

URL: <https://ecorner.stanford.edu/clips/cascading-miracles/>

For some wildly ambitious startups, many things have to simultaneously go right for the venture to succeed. Often, observes Harvard Business School professor Tom Eisenmann, these ventures are driven by charismatic, reality-distorting founders. And such ventures do sometimes succeed. But many things can go wrong. Drawing on the story of BetterPlace, an company that aimed to revolutionize electric vehicle infrastructure, Eisenmann demonstrates just how hard it is to scale a company that requires several fundamental shifts in consumer and industry behaviors.



## Transcript

- So Better Place had, 00:00:05,240 and you got a feel for the cascading miracles pattern, if you understand this company.. So Better Place, Shai Agassi was the entrepreneur, had the concept that, to save the world, literally, climate change, we needed electric cars everywhere.. And the only way you could have them is if you could reliably recharge them when they were out on the road.. So, he wanted to deploy a network of charging stations everywhere, everywhere.. Including stations where a car would drive in, a robot would pull out the depleted battery and pop in a fully charged battery, all in five minutes, same amount of time it would take the gas up.. And they deployed this network in Israel and Denmark, raised \$900 million, and it was just too much.. Too much in every dimension, too big a behavioral change for the customer, so let's stop step back and think what has to go right.. And now your, our audience will see what we mean by cascading miracles.. So, think of an equation where you're going to multiply a bunch of things together, and if any of the things, any of the elements are at zero, the whole expression goes to zero.. So, a bunch of long shot probabilities, or difficult probabilities, uncertainties, that this company faced..

He needed behavioral change on the part of consumers, this was 2008 before, the only electric car out there was the Tesla Roadster, \$110,000, a little sports car.. And, you need government subsidies for that obviously, which hadn't happened yet.. You needed the big car companies to design their cars to have the swappable batteries.. Big deal, big deal, to get Ford and Volvo and all these companies to change their car designs.. Imagine you needed to find places to put all these charging stations and battery swapping stations, you needed to raise literally billions of dollars to deploy this thing, and you needed to have a team that could actually keep the wheels on as you were building and executing all this stuff.. So, you needed a bunch of things to go right and it would, you would need a cascade of miracles if all of them were going to go right.. And they got, they did get some things right, right? People did adopt electric cars eventually, there were government subsidies, they got one OEM, Nissan Renault, to design a car that had the swappable battery, but it just turned out that deploying the recharging station turned out to be much more expensive than they originally projected, and demand was, while growing, you know, they only ultimately sold 1500 cars in the two countries.. So, quite a long way from world domination.. So, yeah, cascading miracles and the pattern.. So sometimes, Tom, they work, right? I mean, Tesla was a case of cascading miracles, SpaceX certainly was..

If we go back, you and I are old enough to remember when Federal Express was launched in the early seventies.. It was the biggest venture capital launch in history at the time, and people thought it was insane.. To fly a package from Buffalo to Cleveland, through Nashville, Tennessee.. - If you look into those stories, 00:03:16,853 maybe I mean this to cascading just in time miracles.. I mean, can you even, just the ones you mentioned that there were some moments for Tesla that really came to a head that they were staring at a different outcome.. - Yeah, and Federal Express, nearly bankrupt many times, 00:03:40,220 so yeah, they're tough.. They tend to be run by, or led by truly charismatic founders who can spin up.. You know, we use the expression, reality distortion field about Steve Jobs and some other entrepreneurs.. These are the best at it, and Shai Agassi was that.. I mean, he could mesmerize an audience just by sort of spinning a vision of a better world is a better place with his network deployed..

But there's a, there can be a line between charisma and cult leadership.. And sometimes the reality distortion field folds back on itself, and the charismatic founder can't see that the universe is saying, this is too early, or this is too big, this is not

gonna work.. And then it becomes a tricky problem for the board of directors, you know, so how do you reel the person in and convince them that it's time to pivot? Find something that can be done...