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AUTOTEK PERSPECTIVE

# The Future of the Automotive Aftermarket

Assist, advise and accelerate the adoption of digital and AI technologies in auto parts.

18 slides · every figure sourced

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# Demand is not the constraint. Data is.

Vehicles on the road are older, more numerous and more electronically complex than at any point in the industry's history. The parts exist. The margin exists.

What is missing is the ability to **find, forecast, price and fit the right part the first time** — at the speed a connected vehicle now expects.

**"Systems remain fragmented, definitions inconsistent, and platforms built for an earlier era. These barriers leave large productivity gains untapped."**

BAIN & COMPANY · OCTOBER 2025

AVERAGE AGE OF A U.S. LIGHT VEHICLE, 2025

# 12.8 years

Up two months year-on-year for the second consecutive year. Passenger cars now average 14.5 years — and dropped below 100 million units for the first time since the 1970s.

| | |
|---|---|
| U.S. vehicles in operation, 2024 | **289 M** |
| Passenger cars on EU roads, 2024 | **256 M** |
| Average age, EU passenger car | **12.7 yrs** |
| U.S. annual scrappage rate | **4.5%** |



S&P Global Mobility, May 2025 · ACEA, Vehicles on European Roads 2026

PROJECTED U.S. AFTERMARKET BY 2028 · LIGHT, MEDIUM & HEAVY DUTY

# $664B

The U.S. light-duty aftermarket grew 5.7% in 2024 to $413.7 billion, with a further 5.1% forecast for 2025. The demand curve is not the risk.

| | |
|---|---|
| U.S. light-duty aftermarket, 2024 | **$413.7 B** |
| U.S. market, 2026 forecast (MEMA / S&P) | **$457 B** |
| European aftermarket growth, post-2026 | **~1% / yr** |

> Globally, McKinsey's base case puts the aftermarket near **€1.2 trillion by 2030** — while its accelerated-technology scenario compresses the same pool to **€588 billion**. Which branch you land on is a function of readiness, not of luck.



Auto Care Association Factbook 2026 · MEMA 2026 Forecast · McKinsey · BCG

SHARE OF ANNUAL TECHNICIAN DEMAND THAT GOES UNMET

# 58%

241,842 technician roles open every year across ten priority sectors. 101,743 people graduate to fill them. The gap is now the single hardest limit on aftermarket throughput.

| | |
|---|---|
| Annual openings vs. graduates | **241,842 / 101,743** |
| Automotive sector gap | **29%** |
| Collision sector gap | **57%** |
| Annual wage-based output lost | **$7.42 B** |

**1.2 million new technicians are needed by 2029.** AI does not replace them — it raises the output of the ones you already have.



TechForce Foundation, Supply, Demand & Opportunity, 9th ed., 2026

# The buyer is already digital. The catalogue often is not.

Digital influence on U.S. auto parts retail reached an estimated $177 billion in 2023 and is projected to touch $200 billion by 2026 — most of it shaping purchases that still complete offline.

EXCLUDING MARKETPLACES

**4.6%**

2025 e-commerce growth on a ~$23 B base. A 5.4% CAGR to 2030 — the conservative, observed-behaviour view.

INCLUDING MARKETPLACES

**6.7%**

Annualised 2020–2030 once Amazon, eBay Motors and Walmart are counted. Amazon's automotive department alone runs near $13.7 B.

> Vendor forecasts run far hotter — up to a 16–19% CAGR. Plan for the primary number; build the capability for the vendor one.



Auto Care Association & MEMA Joint E-commerce Forecast, Nov 2025 · Hedges & Co.

SHARE OF AUTOMOTIVE E-COMMERCE RETURNS ATTRIBUTED TO INACCURATE FITMENT DATA

# 86%

Online auto parts sellers routinely run 20–30% return rates. The cause is rarely damage or shipping. It is a year, make, model, engine or trim that did not match.

**ACES and PIES gave the industry a common language for fitment. Adoption across the long tail of distributors remains uneven — and every gap is paid for twice: once in freight, once in trust.**

This is the highest-return, lowest-glamour AI project in the industry.



ServeRetail · Aculogi · X-Cart industry analyses · Auto Care Association data standards

# Six places AI pays for itself in auto parts.

Not a technology wish list — the six clusters where aftermarket operators can already point to a measured result.

01

## Demand & inventory

SKU-store level forecasting; fewer dead parts, higher fill rate.

02

## Catalogue & fitment

Language models parsing trim, option and supersession data at scale.

03

## Visual part ID

Photo to part number, and damage to estimate, in seconds.

04

## Counter & contact centre

24/7 lookup, quoting and booking without adding headcount.

05

## Technician assist

Generative retrieval over service information, TSBs and procedures.

06

## Claims & warranty

Automated estimating and validation across the collision channel.

# Working capital is the fastest win.

Spare parts are the hardest forecasting problem in distribution: intermittent demand, deep tail, unforgiving service-level promises. It is also where machine learning has the longest evidence base.

## REPORTED OUTCOMES

| | |
|---|---|
| Forecast accuracy on parts covering 80% of sales<br>Automotive spare-parts manufacturer, Tredence case study | **>90%** |
| Forecast error reduction<br>Cross-industry AI forecasting synthesis | **20–50%** |
| Reduction in product unavailability<br>Cross-industry AI forecasting synthesis | **up to 65%** |
| Inventory cost reduction<br>Cross-industry AI forecasting synthesis | **10–15%** |

> AutoZone and O'Reilly have both moved forecasting and replenishment onto AI at store-SKU granularity. Neither publishes the saving — which tells you how much it is worth.



Tredence case study · LeewayHertz synthesis · company disclosures

FLEET PARTS CORRECTLY IDENTIFIED FROM A SINGLE SMARTPHONE PHOTO

# 94%

Matched to inventory records in under three seconds, in a vendor pilot. The counter conversation that used to start with “what year is it?” now starts with a camera.

In salvage & recycling

### LKQ North America × Tractable

Computer vision grades vehicle damage to speed parts recovery and redistribution.

In collision claims

### Solera Qapter · GEICO × Tractable

Photo-to-estimate generates line-by-line repair estimates and verifies existing ones in seconds.

The same vision stack also polices the channel — counterfeit-detection platforms now scan marketplaces and social feeds for fake parts.



FleetRabbit pilot · Auto Recycling World · Solera · Repairer Driven News, 2021

# Experience, made searchable.

The repair record is the aftermarket's most underused asset. Generative retrieval turns decades of symptoms, procedures and service bulletins into an answer a second-year technician can act on.

## THE CORPUS ALREADY EXISTS

| | |
|---|---|
| Vehicle repair events visible annually<br>Epicor aftermarket data analytics | **~140 M** |
| Part transactions analysed<br>Epicor aftermarket data analytics | **>1 B** |
| Repair events processed<br>Predii | **2.5 B** |
| New systems added per year to diagnostics<br>Snap-on Fast-Track Intelligent Diagnostics | **70,000+** |

> Bosch demonstrated a "Super Technician" AI assistant at AAPEX in November 2025; Snap-on's stated design goal is that the user "doesn't have to be a master tech." Against a 58% labour gap, that is the point.



Epicor / Motor.com · Predii · Snap-on · Aftermarket Matters, AAPEX 2025

# Whoever reads the vehicle, wins the repair.

McKinsey expects **95% of new vehicles sold globally to be connected by 2030**, against roughly half today — worth up to $310 in revenue and $180 in cost savings per vehicle per year.

## THE COMPLIANCE RUNWAY IS ALREADY LIVE

| | |
|---|---|
| EU Data Act applies | **12 Sep 2025** |
| Delegated Reg. 2026/699 · security catalogue binding | **23 Jun 2026** |
| Connected products must ship data-access capability | **12 Sep 2026** |
| VIN data and e-maintenance log via API | **23 Jun 2027** |

Repair information scope now explicitly covers **ADAS calibration, battery diagnostics and software version data**. In the U.S., the REPAIR Act remains in committee — the American independent channel is still waiting on statute.



EUR-Lex Reg. (EU) 2026/699 · EU Data Act · McKinsey · Congress.gov H.R.1566

# Fewer oil changes. Far more calibration.

## WHAT CONTRACTS

**−40%**

Service revenue per vehicle for an EV versus an ICE car. AlixPartners models an **8% cut in annual U.S. service revenue — $4–6 billion** — through 2030.

Battery-electric vehicles carry roughly **30% lower demand** for traditional aftermarket components.

## WHAT EXPANDS

**75%**

Of vehicles expected to carry ADAS features by 2030, from around 11% in 2020 — every sensor a calibration event.

Thermal management, electrified powertrain, tyres and electronics all grow. Collision shops face roughly **$150,000 per shop** in new tooling.

> Estimates for the ADAS calibration opportunity span a **$0.75 billion U.S. independent-shop view to $12–13 billion globally by the early 2030s**. The spread is the story: nobody has captured it yet.



AlixPartners 2023 · CLEPA / Roland Berger 2022 · CCC · Motor.com · Fortune Business Insights

AI PROJECTS FORECAST TO BE ABANDONED FOR WANT OF AI-READY DATA

# 60%

Gartner's forecast through 2026. In the same survey of 1,203 data-management leaders, 63% of organisations either lacked the right data practices for AI — or did not know whether they had them.

| | |
|---|---|
| Agentic AI projects forecast cancelled by end-2027 | **>40%** |
| Distributors that have fully embraced digital (IDC, via Epicor) | **13%** |
| Average digital-maturity score, design-to-source | **2.9 / 5** |

> The failure mode is almost never the model. It is a part master with four spellings of the same brand, a fitment table nobody owns, and an ERP that cannot answer what sold yesterday.



Gartner, Feb 2025 & Jun 2025 · IDC via Epicor · Supplyframe, May 2025

# Four moves, in this order.

Bain's guidance to the industry, restated for a parts business.

01

## Solve a real operational problem — not a tool shortage

Start where the loss is already measurable: returns, dead stock, unanswered counter calls.

02

## Pick few use cases — the ones that can scale

One forecast engine across every branch beats nine proofs of concept in one branch.

03

## Build a clean data backbone

Part master, fitment, pricing, availability. ACES and PIES discipline is the AI project.

04

## Transform the operating model

Genuine Parts is separating NAPA from Motion by Q1 2027 to gain exactly this execution speed.



Bain & Company, Oct 2025 · Genuine Parts Company, Feb 2026

# Assist. Advise. Accelerate.

Three roles, because adoption fails at three different points — capability, judgement and pace.

Assist

## Get the data fit for purpose

Part master, fitment and catalogue hygiene to ACES and PIES discipline. The unglamorous work that decides whether anything downstream is possible.

Advise

## Choose the few use cases that scale

Forecasting, fitment intelligence, visual identification, counter automation — sequenced against your margin, your parc and your channel mix, not a vendor roadmap.

Accelerate

## Move from pilot to production

Ship into the branch, the counter and the workshop — with the operating model, ownership and measurement that keeps it running after launch week.

# Three years to build what 2030 assumes you have.

## 2026 · The access year

EU data-access functionality becomes mandatory on connected products in September; the repair-information security catalogue binds from June. U.S. market forecast at $457 billion.

## 2027–2028 · The consolidation years

VIN and e-maintenance APIs open. U.S. aftermarket reaches $664 billion. European parts growth decelerates toward ~1% a year — share, not the market, becomes the growth engine.

## 2030 · The fork

95% of new vehicles connected. Around 75% of the parc carrying ADAS. A global pool worth €1.2 trillion in the base case — or €588 billion if technology moves faster than the industry does.

> Data foundations take 18 to 36 months to lay. On that arithmetic, 2030 readiness is a decision made in 2026.



EUR-Lex · Auto Care Association · MEMA · BCG · McKinsey · CCC

# The aftermarket's next decade will not be won on parts availability.

## It will be won on data readiness.

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