



# HOW SUPPLIERS CAN MAKE R&D A BUSINESS DRIVER

Automotive suppliers are facing increasingly fierce challenges when it comes to their R&D. One of those challenges is the rising pressure from vehicle manufacturers to cut prices, which reduces the ability of supplier to invest in R&D. To meet these challenges, suppliers must shift their focus from projects to products and leverage standardization to help free up the resources required to invest in future technologies. To achieve this, however, suppliers will need to be more selective commercially and better aligned with automakers.

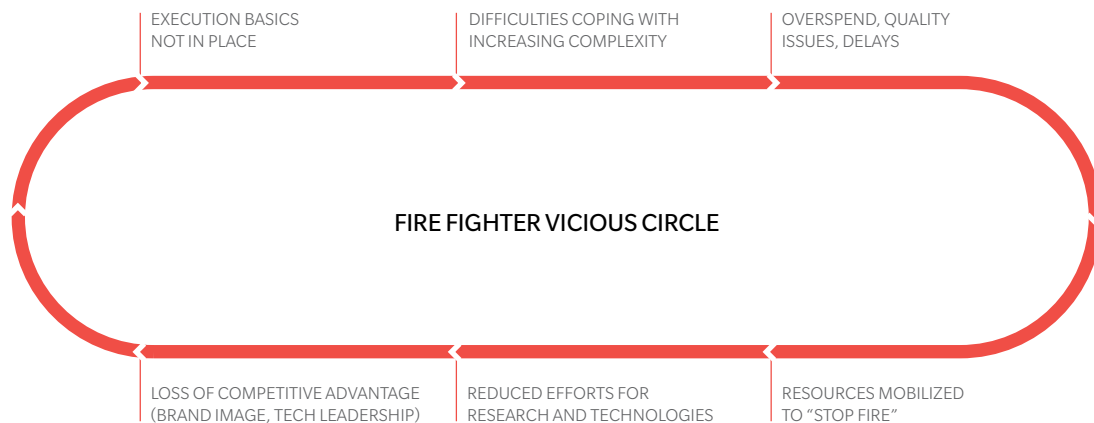
---

MARC BOILARD

## CIRCLE OF DEMANDS

Suppliers need to break away from the cycle of demands and focus on investing in new areas of opportunity

---



Source: Oliver Wyman analysis

---

The structure of the automotive industry has been changing over the years, evolving from a hierarchical supply chain into a network of players that increasingly share competencies, capacities, and tasks. Automakers continue to focus on their core competencies, while simultaneously seeking reliable partners that can handle new and complex technologies as they look to strengthen their long-term positions.

Despite this progression, the expectations that traditionally have been placed on the shoulders of suppliers have not gone away: cutting costs, shortening time to market, and providing components with impeccable quality. Nonetheless, using R&D as a key innovation driver is a major factor in the cooperation model between suppliers and automakers.

## ESCAPING THE VICIOUS CIRCLE

Most suppliers have not found an answer to these challenges because they struggle with operational issues, including: focusing on too many projects; fighting time constraints; overcoming unresolved management constraints; and, most importantly, coping with extreme pressure to cut costs. They are overwhelmed by the demands of their day-to-day business and by the technological complexity they face, leaving them little room to explore alternative options. Suppliers, therefore, often fail to sufficiently invest in new areas and miss the opportunity to realign themselves and their products to meet the fundamental tests that will affect their future. Breaking this vicious circle of "firefighting" is fundamental to positioning the supplier to achieve success.

## EXCELLENCE IN EXECUTION

The first priorities for suppliers that struggle with day-to-day R&D activity are to reinforce the basics and address all major structural issues. These are often related to enhancing management expertise rather than improving technical know-how.

Suppliers should first pay special attention to building a strong pool of project managers who possess the right skills. Experience shows that 75 percent to 80 percent of suppliers have well-established internal R&D basics (R&D roles and responsibilities, processes, tools, and quality gates).

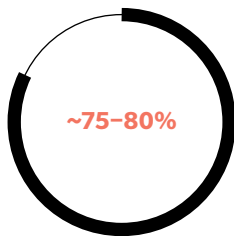
However, there is clearly room for improvement when it comes to collaboration processes with external partners (engineering service providers, universities, joint ventures, etc.), cross-functional coordination, and decision making. Instability in staffing should also be addressed, as 10 percent to 20 percent of R&D resources, on average, are allocated to firefighting activities. To solve this, the supplier needs to improve its upfront project preparation, and, in the midterm, develop a higher level of polyvalence of resources so that its engineers can cover a wider range of activities.

There is also room for improvement in measuring R&D performance, which is often inadequate at firefighters, as well as leveraging advanced simulation tools in the early stages of the development process, which can help accelerate product design.

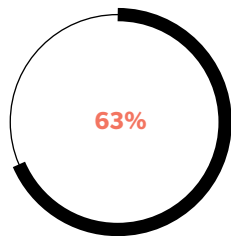
## PROPORTION OF SUPPLIERS PERFORMING WELL IN KEY AREAS

Room for improvement on external collaboration, cross-functional coordination and decision making

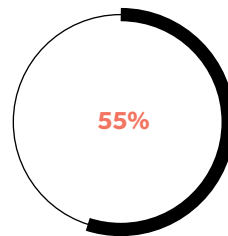
---



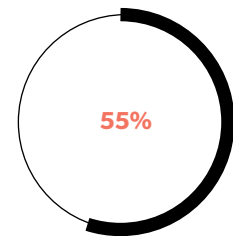
R&D ROLES, PROCESSES,  
TOOLS, GATES



DECISION-MAKING PROCESS



COLLABORATION WITH  
EXTERNAL PROVIDERS



CROSS-FUNCTIONAL PROCESSES

Source: Automotive suppliers survey, Oliver Wyman

---

## STANDARDIZE AND REUSE AS MUCH AS POSSIBLE

Finally, standardization and modularity are extremely effective levers that can be used to slash engineering costs and reduce lead-time. Through modularity, a supplier can cut engineering costs and development lead-time by 20 percent in each area. A recent Oliver Wyman survey found that standardization has been the top priority at the majority of leading global suppliers over the past three years, but there remains much room for further improvement. One way to optimize standardization would be to deploy a Product Lifecycle Management (PLM) tool.

## PICK YOUR BATTLES

Suppliers must face up to the fact that they can't bid on every automaker program around the world, that in doing so they risk spreading themselves too thin: Preparing and developing a large number of bids serves to dilute engineering resources. Moreover, the total cost of the bidding process is often underestimated, given the inefficiency of the requests for proposals (RFP) process. Instead, supplier should seek to become more selective in their bidding, thus conserving valuable resources.

It is also important to align processes with customers, as this can lead to a stronger, more reliable partnership, while also anchoring a service mindset across the entire organization.

These two items are important regardless of whether the suppliers are innovators or followers. Experience shows that less than 20 percent of R&D projects are currently conducted in alignment with an automaker's advanced engineering teams. To address this weakness, many suppliers need to undergo a substantial business transformation, which needs to be thoroughly assessed, planned, executed, and monitored.

## JOURNEY TOWARD INNOVATION LEADERSHIP

On their road to excellence, suppliers should first focus on optimizing the efficiency of their execution. After that they can move on to developing product or standardization strategies. Implementing modularity/standardization in a non-mature engineering organization is complex and has the potential to put the company at risk. Switching to a product/standardization strategy helps simplify matters, which frees up resources in the short term. However, this change could limit overall cost performance and innovation capacity going forward.

All suppliers aim to innovate more, but the increasing complexity of automotive programs often drains them of their R&D resources. Freeing up resources to concentrate more on innovation requires flawless execution capabilities, as well as a strong product orientation and a dedication toward achieving product standardization. By doing this, suppliers will be able to safeguard their innovation and technology efforts and increase their competitive advantage. ●