Contact: Jodi Tinson

Shawn Morgan

SCOTT GARBERDING "World Class Manufacturing: Agent of Cultural Change," CAR Management Briefing

SCOTT GARBERDING "World Class Manufacturing: Agent of Cultural Change," Command Traverse City, Mich.
Scott Garberding
Senior Vice President - Manufacturing/World Class Manufacturing, Chrysler Group LLC
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Thank you, Jay {Baron], and good morning. I've been involved in a lot of launches lately ... I am pleased to help "launch" this outstanding conference.

And it's always a pleasure to be in this beautiful part of Michigan. Did you know that Traverse City was founded in the mid-19th century as a logging town? Not long after that, the first cherry tree orchard was planted here. So when the lumber ran out in the early 20th century, Traverse City turned to cherry production and began shipping fruit all over the

Cherries are still big here - for us, this is the cherry capital of the world. However, over the last four or five decades, tourism has taken off and is now a big driver of the local economy. Even more recently, the wine industry has been

growing at an impressive rate.
So, what does all this have to do with manufacturing at Chrysler? Well, Traverse City has succeeded by adapting to new realities, by leveraging its strengths, and by a willingness to change. Chrysler is following a similar path. We have undertaken a brutally honest self-appraisal of where we stand in the automotive world. And we are embracing change, in recognition that our future in the industry requires it.

To quote John Wooden, the legendary college basketball coach, "Failure is not fatal. But failure to change might be."
Just 14 months ago, Chrysler Group LLC emerged from Chapter 11 - as a new entity, with a new global partner, Fiat. We are grateful to American and Canadian taxpayers for giving us a second chance, and we constantly keep in mind our responsibility to pay them back by building a successful enterprise that sustains good jobs and contributes to our communities.

Fiat holds a 20 percent equity interest in Chrysler, based on agreements that it would transfer certain technology, platforms and powertrains to the new Chrysler. Fiat is also providing Chrysler with access to Global distribution networks. Fiat's equity interest can increase by 15 percent in three increments of 5 percent by achieving certain milestones related to the transfer of technology and market access to Chrysler.

The United Auto Workers' Retiree Medical Benefits Trust, a voluntary employees' beneficiary association trust (VEBA), was issued a nearly 68 percent equity interest in Chrysler Group. The U.S. Treasury and the Canadian government were

was issued a hearly ob percent equity interest in Chrysler Group. The U.S. Treasury and the Canadian government were issued an equity interest equal to nearly 10 percent and over 2 percent, respectively.

We've worked hard, made tough choices and embraced a culture marked by accountability and a willingness to change. And in recent months, we've seen tangible progress, such as an operating profit of \$143 million in the first quarter, and a 12 percent increase in U.S. sales in the first six months of this year. And we'll announce second quarter results on August 9.

We just came to market with an all-new Jeep® Grand Cherokee and we will really step up the product offensive the rest of this year with launches of all-new versions of the Chrysler 300, the Dodge Charger, the new Dodge Durango and the Fiat 500. Many more vehicles will get significant exterior, interior and powertrain improvements. In fact, 75 percent of our product portfolio - a total of 16 vehicles - will be renewed or all-new during this year.

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Everywhere you look around Chrysler; there is so much happening - all laying the groundwork for an exciting revival. However, nowhere at Chrysler do the winds of change blow stronger than in manufacturing.

In March, we began building the new, fuel-efficient Pentastar V-6 at our brand new, state-of-the-art Trenton South Engine Plant in Michigan. That engine program represents a \$730 million investment in our future. We are also investing \$179 million in our Global Engine Manufacturing Alliance plant in Dundee, Michigan, which will soon begin producing the very efficient 1.4-liter, 16-valve, 4-cylinder engine with Fiat Multi-Air technology.

This spring, we also announced a \$300 million investment in our transmission manufacturing facilities in Kokomo, Indiana to build a new highly efficient eight-speed automatic transmission. That came on the heels of an approprement

Indiana, to build a new highly efficient eight-speed automatic transmission. That came on the heels of an announcement we were investing \$43 million in new equipment and tooling to expand our operations in Kokomo to increase production capacity for our six-speed transmission program.

In total, we've invested nearly \$1.3 billion dollars in powertrains since 2007.

We have also invested in sophisticated simulation and CAD systems, and we make good use of them. But frankly, if we get to what's really enabling us to make a major leap forward; it is the rollout of World Class Manufacturing. WCM, as we call it, has become a major driver of cultural change at Chrysler.

The first point I want to make is that we would not have made the progress that we have without the partnership of the United Auto Workers at all levels. The union's leadership has stuck to its principles - to improve the well-being of its constituents. In so doing, the UAW has worked with us very practically, realizing that their members depend on Chrysler's success.

And this works both ways, because Chrysler's management recognizes that the company's success depends on tapping into the knowledge, creativity and dedication of the people in our plants. We could not attain WCM's goals - improved safety, efficiency and flexibility - without the support of union members.

Fiat implemented WCM and has provided Chrysler with this great toolbox to work with. It involves a fundamental cultural shift in the way we approach production. WCM includes rigorous methodology for improvements, including regular audits of every plant's performance.

Yet at the heart of WCM is the human component. The system is based on a deep belief that a fully engaged workforce that takes pride in its work is the primary ingredient to building the best vehicles in the world. In short, WCM is built on the principle that the real success of our enterprise depends on the people in our

manufacturing plants. And I am confident about our future because of the passion that our teams are bringing to the changes that we are implementing today.

The World Class Manufacturing production system was a key piece of Sergio Marchionne's turnaround strategy after he assumed the CEO job at Fiat in 2004. WCM is a holistic production system that takes the best of other systems and is linked to both clear targets and regular audits of every aspect of the work.

For Flat, the system changed every facet of the way it built cars, making big differences in the way work got done, who did the work and the way the work was led. Between 2006 and 2009, Flat estimates it saved 730 million euro because of

the implementation of WCM principles. Fiat knows its people are involved, because they are making an average of 10 proposals for improvements, per employee, per year. And absenteeism has declined 14 percent.

During this same period, Chrysler also worked very hard on a number of manufacturing issues, specifically safety, quality and hours per vehicle, and made progress in those areas. But in contrast with Fiat, Chrysler had limited success because we didn't, or couldn't, implement the people systems necessary to really maximize success.

The beginning of the Fiat-Chrysler alliance in June 2009 gave us at Chrysler the opportunity to learn from our partner's

experience. Our people made benchmarking trips to Europe, and Fiat has sent some outstanding coaches here to assist our implementation. Fourteen Fiat WCM experts per week on average are deployed in Chrysler plants to support the

implementation of the production system

The spirit of partnership between Fiat and Chrysler in implementing the system has been based on mutual respect - and

this cooperation is a great indicator for the success of the alliance going forward.

Very simply, World Class Manufacturing is about eliminating waste. It relies on team structures to involve our people in a way that really gets at every form of waste - waste created by injuries, waste of motion, waste of defects, and more. And way that really gets at every form of waster a waste created by highres, waster of motion, waster of defects, and mote. And it recognizes that the success of our enterprise depends on the constant contribution of those who work in our plants. Our work force plays a much bigger role today, not just pointing out problems, but actually helping to design the manufacturing processes up front. For example, our hourly team members at Jefferson North, with engineering and management support, led the development of the detailed manufacturing processes for our new Jeep Grand Cherokee. WCM demands levels of rigor and logic that were not traditional for us at Chrysler. It is impossible for us to execute at these new levels without consistence of the problems of the problems of the problems of the problems. these new levels without engaging our hourly workforce in planning, execution and problem solving. WCM gives us a formal method for doing just that.

We are investing a lot of time in people development. But instead of the broad-based training programs we emphasized before, we've moved to a much more focused philosophy - one that emphasizes much smaller, team-focused efforts than before.

I won't take you through all of the elements on this slide, but I will point out a couple of items that are unique to our WCM

Methodology.

First, safety. A focus on safety underlies all activity within WCM. For example, the first several steps in improving workplace organization are also focused on safety and ergonomics.

Second, cost deployment. A rigorous cost deployment process is another factor that differentiates WCM from other lean manufacturing systems. Cost deployment begins with identifying the major causes of waste in a plant - the cancers, so to speak. This allows our teams to focus their efforts on the areas that cause the most pain and direct resources toward activities with the greatest potential to make a difference.

In the upcoming slides, I'll take you through a few examples of elements of WCM.

Let's look at how this all works in the area of safety, which is an overarching principle in WCM. Cost deployment, which I'll discuss more in a minute, is about eliminating waste, and injuries are waste. We all recognize safety is the right thing to do. In addition, the fact is that injuries are costly in many ways, from lost production to medical expenses to a decline in other workers' morale.

Among the tools we use, we look at safety as a pyramid. At the top is the worst thing that can happen, which is an industrial fatality. Our focus first is on eliminating deaths, and serious injuries.

Of course, we always tried to eliminate these kinds of major occurrences by doing a root cause analysis. With WCM,

what's different is now we also look below the water line in order to consider trips to First Aid, near misses, unsafe conditions and unsafe acts and eliminate them. Team members are encouraged to recognize these issues, conduct a root cause analysis and immediately work to improve conditions before a recordable injury happens.

At our Belvideré Assembly Plant in Íllinois, operators formerly had to reach inside and blindly install fasteners for side air bags. This led to repetitive motion injuries because of the poor angle of installation and made the operation very difficult. The team in Belvidere came up with the idea of a seat with an arm attached to rails overhead - they call it a "happy seat." So now, the operator can sit on the seat and slide into the door opening of the car, allowing him or her to see what

Here's another example of improved ergonomics, in this video for the Warren Truck Plant. Previously, this woman spent a lot of time walking back to retrieve tools and parts. After she was provided with a lineside limo, she was able to concentrate on installing the part in the vehicle, instead of the non-value-added walking.

Cost deployment is an excruciating process. The first time you do it, it involves going through every machine and every work station in order to identify every loss of any significance. These losses are categorized as causal and resultant losses. For example, down time on one machine could be a causal loss that creates resultant losses in another part of

Once we understand where the losses are and have assigned costs, we can see the areas that are critical to address. This analysis also helps team members understand why it's important to make improvements. They understand the logic and become more involved.

Another key concept in WCM is the restoration and maintenance of the plant and its equipment. If you give people the tools to maintain their own area, they tend to want to do it. This is change that people can see.

Here you see a before-and-after of a couple of machines. You may be thinking it's a soap commercial.

Actually, this is an example of how operators maintain their own equipment on an ongoing basis. The machine on the left

is dirty but was basically functional. It could run and make parts, but if there's something going wrong that's not catastrophic, it's pretty hard to tell. If it's leaking, for instance, good luck figuring it out because it's dirty. If you look at the picture on the right, if there's a leak or some other abnormal condition, you can spot it immediately as you're cleaning the

With WCM, once something is clean, teams work on the task of reducing cleaning time by at least 90 percent. This is a very different approach, which focuses on what is making things dirty and how to stop the sources of dirt. For example, you may have seen a recent TV commercial for one of our competitors in which a product spokesman walks through a plant while sparks fly from welding activities. It makes for good video, but the truth is, sparks mean the welding is inefficient.

At our Toledo North Assembly Plant, a team took on the task of creating sparkless welding. As you can see in the beginning of this video, sparks had been common during the process. For a long time, weld slag was accepted as normal, but it is a safety hazard, requires cleanup time, can cause equipment breakdowns and affects quality. The team identified and prioritized factors, beginning with restoring the weld gun to basic conditions by addressing tip alignment, uneven wear and alignment of the gun to ensure it was perpendicular to the welding surface. The team then addressed part fit and weld schedules. Each step created improvement, and in this video, you can see that sparkless welding was eventually achieved.

We understand that quality is the price of entry in today's market, and WCM has rigorous steps for quality control. We've

also made extensive investments in assuring high levels of fit and finish. As part of this process, we are establishing metrology centers, which include a key tool called a Meisterbock gauge that enables us to measure the parts that come into the body shop. We're able to literally put the parts together before the assembly process begins to ensure that the sum of all these parts will be a vehicle with the integrity that meets our targets. This master fixture enables us to simulate the build of a vehicle and do a lot of detailed-measurement problem solving.

We're devoting about 30 people per plant to work on nothing but fit-and-finish issues and we're giving them world-class

hardware to do the job right.

Audits are an important element of the whole world-class manufacturing process. An audit is a detailed, painful process focused on brutal facts. You're cut no slack, you hear about all of your opportunities, and once you get over grimacing, you learn a lot. That's the real the purpose for it. It's for the plants to understand how they employ these principles ... ho they deploy where they've got to go next ... and what they've got to do to stay on track from a progress perspective. The good news is that we're already seeing results from a number of these projects. Some of the plants have really progressed quite far. We put some very aggressive targets together for ourselves for 2010. I can tell you that, to date, we are on track to meet our 2010 targets of:

• A 30 percent reduction in injuries

8 percent reduction in operating costs

10 percent improvement in productivity

And a 15 percent improvement in first-time quality

Our entire organization is excited about where we're headed. We understand that this is a people business, and that

Our entire organization is excited about where we're headed. We understand that this is a people business, and that investing in our people is the best way we can be competitive making vehicles.

I want to close by talking about how our WCM efforts came together for the production launch of the 2011 Jeep Grand Cherokee in May at our Jefferson North Assembly Plant in Detroit. This is a critical product - the first all-new vehicle to debut since the emergence of Chrysler Group LLC. We know that the world is paying close attention to see whether we have our act together.

Our teams played a huge role in the launch. In the past, with the changeover to a new product, we would lay off almost everyone except for skilled trades teams involved in the changeover. This time, when production was shut down for four weeks, our teams were here to train, plan and help upgrade the physical conditions of the plant.

Every morning the teams went through classroom training, and then they moved out onto the floor to apply the training. They made drastic changes in the plant. It's almost unrecognizable versus what it was previously. Everything was repainted and scrubbed from one end to the other, and processes were put into place to maintain this high level of cleanliness

At the same time, hourly team leaders provided major input into the way the vehicle would be built. We supplied them with computers, digital cameras, a room and partially assembled vehicles on which they could work. They were thoroughly involved in developing detailed work instructions - what materials and tools were to be used, how parts should be assembled, and the sequencing of assembly.

The result is that when the new Grand Cherokee was launched, the people building it had a real sense of ownership.

The critics have been overwhelmingly positive about the new Jeep Grand Cherokee.

USA Today praised the interior for its "premium look, soft-touch feel (and) precise operation." Motor Trend wrote, "Off-road at Moab, it's hard to imagine how it could get any better." And The Wall Street Journal summed it up this way: "vastly overachieving in several directions, the Jeep Grand Cherokee is a fine machine, a celebration, a victory." These are just some of the reasons why the teams at Jefferson North are feeling tremendous pride. In fact, they had another reason to be proud just last Friday when President Obama decided to visit the plant. He came to talk about how the sacrifices made by so many last year, today have created an industry that is growing stronger, creating new jobs and manufacturing fuel-efficient cars and trucks. What he saw was an extraordinary plant with an extremely motivated and dedicated workforce committed to building a world class product.

That pride and dedication will spread throughout our plants in the coming years. Don't just take my word for it. I want to leave you with a video that captures the new spirit of teamwork at Chrysler.

Thank you for your attention.

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