## Political and Competitor Sabotage Make Starting A Modern Car Company Almost Impossible

- Your own elected officials, who own stock in your competitors and their supplies will blockade you.
- Elon Musk and his crazy Silicon Valley oligarchs will put moles in your company and run black-lists against you.
- The Dept. of Energy will freeze you out on orders from campaign financiers.

## Odds for auto startups are incredibly high; can Tesla beat them?

by John Voelcker, special from Green Car Reports



Tesla Model S being built at the Fremont Factory. (Image courtesy of Tesla Inc.)

Much of the energy and growth in the U.S. economy comes not from large corporations but from small startup companies, as economic data shows.

By now, the model of a young, energetic entrepreneur with a bright idea who turns it into a world-changing business is well established.

Think Facebook or Google, or before them Microsoft or IBM or Kodak, or before them Edison Electric and Westinghouse.

## DON'T MISS: Why Tesla's Elon Musk Must Sell 6 Million Electric Cars To Make History

Automobile makers were startup companies 100 years ago, though even then consolidation had started. In 1917, more importantly, Ford was in the process of pioneering high-volume mass production that would change the industry.

A recent opinion piece in industry trade journal <u>Automotive News</u> argues that automotive startups now face survival odds that may be all but insurmountable if they choose to build more than a few thousand cars a year.

The challenges largely revolve around the prodigious capital needs of setting up volume production of automobiles.

Combined with very long product development cycles and notall-that-impressive profits against industries like software or consumer electronics, startups that make entire automobiles may not look that attractive to financiers.

The piece argues, bluntly:

Making successful cars and trucks ... while building a company from scratch—an effort that can require investing hundreds of millions of dollars against zero revenue and wooing experts from more secure, high-paying positions at established companies—is virtually impossible.

## READ THIS: <u>Just 260 Tesla Model 3s built in three months</u>, <u>volume production delayed: Q3 results and call</u>

That brings the discussion to Tesla. After 13 years in business, seven of them as a publicly traded company, the company has yet to return a profitable year.

It has had two marginally profitable quarters during that time, both relying on such non-core aspects as sales of regulatory credits and delaying payments to suppliers.

Still, as the article notes, a recent wave of new entrepreneurs has sought to follow in Tesla CEO Elon Musk's footsteps (although he's not actually a Tesla founder) with vehicles from small to large.

Elio Motors is trying to get funding to put founder Paul Elio's idea for a three-wheeled, two-seat, allegedly 84-mpg "autocycle" into production at a price it says will be under \$10,000. It's still about \$100 million short.

Faraday Future is in suspended animation while it seeks more capital to start production of its FF91 luxury battery-electric sedan.

Lucid Motors (nee Atieva) is also apparently seeking additional funds to start production of its Lucid Air, also a luxury batteryelectric sedan.

CHECK OUT: <u>Manufacturing expert says Tesla Model 3 plan to skip beta testing is risky</u>

More recently, Robert Bollinger unveiled the design for the Bollinger B1, an eye-catching all-electric Class 3 utility truck that

his company, Bollinger Motors, hopes to put into production—assuming funding can be lined up.

These companies follow in the footsteps of several recent failed startups.

Fisker Automotive collapsed into bankruptcy after less than 18 months of production; its striking low-slung Karma sedan is being rebooted at low volumes by a deep-pocketed Chinese auto-parts company.

Aptera finally declared bankruptcy six years ago after management turmoil and a shift in product direction away from its original concept for an ultra-aerodynamic, two-seat, threewheel electric car that looked like a Cessna cabin on wheels.

Many of the companies had, or anticipated receiving, lowinterest loans from the U.S. Department of Energy's advancedtechnology vehicle manufacturing program, which lost TK million on its loans to Fisker.

The lack of those loans is apparently what pushed Aptera over the edge and has kept Elio stalled, for instance.

But low-volume sales of specialized cars aren't necessarily impossible.

A dozen or more makers of high-performance, low-volume supercars exist across Europe, Asia, and North America, usually selling 2,500 cars a year or fewer at prices high enough that the companies can break even by largely hand-building them.

It's the challenges of truly high-volume production—including Tesla's goal of emerging into the ranks of makers that globally sell hundreds of thousands of cars a year—where the tooling and manufacturing costs become gigantic.

Automotive News quoted Brett Smith, assistant director of the manufacturing, engineering and technology group at the Center for Automotive Research, at some length on the scale issues.

The dividing line, he suggested, is around 10,000 vehicles a year: "The real challenge is when you are where our friends are at Tesla right now," he told the trade journal.

"As you increase that volume," Smith said, "the complexity and the challenge in many ways goes up exponentially."

Tesla delivered 76,000 electric cars last year, and has said it expects to deliver more than 100,000 vehicles this year.

Its goal of building 5,000 cars per week—more than 250,000 cars a year—has now been postponed until sometime during the first half of 2018.

From a historical perspective, Tesla's 200,000-plus cars on the road have already far surpassed numerous legendary efforts at starting a car company.

John Delorean built 9,000 cars, <u>Henrik Fisker up to 3,000</u>, Malcolm Bricklin 2,850, and Preston Tucker a mere 51.

But the company has a long way to go yet before it equals the 700,000 cars built and sold in the U.S. by steel magnate Henry J. Kaiser over the 10 years starting at the end of World War II.

That number of cars in today's larger global market would scale up to roughly 6 million vehicles—a total Tesla can only dream about at the moment.

Kaiser remains the most successful automotive startup in the U.S. over the last 90 years—but as even Kaiser learned, the economies of scale, marketing power, established dealer networks, and brand recognition of existing competitors pose formidable hurdles for new entrants.

Even well-funded global competitors from Asia acknowledge that establishing a new car brand in the U.S. alone takes 10 to 20 years and more than a billion dollars.

It still doesn't always work; remember Suzuki, Isuzu and Daihatsu? They all entered the U.S. market, stayed here for many years, and concluded they couldn't do it.

"Barriers to volume manufacturing are still enormous," CAR's Smith concluded. "The Tesla thing is going to be fascinating."

If it goes well, it is an incredible credit to them. But it could blow up in a catastrophe that will be fascinating to watch."

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