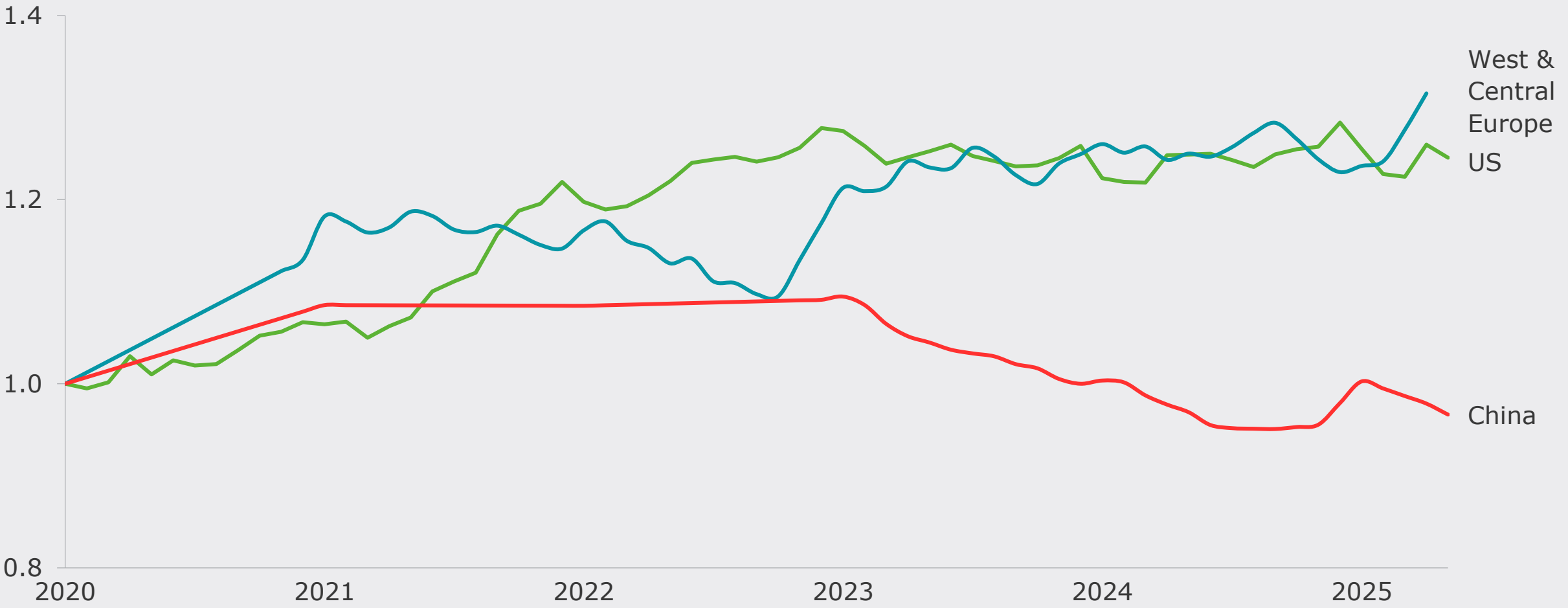
Source: 2025 AlixPartners Disruption Index executives survey; ADI scores from 0 to 100

AGENDA

- Market Outlook
- M&A Activity and Capital Flows
- Trade challenges
- Financial Performance
- New Operating Model

Western markets are becoming more competitive, while China has always been highly competitive, and with the lowest utilization

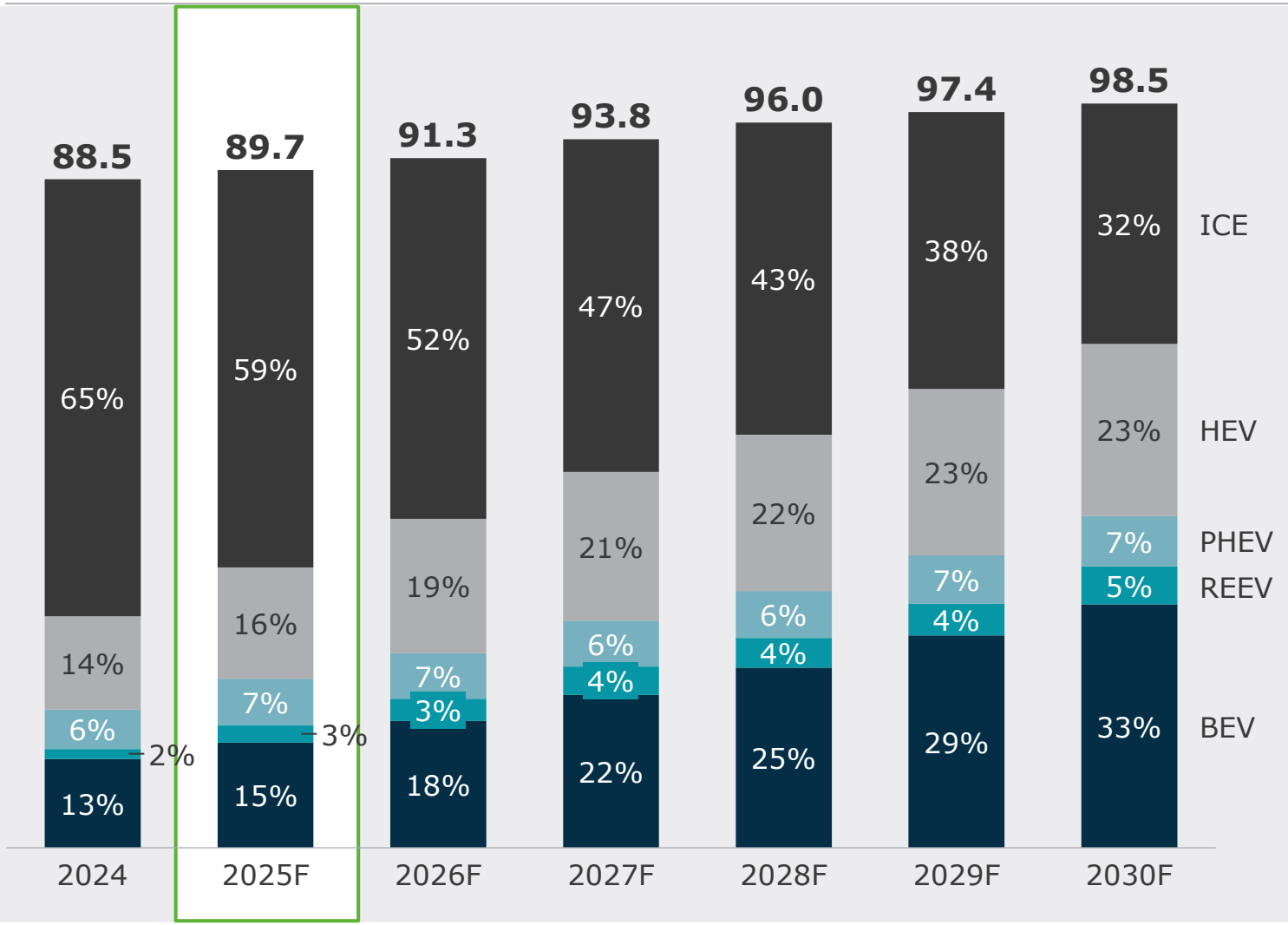
Regional Price Trend Since Covid (baselined to 2020)



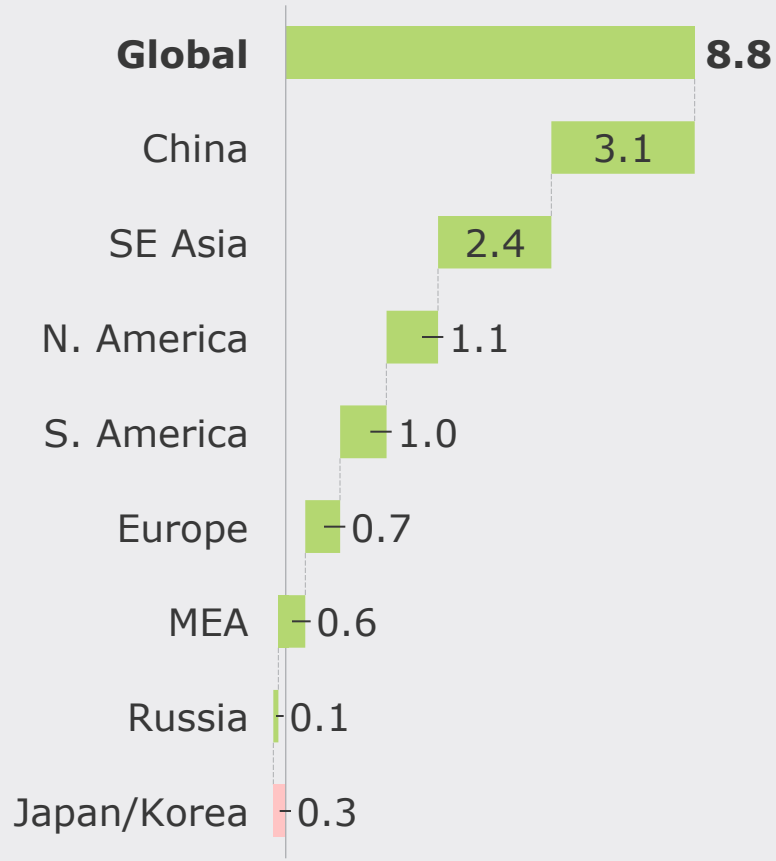
Source: S&P Global Sales Forecast; NADA, CPCA, FPEU, AlixPartners analysis, JATO, CPCA, Kelley Blue Book

AlixPartners' global sales forecast: ICE down 6pts in 2025; BEV expected to account for 1/3 of all sales by 2030

Global Light Vehicle Sales Volume (Units, millions)



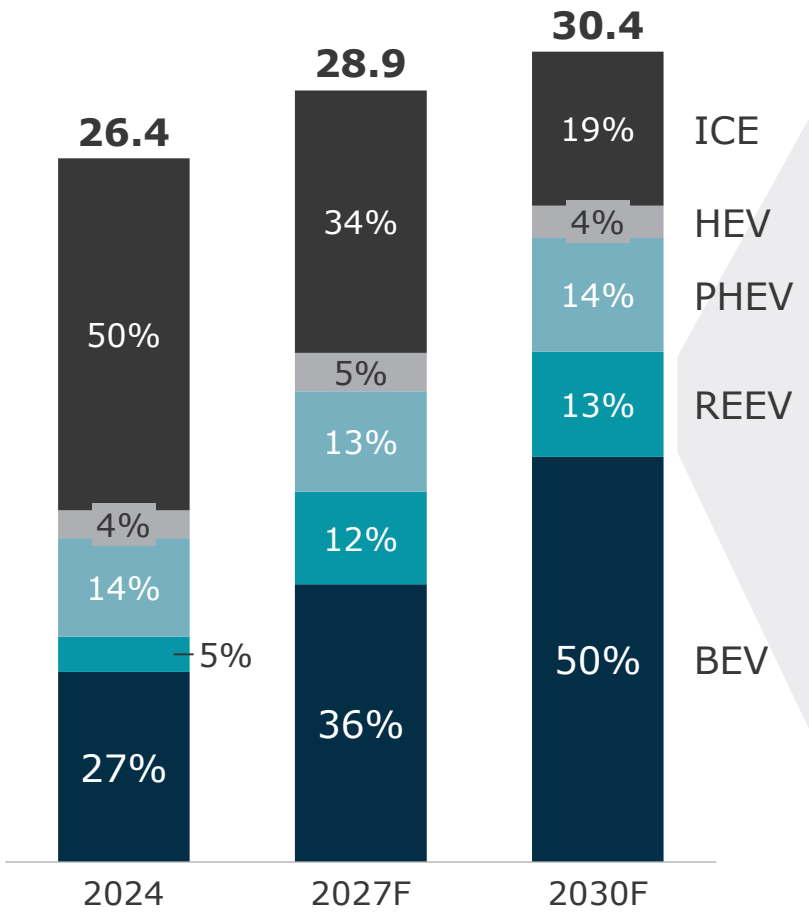
Growth 2025-2030 (M Units)



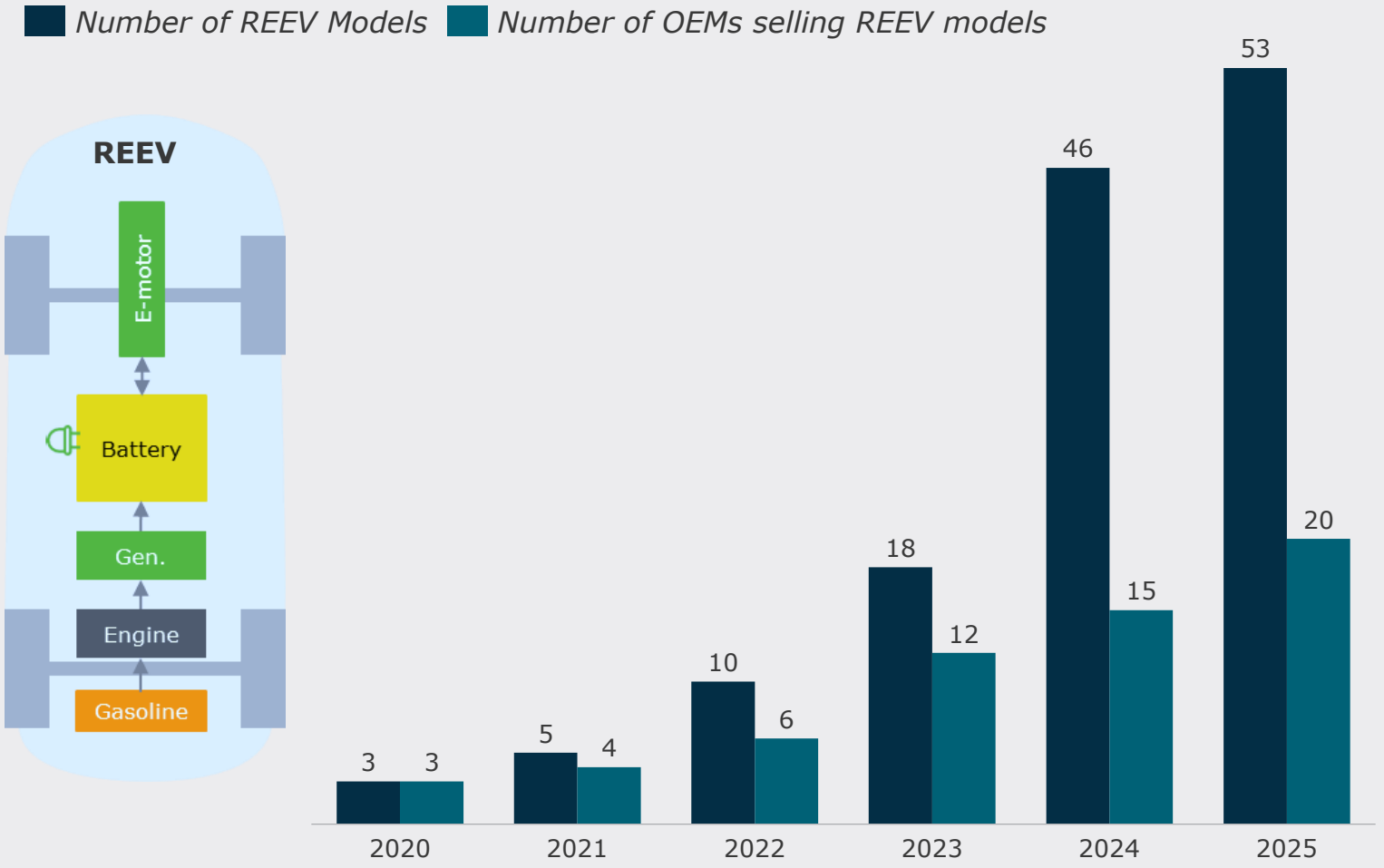
Source: AlixPartners Global Sales and Production Forecast for US, Europe, UK, Russia, China, Japan, Korea, S&P Mobility for RoW; AlixPartners' analysis

In China, range extenders were launched 5 years ago and gained 5% market share after steep growth of models introduction

Sales By Powertrain Type (M Units)



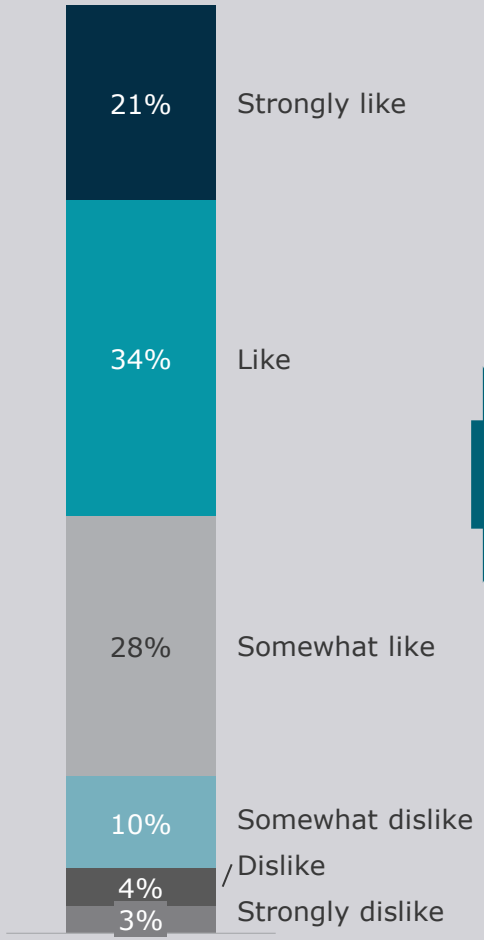
REEV models launched



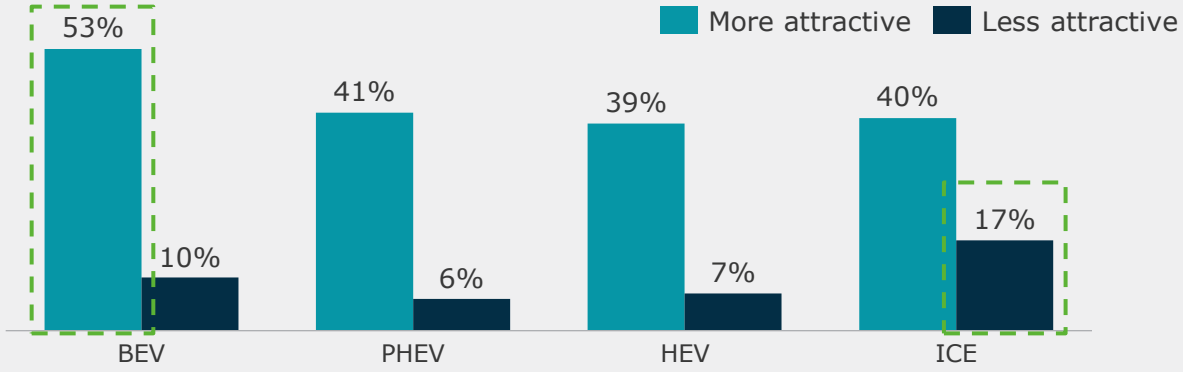
Source: AlixPartners, CAAM, EV Volumes, Marklines

Range extenders (REEV) might be an attractive powertrain option to address range anxiety and sustain NEV growth in Europe

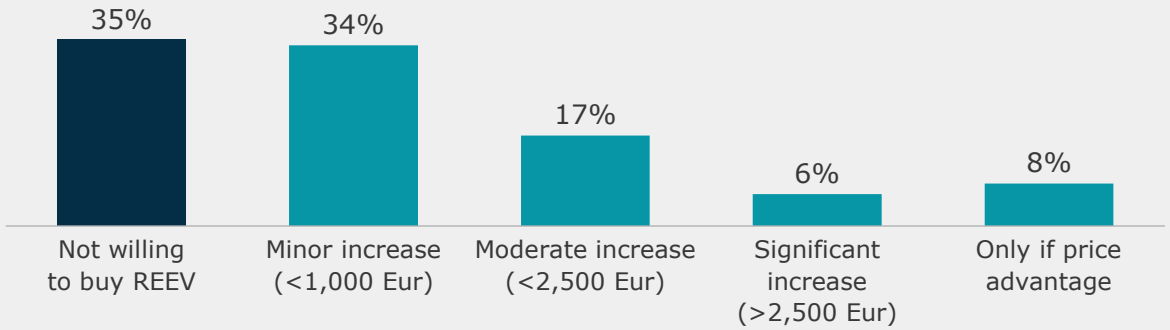
REEV Appeal [%]



REEV appeal relative to BEV [%, by current powertrain owned by respondent]



Willingness to pay a price premium for REEV [%]



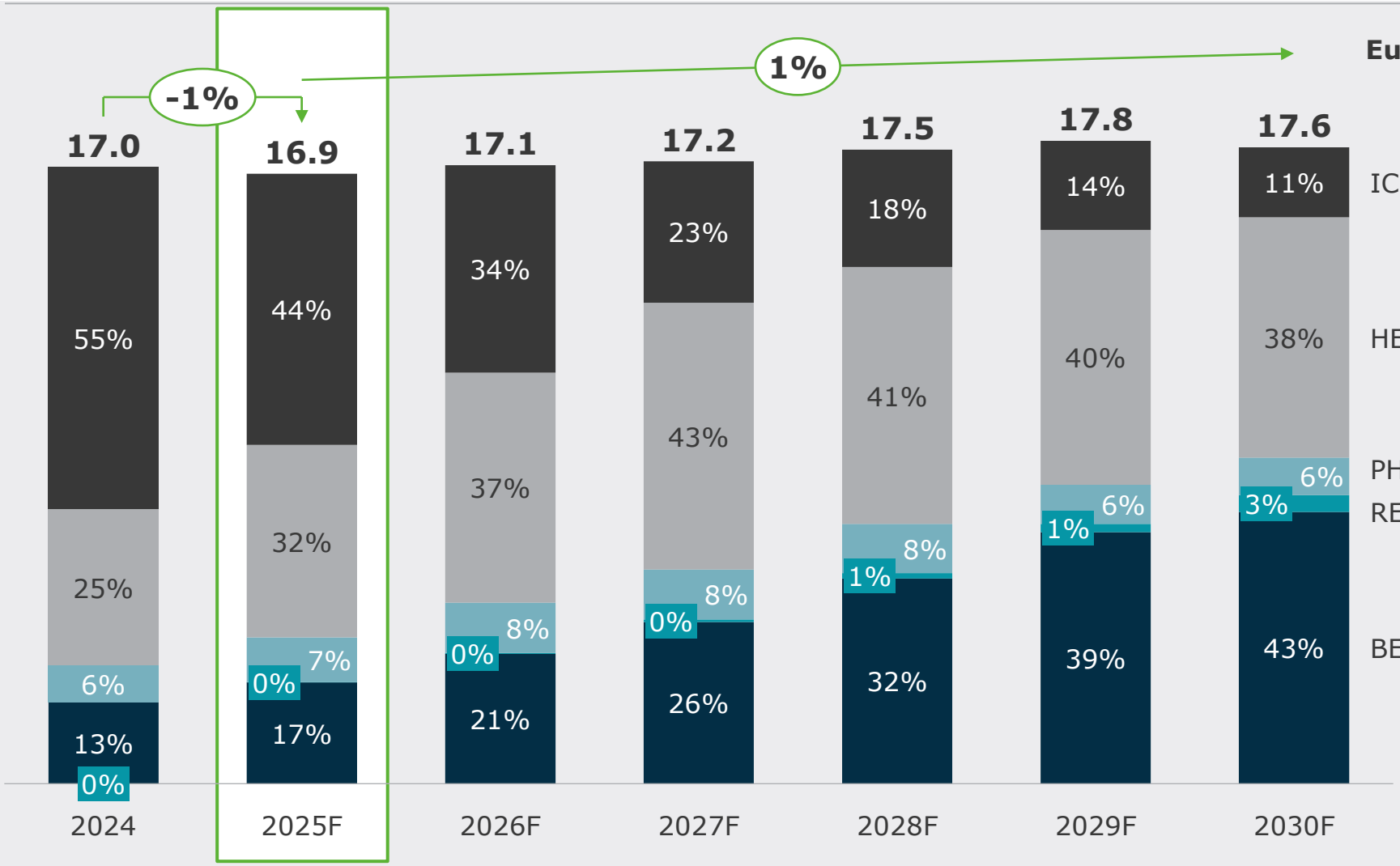
Comments

- **Strong Market Fit:** 83% of German consumers like REEVs – a clear signal of demand for OEMs seeking to expand EV offerings
- **Edge Over BEVs:** regardless of current powertrain owned, German consumers find REEV more attractive than BEV, with BEV owners being the most attracted (53%), while among ICE owners there is the highest % of REEV detractors vs BEV (17%)
- **Premium Potential:** Nearly 60% are willing to pay more for REEVs
- **Target BEV/PHEV Owners:** BEV drivers show the highest REEV interest – ideal for upselling or cross-selling within existing EV portfolios

Source: AlixPartners 2025 survey among 1,000 consumers in Germany, AlixPartners

AlixPartners' 2025 Europe sales forecast: ICE down 10pts: xHEV leads with 21% growth in volumes

European Light Vehicle Sales Volume by powertrain (M Units)

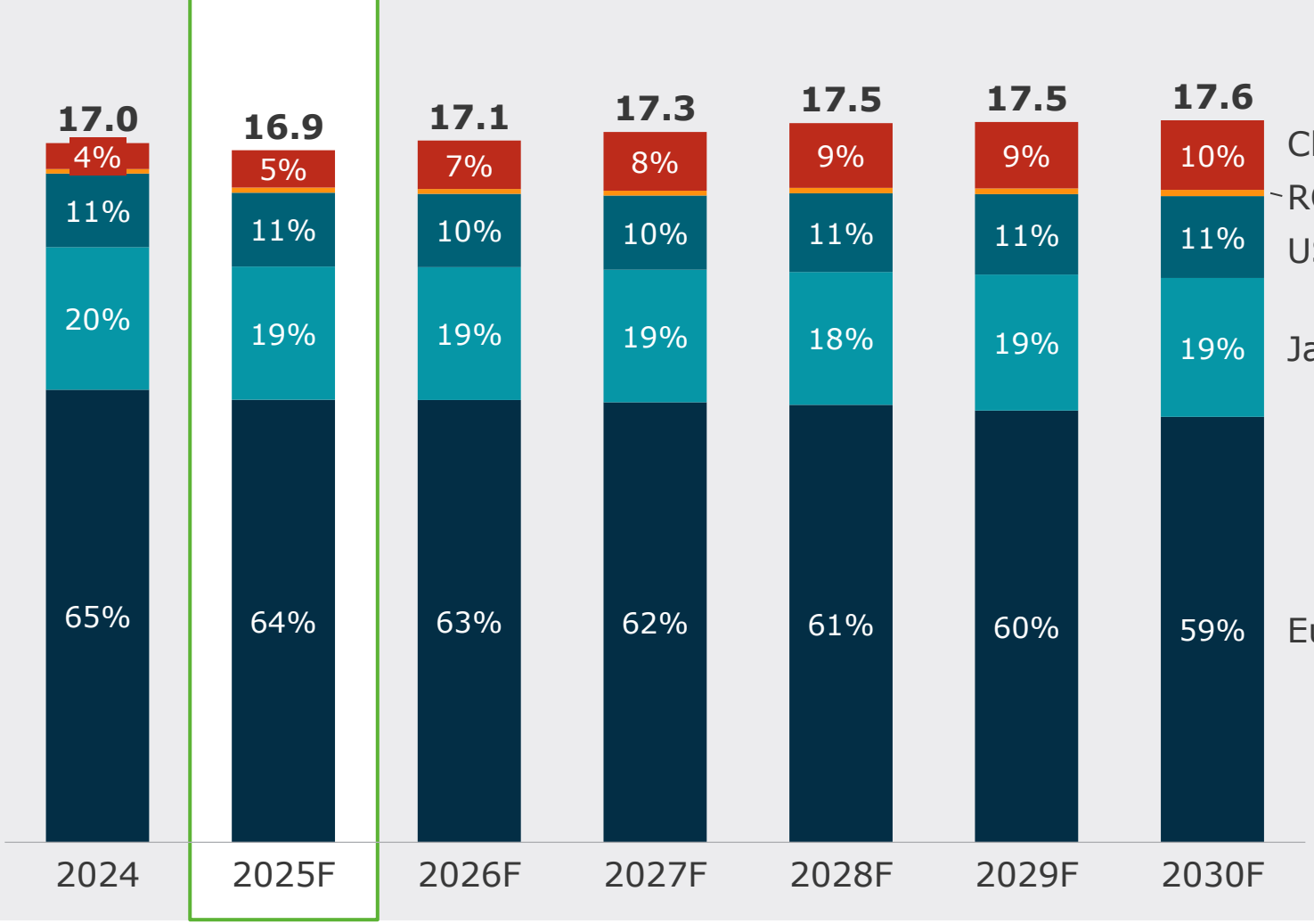


	CAGR '20-'24	YoY '24-'25	CAGR '25-'30
Europe	3%	-1%	1%
ICE	-6%	-21%	-24%
HEV	30%	27%	4%
PHEV	14%	15%	-2%
REEV	n/a	n/a	n/a
BEV	31%	29%	21%

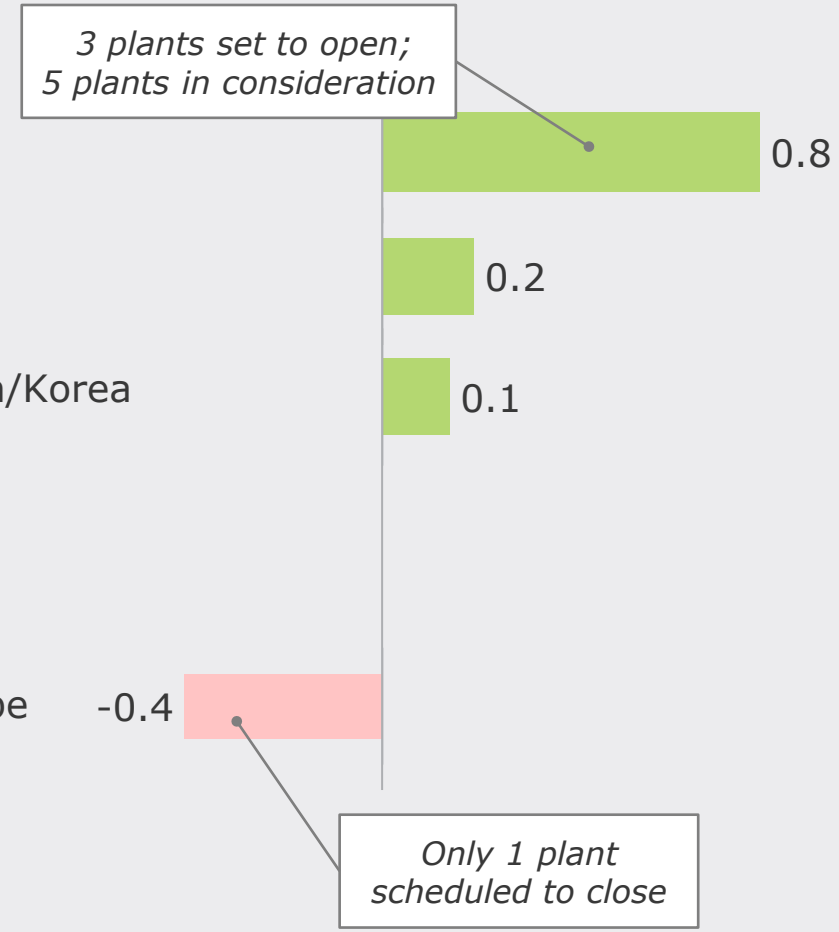
Source: AlixPartners analysis

Europe: Down in 2025, then slow growth; China to add 800K in sales by 2030 and European brands see 400K reduction in sales

European Light Vehicle Sales Volume by Brand Country of Origin (M Units)



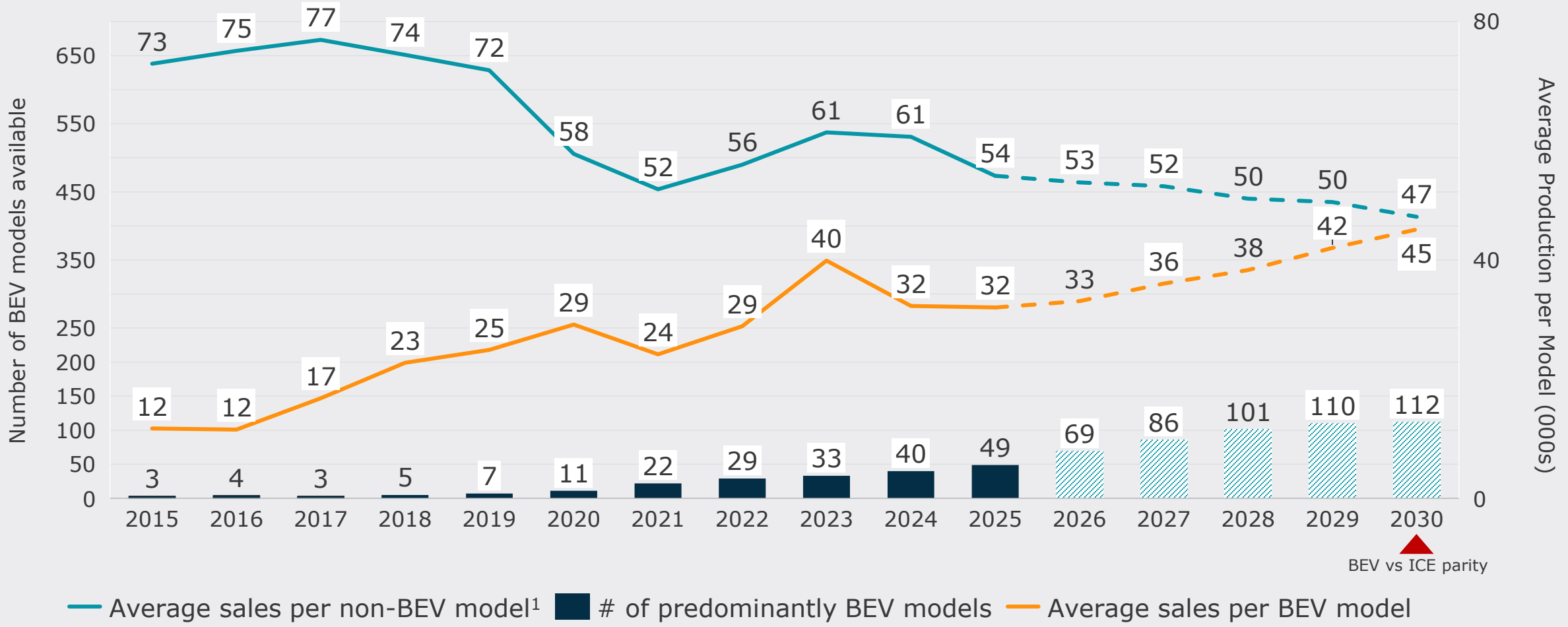
Growth 2025-2030 (M Units)



Source: S&P Mobility, AlixPartners' analysis

NEV growth enables BEV models economies of scale, progressively getting closer to ICE in Europe

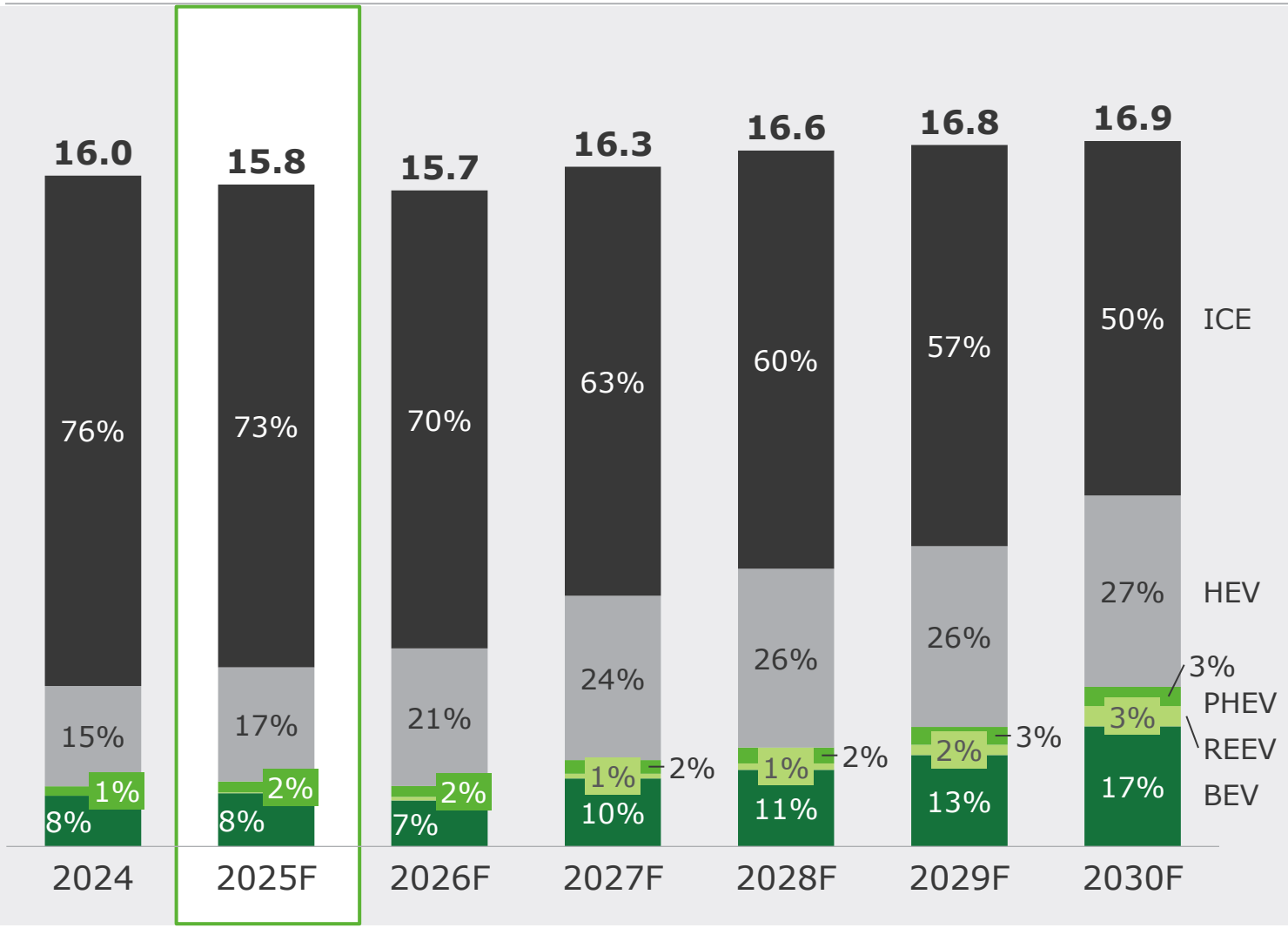
Models available and average production per model (BEV vs. non-BEV, not including PHEVs)



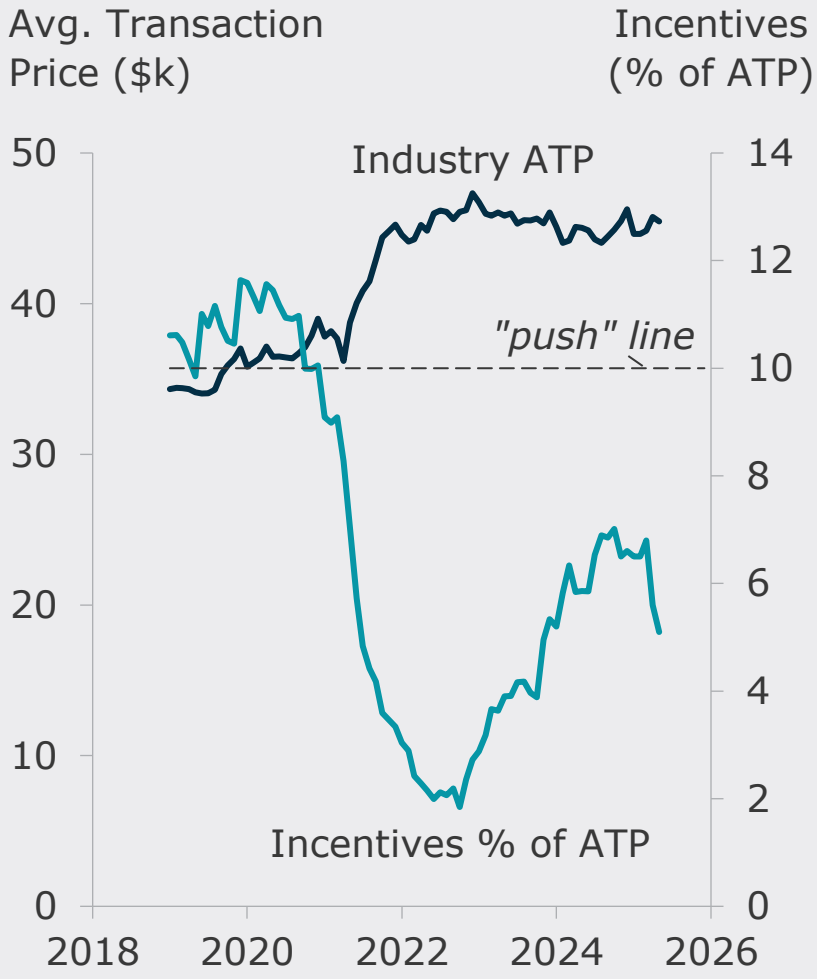
1. Non- BEV includes everything other than NEV (BEV, REEV and PHEV); Models with sales above 1,000 vehicles
Source: S&P Sales data, EV-volumes.com.

US: 2030 NEV share forecast down 46% from 2024 forecast - with tariffs hurting affordability & driving "hidden" price increases

US Light Vehicle Sales Volume (M Units)



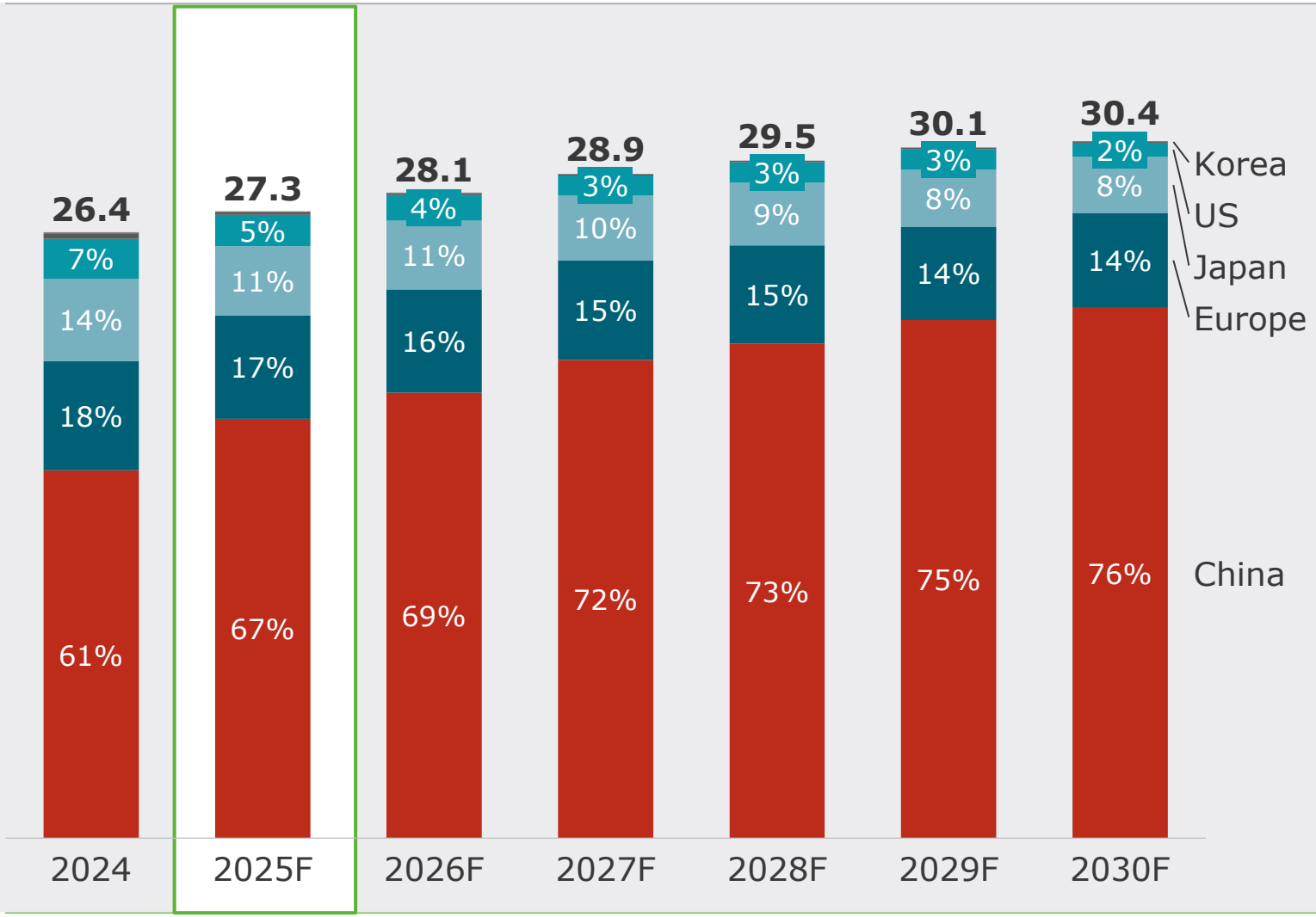
Growth 2025-2030 (M Units)



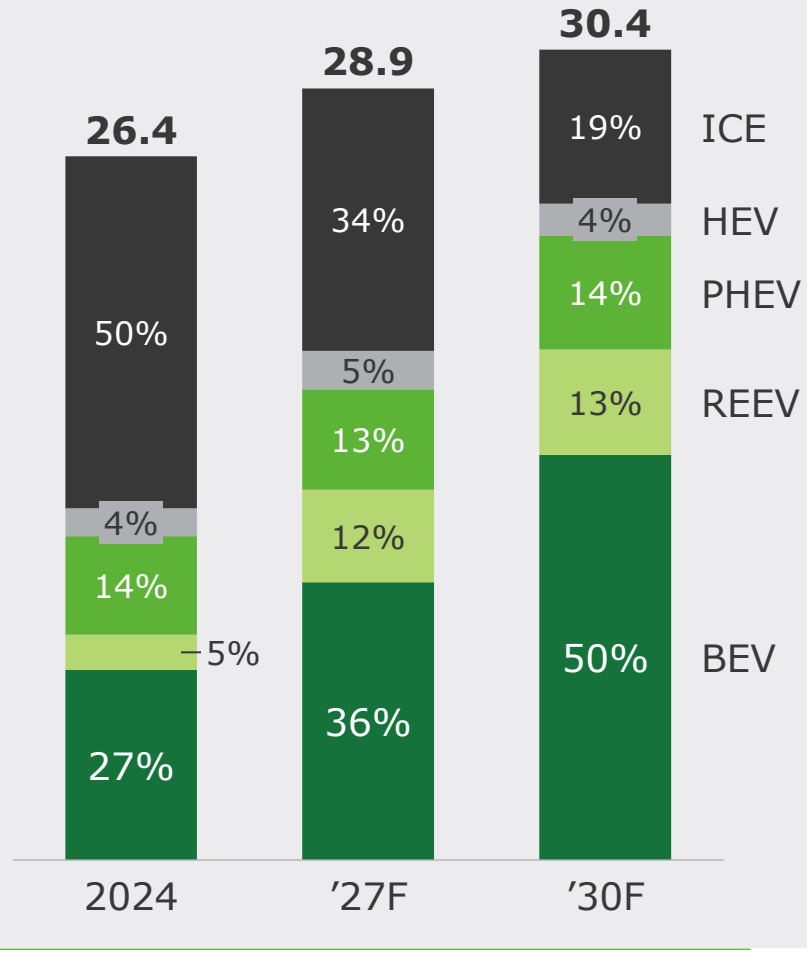
Source: AlixPartners' analysis

China-market forecast: Chinese brands to reach 67% share in 2025, while foreign brands will continue to lose ground

China Light Vehicle Sales Volume by Brand Country of Origin (M Units)



Sales By Powertrain Type (M Units)



Source: China auto insurance data, AlixPartners' analysis

China's price war will likely continue but with "hidden" price concessions

2024 China Passenger-Car Price index[1]

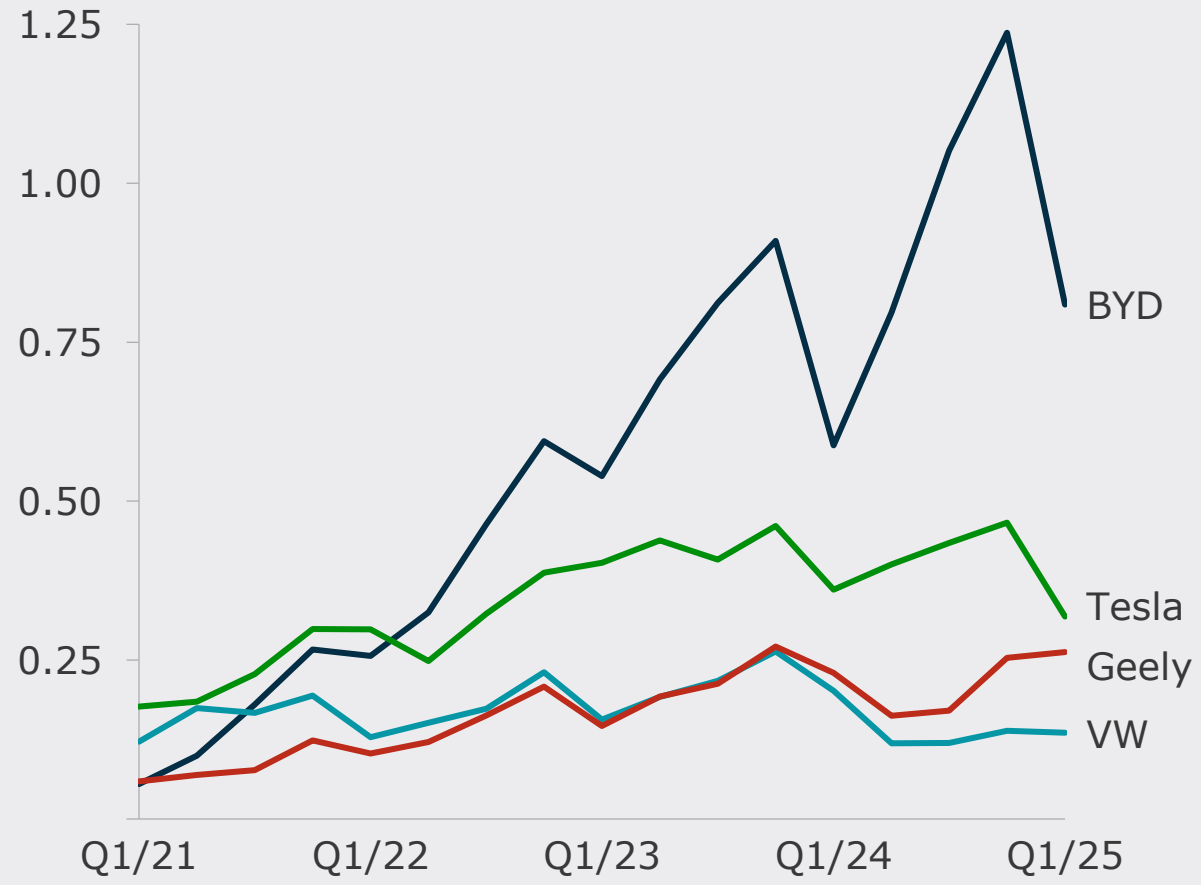
Examples of non-MSRP levers[2]

Lever	Example
Insurance subsidy	• Tesla: 10k RMB final payment reduction as insurance support. • Nio: 5k RMB fr ET5 and 10k RMB for other models
Cash rebates	• Geely: up to 30k RMB cash rebate for trade-in • Xpeng: 10k RMB cash subsidy
Zero-interest financing	• Tesla: 5-yr 0% loan rate for Model Y • Nio: 2-yr 0% loan rate for all models • Li Auto: 3-yr 0% loan rate for all models and first payment lowered to 69.8k RMB
ADAS features w/o price increase	• BYD: announced over 21 models with intelligent driving system equipped w/o price increase • Nio: offer complimentary intelligent driving features worth 20k RMB

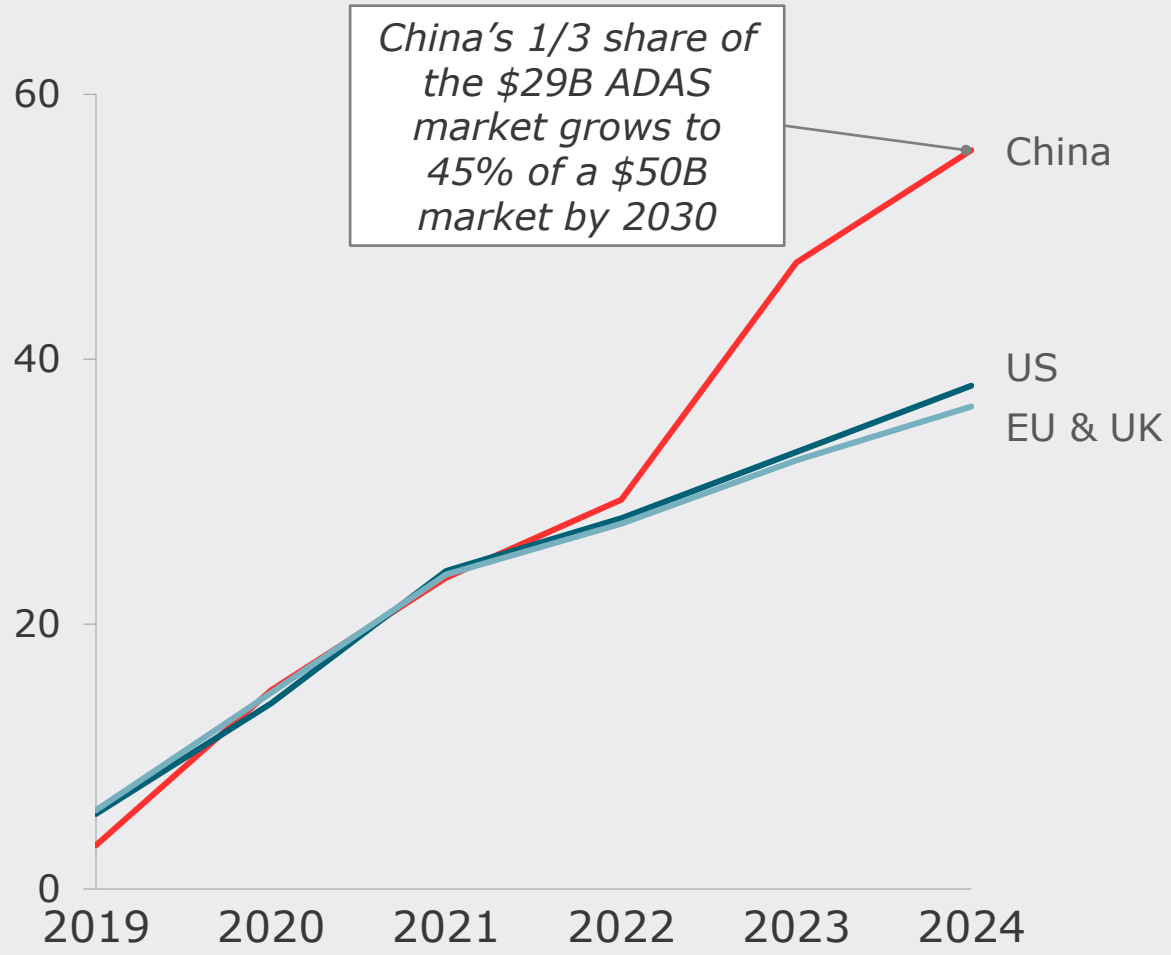
1. Set 100 to price index on Dec 31 2023; 2. These provide OEMs with the ability to abide by the government desire to hold pricing, yet reduce the cost
Source: Ways Automotive Price Index Database, OEM announcements, AlixPartners analysis

China now leads on in-car technology - from NEVs to ADAS - not simply on cost

NEV Sales by OEMs - Top 4 (M Units)



2019-2025 Level 2, 2+, 2++ ADAS features (%)



Source: NE ADAS database, Wards AutoIntelligence, AlixPartners analysis

AGENDA

Market Outlook

M&A Activity and Capital Flows

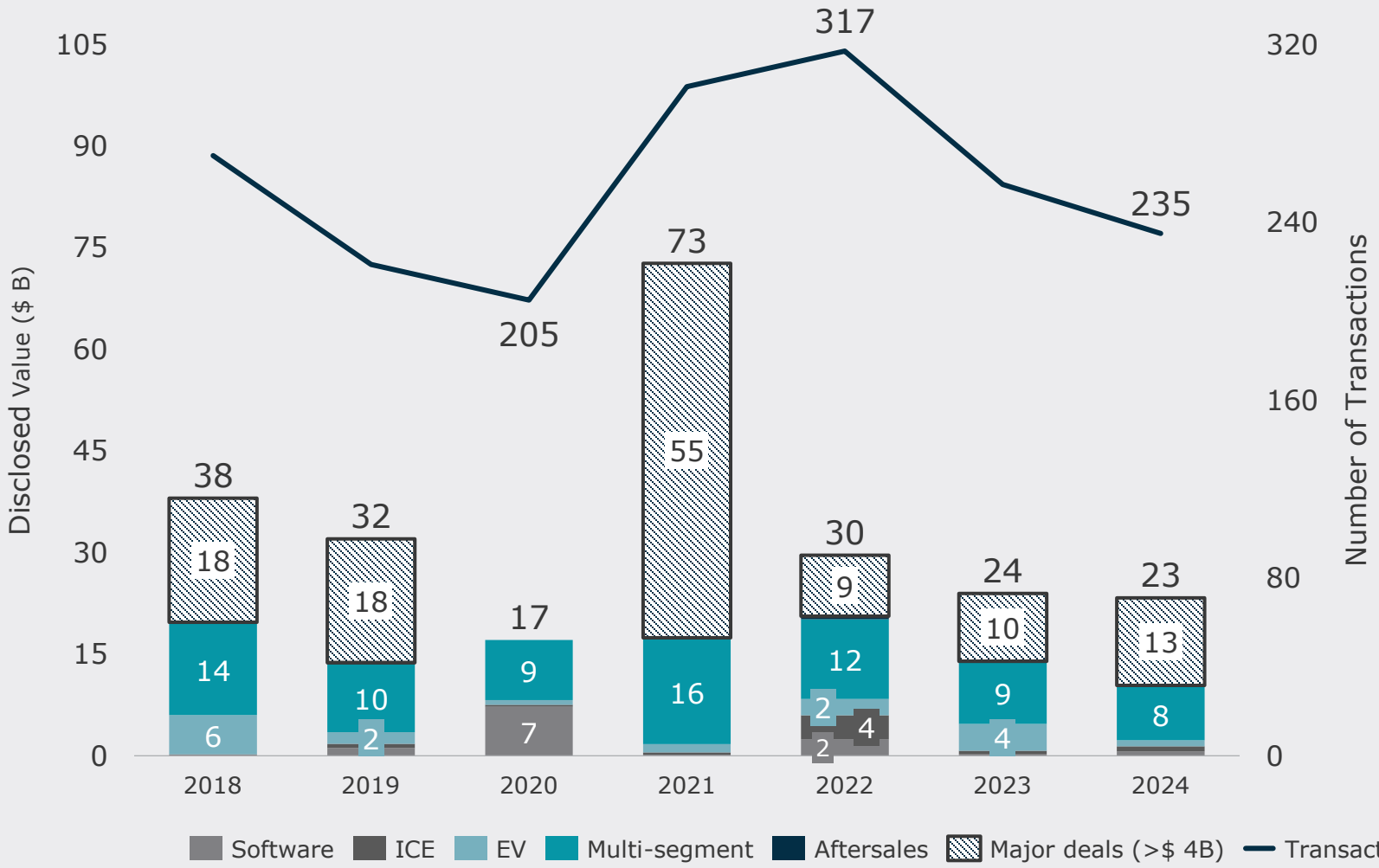
Trade challenges

Financial Performance

New Operating Model

Overall, global automotive M&A activity remains low amid economic, tariff, and regulatory uncertainties

Disclosed value by segment and count of closed transactions



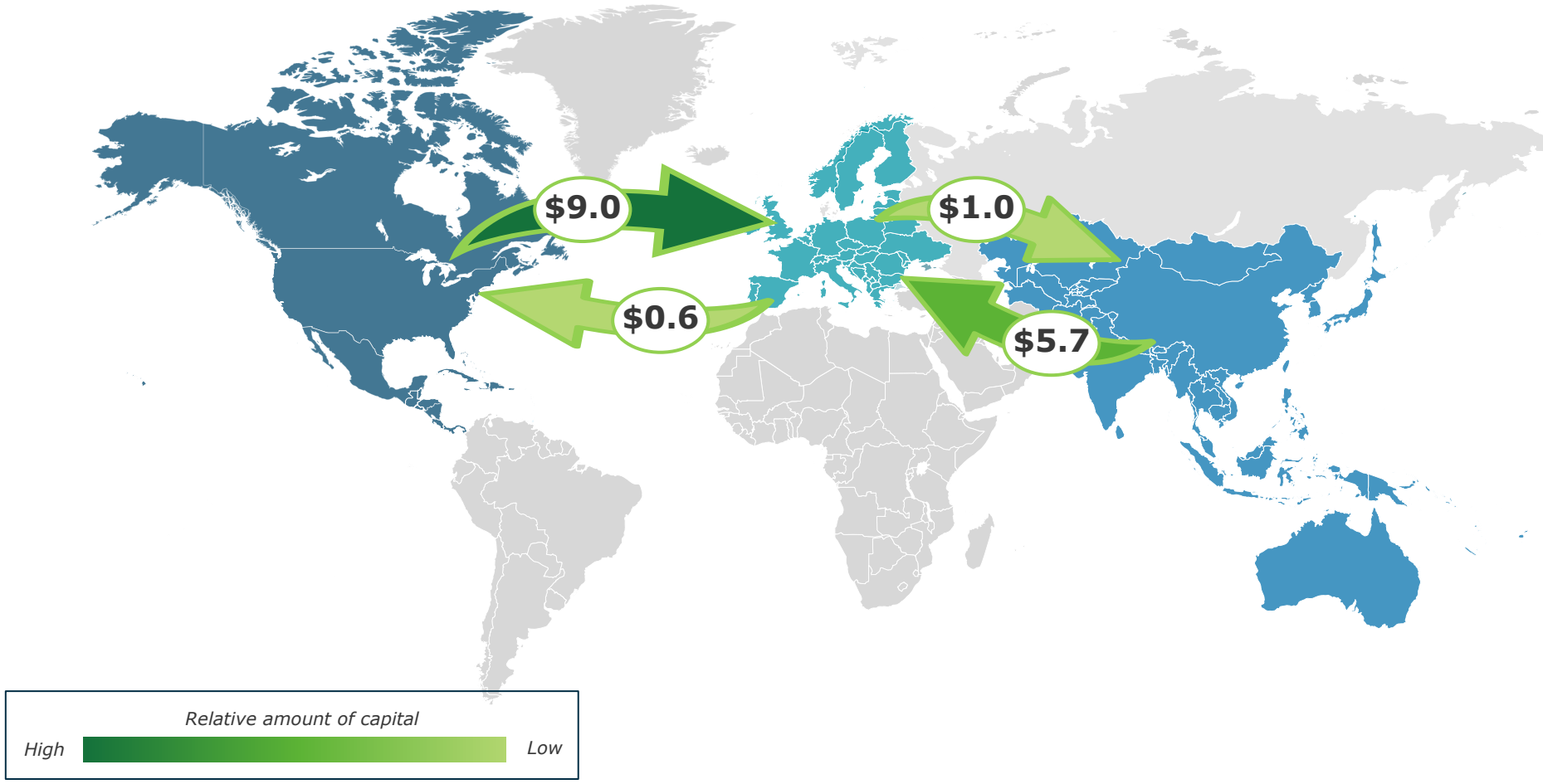
Observations

- The 235 transactions in 2024 is below average looking at the past 7 years
- Total value of "large deals" is at 3-year high
- Buyers appear to be more cautious across opportunistic sub-segments, likely due to economic uncertainty and slow EV-adoption rates
- Multi-segment targets have seen more stable M&A demand

Includes closed M&A transactions that represent majority change in ownership (over 50%) Source: S&P Capital IQ, AlixPartners' analysis

"Europe is for sale": $13B in net acquisitions by foreign players since 2022, with many suppliers still on the market or transactable

Cross-continental deal flows between major regions for 2022-2024[1] ($B)



Most of the deals are supplier-related

Germany, Italy and Spain with highest divestiture revenues

1. Accumulated values for 03/01/2022-02/01/2025 for regions recording material deal volume, excluding Latin America, Africa, and Middle East
Source: S&P Capital IQ, AlixPartners' analysis

Ongoing financial pressures are fostering divestiture activities across Europe, with revenues of targets totaling more than $40B

Europe pipeline of announced/rumored deals (Revenue, $B)

Deal activity by accumulated revenue of companies involved

< $1B	$1-$2B	$2-$4B	$4-$7B	$7B+

$40+B in revenue is currently announced/rumored to be disposed of

90+% of the deals are supplier-related

Germany, Italy and Spain with highest divestiture revenues

Source: AlixPartners' analysis

AGENDA

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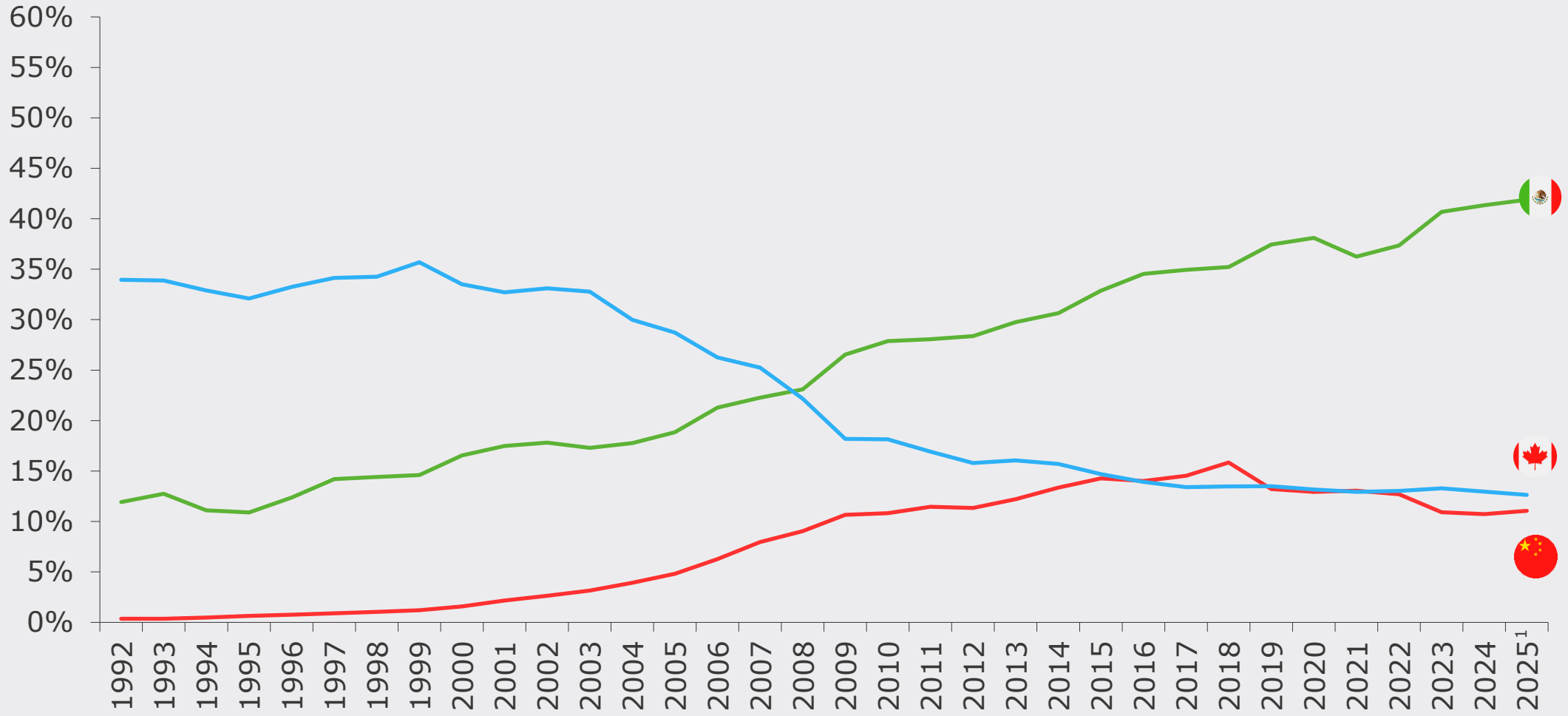
US imports of auto parts from China have been declining since 2018, while Mexico's share has been steadily increasing

Share of Total U.S. Automotive Parts Imports (Percent)



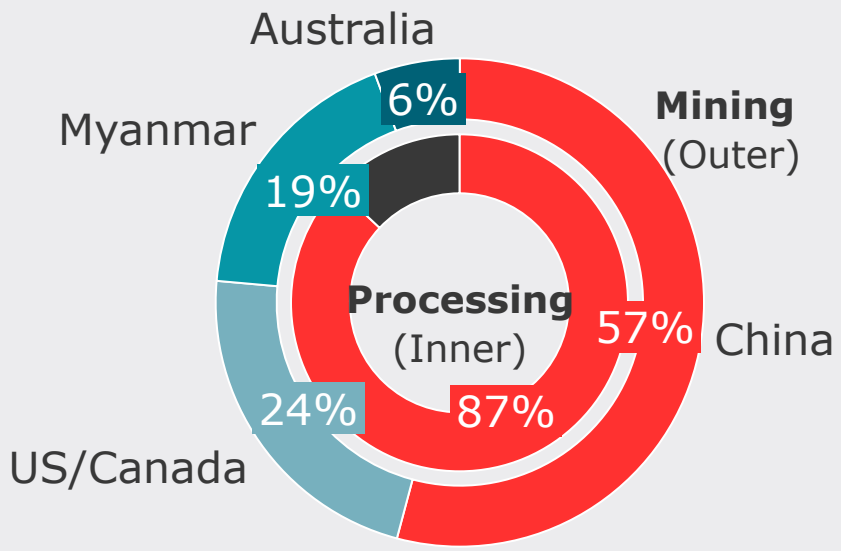
1. 2025 YTD
Source: US Census Bureau; AlixPartners' analysis

With that as a landing zone, OEMs would see $30B in cost, but pass through 80% of that,-- leading to $1,500 average price increases

	2025 US Market Share	2026 Tariff Cost[1] Net of Rebate + US Content Credit			Pass-Through to Consumers (80%)		2026 OEM Cost
Domestic Vehicles (Imported Parts)	**52%**	**$14.9B (5.1B after Rebate)**	**$620/veh.**	=	**$500/veh.**	+	**$1.0B**
Vehicles from Mexico	**17%**	**$3.9B**	**$1,400/veh.**	=	**$1,120/veh.**	+	**$0.8B**
Vehicles from Canada	**7%**	**$1.2B**	**$1,100/veh.**	=	**$880/veh.**	+	**$0.2B**
Vehicles from Europe, Japan, Korea, RoW	**23%**	**$20.4B**	**$5,500/veh.**	=	**$4,400/veh.**	+	**$4.1B**
Total	**100%**	**$30B**	**$1,900/veh.**	=	**$1,500/veh.**	+	**$6B**

1: tariffs rebate for US made vehicles reduced by 3% to account for high US content vehicles such as Tesla Model 3 Long Range
Sources: UTIC import data 2024; https://hts.usitc.gov/; www.whitehouse.gov; AlixPartners' Global Trade Optimizer

Rare earths remain a strong leverage point for China - one of many, due to their difficult-to-replace, unique functional characteristics



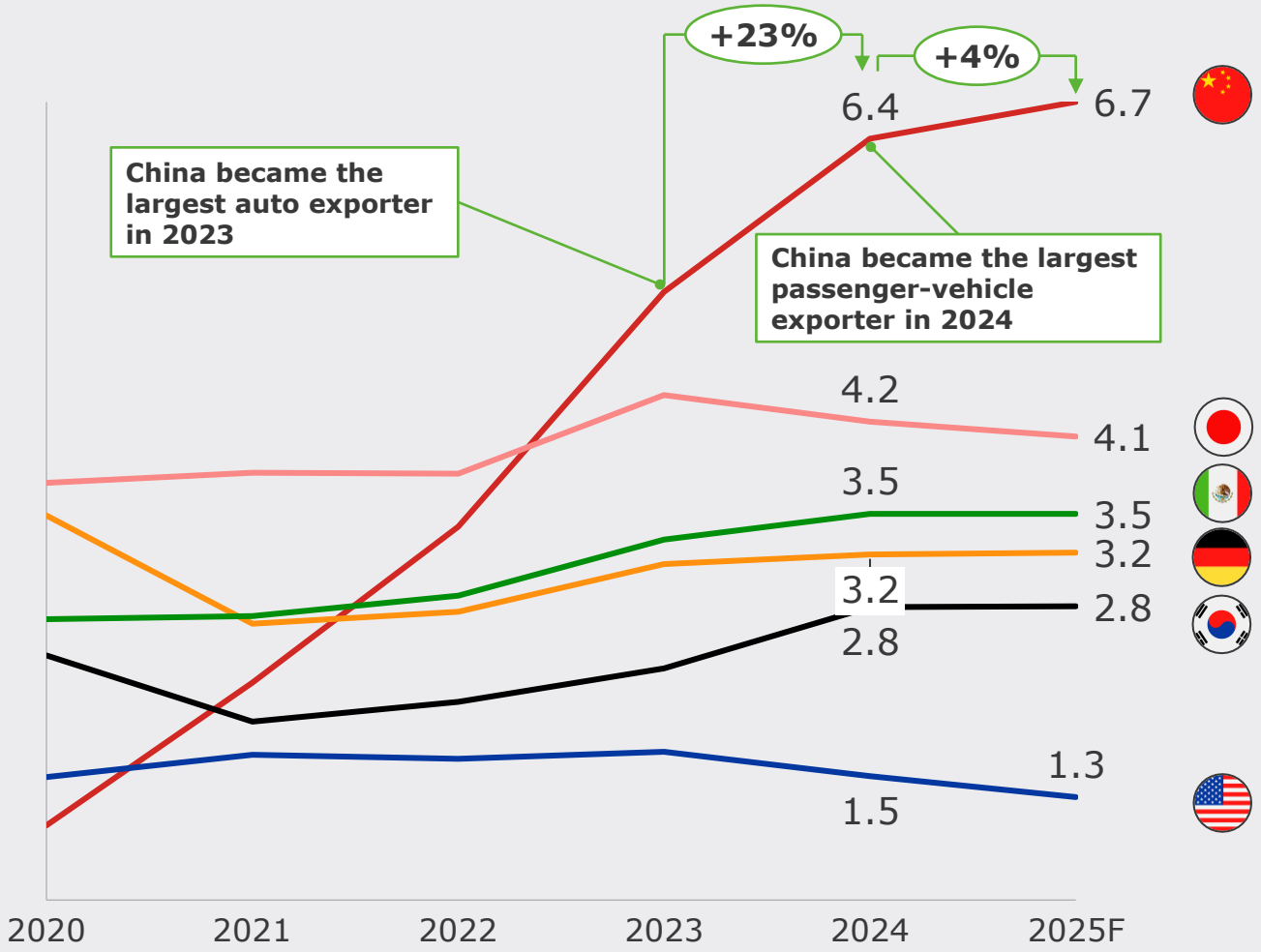
Lead-time of building REE refining capacity:

- Build up of factory will take between 3-5 years with strong governmental support
  - Permitting & Approvals (1-2 years)
  - Construction & Commissioning (1.5 – 3 years)
  - Ramp-up & qualification (1-2 years)

VEHICLE TYPE	COMPONENTS	REEs USED	MASS	VALUE
ICE	» Catalytic converter » Powertrain sensors (e.g. knock sensor) » Small electric motors (e.g. starter) » loudspeakers	» Ce (catalyst) » Nd/Pr (mini-magnets in sensors, speakers) » Y (sensor ceramics)	0.4 – 0.5 kg	< 50$
HEV – NiMH battery	» All ICE components » NiMH battery pack » Traction electric motor/ generator » Electric power steeling motor » Additional sensors & power electronics	» La (battery anode) » Nd/Pr (traction motor magnet) » Dy/Tb (motor magnet for high temp)	~4.5 kg	100 – 150$
PHEV – Li-ion battery	» All ICE components » Traction motor, e-motors	» Nd/Pr (traction motor magnet)	~1 kg	50 – 100$
BEV	» ICE components except catalyst » Traction motor » On-board charger » Electric HVAC compressor » Advanced sensors	» Nd/Pr (traction motor magnet) » Dy/Tb (magnet alloy)	1 – 2 kg	50 – 200$

China is becoming the dominant exporter but that's flattening, and strongest OEMs are doing the exporting

World's Top Vehicle-Export Countries (M units)



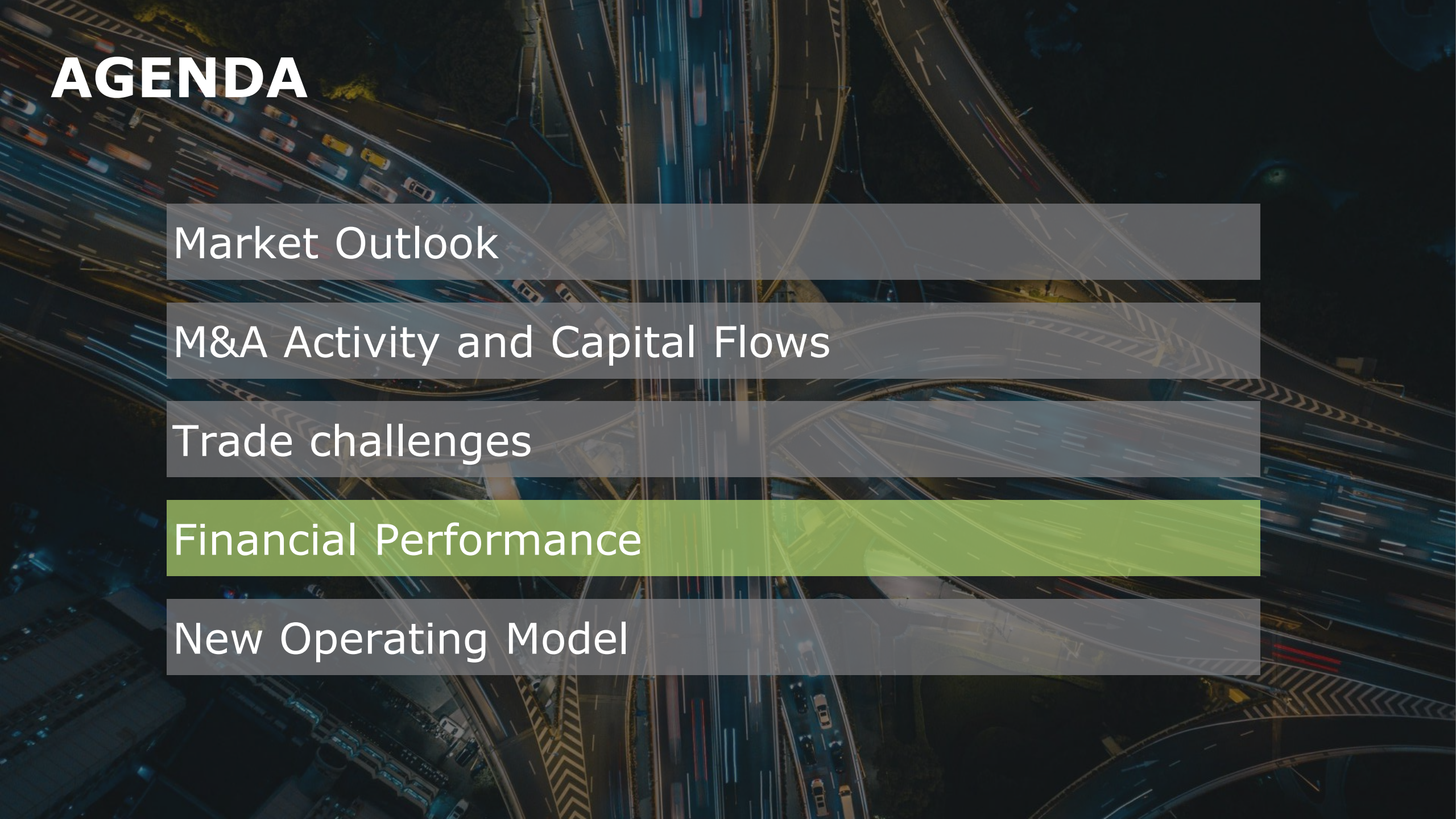
Top 5 Chinese OEMs vs. Average (2024)

	Top 5 Chinese Exporting OEMs[1]	Average of All Chinese OEMs
Capacity utilization (%)	57%	50%
EBITDA margin (%)	8.4%	5.2%

1. Chery, SAIC Motor, Geely, Changan, Great Wall Motor

Source: CAAM, KAMA Korea, AMIA Export, JAMA, Marklines, Gasgoo, S&P Global, S&P Capital IQ, Company annual reports, AlixPartners' analysis

AGENDA



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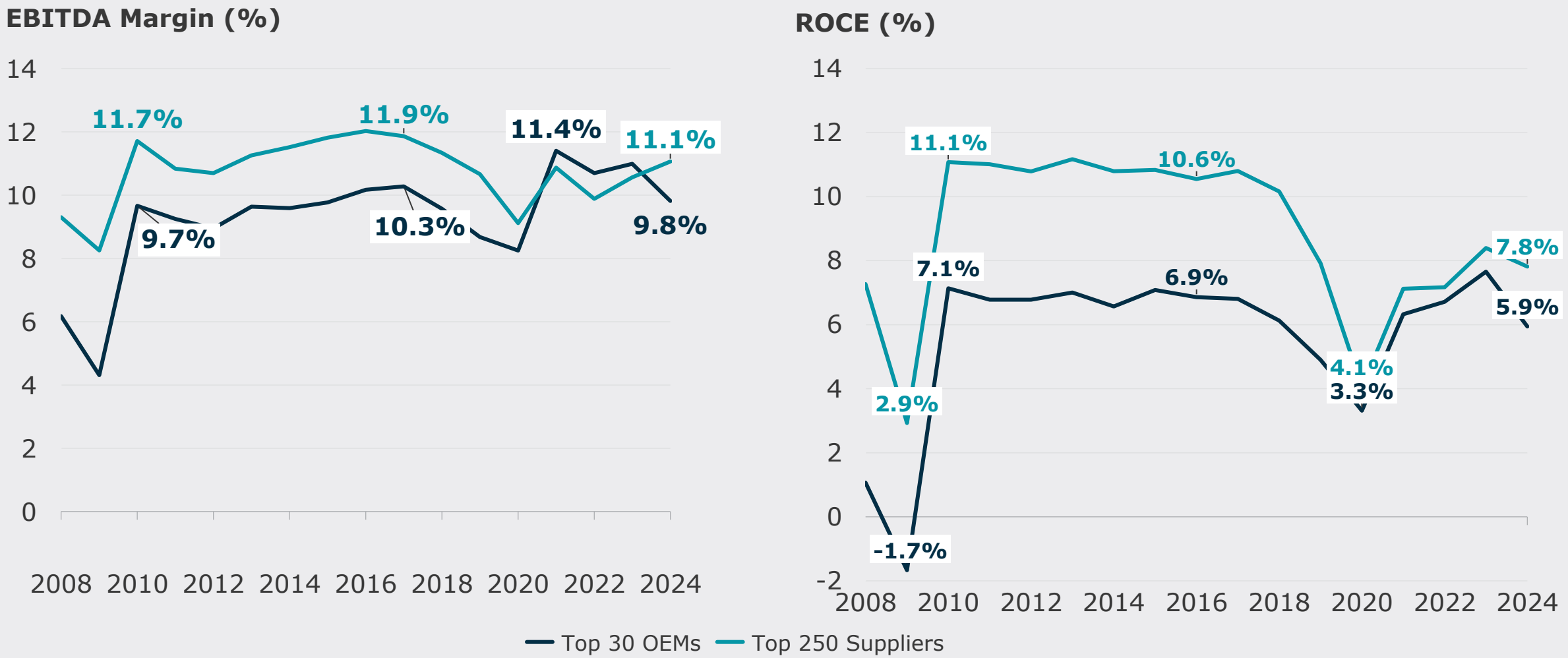
Suppliers have recovered their historical financial-performance advantage over OEMs

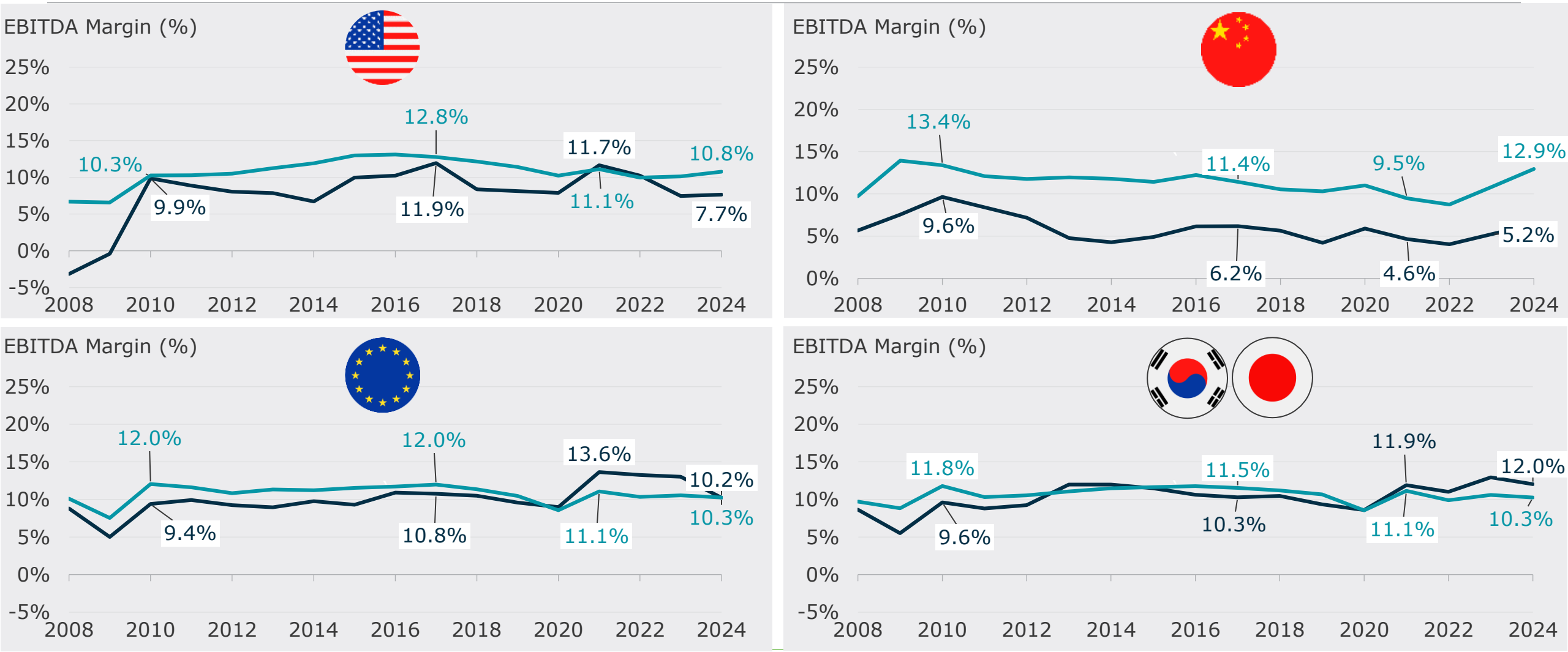
Profitability (EBITDA margin %) and ROCE (%), Top 30 OEMs and Top 250 suppliers



Top 30 OEM and Top 250 Suppliers; Total Revenue used as base for OEMs (including FinCos)
Source: S&P Capital IQ, Company annual reports, AlixPartners' analysis

EBITDA margins: Chinese suppliers continue to outperform Chinese OEMs as the OEMs grapple with utilization and price

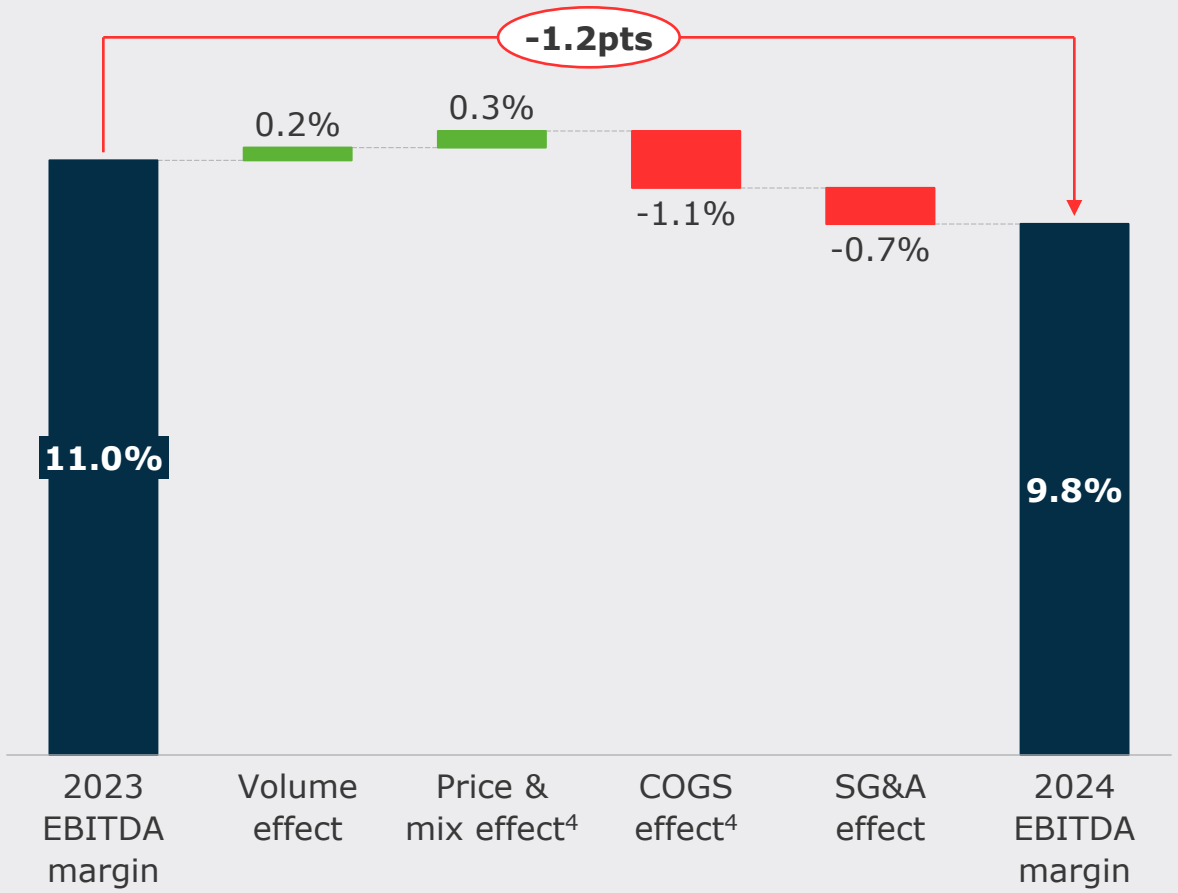
Profitability (EBITDA Margin %, Top 30 OEMs and Top 250 suppliers)



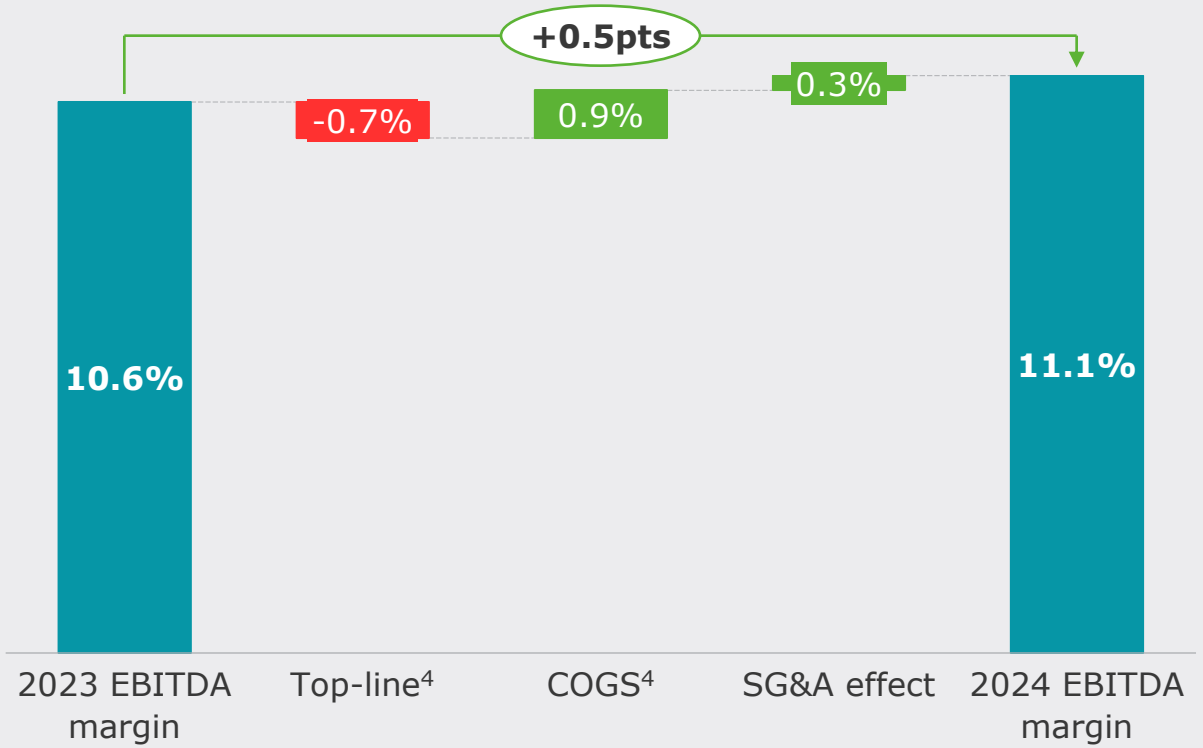
Top 30 OEM and Top 250 Suppliers
Source: S&P Capital IQ, Company annual reports, AlixPartners' analysis

OEMs' EBITDA margin (-1.2pts) pressured by COGS and SG&A, while suppliers saw modest EBITDA margin gains (+0.5pts)

Top 30 OEMs EBITDA-Margin Bridge[1,2,4]



Top 250 Suppliers EBITDA-Margin Bridge[2,3,4]



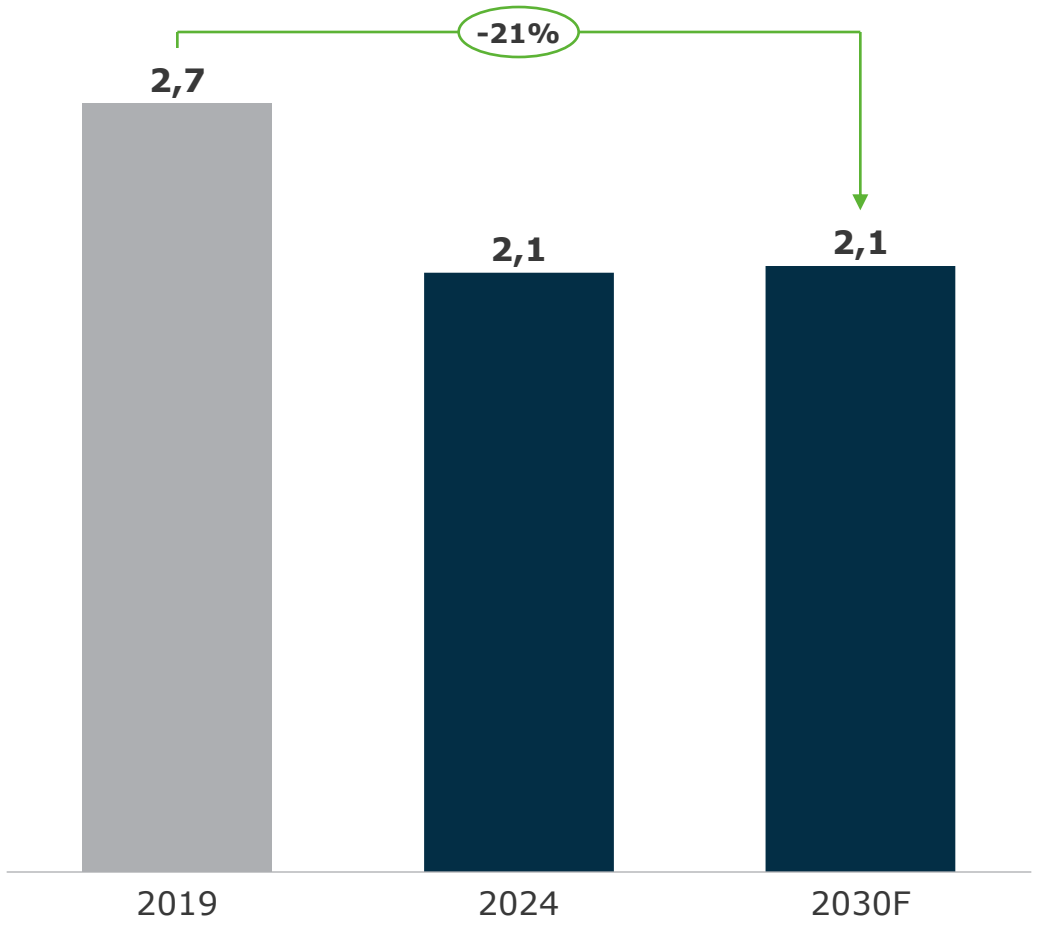
1. Top 30 OEM set; 2. Total Revenues as underlying revenue base; 3. Top 250 supplier set; 4. Operative effect net of FX applied

Source: S&P Capital IQ, Company annual reports, AlixPartners' analysis, Extrapolation calculated for FY2024-FY2025 in case no reporting data was available

French market to remain structurally below pre-COVID, with affordability holding back volumes recovery

Mainstream Car Models prices evolution from pre-COVID vs Country wages and population (index 2019=100), France

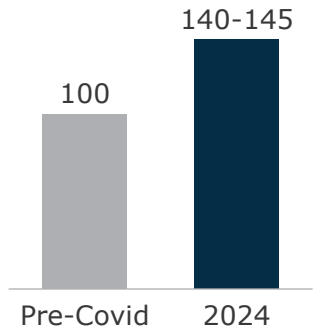
VOLUMES



PRICES

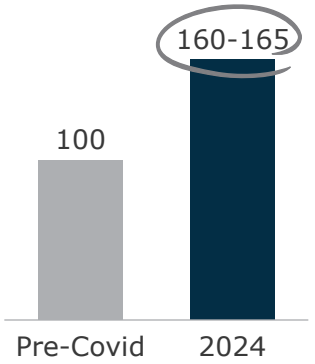
EU Market leader (2019)

Volkswagen GOLF



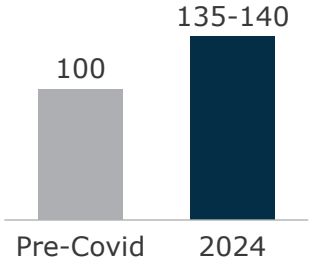
EU Market leader (2024)

Dacia Sandero

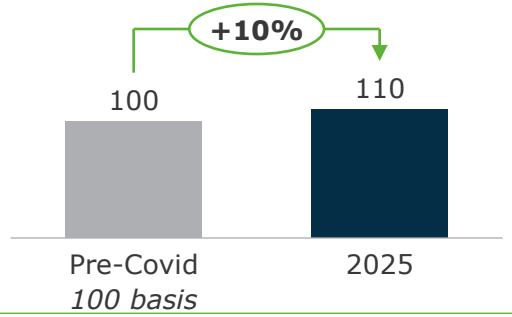


Country leader

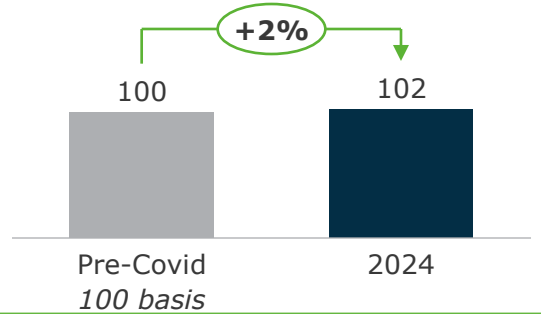
Renault Clio



WAGES

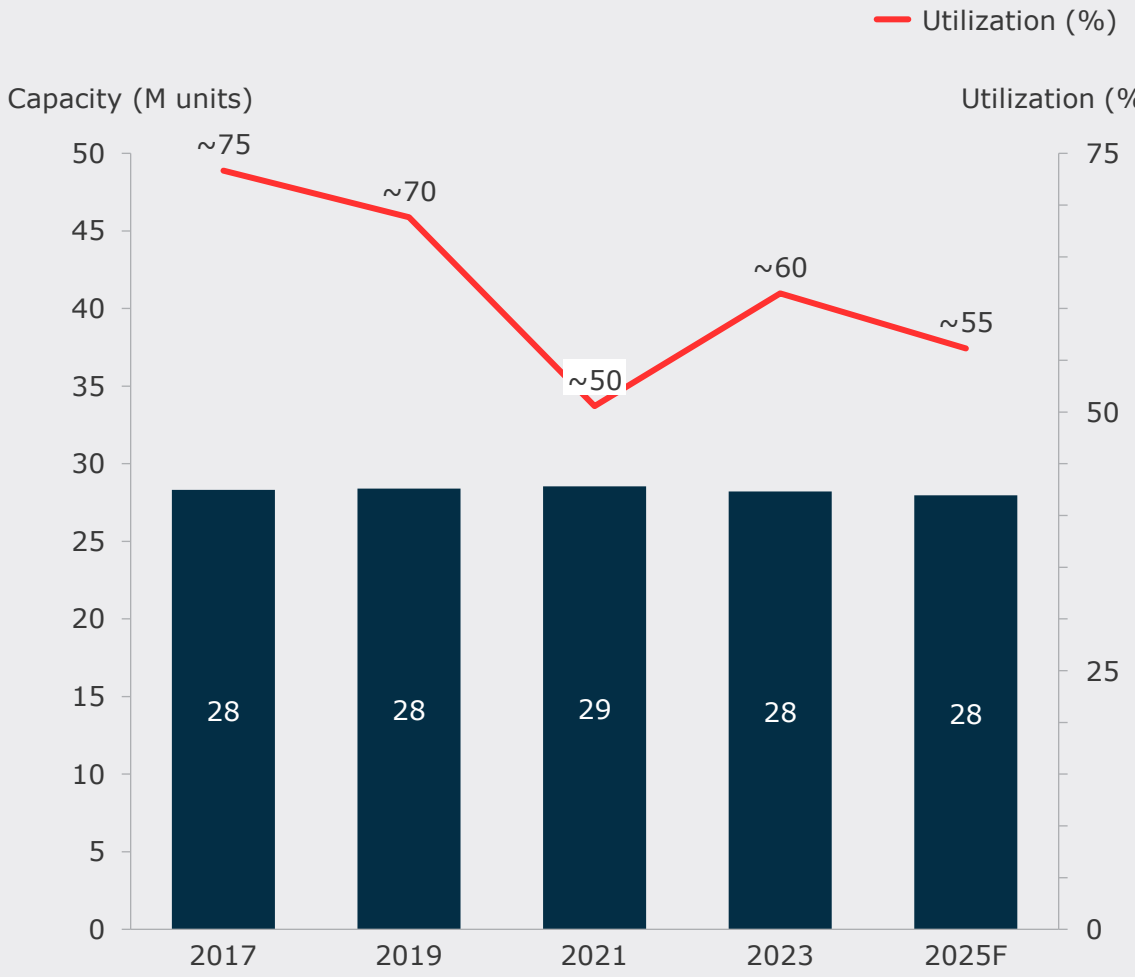


POPULATION

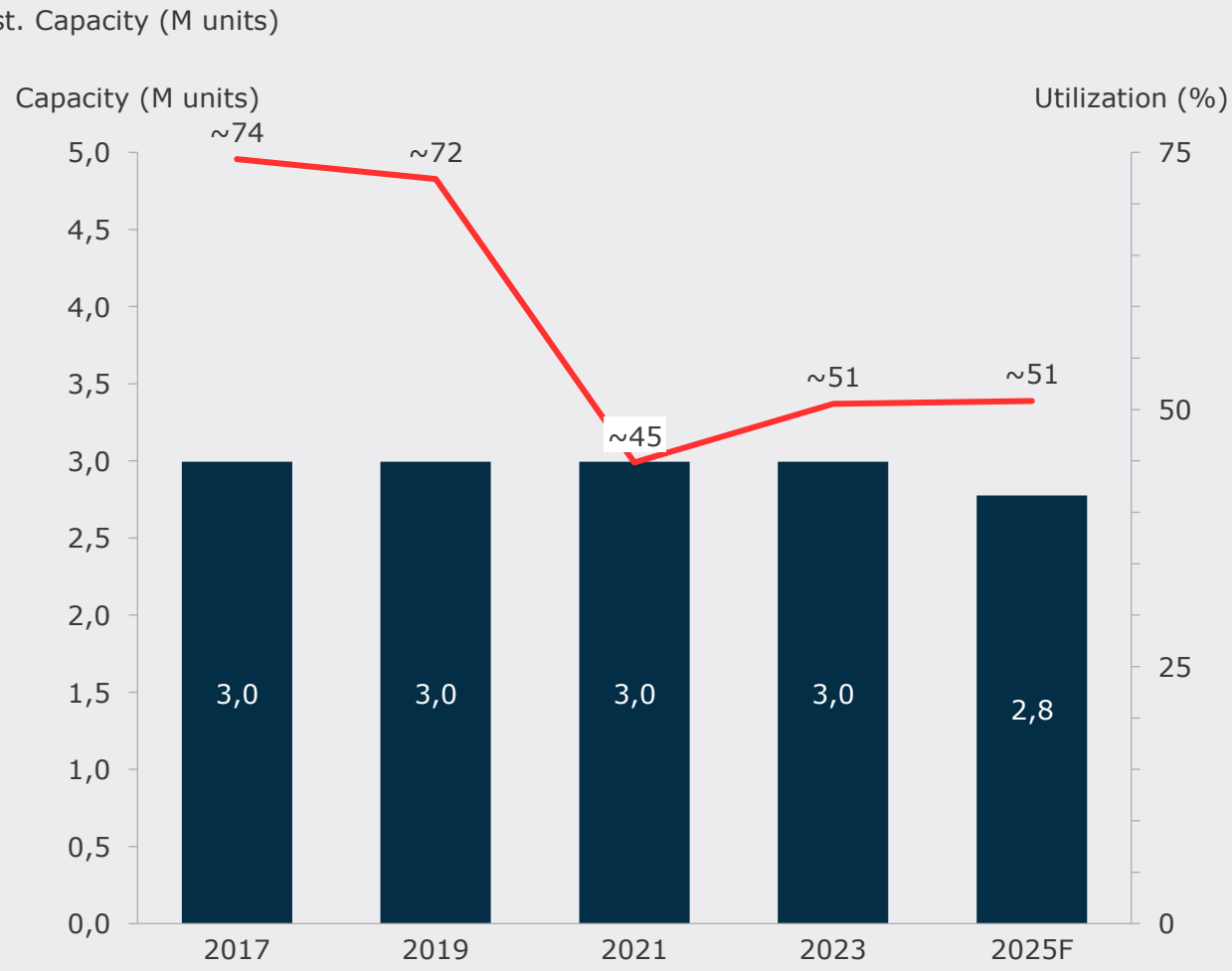


Plant utilization dropped ~20pp in Europe and ~23pp in France between 2017 and 2025, both at unsustainable level

Europe Estimated Capacity and Utilization, 2017 – 2025F



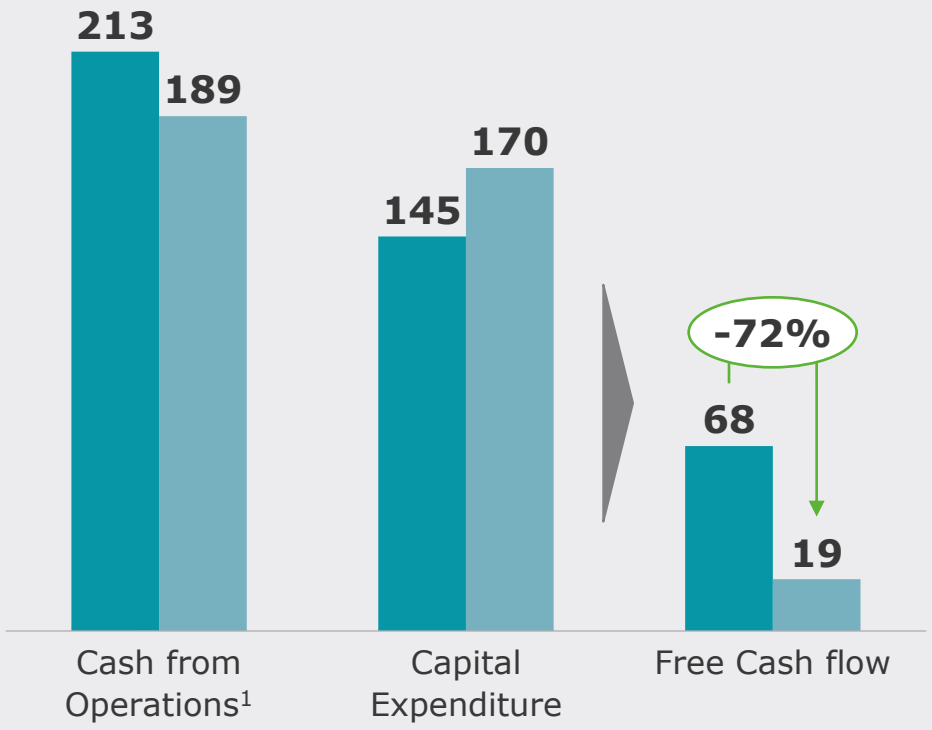
France Estimated Capacity and Utilization, 2017 – 2025F



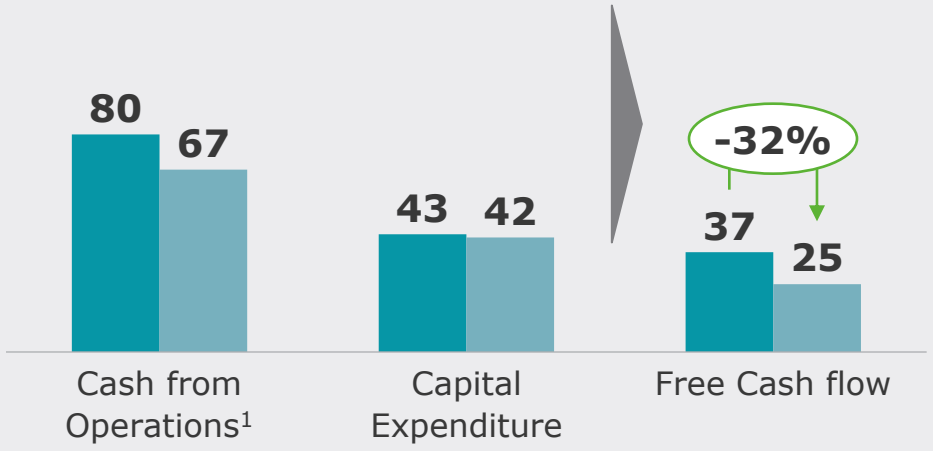
Source: S&P HIS; AlixPartners insights, forecast and analysis

Top global automakers and suppliers experienced drops in cash from operations and free cash-flow

Free Cash Flow - Top 15 OEMs



Free Cash Flow - Top 30 Suppliers

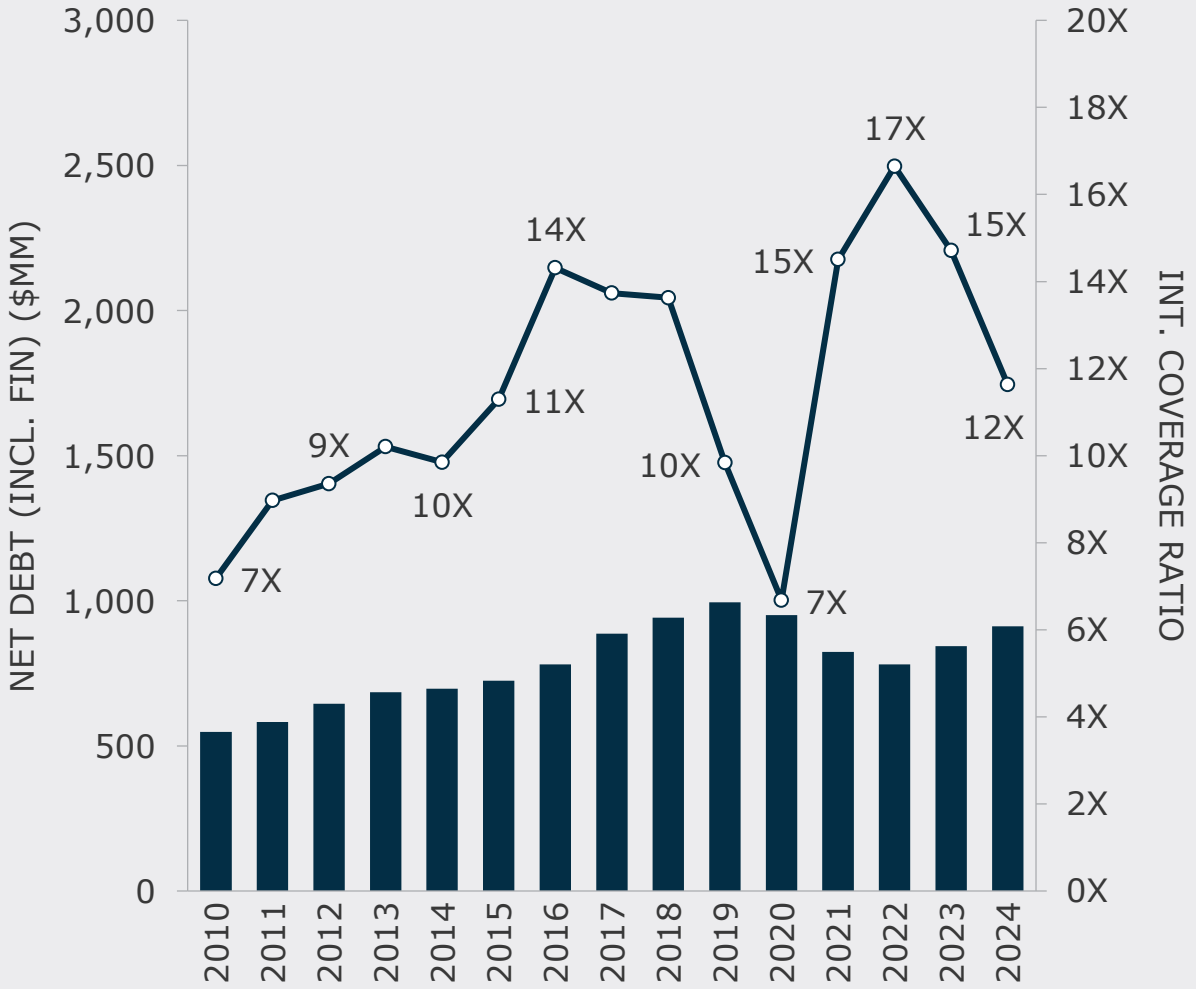


2023 2024

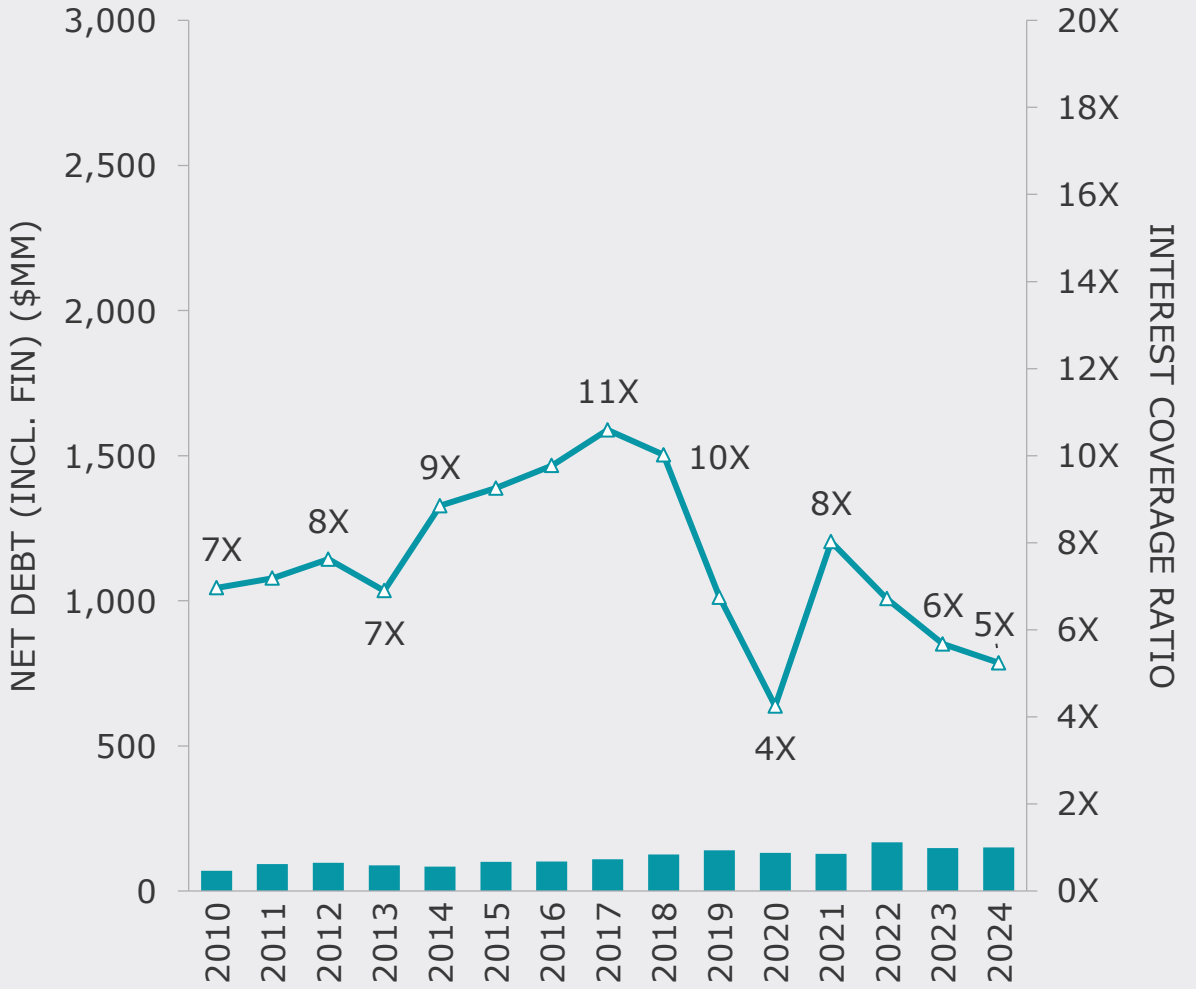
1. Cash from Operations includes Net Income, Depreciation and amortisation as well as Change in working Capital (Rreceivables, payables, inventory)
Source: S&P Capital IQ, AlixPartners' analysis

Interest coverages show the lack of "fortress balance sheets," as OEMs and suppliers head into lower production volumes in 2025

Net Debt and Interest Coverage[1] of Top 30 OEMs[2]



Net Debt and Interest Coverage[1] of Top 250 Suppliers[2]



1. Interest coverage ratio = EBIT / Interest expense
2. Subset of OEMs and Suppliers with available yearly financials for both EBIT and interest expense in all years

Source: S&P Capital IQ, Company annual reports, AlixPartners' analysis

AGENDA

- Market Outlook
- M&A Activity and Capital Flows
- Trade challenges
- Financial Performance
- New Operating Model

Two years ago, we highlighted the lessons from Chinese NEVs in our "New Operating Model"; the majority of our work here is in PD

Key China NEV operating-model lessons for automakers

Immutable launch timing
Above all other considerations

- Timing
- Cost
- Performance

Higher risk appetite
Digital simulations | Parallel process

- Source new technologies
- Start tooling during testing
- Rigorous FMEA into design, not ever-increasing specifications
- "Good enough"

Software development
Decoupled from hardware

- Decoupled agile process with abstraction layer to allow faster software cycles and core hopping
- HW is highly architected and std.
- 2-3 major SW/HW milestones

Rapid decision-making
Lower org. levels empowered

- Single data as source of truth in issue tracking & program mgmt
- Vehicle chiefs highly empowered
- Systems approach & low complexity

Modular designs
Common building blocks

- SW library for quick reuse
- Up to 80% parts are carryover or standard from suppliers
- Early setting of the architecture and objectives over requirements

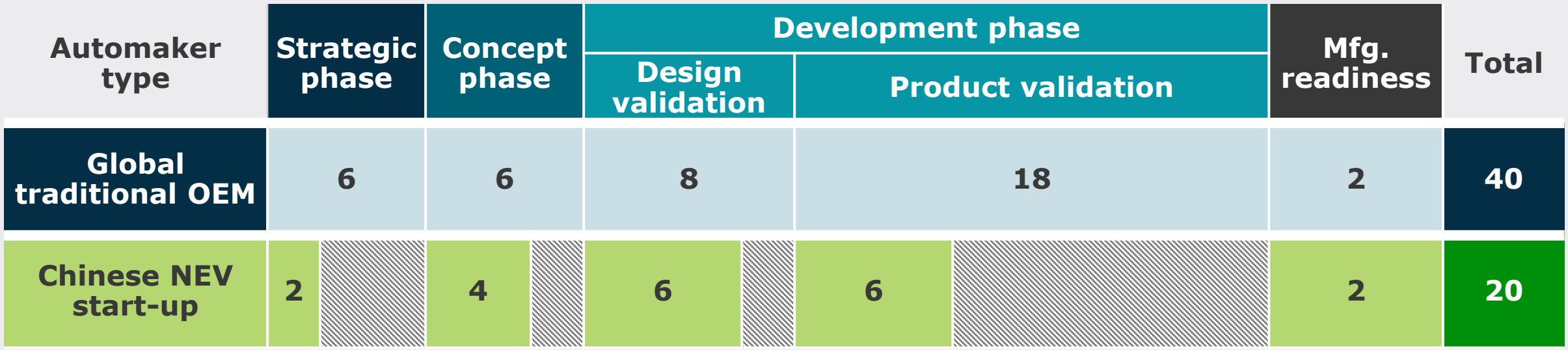
Early supplier engagement
Controls/guidance → lower cycle time

- OEMs consider "smart-vehicle" software their core competency
- Non-core targeted for outsource

2x faster to market | **40-50%** the Investment | **30%** cost advantage

How Chinese NEV startups develop vehicles in half the time

Automotive product development process time (months) by phase



Accelerating adoption of AI tools can help traditional OEMs reduce product-development time by up to up to 8 months

1 Concept Phase

Time savings: up to 1½ months
Cost savings: up to 25%

Eliminate redundant loops in styling and feasibility to accelerate early simulation and alignment on attribute objectives

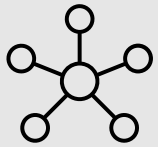
Generative design

Digital prototyping

2 Design Validation

Time savings: up to 1½ months
Cost savings: up to 15%

Reduce rework, compress design loops, reduce reliance on physical prototypes



LLM direct coding

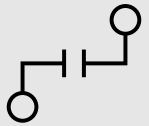
Automatic severity detection

3 Product Validation

Time savings: up to2½ months
Cost savings: up to 20%, up to $100M on typical new vehicle

Reduce manual test design, accelerate root cause identification, and automate reporting

Synthetic test enablement



Faster systems anomaly detection

4 Program Management

Time savings: up to 3 months
Cost savings: 20-30%

- Gen-AI for cost modelling
- Automated BoM & packaging alerts
- AI-driven scheduling, tracking, and resource allocation

Eliminate manual reporting, progress updates, spreadsheet modelling

Real-time status of all aspects

AI is being embraced in pieces, but will be most productive when implemented beyond LLMs, analysis & RPAs—and in areas below

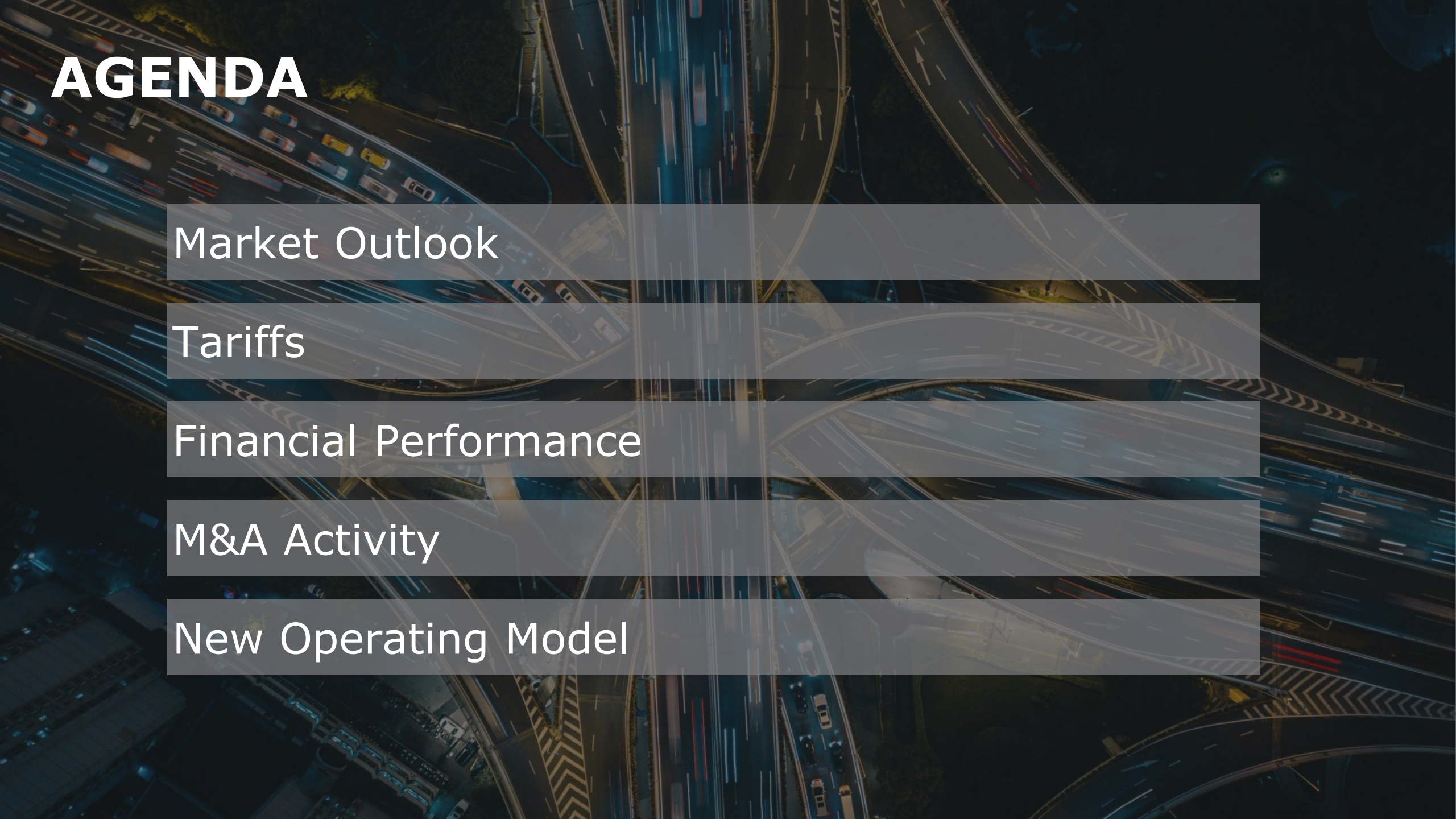
PRODUCT DEVELOPMENT

- **Accelerated SW development and testing**
- **Generative design and material simulation**
- **Prototyping. + V&V**
- CRM/Quoting (Supplier)

EFFICIENCY

- **AI enabled S&OP process and scheduling**
- AI-run program management and statusing
- **AI powered quality assurance**
- Footprint and cell layout
- Process automation (e.g. reports, A/p, other RPA)
- Clustering and analysis (e.g. spend cube, plant performance)
- Supplier risk monitoring
- **Hiring and retention optimization**

AGENDA



- Market Outlook
- Tariffs
- Financial Performance
- M&A Activity
- New Operating Model

Our annual AlixPartners Global Automotive Outlook is the annual culmination of our global team's insights, now in it's 22nd year

- **Global market sales and powertrain forecast**
  - North America
  - China
  - Europe
  - Japan
  - Regionalization
  - Tariffs
- **Industry performance**
  - Financial benchmarking
  - Economic profit assessment
  - EV profitability and investment
- **M&A and Partnerships**
- **OEM operating model lessons from Chinese NEV startups**
- **Agile operating model for suppliers to harness disruption**
- **Raw materials, Supply chain & Supply constraints**
- **Aftermarket trends and challenges**
- **Customer demand evolution and new sales models**
- **Innovations in advanced manufacturing**
- **Aftermarket trends**

- **Faster PD cycles**
- **A.I. applications in automotive industry**
- **SDV and Connected Vehicles**
  - Software complexity and development efforts
  - Software and AI-enabled business models for recurring revenue
- **Autonomous**
  - ADAS/AV cost evolution, adoption and market sizing
  - ADAS/AV competitive landscape
  - Global ADAS executive survey
  - ADAS value chain and partnership
  - AV technology and investments
  - AV platform opportunities
- **Electrification**
  - EV sales forecasts and OEM strategy
  - EV battery demand evolution and capacity ramp-up
  - EV technology and cost curves
  - EV infrastructure and charging business model
  - EV component heat map

Key takeaways

Agility is crucial in the face of increasing disruption. Winners will overcome the paralysis of increasing disruption, and prepare themselves for distributed decisive actions with common, united data and a strategic stance and objective rather than the old hierarchies, silos and deterministic strategies.

AI and **common real-time data** are essential for rapid decision-making, efficient issue management and productivity. A unified data lake and real-time data analytics and access provide a foundation, consolidating data from disparate signals, avoiding wasted meetings and enabling productive use of generative AI.

Europe for sale as assets with total revenues of more than $40B is under or to be divested. Seize the opportunity to look for assets that fit the company growth strategy for global expansion to be better position for regionalization and disruptions. Current trends suggest decision making moving away from Europe.

Chinese NEV OEMs continue to demonstrate the benchmarks in product development performance, prioritizing launch timing over requirements, developing products twice as quickly and at one-third the investment. Empowered chief engineers, simulations, HW architecting, agile development, and supplier engagement enable the speed.

Tariffs and non-tariff barriers (e.g., FMVSS, ICTS) are accelerating regionalization and require a different value chain, and value chain set-up based on lower per-line volumes/more mixed lines/localization/standardization/dual sourcing. OEMs and consumers take the cost in the near term.

22nd Annual

AlixPartners Global Automotive Outlook