

## Is it Time to Bring Electronics Manufacturing Back to the USA?

Can we reshore electronics manufacturing back to the USA?

AUSTIN, TEXAS, UNITED STATES, September 29, 2020 /EINPresswire.com/ -- Despite the fact that there are still five more months yet to go, there's little question that the year 2020 will go down in history books as a major turning point.

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The Coronavirus pandemic has led to massive change, touching on nearly every aspect our society – from front line healthcare workers in vital vaccine research to working from home and relying more on e-commerce and home delivery, to changing transportation and logistics patterns as well as energy use.

Surveys here in America and across the world also indicate many of us are dissatisfied with returning to the way things were before the pandemic; we're looking for improved

health care, a cleaner environment, better working conditions, and a fairer, more equitable society.

Remarkably, even supply chain logistics have become part of this conversation about change.

The Coronavirus pandemic has also opened the eyes of many Americans to the extent that we have become overly dependent on overseas production for a range of products, from PPE and medical supplies to the electronics components that power our telecommunication systems, energy infrastructure, and military operations.

Could A New Taiwan Semiconductor Manufacturing Company (TSMC) Fab Plant Help Kick Start A Renewed Electronics Manufacturing Ecosystem In The USA?

Advocates of growing an American-made electronics manufacturing supply base have welcomed the news that one of the giants in the semiconductor industry, Taiwan Semiconductor Manufacturing Company (TSMC), has been negotiating to build a new wafer fabrication facility in Arizona.

If an agreement is signed, TSMC says it plans to invest \$12 billion in the new Arizona facility, which would create 1,600 new jobs. Construction at the yet-to-be-named location would commence in 2021, and production would start in 2024.

The prospect of a major new employment opportunity is good news during the Coronavirus pandemic. But equally important is the long-term effect that this major new facility could have on creating an American manufacturing ecosystem.

Because several of TSMC's high-profile customers (including Intel and Qualcomm) are already located in the southwest region of the US, the new fab plant would allow these companies to fabricate leading-edge semiconductor products entirely within the United States, rather than relying on TSMC's overseas fab plants.



Since 1981, Formaspace has serviced the manufacturing market with top quality furniture built to order at our Austin, Texas factory headquarters using locally sourced steel and other raw materials. Shown above is a customized Benchmarx™ workbench.

Thanks to the close geographic proximity, the supply chain will become shorter, reducing wait times (and improving the reliability of just-in-time manufacturing output) as well as leading to potentially greater cooperation between TSMC's engineering teams and those of their major customers.

National Industrial Policies: Decoupling Supply Chain Sourcing From China

Concerns about supply chain breakdowns are not limited to the US.

Thanks to the lessons learned from the Covid-19 pandemic, national industrial planning policymakers around the world are creating plans for more resilient supply chains to ensure a steady domestic supply of strategic goods and materials in times of emergency.

In practical terms, this means building up new domestic production capabilities and reducing the status quo dependence on single-source production from one country, e.g. China.

For example, the Japanese government is now paying financial incentives (70 billion yen in the current funding period) to encourage Japanese companies to bring their manufacturing operations back to Japan or to relocate them from China to another country in the region.

This new policy approach (colloquially known as the China Plus One strategy) is not unique to Japan. Government planners in Taiwan and Korea are pursuing similar incentive policies to increase the number of domestic, or at least non-Chinese-based, suppliers.

Taiwan's so-called "non red supply chain" policy offers financial support (including tax breaks, low-cost financing, rent subsidies, etc.) to companies willing to relocate manufacturing operations from China. Earlier this month, South Korea also announced a similar range of incentives for companies willing to relocate their operations outside of China.

US Trade Policy: Which Is More Effective, The Carrot Or The Stick?

While Japan, Korea, and Taiwan have been pursuing a quiet, soft-power approach that relies on financial incentives to lure manufacturers away from China, government officials across the Anglosphere (specifically the US and the UK) are pursuing a much noisier carrot and stick approach to build up supply chains outside of China.

Let's start with the carrot.

The new American industrial policy, outlined in the US State Department's recently announced Economic Security Strategy, offers a "carrot" of financial incentives designed to encourage supply chains to relocate to America (or, if not here, to one of the "like-minded" countries, including Australia, New Zealand, Japan, India, and South Korea).

Low-cost funding will be offered, via the U.S. International Development Finance Corporation (DFC), to companies seeking to acquire, develop, construct, or fund a project that "supports the production or supply of an industrial resource, critical technology item, or material that is essential to the national defense."

(The term "essential to the national defense" is being interpreted rather broadly by the DEC: it includes supply chains for health and life science, as well as electronics, manufacturing, machine tools, industrial controls, raw materials, and advanced technologies.)

What about the stick?

Washington has used its trade policy with China as a blunt instrument.

The administration essentially banned two major Chinese electronics manufacturers, ZTE and Huawei, from US markets as part of its goal to ensure "decoupling" the domestic electronic parts supply chain from Chinese sources.

US government officials have been very suspicious of both of these companies, due to the working assumption that they fall under the direct control of the Chinese government, and thus, are a security risk due to embedded spy ware and the like (particularly Huawei, due its significant role in the development of the new 5G telecommunications equipment).

Looking to cement its relationship with the US (and to secure a desperately needed trade deal), the UK government has followed suit, announcing it would remove Huawei equipment from the current build out of its new 5G network.

(Interestingly, Downing Street is mum on potential security issues surrounding its massive \$28 billion Hinkley Point nuclear power plant currently being constructed in the UK by France's EDF and the China General Nuclear Power Corporation.)

Can We Avoid Triggering The Law Of Unintended Consequences?

In response to these trade challenges, China has pledged to become self-sufficient in electronics, with the long-term goal of eschewing all future purchases of American electronics products.

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