TCIP TECHNOLOGY COMPETITIVENESS & INDUSTRIAL POLICY CENTER

Strengthening U.S. Technological Competitiveness: A Policy Simulation

Key Questions: *How can the next administration translate public investment into lasting U.S. technological competitiveness? Which sectors need industrial policy and why?*

Key Challenges:

1. Federal policy can crowd in private investment and accelerate domestic manufacturing, but competitiveness also depends on creating viable markets, addressing supply-chain vulnerabilities, overcoming permitting and implementation bottlenecks, and coordinating federal, state, and local action.

2. Industrial policy must focus on key sectors (and the financing, federal support, and trade measures each requires) while balancing multiple priorities: domestic manufacturing ecosystems, cost competitiveness, job creation, supply-chain resilience, and technology leadership.

Lessons from IRA and CHIPS Act Highlighted by Speakers:

1. Match policy tools to sector-specific needs. No single instrument is sufficient. Tax credits provide firms with investment certainty; competitive grants can secure strategic commitments and encourage innovation; and procurement, regulation, trade measures, while other demand-side levers can help make domestic production commercially viable. Determine an appropriate mix based on industry structure and market dynamics. Government purchasing, for example, offers limited leverage in industries such as autos and semiconductors, where the government represents a small share of overall demand.

2. Demand is as important as supply. Investment incentives do not guarantee sustained markets. This is particularly challenging in business-to-business industries such as semiconductors, where consumer subsidies are less effective and demand creation requires different approaches. Policymakers must consider how to strengthen demand and address supply-chain dependencies to make domestic production economically viable.

3. Implementation capacity can determine outcomes. Avoiding permitting delays, ameliorating administrative friction, and addressing shortages of technical expertise at the state and local levels are essential to a project's success even when federal funding is available. The CHIPS experience also underscores the importance of flexible grants, specialized staff, and regional approaches that account for differences among facilities, suppliers, and local ecosystems.

4. Policies must balance competing priorities, such as domestic production versus cost, wages versus competitiveness, and speed versus regulatory requirements. Policy design and built-in processes for coordinating stakeholders can help with this.

5. Strategic work can happen in advance. Priority sectors can be identified, investment gaps and supply-chain vulnerabilities can be mapped, appropriate policy tools can be selected, and implementation challenges can be anticipated prior to a transition.

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The Policy Simulation Plan

The March 18th simulation will examine federal, executive, and legislative options for strengthening U.S. technological competitiveness, as well as potential responses from states, local governments, industry, labor, and other stakeholders.

What This Looks Like: (1) Stress-testing alternative policy approaches against real-world constraints, including private-sector investment decisions, market demand, permitting, regional capacity, and competing economic objectives. **(2)** Exploring opportunities for stronger federal-state collaboration and coordination across industry, suppliers, and other stakeholders.

Question: *How well do the insights generated from an initial exercise on semiconductors translate to other advanced manufacturing sectors including energy production, robotics, critical minerals, batteries, electric vehicles, pharmaceuticals, and others??*

Intended Outcomes for March 18th:

- **Two or three distinct, actionable policy plans** for a new administration that identify strategic priorities, recommend tailored combinations of policy tools, and address the institutional and implementation requirements for execution.
- Follow-on simulations will be scheduled to test the industrial policy action plans with private-sector, state and local government, labor, and environmental stakeholders in key partner states, including New York, Arizona, Ohio, and Texas → this will build an evidence base for implementation and inform future industrial policy decisions.