





GREEN MEANS GO

AS THE DUST OF BIG AUTO SETTLES A
DANISH MAN IS REINVENTING THE
AMERICAN AUTOMOBILE
BY JOSH DEAN

It's a revolutionary moment," says Henrik Fisker, a youthful-looking 45-year-old, as he strolls through his spanking-new office-in-progress in an office park outside Irvine, California. Workers pound and walls rise, literally, as he speaks. "I think the next three to four years will be more revolutionary than we've ever seen, and unless the current car companies start making some radical changes, some of them will lose out. Customers will migrate to new brands."

There is every reason to believe that, in the not-too-distant future, the car in your driveway could be American-made but not a product of the Big Three. For the first time in more than a century, the auto industry offers gigantic opportunities to anyone who has the right ideas—and the engineering know-how—to reinvent the way we drive. The sort of person like Fisker, founder and president of perhaps the most exciting new car company in America.

Much has been made of Tesla—Elon Musk's all-electric car company, which delivered its 100th Roadster, after innumerable delays, in December—but it is this man's company, Fisker Automotive (which didn't even exist until September 2007) that stands most poised to make a huge splash. That's not to say both can't work. They can, and others will follow in their wake. Because whether or not Ford and GM can overhaul themselves, the door is wide open for entrepreneurs who are willing to take a shot at reimagining the way we drive.

Parked at the center of Fisker Automotive's lobby, with its white walls and bamboo floors, is the Danish-born car designer's baby, a spectacular-looking four-door sports sedan called the Karma. It is low-slung and curvy, with big hips, slanty, reptilian headlights, and giant tires. It looks like nothing else on the road, which is exactly the point.

Under its sculpted bodywork, the Karma is a plug-in hybrid. If Fisker meets his goals, it will be the first regular-production plug-in hybrid production car in the world. The Karma runs primarily on two electric motors, which power the rear wheels. When needed, a turbocharged four-cylinder gas engine built by General Motors will kick on and recharge the car's lithium-ion battery when it begins to run low. If you travel fewer than 50 miles a day—the reality for at least 75 percent of American commuters—you won't need the gas engine at all; you'll just cruise home and plug your Karma into an outlet in the garage (or, if you opt for it, into the solar-panel-topped carport that Fisker will also offer). If you do travel more than 50 miles, or if you take a road trip, you need not worry. Unlike the Tesla, or any other fully electric car, the Fisker won't run out of juice and make you walk home.

Just as the Prius showed a demand for better fuel economy, and the Tesla showed that an electric car can find a market, the Karma will show that a car company can rise quickly and offer a product that looks good, is eco-friendly, and best of all, requires no sacrifice.

What, then, took Fisker so long?

"Why would you exchange our established gas engine with a very expensive technology if nobody's asking for it?" asks Fisker. "Three years ago, there was no demand. It has come in past 12 months." »

As epiphanies go, it was certainly unusual. Two years ago, Henrik Fisker found himself in Monaco, in the company of Prince Albert. Fisker was in town to promote a line of bespoke, gas-guzzling supercars he'd just begun to make under the name Fisker Coachbuild, LLC. He asked the prince if he might sit in one for a photo. The prince politely declined. "He told me," Fisker recalls, "Come back with a green supercar and I will gladly pose."

Prior to founding Coachbuild, Fisker had built a career on fast, beautiful cars in a distinguished career at the head of both BMW Group Designworks and Ford's Global Design Team. His two most famous designs, the BMW Z8 and the Aston Martin V8 Vantage, are two of the most iconic automobiles of the past decade. So when he left Big Auto to do his own thing, it only made sense to do what he did best: Build sexy, fast, gas-powered cars.

It's hard to believe now, but even as recently as 2007, there wasn't really a craving for eco-cars with sex appeal. Driving a green car meant driving something purposely awkward looking. Performance was not a concern. "And," he says, "I realized there was a huge opportunity there."

It probably didn't hurt that buzz was starting to build around Tesla, for whom Fisker did some consulting while working on his own supercar designs. That brief relationship ended badly (more on that later), but almost from the moment Tesla showed sketches of its design, influential buyers were clamoring for its cars.

Not long after he returned to the States from Monaco, Fisker met Alan Niedzwiecki, CEO of a company called Quantum Technologies, also based in Irvine. Quantum had developed a hybrid electric vehicle for the military intended to quietly transport special forces soldiers behind enemy lines. The U.S. Armed Forces tend to be perceived



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by the public as antiquated and stubborn in their adherence to fading technologies. But modernists in the Pentagon and its contractors are actually driving progress in many alternative areas. The so-called Green Hawks, for one thing, are tired of watching drivers of fuel trucks targeted by IEDs when desert outposts could easily be fueled with sun and wind energy. Not only would Quantum's vehicle be free of antiquated fuel supply lines, the electric motor would offer stealth.

Niedzwiecki and Fisker realized that there was no reason that this powertrain couldn't

also drive passenger cars. It wasn't built with consumers in mind, Fisker says, but he could certainly design a car around it. And so he did.

"I went home, made the sketch, and said 'This is it,'" he says. Overnight, on the back of a 20-minute sketch, Fisker Coachbuild was transformed. Out went the gas-guzzling supercars and in came a luxury plug-in hybrid.

The capabilities of the hybrid powertrain that will underlie the Karma—it can do 125 miles an hour and move from 0 to 60 in less than six seconds, while providing the equivalent of at least 100 miles a gallon—

FOLLOW THE MONEY

It seems a new clean-tech company is born every minute. Venture capital for energy now totals at least 14 percent of VC investments. Want to know which projects are most promising? Pay attention when these firms open their wallets.

Kleiner Perkins Caufield & Byers

This Silicon Valley powerhouse (home to AI Gore's Green Growth Fund) has helped deliver Amazon, America Online, and a little start-up known as Google. KPCB is very actively pursuing electric-car projects.

Draper Fisher Jurvetson

Hotmail and Skype are two projects to emerge, thanks in part to capital from this 24-year-old firm that manages some \$6 billion in capital.

Khosla Ventures

Vinod Khosla, a former partner at KPCB who helped launch Excite and NexGen/AMD, founded this firm in 2004. Under his own banner, Khosla has banked heavily on all manner of alternative energies, including controversial but popular ethanol.

VantagePoint Venture Partners

This firm is the backer of Tesla and Better Place, Shai Agassi's initiative to help countries wean themselves off oil by building an electric-car infrastructure (i.e., the recent \$1 billion plan to wire the Bay Area with charging stations).

New Enterprise Associates

Focusing on three sectors—information tech, health care, and energy—this California- and Maryland-based company has recently pumped money into fuel-cell and solar technologies.

Nth Power

Founder Nancy C. Floyd founded one of the country's first wind development firms (NFC Energy Corporation) in 1982. Today, she sits on the boards of both the American Council on Renewable Energy and the Center for Resource Solutions.



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convinced him he was in possession of an idea with gigantic potential. "I realized you can really merge the desire to go fast and go as far as you want, whenever you want. And when I saw you can merge that with a beautiful design and a hot car, I thought, *There is something nobody's done and something I can do.* And in doing that, I can help promote the idea that we can still drive cool, fast sexy cars."

By January 2008—only five months after sketching the car—Fisker had the Karma concept, a stunningly beautiful four-door sports sedan built around Quantum's powertrain, now known as the Q-Drive. What's more, he promised to deliver it by the end of 2009 for \$80,000. It was ridiculously bold. Skepticism was abundant.

And yet, nine months later, Fisker insists that the first 100 versions of this car will be delivered to customers (at first, influential people such as celebrities and politicians; Al Gore, for instance) by the fourth quarter of 2009, making the Karma the first production plug-in hybrid to come to market, at least a year ahead of the Chevrolet Volt. He says 7,500 Karmas will be sold in 2010, and 15,000 more in 2011. A second model, a coupe with a folding hardtop, will also appear.

This speed is unprecedented in the car business, which is heavily regulated and

capital-intensive, not to mention burdened by the image that it requires a massive workforce and gigantic factories. And considering the struggles of Tesla, which has suffered innumerable delays of its all-electric Roadster, plenty of people are doubtful of Fisker's promises. (Fisker was actually hired to design a second car for Tesla, a sedan now code-named White Star, but he and Musk had a falling out that resulted in a lawsuit. A judge ruled in Fisker's favor last fall.)

"Tesla came out of the Silicon Valley mentality: Build a car company like you build a software program," says Jay Friedland, legislative director and a board member of Plug In America, who advocates for electric-powered vehicles. "Fisker comes out

of the auto industry," he says. Friedland knows that "the hardest thing in any new vehicle is homologation." That's the car industry's term for navigating through the onerous process of government approval, which involves multiple agencies and months of testing. Fisker, who has spent his entire career creating cars, "has lived through that enough times."

Investors clearly believe. In September, the company closed its third round of financing, surpassing \$100 million in part thanks to two of the most powerful VCs in clean-tech: Kleiner Perkins Caufield & Byers (home of Al Gore's Green Fund) and Palo Alto Venture Partners.

"We like a lot of things about it," says Ray Lane, a partner at Kleiner Perkins. "It's an automotive team taken out of the automotive environment. I've watched Silicon Valley teams full of ideas and energy, but they realize really late, 'Wait, we have to build cars!' Second, it's a no-compromise vehicle. Electric vehicles have always made you compromise in some way, whether it's power or range or looks. This is a car you'd buy even if it weren't green."

But green it is, and not just under the hood. "We tried to see how we could continue the theme of being an environmental car in the interior," says Fisker. "We didn't just want to come up with stories of 10 percent recyclable

materials or 5 percent soybean foam. That story is already old."

The Eco-Sport model uses wood salvaged from the bottom of Lake Michigan. Another model uses wood from trees burned in last year's Orange County fires. Fisker also has what it calls a "Happy Cow Strategy," though the cows that end up as seats might beg to differ. Nonetheless, the car's leather is harvested from grass-fed, free-range cows raised to maturity in the hills of Scotland, and, in contrast to other manufacturers who use only the choicest sections, virtually the entire hide is used. Instead of using plastic on the gauges, they are covered in glass, a byproduct of sand. For the animal-rights consumer, there's an Eco-Chic edition, which is fully animal free; in place of leather is a fabric made of bamboo fibers, an industry first. The carpets are wool. The paints contain an ultraviolet layer to reflect light and aid in cooling. Solar panels embedded in the Karma's roof will power the air conditioning.

Fisker says he's rooting for Chevy's Volt and any other alternative car company that should come along. In an industry undergoing a paradigm shift, there's room for everyone. He has partnered with GM on both the engine and various parts, but don't expect Fisker to be swallowed up. There's more to gain by establishing his brand and then taking it public, which is exactly the plan sketched out by his powerful VC backers (see sidebar).

Meanwhile, Fisker is already looking ahead. He is sketching his next car ("a new take on what the family-oriented vehicle could be") and has no doubt that, no matter what technological issues might arise, he can work around them. And while he's happy to embrace the appreciation of environmentalists, he's hardly looking for sainthood.

"There are probably some idealistic people who just want to do better for the world, and I admire them," he says, stepping out into the California sunlight to gladhand some of his new dealers, one of whom is practically drooling on a model Karma out front. "But I have to be honest: I don't think it's a matter of whether you want to do something better for the world. This is the direction in which we need to go to have a world we want to live in and that our children will be able to live in. We have no more choice. And if you are one of the first entrepreneurs to come up with a correct product, you can create a better world and make a lot of money at the same time. And that essentially is what America is about: creating a better world and making a lot of money. I think there's nothing wrong with that." ■