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Building a sustainable Ford Motor Company: An interview with Bill Ford

The carmaker's executive chairman talks about its prospects, technological change in the industry, and manufacturing in America.

Sheila Bonini and Hans-Werner Kaas

William Clay Ford Jr. has long been a strong advocate, inside Ford Motor Company, of winning through sustainability. Profits will rise, argues the automaker's executive chairman and the great-grandson of Henry Ford, as it delivers vehicles that are better for the environment, made in plants that are increasingly energy efficient and, consequently, less costly to operate. For years, few in the company seemed to fully embrace this vision. But in the wake of rising oil prices and a global economic crisis, the managerial ranks have rallied behind Bill Ford's drive for sustainability.

To become a thriving, profitable business again, as Bill Ford readily acknowledges, the company still has challenges ahead, but he says he has never seen it as focused and driven as it is today. When he became CEO, in 2001, Ford was determined not only to turn around a troubled company but also to make it greener: for instance, he spearheaded the remake of the River Rouge plant, once decaying but now a test lab for sustainable manufacturing practices. Ford's leadership on environmental and manufacturing issues extends beyond his company. Vice chairman of Business Leaders for Michigan (an executive leadership organization in Michigan) and chairman of the Detroit Economic Club, he has used both platforms to help shape the agenda for reviving US manufacturing competitiveness, particularly through sustainable innovation and technology.

In October 2009, Ford sat down with with McKinsey's Sheila Bonini, a consultant in the firm's Silicon Valley office, and Hans-Werner Kaas, a director in Detroit, and discussed his views on sustainability, the new technologies for fuel economy, innovation, and overcoming resistance to change. The interview took place in Ford's office at the company's headquarters, in Dearborn, Michigan.

McKinsey *Quarterly*: *You've been an advocate for sustainability for many years. Can you explain how you came to these views?*

Bill Ford: My leanings go all the way back to college. When I joined Ford, in the late 1970s, I felt strongly we could not forever be a huge user of natural resources without there being consequences. But I was alone in my thinking in those days. Through the '80s, I tried to find kindred spirits within Ford. There were a few, but it was an uphill battle, particularly with top management, who thought I was probably a Bolshevik. I never wanted Ford to be a place, like the tobacco industry, where our employees were not proud of coming to work for us. I felt there was a danger of that, should we be marginalized as a major polluter. Our business, like others, depends on getting the best and brightest, and we weren't going to get the best and brightest if this place was not socially acceptable to work at.

When I joined the board, in 1988, I was told I couldn't have any environmental leanings. I completely disregarded that. Someone had to build a bridge between the environmental community and the business community—which, in that era, all through the '90s, were very much polarized. I think I was the first executive to ever speak at a Greenpeace

business conference, in London in 2001. That didn't play well here at Ford, but I thought it was an important signal to send internally, that these were the kind of issues we needed to be grappling with.

McKinsey *Quarterly*: *What was behind the resistance you encountered?*

Bill Ford: With gas cheaper than bottled water, there really wasn't a great pull in the marketplace for fuel-efficient vehicles. The other thing is, traditionally, fuel-efficient vehicles were seen as cheap and not fun to drive, so you really had a double whammy in terms of the acceptance of fuel economy. Now fuel prices have risen, and the technology has developed to the point where we can give customers great fuel economy and a great driving experience; they don't have to make that trade-off anymore. So now we're at the point where we can say we want to be the fuel economy leader in every segment we participate in—and that statement does not scare people internally. They understand this is the right thing to do; it's the right business equation. In the past, they may have been skeptical.

McKinsey *Quarterly*: *What kinds of approaches did you take to change internal perceptions of sustainability?*

Bill Ford: Among other things, I was able to point to what happened in Europe. Customers there made the switch to smaller cars and more efficient fuel—in that case, diesel. It was a rather seamless transition. And small cars in Europe weren't cheap and no fun to drive; they were well appointed and lots of fun to drive. They had a very good performance capability.

Bill Ford

Vital statistics

Born May 3, 1957, in Detroit, Michigan

Married, with 4 children

Education

Graduated with a BA in history in 1979 from Princeton University

Earned MBA in 1984 from MIT

Career highlights

Ford Motor Company (1979–present)

- Appointed executive chairman (2006)
- Appointed CEO (2001)
- Elected chairman of board of directors (1999)
- Elected chairman of finance committee (1995)
- Joined company as a product-planning analyst (1979)

Fast facts

Is an avid fly fisherman and car enthusiast, plays hockey and tennis, and is a black belt in tae kwon do

But one thing that is lacking in this country that could make the European model work is a convening entity. In Europe, all the players got around the table—the NGOs,[1] governments, and the automakers—and they said, "OK, where do we want to head?" Obviously, there wasn't unanimity of agreement among them, but there was a lot of dialogue, and a target was agreed upon. Here, we have government, NGOs, and the manufacturers all lobbing bombs at each other. Whether it's the electric highway, a biofuels future, or a diesel one, the auto industry can't unilaterally solve these issues. We need collaboration, which is not something, in this country, that has traditionally happened. We need the players to sit down and make this happen.

McKinsey *Quarterly*: *What else did you do?*

Bill Ford: I did things like the Rouge plant. We took the world's largest brownfield site and made it into the world's greenest assembly plant. At Rouge, we're turning paint fumes into energy. We have grass roofs on some of our plants now. We have permeable parking lots, so that storm waters aren't flushed but sink into the ground. I can go on and on. We have a lot of technologies we're applying, some high tech, some low tech. One low-tech thing we've done is to use plants to suck up dirty water. We worked with Michigan State University and we tested—this is six or seven years ago now—the hypothesis that if you dump heavy metals and other junk into the right kind of field, the plants will suck it up, and what comes out the other end is drinking-quality water. We operationalized that over at the Rouge, and it has worked very well. It's about as low-tech an approach as you can find, and yet it's very cost effective, it's pleasing to look at, and it works.

A lot of these things were big cost savers, as well as the right thing to do for the environment. One of the things I realized all along was that if the whole sustainability exercise was just an expensive showcase, it would never work. It had to make sense from a business standpoint, and you had to be able to demonstrate that. Not everything does, quite frankly. You've got to be willing to try some things. But I think—I know—there's now a general agreement, within the company, that we need to keep pushing in this regard (for more, see sidebar, "Making sustainability real").

There was a lot of frustration over the years, but I stuck with it. We won't be the laggard. Whichever avenue proves to be the predominant one—whether it's electric or biofuels or hydrogen or diesel—we will be there with the hardware. During the difficult years from 2006 to 2008, I insisted we keep our R&D spending going in all these areas. Many of our competitors cut back. Now we are emerging, hopefully, in a better market, with a leadership position in many of these key technologies. That's something I feel very good about.

McKinsey *Quarterly*: *Was there a moment when you knew the mind-set was shifting inside the organization?*

Bill Ford: There is no anecdote to tell. But probably the seminal event was when Derrick Kuzak, who is head of our global product development, took all of the disparate product-development centers around the world and slammed them together. It was a huge management undertaking—these product-development centers had grown up, over many years, as independent. Doing that allowed him to drive this sustainability philosophy through the whole product-development system, in a way that would have been impossible before. So that was the enabler, I think, to removing internal resistance to everything we're doing.

Inside Ford, however, we don't use the term *sustainability* very much, because it lacks clarity. We talk about being the fuel economy leader, about which technology is going to drive that, and we talk about cleaning up our plants and about applying technology to our facilities to drive our carbon dioxide emissions out. It all adds up.

McKinsey *Quarterly*: *But you issue a sustainability report.*

Bill Ford: We were one of the first industrial companies to do so. We track our own progress. When I first introduced that report—I think around 2000—I was blasted by the business press. They asked, "Why would you criticize your own performance?" We said in the report, here's where we're falling short, here are the challenges ahead of us, and check in with us next year to see how we're progressing. I personally came under a lot of criticism. People said this was the stupidest thing they had ever seen. They thought I was an idiot. It was very controversial when we did it. Now it's become much more widely accepted.

For us, sustainability in its broadest sense is about economic sustainability. It's not just about sustainability for environmental reasons—if you don't have a sustainable business model, none of the rest matters. Sustainability is also about having the right employees.

McKinsey *Quarterly*: *How have your efforts been greeted by the NGO community?*

Bill Ford: It's been an interesting ride with them. First of all, when you talk about the NGO community, there is no monolith there. There are a lot of different NGOs, and a lot of them compete against each other, so if NGO A likes you, by definition NGO B doesn't. It was a real education for me, along with the fact that I personally was targeted very unpleasantly by NGOs during this period. A couple of them took out ads in the *New York Times* portraying me as Pinocchio, with a long nose. I asked why, and they said, "Well,

Making sustainability real

Ford Motor Company is one of many—in sectors from consumer goods to concrete manufacturing to Internet services—that have launched environmental-sustainability initiatives. But few companies pursue this goal comprehensively across the organization. In our experience, sustainability commitments achieve a real impact—significant reductions in carbon emissions, say, or dramatic improvements in water or energy efficiency or in waste management—by ensuring executive accountability for these efforts, coordinating them across the enterprise, and communicating the value of what's achieved both to top managers and investors.

Managing sustainability begins and ends with the accountability of senior executives. In a recent study, less than 13 percent of Russell 1000 companies reported having an executive-level committee responsible for sustainability efforts, and less than 6 percent had a C-level executive on the hook for making progress in this area.[1] Lacking this kind of accountability, companies struggle to integrate sustainability into their core planning effectively and to make the right decisions about allocating resources to get the job done. Moreover, when senior executives don't visibly wave the flag for sustainability, the organization—probably rightly—infers that this is not a strategic priority.

Without senior leadership, it is also difficult for companies to pursue coordinated, organization-wide sustainability initiatives. Improvements may bubble up from the middle—a plant manager committed to reducing energy use or a country manager who has to address water scarcity issues—but they are typically fragmented responses. In these companies, it is challenging for an executive even to know the carbon or water footprint, much less identify how to make improvements.

Worse, uncoordinated efforts can act at cross-purposes. One large packaged-goods company, for example, sought opportunities to reduce the impact of its packaging, but much of the cost-savings and environmental potential remained on the table because sourcing managers took into account only the procurement costs of smaller packaging. Other factors that could enhance the company's sustainability efforts, such as packaging designs that would take up less space in inventory or weigh less (and thus cost less to transport), were left unaddressed. The lack of broad metrics and targets meant that senior-level management did not have enough visibility to make strategic sustainability decisions from procurement through the customer experience.

Finally, senior executives lack accountability for sustainability in part because most companies don't track the financial impact of these activities. Companies also don't communicate their impact to senior managers or to the market. In general, investors believe that sustainability can add to a company's bottom line, but they don't always understand the full financial value of these efforts, because executives don't track and communicate it to them. A recent McKinsey survey of investors and CFOs found general agreement among both groups that sustainability activities could potentially generate shareholder value, but in practice both say that they don't take this possibility into consideration very much when they evaluate business investments.[2] This problem sets up a vicious cycle: markets have less opportunity to value sustainability efforts because there are fewer of them, which in turn prompts investors and CFOs to view them as projects that generate less value than other business initiatives do.

Accountability, coordination, and communication are mutually reinforcing. Waste Management, FedEx, and Dow Chemical, among other companies, have shown how to harness these three critical factors. At Waste Management, for example, CEO Dave Steiner oversaw organization-wide strategic planning to find ways of profiting from sustainability activities. That review led Waste Management to increase the focus on its recycling business, on turning waste to energy, and on increasing the fuel efficiency of its trucks. The company tracks and manages progress in all these areas and communicates its achievements within the company and, externally, to investors.

Senior executives at FedEx led efforts to improve the fuel efficiency of its fleet of planes and vehicles and to use more alternative energy. They also propelled the organization to think innovatively about sustainability and the customer value proposition. Now, rather than shipping documents across the country, for example, client companies can have them sent electronically to a FedEx Office store near the destination, printed there, and then delivered locally. This approach leads to notably lower emissions—and cost savings as well.

At Dow Chemical, executives are overseeing development of a second set of ten-year goals for company-wide sustainability (to 2015, building on a first set of goals originally developed in 1994). Both plans not only address key sustainability challenges but are also driving the creation of significant financial value. Dow has invested $1 billion, for instance, from 1994 to 2005 to reduce its energy consumption and improve its water and energy productivity, reaping $4.3 billion in cost savings. Savings have continued to accrue from these efforts, amounting to over $8.6 billion by the end of 2008.

[1] *The Road Not Taken: The State of US Corporate Environmental Policy and Management*, Sustainable Enterprise Institute, 2007.

[2] "Valuing corporate social responsibility: McKinsey Global Survey Results," mckinseyquarterly.com, February 2009.

Sheila Bonini is a consultant in McKinsey's Silicon Valley office, and **Stephan Görner** is a principal in the Sydney office.

because you're the one that might care." I said, "So you shoot your friends?" And they said yes. So here I am trying to make progress in this area and I'm getting shot at by people I could use some help from.

But that was probably a necessary sorting-out period. NGOs, during that period, were very skeptical about helping a corporation. In fact, many of them thought it would taint them to even be associated with us. But we've all come a long way since then. A lot of NGOs now recognize that if progress is going to be made, in this country and globally, we've got to work together. And we understand their concerns and issues better. So we have a much better working relationship today with most of the major NGOs. We collectively—the NGOs and ourselves—have crossed that hurdle of "are we fraternizing with the enemy?" In the early days, I think that was the issue.

McKinsey *Quarterly*: *With so many different paths out there—improved internal-combustion engines, electric cars, biofuels, hydrogen—what is the right way to manage the uncertainty?*

Bill Ford: It's interesting. Ford celebrated its 100th anniversary in 2003, and for 100 years pretty much all we had was the internal-combustion engine. Of course, it changed and was refined, but you didn't have revolutions; you had evolutions. Now we stand at the threshold of some real technological revolutions. And it's still unclear, ultimately, whether there will be one dominant form of propulsion or whether we will have a mix.

I think in the medium term, we will certainly have a mix. We also have not given up on hydrogen, in particular. We have not only a fuel cell—we have hydrogen internal-combustion engines too. Having said that, for all these new systems, you get into national infrastructure issues. Infrastructure becomes the gating mechanism. If it's going to be electricity, then as a nation we have some interesting discussions ahead of us. How are we going to get a true "smart" grid, for example? We have some interesting pilot programs, with various utilities, that have been very encouraging, but to replicate that on a national scale is a tall order. If it's going to be hydrogen, then you're going to have to tear up every corner gas station, and you will have storage issues not only on site but also on the vehicle itself. And how you ship hydrogen to the stations is another challenge.

Biofuels have some of those same issues. Biofuels tend not to ship through pipelines, unlike petroleum. What I think you'll have is very localized production of ethanol—or other biofuels—that will ship locally. We've already seen some evidence of this. All of that will require a big tear-up to our infrastructure, and I'm not sure that this country can take more than one big tear-up. So at some point, as a nation, we will have to place our bets in terms of where we want to go.

McKinsey *Quarterly*: *Do you have a gut feeling which way this might break?*

Bill Ford: Sitting here today, I'd say electric. But if we were having this discussion 18 months ago, I would have said biofuels. If we'd had a conversation 18 months before that, I would have said hydrogen. So things are changing really quickly. There is always a technology darling of the moment. We just need to make sure that we're not only abreast of all these technologies but trying to lead in all of them—and also staying abreast of developing technologies. I don't want to be at the end of the pipeline, where we're the last ones figuring things out. Today, electric and plug-ins clearly look to be the most interesting play. We need to be nimble enough so that, 18 months from now, if something else is the most interesting play, we can roll with that.

McKinsey *Quarterly*: *How is this influencing the way you innovate at Ford?*

Bill Ford: We're a bit like the old Bell Labs, in that we have some really bright award-winning scientists working at Ford. For many years, I think, they felt frustrated by a disconnect between what they did and what came out in the marketplace. Now, though, they are seeing flow-through from what they do right into our products, and they love that. And this is not just on sustainability; it's on safety, traffic and real-time parking information, and other things. There is much closer collaboration between our basic product-development group and our advanced-research group. That is helping to drive innovation. People are energized. They see that there is going to be output from their work; it's not just an interesting academic exercise.

The other thing that's happening: we're doing a lot more collaboration with universities and with our suppliers because we don't have a monopoly, by any means, on good ideas. We need to stay humble, and by that I mean recognizing that good ideas are coming from everywhere. We need to embrace good ideas no matter where they come from. For many years, we didn't do much of that. Now we're really reaching out to people across the globe. We're working with universities and suppliers all around the world. We're getting, therefore, a lot more out of it.

The magnitude of what we've got ahead of us—because the world isn't heading in a clear direction—means we can't afford, either intellectually or monetarily, to be the sole investor in these things. We need to hedge our bets and broaden our net with the universities and suppliers. If you do that, you have an early-warning system. If they start working on things we hadn't thought about, we're part of that now.

When I joined the company, in 1979, we were reeling from the oil crisis and didn't have the right products in the marketplace. We were in real trouble, but we came back from that. This company always does well when its back is to the wall. I think the challenge for us is to manage in prosperity. We always seem to lose the plot when things go well.

McKinsey *Quarterly*: *You brought in Alan Mulally, formerly of Boeing, to be president and CEO of Ford. Has his leadership helped to make change happen?*

Bill Ford: Alan has done a fantastic job. His leadership style is the best I've ever seen. He's taken a global, previously not-well-integrated company and turned it into one that runs off a universal set of metrics. It's now a company where people aren't penalized for raising an issue; in fact, far from it. He asks people to raise issues, and then he asks how we can help, how we can help this person solve that problem. And then the problem is reviewed every week, so it's not going to fall off the table; there's no place to hide. But there's also no shame in saying you've got an issue. That was something Alan ran across when he got here—no one wanted to raise an issue. It's been great for the rest of the management team to learn from him, as well. He's rallied the organization to the common plan.

McKinsey *Quarterly*: *More broadly, how can sustainability and innovation in clean energy boost competitiveness in US manufacturing?*

Bill Ford: Before that happens, we need to value manufacturing in this country. We've lost an appreciation for manufacturing. It's seen as dirty, smokestack America, yesterday's news, and it doesn't fit in the new information age. But in virtually every other country where Ford does business, there is an appreciation for the industrial base, and many countries will do almost anything they can to protect and enhance it. We have not, traditionally—certainly, over the last ten years—shown that same willingness in the US. Until that changes, I can't be terribly optimistic.

It is impossible to find a strong global economic power that does not have a strong industrial base. Now, can the definition of *industrial* change? It has to. It can't mean old smokestack industries. It really is about the application of new technology to modernize those old industries and also about investment in new technologies, such as alternative energy. But we can't as a nation continue to be oblivious to the fact that our industrial base needs some help. And so the world has changed, and America needs to understand that it is changing without us.

In the US, we have a competitive strength in manufacturing: a well-trained workforce. It's a workforce that is proud of what it does and could be brought to bear on anything we manufacture in the country. We need to continue to retrain our employees so that they

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become even more technologically proficient as manufacturing itself changes to become more high tech. And I think government and business have to form partnerships, which is not something that has traditionally happened in this country. We have enormous societal issues as we tackle things, like global warming and fuel independence, that are not going to get solved unless there is collaboration.

McKinsey *Quarterly*: *If you look ahead five years, what else do you want for Ford?*

Bill Ford: I hope that we will be recognized by customers for being a leader in the application of technology that makes their lives better. I also hope that we will be seen nationally as a company that is a key player in the dialogue about where we are headed as a nation.

It really feels good here at Ford now. We're not out of the woods yet, but we're starting to see some momentum. The morale is excellent. We said to people during the dark days, "Trust us, this plan will really work." And now they're starting to see that it is. There's universal acceptance here that this is the right plan for us. We need to work hard, to stay humble, and to remember that we're never where we want to be.

Sheila Bonini is a consultant in McKinsey's Silicon Valley office, and **Hans-Werner Kaas** is a director in the Detroit office.