



PROFITABLE AUTO SUPPLY IN AN ACES WORLD

BY TOM ROBERTS, VICE PRESIDENT, AUTOMOTIVE AND MOBILITY



Are you prepared or preparing to:

- Constantly transform and sharpen your value proposition?
- Continuously invest aggressively in new product innovation?
- Change your business model as quickly as the industry demands?

In a few years, the automotive industry will look nothing like it does today. How will suppliers in this historically low-margin environment survive as the number of vehicle parts continues to shrink?

Business undergoes constant change. Customers change, products change, economies change, technologies change and the world changes. And with these changes comes great disruption.

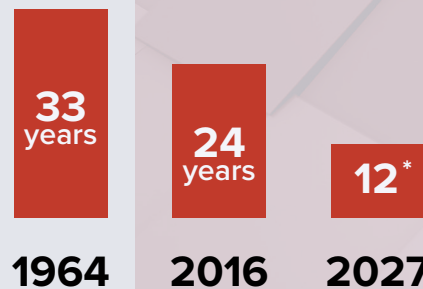
[Disruption](#) drives unprepared and inflexible businesses to extinction at an accelerating pace. Per S&P 500 data, a large company's average lifespan will shrink to a mere 12 years by 2027.

That's about the same year that the automotive industry's greatest disruption will begin to crest. How many of today's manufacturers will exist then? Will you? What must auto suppliers do now to ensure survival and maximize their chances of profitable growth?

The [transition](#) from Internal Combustion Engine (ICE) vehicles to Battery Electric Vehicles (BEV), under the overall umbrella of Autonomous Connected Electric Shared (ACES) vehicles, is underway. This shift will completely transform the way vehicles are designed, produced, sold, and utilized over the coming years.

DISRUPTION KILLS

S&P COMPANY LIFESPANS



*Projected Years

Only companies strong and quick enough to invest in R&D, to produce the right technologies, to execute M&A efficiently, and to sell the right products will last. Speed and adaptability will be key.

To compete and earn new business you must [rapidly transform](#) your existing approach to operations -- supported by modern, integrated enterprise business systems -- to meet stricter OEM compliance requirements.

THE IMPACT OF THE ACES SHIFT

Clearly, long-standing automotive suppliers -- whether they make seating, instrument panels, B pillars, ECMs or PCMs -- achieved success through well-managed [supply chains](#), [efficient production](#) and [world-class product quality](#). In the long term, achievements like these should serve as a baseline for future success as you pursue new business in the ACES world.

Yes, the auto supply business has always been tough. But OEMs have rewarded suppliers that deliver innovations auto buyers want, made with higher-grade materials and tight tolerances, and offered at the right price point.

Soon the game will change dramatically. The difference in core technology between BEVs and ICE vehicles is stark. There are far fewer parts in an EV powertrain than in an ICE powertrain – sometimes 1/6th the number of parts. And a smaller number of components means that fewer suppliers are required to supply those parts.

The golden age of ‘do one thing really well,’ at least in the context of ‘doing internal combustion engines really well,’ may well be over. With ACES, it’s an entirely new [technology wave](#), and how it starts is not where it will end. Everything will look different every few years. That means the winners will be those able to constantly transform and continuously sharpen their value proposition and invest aggressively in new products. That is, if you can also produce and deliver those new products at prices acceptable to OEMs while generating enough cash to fund the next wave of innovation.

You’ll also need to forge relationships with new OEMs and you’ll face immediate barriers to entry if you’re not prepared. You may already be behind because your competitors have earned preferred supplier status. The competition will be fierce as everyone diversifies their portfolios.

24 VERSUS 149

EV VS. ICE
Parts in Powertrain



NOBODY SAID THIS WAS GOING TO BE EASY

Traditional auto supply manufacturers face additional complexity and burdens during this transition. Those that produce ICE-related parts and systems must remain or become profitable enough to fund heavy investments in ACES technology, products, and manufacturing footprint -- either through R&D, M&A or both. In an industry that already sees razor-thin margins, this will be a big financial burden.

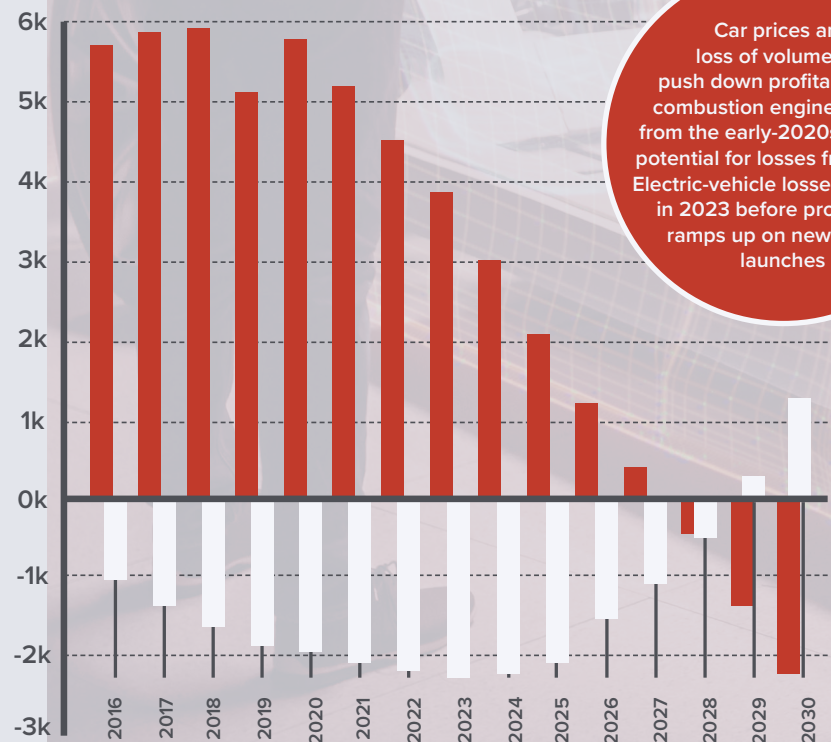
Morgan Stanley's grim projection (see graph, right) shows no net profit for traditional automakers for about six to seven years, starting around 2024-2025, due to the decreasing demand for profitable ICE vehicles and the high cost of entry for ACES-related R&D, significant capital assets and other heavy investments.

As ACES plans and production grow, suppliers must quickly transform operations to combine accelerated innovation with efficient mass production. New and fast-changing business models are crucial to your ability to stay ahead of competitors and profitably serve this emerging market.

That won't be easy. It involves not only successfully pivoting now (or very soon) to design, build and deliver near-term OEM demands for ACES components and systems but ensuring long-term survival and success as the industry continues to shift over the next decade.

Transition to electric will be a gamechanger for traditional carmakers

Morgan Stanley estimates of profit and loss of electric and traditional vehicles (€ millions)



Car prices and loss of volume will push down profitability for combustion engine models from the early-2020s, with the potential for losses from 2028. Electric-vehicle losses will peak in 2023 before production ramps up on new model launches

THE THREE QUESTIONS YOU NEED TO ASK ARE:

1. Can we rapidly innovate?
2. Can we relentlessly reduce costs when we mass produce those new products?
3. Can we do both profitably, on shorter cycles, as demand constantly changes?

Without [optimizing efficiencies](#), driving out costs and funding ongoing innovation, you'll soon be out of business when OEMs find an alternative supplier or you go bankrupt selling at a loss. One thing that won't change as ICE gives way to ACES: It's survival of the fittest.

Traditional tactics, processes and systems often hinder a company's ability to respond to rapid change. The good news is that advances in business systems and technologies now deliver rapid, agile and effective automation and integration that lets you optimize operational efficiency, keep margins high enough to fund innovation, make smart decisions and quickly pivot to what's next, again and again over the next decade or two.

Often automotive suppliers that are trying to grow new revenue streams run traditional environments with multiple, disjointed enterprise business and technology systems. Typically, these ancillary systems were never effectively integrated, causing users to rely on "workarounds" and manual processes outside of the enterprise systems to complete day-to-day operational tasks. Manual collection and correlation of critical



data—using spreadsheets, whiteboards, customizations of IT software, etc.—causes errors and delays.

Those in turn often result in revenue and margin erosion through inventory imbalances and increased administration costs, something you can afford even less when needing cash to fund iterative innovation.

In addition, these detrimental manual “workarounds” are driven by [outmoded business systems](#) that weren't designed to adapt to new strategies and changing needs. Manufacturers running aging systems without maintenance, locked up in customizations, or with hardware, operating systems or databases nearing their end of life are at a serious disadvantage. Some are making do, trying their best to run their systems as well as possible despite personnel and budgetary restrictions. But this approach will cause your business to lose ground against competitors.

What steps can companies take to prepare themselves internally for change?

1

Move to an agile, flexible, cloud based system architecture

Moving from plants and businesses that produce ICE-related content will require M&A, joint ventures, plant divestitures, and many different types of operating agreements. Putting in the right IT architecture is the number 1 factor for preparing companies for the onslaught of M&A, selling plants, buying plants, acquiring technologies, pivoting, etc. According to McKinsey¹, companies with a flexible IT architecture “capture a broader range of synergies, and at a faster pace, than competitors that fail to consider the challenge of IT integration. As a result, these leaders are more successful at sizing up targets and executing acquisition strategies.”

2

Employ automation and robotic processes to remove inefficiency

Automation and [robotic process automation \(RPA\)](#) will become key in companies that wish to survive the coming onslaught of disruption. Focusing on the core business will be paramount, and the automation of non-core activities will enable companies to save millions of overhead. In one study referenced by Bain², even companies that automate only procurement processes, for example, had excellent returns. “Research conducted by Procurement Leaders shows that a fully automated procurement function could save the Global 5000 up to \$86 billion annually. For companies with a spending base of \$1 billion to \$3 billion, that implies \$12 million in annual procurement headcount savings. Those that spend \$3 billion or more would save an average \$27 million on headcount.”

3

Move past transactional capture and reporting and evolve into true intelligent systems that allow ‘what if’ analysis

Companies are saddled with systems and processes that only allow for transactional capture, with no real intelligence of what happened. For example, most manufacturing companies have scrap reporting, but they don’t have systems that can manage a root cause analysis process and determine why there was scrap. The same occurs in [demand planning](#); companies have internal processes to plot demand, but they’re unreliable and often detached from the data.

ACES will demand a stream of entirely new and fast-changing models from automotive suppliers. Continuous innovation and maximum operational efficiency will be equally critical. Adaptive business systems and [advanced technologies](#) built for the [automotive industry](#) are crucial to suppliers' ability to stay ahead of their competitors and profitably serve this emerging market -- by not only successfully pivoting now but ensuring survival and success as the industry continues to shift over the coming years.

We call manufacturers that are able to innovate and change business models at unprecedented speed [Adaptive Manufacturing Enterprises](#) (AME). Traditional tactics, processes and systems often hinder a company's ability to rapidly respond to change and keep or gain [competitive advantage](#). How do you stack up against the ideal Adaptive Manufacturing Enterprise? To see how prepared you are to survive today's disruptions and provide the flexibility needed to address tomorrow's challenges, take [the AME Diagnostic](#).

To talk about how QAD helps automotive manufacturers rapidly respond to and plan for the ACES future and beyond, call us at +1 805 566 6100 or email us at information@qad.com.

¹ "Understanding the Strategic Value of IT in M&A," Hugo Sarazin and Andy West, McKinsey & Company, Jan. 1, 2011.

² "Digital Procurement: The Benefits Go Far Beyond Efficiency," Coleman Radell and David Schannon, Bain & Company, 2018.





Copyright © 2020 QAD. All rights reserved. The word and design marks set forth herein are trademarks and/or registered trademarks of QAD and/or related affiliates and subsidiaries. All other trademarks listed herein are the property of their respective owners.

www.qad.com

QAD Inc., 100 Innovation Place, Santa Barbara, CA 93108, USA