



This article was published in the *automotivemanager* 2/2008.  
[http://www.oliverwyman.com/ow/pdf\\_files/automotivemanager\\_2009\\_en.pdf](http://www.oliverwyman.com/ow/pdf_files/automotivemanager_2009_en.pdf)

### **Get to know our Automotive Team.**

Oliver Wyman's automotive experts have broad industry experience and a commanding track record of successful consulting projects for leading automotive OEMs and suppliers in Europe, America and Asia. We offer consulting services along the entire value chain of the auto industry: R&D, purchasing, manufacturing, sales and channel management, after sales and financial services. Oliver Wyman's global Automotive Practice supports clients with strategic topics like brand management, customer orientation, corporate and business strategies, market, competitive, and technology analyses, product development, innovation management, sales strategies and after sales programs. Operational optimization includes purchasing, production optimization, efficiency improvement programs, reengineering, turnaround management and restructuring. In addition, Oliver Wyman offers the whole range of mergers & acquisitions consulting services, from partner search to evaluation, transaction support, and post-merger integration.

© 2008 Oliver Wyman. All rights reserved.





8% less  
labor hours

› Customer › R&D › Procurement › **Production** › Sales › Services

## Productivity Gap Narrows Across North America and Europe

Despite losing billions of dollars and substantial market share as American consumers shift from large trucks and SUVs to smaller cars, the three Detroit-based automakers have reached near parity with their Japanese rivals in manufacturing efficiency, according to The Harbour Report™ 2008.

Ron Harbour,  
Michelle Hill

Of the six largest automakers in North America (General Motors, Toyota, Honda, Ford, Chrysler, and Nissan), the gap between the most and least productive is now just 3.5 labor hours per vehicle, or about USD 260, down from 10.51 labor hours, or USD 709 per vehicle in 2003. Chrysler showed the biggest improvement, cutting its total manufacturing labor hours per vehicle by 8 percent to 30.37, approximately the same number recorded by Toyota. Performances of the other four companies were all similar: Honda, 31.33 hours; General Motors, 32.29 hours; Nissan, 32.96 hours; and Ford, 33.88 hours.

In Europe, the gap between the most and least productive remains wide (from less than 20 hours per vehicle at the best plants to more than 60 at the worst). Some automakers have made substantial progress toward the types of sustainable manufacturing processes that characterize the world's best competitors. Others have only just started or are just starting to implement the most basic tools of lean production.

Hours per vehicle reflects time worked by all direct and indirect labor involved in manufacturing a vehicle. This includes both hourly

and salaried workers who are assigned to each company's stamping, engine, transmission, and assembly plants. The total hours worked are divided by the number of vehicles produced in the calendar year to yield the labor hours per vehicle. It is not a measure of how long it takes for the vehicle to be assembled, rather it measures the quantity of labor required to produce a vehicle.

Detroit to production of three models derived from its small C platform. But it will take 16 to 18 months to complete the retooling and engineering work before the smaller models go into production. In today's market, it does not make sense to have truck plants and cars plants. A plant is a plant, and companies have to be able to adjust to changes in consumer taste as quickly as they happen.

---

*“We’re in a market now where you can’t have truck plants and car plants. A plant is a plant and you have to be able to adjust to changes in consumer taste as quickly as they happen.”*

---

### **Productivity matters**

As labor becomes a smaller portion of the total cost of producing a car or truck, why should this metric matter? Detroit automakers are losing money in their home market (as all are now) primarily because of two main factors. First, the labor agreements they signed decades ago that committed to paying retirement and health care now add a burden of USD 1,000 to 3,000 per car penalty. Second, the strict dealer franchise laws make it near impossible and costly to eliminate the surplus brands and dealers costing the companies billions.

One reason productivity matters is that the money saved by streamlining the manufacturing process can be invested in more technical features, higher-quality materials, and enhanced performance of vehicles. Better quality can improve and reinforces a brand's reputation, which allows the best performers to charge a higher price for their products. The Detroit Three's ability to improve productivity has been impressive and will help them as competition grows fiercer and consumers move to smaller, more fuel-efficient (though sometimes less profitable) vehicles. Like the movie "Rocky," Chrysler, Ford, and General Motors are in the fight of their lives, but at least they're going into this fight as fit, from a manufacturing standpoint, as they've ever been.

### **Flexibility is the new differentiator**

There are two primary reasons for the relatively strong financial performance of Toyota, Honda, and Nissan and the disastrous losses at Chrysler, Ford, and General Motors. The first is that the Japanese automakers have been far less dependent on large pickup trucks and SUVs for sales and profits. They've learned how to make money on small cars years ago.

The second is that they have been more flexible in adjusting their mix of products to meet changes in demand. Ford is beginning to convert a large SUV assembly plant near

Flexibility is reflected through capacity utilization. When demand falls, or shifts away from one market segment to another, the most flexible manufacturers will find a way to respond to that change without closing plants. Ford of Europe has been very successful at reducing its manufacturing footprint to match its market share. As the European market remains divided between a mature, high-cost model in Western Europe and a high-growth, low-cost model in Eastern Europe, older plants in the West will not survive unless they can consistently operate at close to full capacity and at close to the cost of their newer counterparts in the East. Another element of flexibility is achieving the best balance of labor and automation. There are many cases of plants that are so automated that they risk hurting productivity because some of the most modern equipment can break down. The right balance will be determined by the relative labor cost in a plant's region and the skill level of workers in monitoring and maintaining the equipment in their plant.

---

### **Four strategies for improving labor productivity**

- 1** Focus on in-process quality; reduce labor and time devoted to inspection and repair.
  - 2** Increase cooperation between manufacturing and product development to improve design for manufacturability and drive out complexity and variation.
  - 3** Develop standardized manufacturing systems with flexible work teams trained to continuously improve processes and rebalance work loads.
  - 4** Strike a balance between labor and automation that is appropriate for the labor costs and technology in a given region.
-

# Production

## Productivity Gap Narrows Across North America and Europe

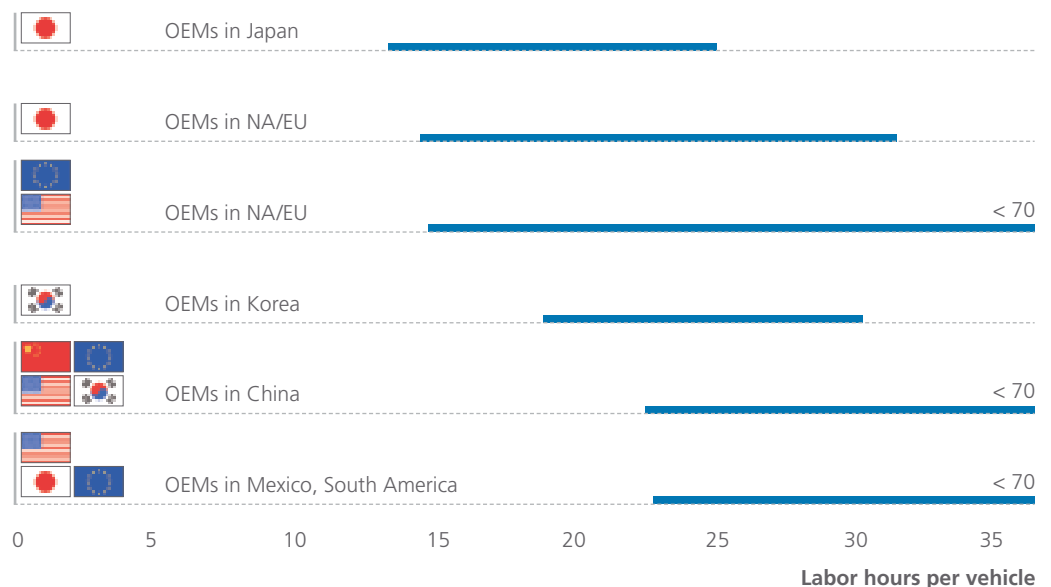
### Emphasize in-process quality and reduce inspect-and-repair

There are a variety of strategies that can lead to better productivity. Buyouts of older high-wage workers and two-tier wage structures are part of Chrysler's, Ford's, and GM's strategy in the U.S. But standardized work instructions, flexible work teams, and designs that reduce the complexity of option packages and structural variations have also contributed. Focusing on quality drives better productivity, but only if the quality is built in the first time. Too often, large numbers of people and labor hours are devoted to inspecting and repairing the vehicles not built right at first. Without a robust process for tracing a defect to its root cause, the defect can occur again and again.

Oliver Wyman's The Harbour Report™ North America 2008

The Harbour Report™ is the leading benchmark analysis on manufacturing performance in the North American automotive industry. The annual benchmark analysis examines productivity, procurement and capacity utilization in the areas of assembly, stamping facility and drive train. By taking this approach, it can show which companies are developing systems and processes that optimize quality, lean manufacturing, continuous improvement processes, the application of workers and technology, product complexity and work-flow design.

### Global labor productivity comparison in 2008



Note: Excludes plants < 30,000 units/year  
Source: Oliver Wyman