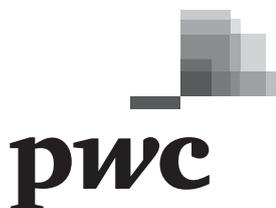


strategy&

*Capabilities-
driven
restructuring*

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**A manufacturing
footprint strategy
for a commodity
automotive supplier
industry**



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Executive summary



Manufacturers frequently have to evaluate whether their production facilities are based in the locations that best serve all of their needs. In this report, we lay out a process for determining the optimal manufacturing footprint.

To illustrate the process, we will focus on a sector that is facing increasingly tough choices about its manufacturing footprint: the suppliers of automotive interior components, and specifically those in Europe. It is becoming costly for these suppliers to operate production facilities in Western Europe, and as a result many are moving more of their operations to Eastern Europe.

However, an operational decision like this should reflect a number of factors. These include ease of transportation, engineering and sourcing availability, the current and future plans of car producers, the partnership potential, and the high costs of restructuring, especially in Western Europe. Underlying all of these is the competitive factor: How can a company design its manufacturing footprint, often against just a few competitors, to ensure it remains in the front of the pack?

For most industrial sectors — including the automotive interior suppliers highlighted here — making strategic choices about where to manufacture requires a company to gain a deep understanding of the markets, the individual plants in its footprint, the competitive structure, and its own capabilities. We offer a series of questions that will help companies identify their best options and set realistic price reduction targets, along with a four-step approach for determining which plants should form the network of the future.

Costs as a competitive factor

Shifts in the manufacturing footprint — the geographic patterns of the value chain, including factories — are a standard part of doing business in many industries. Companies frequently have to make tough choices about where to close existing facilities or open new ones. Making the right choices requires bringing together a deep understanding of the competitive structure of the markets a company is serving, with an appreciation of the company's capabilities compared with those of its rivals, and the way these capabilities reinforce its position.

One critical factor is competitive location. There are costs involved in any manufacturing footprint. A company needs to position itself with regard to its suppliers and customers, so that location becomes a source of competitive advantage; at the same time, it needs to remain flexible enough to adapt to changing conditions.

We have chosen to illustrate this crucial decision-making process through the lens of a subsegment of the automotive supply industry, the makers of automotive interior components. Their products include all standard, non-high-tech interior parts, such as dashboards, door panels, glove boxes, and seat covers. This industry subsegment is an instructive example of a business that is confronting difficult decisions about where to manufacture. Moreover, and crucially, logistics costs per unit are sufficiently high that location defines the set of viable competing plants. No one will supply an assembly plant in Iberia with a cockpit from China, for example.

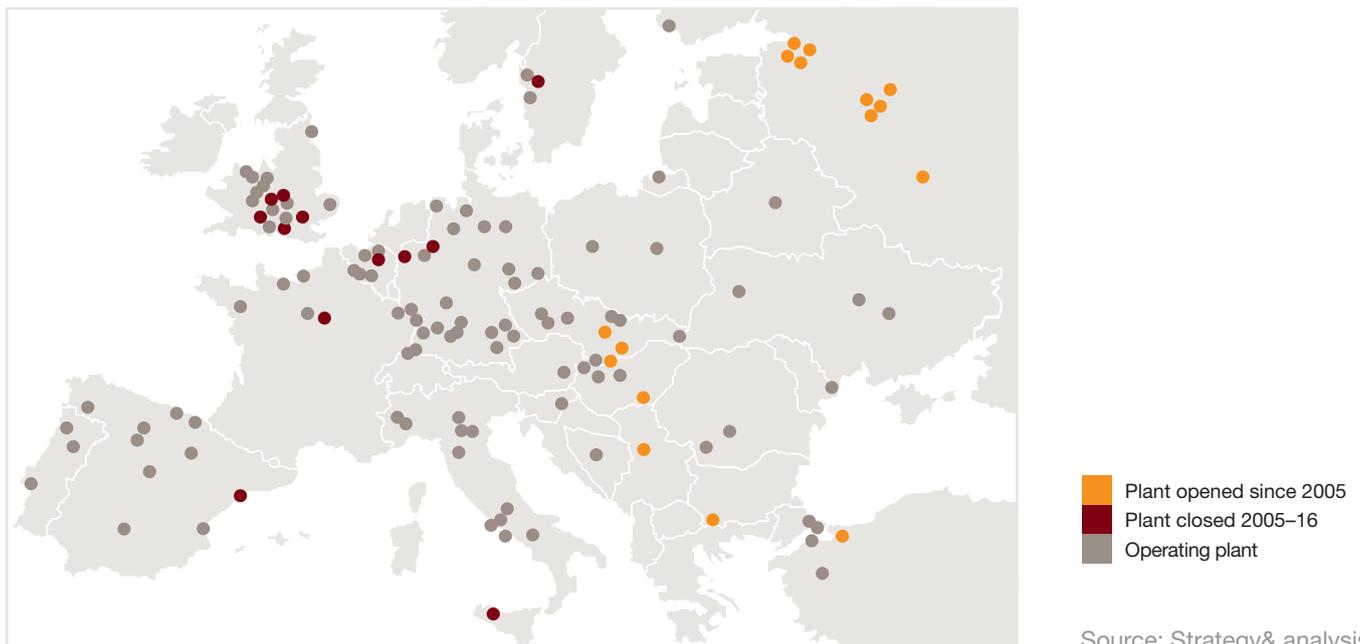
As is the case in many industries, automotive interior parts are for the most part relatively undifferentiated, and manufacturers have to keep their prices — and therefore their production costs — low. Although the number of viable competitors is small, the factors that drive them are inherently tied to their location, predominantly because key items (like dashboards) are costly to transport. Typically, there are between two and five viable supplier plants for any original equipment manufacturer (OEM) plant that assembles the automobiles. The automaker's assembly plants are thus themselves part of the interior supplier's production

network. The OEMs generally draw up the designs, and it is relatively easy for them to replace one supplier with another.

The profits from this sector's production facilities in Western Europe have been under extreme pressure for years, even while vehicle sales around the world have hit post-recession highs. There are two main reasons for this. The first is the high costs of labor in Western Europe; labor represents about 25 to 30 percent of the total cost for interior parts when they are made in the region. The other factor is the migration of OEM capacity to Eastern Europe, so that there has been a structural shift in volume (see *Exhibit 1*). In response to this double blow, suppliers tend to believe that their only option is to either shutter their factories in Western Europe and open new ones in Eastern Europe, or get out of the business entirely.

Auto interior suppliers are thus under pressure to keep costs down and compete by offering the lowest prices, because they provide what are essentially commodity components. Their OEM automaker customers,

Exhibit 1
European OEM footprint

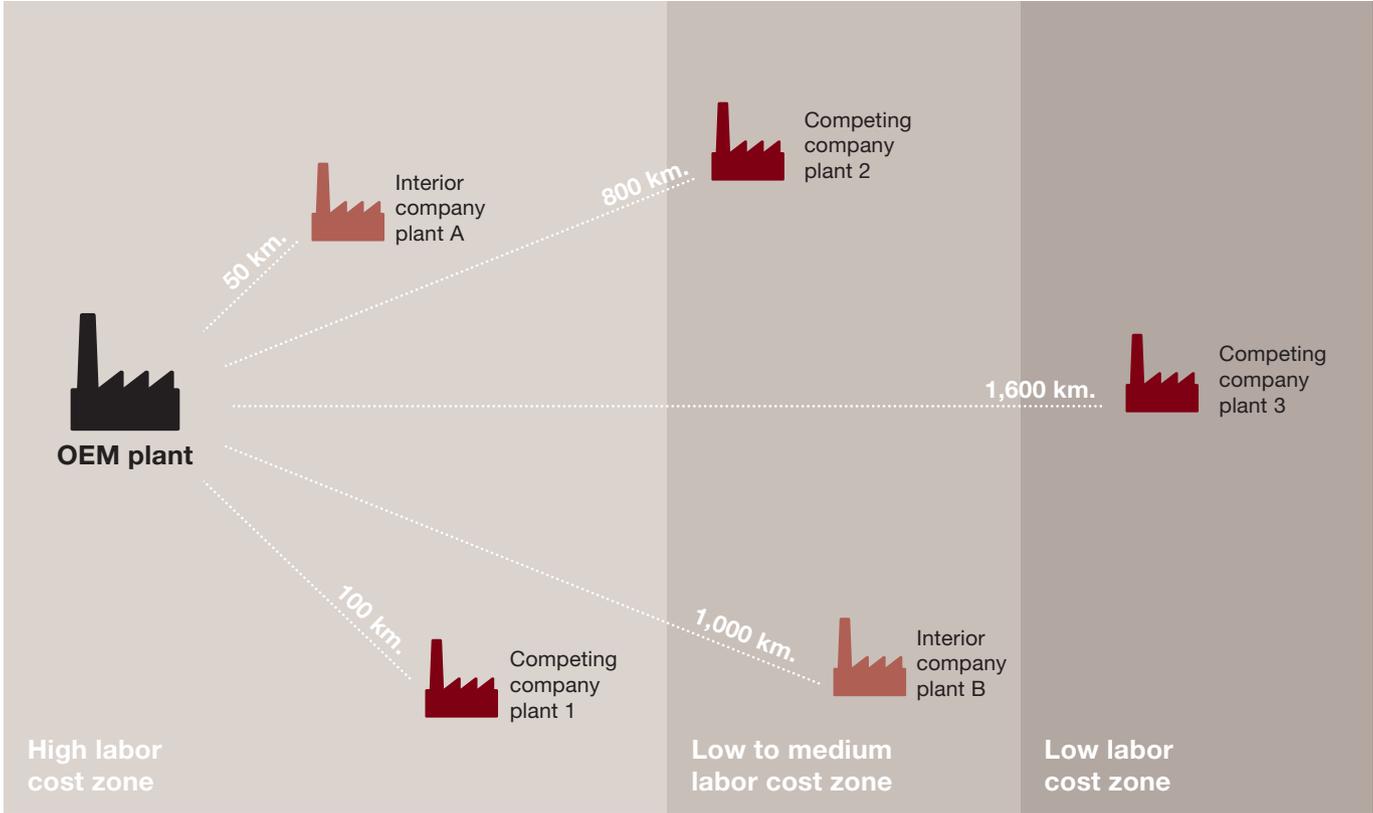


for their part, want to minimize their expenditures on standard interior parts to make up for increased funding for more innovative and distinctive features that influence consumer purchases.

In general, the shifting patterns of flexibility and cost represent a key challenge in designing a manufacturing footprint. Wherever proximity provides value, suppliers are sure to migrate (*see Exhibit 2, next page*). This would seem to reward being at the front of the line and migrating early, along with your customers. However, plants are very expensive to move, and sometimes the variable cost advantage doesn't justify being proactive.

Therefore, the suppliers in Western Europe need to develop a plan to determine which plants to close and which to keep operating. The footprint design shouldn't just be based on near-term costs. A decision to move production, made rashly, can actually increase costs — particularly in logistics — or leave a lot of potential money on the table.

Exhibit 2
A typical automotive OEM supplier and competitor network



Source: Strategy& analysis

Capabilities matter

Rather than embrace what looks like an obvious solution too quickly, interior suppliers should, as the first step toward footprint optimization, undertake a fundamental and structured evaluation of their plants and the competitive position each one holds. This evaluation entails analyzing all costs, especially labor and transportation, but also factoring in such key considerations as engineering and sourcing availability, OEM current and future plans, and partnership potential.

Start by raising three questions:

1. What differentiates your plants? More precisely, what key capabilities does each plant have that allow it to effectively supply a major customer in a specific product category at lower cost than competitors?

In making this determination, begin by mapping the ecosystem for the plants (in this case, OEM automotive plants) that will receive the bulk of your products. With your customer's existing plants and those already under construction as focal points, chart the factories in your network, including your own factories that potentially serve that customer, as well as those operated by your competitors.

Now analyze and compare the key capabilities and advantages of all of the factories in the ecosystem. Your goal is to assess the quantitative and qualitative advantages that your factories have relative to those of your competitors. Look in particular at the technological or operational elements that distinguish your factories and enhance your most important capabilities. These differentiating elements could include the following:

- Low labor cost in combination with a short distance to a customer's plant, which would lead to consistently lower variable cost than your competitors have

- Lower capital charges per unit of output, because of either superior utilization or the use of cost-advantaged machinery
- Availability of all required production technologies and assembly processes at one location, enabling your plant to avoid expensive shipments to other plants or suppliers
- Low complexity — for example, a clear and successful focus on specific lean production technologies — which results in significantly lower plant overhead costs
- Modularized products that allow key components and technologies to be used across the production floor through all the assembly lines

2. What type of price realization is this plant likely to achieve, given all the relevant factors?

Suppliers' pricing and output decisions are interdependent. Any cost reduction will therefore translate into not only higher profitability per unit, and higher total profitability, but also an increase in market share. Auto interiors are no exception.

Cost reduction in any of the areas described above will translate into higher profitability per unit and increased market share. These dynamics are well known, and can be simulated quite robustly by factoring in the current pricing–output decision of all the factories in your network. In a representative simulation, we found that under the current market structure we could expect that if any one supplier reduced its variable costs by 1 percent, it could boost its market share by around 0.6 percentage points.

However, current costs and potential cost reductions are only two factors, and not necessarily the most important ones. The supplier that can best serve its customers will not necessarily be the one with the lowest costs. You need to take into account the cost structures of your competitors, and elements we've discussed above, such as proximity to suppliers and customers. Total product cost — counting sequencing and inventory, logistics, labor, plant operational expenses and overhead, and materials — is a better way of measuring these factors. In a sector like auto interiors, where there is no significant product differentiation between manufacturers and there is a limited number of feasible suppliers, total product cost will correlate with strategic advantage.

3. How robust are your sources of competitive advantage?

In this step, examine and explore how projected upcoming changes in the region, industry, and competitive balances will affect your manufacturing footprint optimization decisions. Questions you should consider include the following:

- How robust and enduring are your sources of competitive advantage? (For example, how robust are your innovative methods, your connections to key suppliers or customers, and the skills of your staff compared with those of your competitors?)
- How will future product design influence key footprint factors? How will it affect required labor time, or change the labor or transportation costs associated with your plant locations?
- How and when might key footprint factors change? For example, for European auto interior component suppliers, how soon might the growth of labor costs in Eastern European plants set off a new wave of migration, perhaps farther east, possibly involving a new wave of major automaker relocation? Remember that wherever proximity has value, the supply chain will migrate, sooner or later. Should you be at the front of that migration?

Planning the future network

We recommend that suppliers take a four-step approach to determining their manufacturing footprint. Mapping out the points below will provide a clear view on which plants should form the network of the future.

1. Identify your key capabilities

- Allocate your production facilities to existing or targeted OEM plants.
- Define a map of competing plants, those that exist now and those planned for the future.
- Identify the key capabilities of the best-positioned plants in the key product groups.

2. Identify and analyze the capabilities of the competing plants.

- Identify your differentiating factors.
- Define the standard products for all product groups and targeted OEM plants.
- Analyze and estimate the costs and benefits of operating your own plant versus all competing plans for all relevant product groups.

- Identify quick wins by closing the gaps.
- Quantify the advantage of your differentiating factors.
- Develop or acquire capabilities that will differentiate your own plants.

3. Analyze trends

- Identify the driving forces that could affect differentiating factors.
- Analyze and forecast the future development of these key drivers.
- Analyze the supply curve for each submarket.
- Understand the competitive dynamics.
- Develop measures to deepen and defend your differentiating factors.
- Make your differentiating factors sustainable.

4. Prioritize restructuring activities

- Identify required investment and restructuring budgets for all plants in your network.
- Prioritize your investments and restructuring activities.

Conclusion

Suppliers that follow this disciplined approach will be well-equipped to define the network they want to operate in the future. The approach that leads to a deep, quantified understanding of the differentiating factors has several additional advantages; for example, it helps you identify programs that should be targeted. As these selection criteria can be applied very early in the process, this approach enables you, as a supplier, to focus your sales, engineering, IT, and other resources on those future programs where you have a clear right to win. It will also help you identify which plants will not be a successful part of your future network. For plants that don't pass this test, there are typically three options: selling, closing, or operating at low margin.

Discussions like these often take place in a world of limited restructuring budgets, so the supplier is forced to develop a clear prioritization of the restructuring activities. Suppliers that perform this analysis will also be equipped to estimate the budget they will need to restructure and the impact on employees.

The dilemma that automobile interior producers face makes them an ideal example of how industrial enterprises can manage their geographic footprints. As we've seen, even with widespread industry cost concerns and the wave of OEMs moving from Western Europe to Eastern Europe, the auto interior suppliers should make their decisions about where to locate based on where they can reduce their total production costs — not just labor costs — in ways that establish differentiating capabilities, as well as where they can best take advantage of trends that might benefit them. In doing so, they will be in a position to focus on growth strategies in their strongest production facilities and offload the weaker ones.

In many businesses, discussions about cost reduction typically end with a number — a percentage of costs to cut. For the most successful companies, however, these discussions are just the beginning. How can your company manage these cuts so that they lead to sustained advantage? How can you reorganize your footprint, in particular, so it makes you a stronger competitor? The answers will be evident as soon as you begin looking at your manufacturing plants through the right lens.

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