

**Information Policy/Technology in the News**

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#### **Introduction**

The semiconductor sector has been the subject of technological and geopolitics battles the past few months, especially due to Taiwan Semiconductor Manufacturing Company (TSMC) humongous investment proposals in the United States. TSMC, the biggest semiconductor maker in the world, made the public declaration to invest \$100 billion within four years in the United States to boost production capacity and bring more sophisticated semiconductor technology to its Arizona factories (Mickle, 2025). This change reflects the intentional efforts of governments towards technical advancement and signifies the essential nature of semiconductors to the economy of today.

#### **Core Issue**

The fundamental issue is the world's dependence on semiconductors and also intentional effort on the part of nations such as the United States to localize semiconductor manufacturing. Semiconductors are a fundamental building block of much, ranging from military equipment to consumer electronics. The COVID-19 pandemic demonstrated supply chain resiliency by revealing weaknesses in global supply chains, leading to severe shortages. In an effort to counter these risks and lower foreign manufacturing dependence, TSMC invested strategically in the United States (Mui, 2025).

#### **Policy Implications**

The purposes of the CHIPS and Science Act, an American piece of legislation for aiding local chip-making with great resources and encouragement, are converging with the aim of TSMC's business. Congress has been asked to repeal the CHIPS Act by President Trump, but latest political events brought uncertainties (Mui, 2025). This new policy change can potentially impact the regulatory climate and money incentives that facilitate such massive investments, thus deciding the destiny of local semiconductor production.

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### **Stakeholders**

Several stakeholders are intricately involved in this development:

1. TSMC: TSMC's investment is due to increasing semiconductor demand and growing global footprints (Mickle, 2025).
2. U.S. Government: Federal and state policymakers through strengthened domestic semiconductor manufacturing aim to increase technical independence and national security.
3. Technology sectors: A strong and domestic supply chain can mean shorter lead times and greater innovation for industries reliant on semiconductors (Mickle, 2025).
4. Workforce: Training and development programs are required since new plants are to provide employment (Mui, 2025).

### **Assessment and Understanding**

TSMC's investment heavily in US production plants is a strategic move to reduce supply chain risk and geopolitical issues. Beyond reducing risks that come with foreign logistics, TSMC's localization push is also benefiting American policy goals for technical sovereignty. But the threat of repeal of affirmative policies like the CHIPS Act can deter equal investments, hence the relevance of stable and hospitable policy environments to attract and retain leading industries (Mickle, 2025).

### **Implications for Information Professionals and Society**

For IT personnel, TSMC's investment has the ability to bring an alteration in the semiconductor supply chain that can provide more cooperation with producers and introduce new applications. A local supply chain is able to deliver improved technology solution customization and faster development times. Socio-economically, by facilitating a stable source of key components, this decision could assist in fostering economic development, generating employment, and fortifying national defense. But it also needs environmental issues and worker preparation concerning mass production (Mui, 2025).

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### **Conclusion**

In the goal of supply chain resilience and technological independence, TSMC's substantial investment in American semiconductor manufacture marks a watershed moment. Although there are numerous benefits to this transition, it is contingent on ongoing and encouraging policy measures. If the accompanying concerns are successfully addressed by collaboration among all stakeholders, information technology professionals and society as a whole will benefit from the greater capabilities and security that such investments offer.

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Mickle, T. (2025, March 4). TSMC to spend \$100 billion in U.S.: Trump. *The New York Times*. Retrieved from <https://technews.acm.org/>

Mui, C. (2025, March 4). Trump tells Congress to end CHIPS Act. *Politico*. Retrieved from <https://technews.acm.org/>