

For a road out of China for technology companies, India may be a viable option

Synopsis

Shifting high-tech manufacturing out of China takes time. The country became the world's manufacturing heartland over the past three decades because of an abundance of workers and favorable local policies.



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Global [electronics](#) suppliers looking to diversify their manufacturing footprint beyond China are taking advantage of growing demand for sophisticated components used in electric vehicles to shift production closer to their customers overseas. It's a smart move that could allay fears that the [supply chain](#) is too dependent on one location amid shortages and geopolitical tensions.

New corporate clients, a need to tailor vehicles to local markets and a willingness among some governments to subsidize the costs of setting up factories have turned electric vehicles into a catalyst for companies to expand capacity around the world.

Foxconn [Technology](#) Group, [Pegatron Corp.](#), Compal Electronics Inc. and Wistron Corp., all from Taiwan, are world leaders in assembling electronics products for the likes of [Apple Inc.](#), [Sony Corp.](#) and Dell Technologies Inc. They also supply systems used by electric vehicle makers such as Tesla Inc. and [Volkswagen AG](#). Right now, they largely do so in China.

But the Covid-19 pandemic revealed the fragility of global supply chains and the high risks associated with having a concentration of manufacturing capacity in just one region. Foxconn last week was forced to shut production in the southern city of Shenzhen because of a Covid outbreak. Most of Foxconn's peers have faced similar hurdles over the past two years as authorities seek to stem Covid's spread. Geopolitical tensions, notably between Washington and Beijing but now encompassing much of the world, exacerbate the sense that more production diversity is needed.

That's where EVs come in. Governments, manufacturers and global clients are all driving the trend to move production of electric vehicles, including their high-tech components, closer to consumer markets. Localization makes sense: Cars are physically larger and thus more expensive to ship. And domestically produced vehicles can be a source of national pride for consumers.

Some electronics makers, such as Foxconn, are ready to take on final assembly, or share that work with car-brand clients. Others like Pegatron and Wistron are focused on the systems and components. Meanwhile, governments see a chance to spur new industries and provide more employment opportunities by manufacturing EVs domestically. Many are offering incentives to have the vehicles made on home soil.

Still, shifting high-tech manufacturing out of China takes time. The country became the world's manufacturing heartland over the past three decades because of an abundance of workers and favorable local policies. As labor-intensive factories popped up there, so too did the myriad international suppliers who provide everything from raw materials to components. Because desktop computers, laptops and smartphones are easily shipped across the globe, there has been more reason to create mega-factories than have production capacity distributed around the world.

Asked in a recent earnings call about the high cost of building new facilities to make chips, cars and vehicle batteries, Foxconn Chairman Liu Young-wei told investors not to worry: A lot of that expense will be borne by local partners or governments. There is a certain hubris to that statement, but he isn't wrong. Foxconn plans to replicate what it calls a build, operate and localize model by getting local authorities and businesses on board — which means having them foot the bill.

India, Indonesia, Thailand, Saudi Arabia and the U.S. are all keen to work with Foxconn to make electric vehicles and associated components. Pegatron, another assembler of iPhones, last year announced a \$164 million investment in the U.S. to focus on vehicle electronics and control systems (Tesla is already a client). Wistron said it is confident it will soon make a profit from EVs, and last year announced a deal with India's Optiemus Electronics Ltd. to jointly develop and produce electronics used in phones and cars.

Electronics manufacturers are experts at securing incentives packages. Tesla chief [Elon Musk](#) has famously said that he doesn't like subsidies, yet the U.S. company has received plenty. In emerging markets like Indonesia and Thailand, EV brands and their supply-chain partners may not even need handouts if the governments in those countries put competitive barriers in place. Instead of giving tax breaks, free land or cash, they can simply implement quotas to ensure a minimum ratio of vehicles sold in the country are electric. That alone would help EV companies get an advantage over their combustion-engine peers. And should more of those traditional players offer electric models, then all the better for the contract makers of electronics.

Crucially, the economics of vehicles are vastly different to those of consumer devices, reducing the need for a supply chain that is highly concentrated in one region. While batteries are currently the key cost of an electric car, electronics account for 40% and are set to rise to 50% by 2030 — which means a \$40,000 vehicle could be packed with \$20,000 worth of chips, sensors and connectors.

The risk with these moves is that manufacturing partnerships don't always work out. In 2019, electric vehicle maker Rivian Automotive Inc. signed a deal with Ford Motor Co. to jointly develop a car. Less than three years later the arrangement was canceled for unspecified reasons. Foxconn's plans to work with China's Byton were put on hold last year because the latter seemed to run out of money. No doubt many more tie-ups between manufacturers, local governments and vehicle clients will come to naught. If they're lucky, the deals will fail before ground is broken on new factories and not too much money is lost. At worst, they will be stuck with large, embarrassing and costly failures like Foxconn's foray into Wisconsin.

Regardless of whether a specific project succeeds, there is a clear trend to ensure that the EV supply chain doesn't suffer from the same concentration risk as consumer electronics. That's sure to make future executives, and politicians, sleep a little easier.