# **Technology Competitiveness and Industrial Policy Center (TCIP Center)**

# **Call for Policy Study Proposals**

## Overview

Advanced technologies have been the foundation of modern economic growth. In the global geopolitical landscape, technology leadership has become the central element of economic security and influence. However, over the past decades, the globalization of free trade and industrial specialty development have decoupled upstream research and development from downstream volume production, weakening the ecosystem on which American companies depend to scale innovation into commercial fruition and societal prosperity.

This disconnect impacted the Nation's ability to seize technology leadership in critical industries such as semiconductors, batteries, electric vehicles (EVs), and green technologies. This disconnect stifled translation of the technology innovation to commercial success. At the same time, this disconnect allowed other countries and, worse yet, competing, adversarial nations to gain undue advantages over the United States on the growth of advanced technology for industrial and societal prosperity.

In response, the <u>Technology Competitiveness and Industrial Policy Center</u> (TCIP Center) aims to produce rigorous, data-driven policy papers and recommendations to arrest this trend. TCIP Center recognizes the need to take an ecosystem-building approach to achieve technology competitiveness and leadership. This entails integrating research and development (R&D), advanced manufacturing, supply chain development, competitive workforce development, aggressive global market access, and coordination of government policies to enable U.S. technology leadership.

# Policy Study Topics of Interest

TCIP Center seeks to commission independent, high quality, scholarly research to raise our technology competitiveness and to identify necessary industrial policies, to foster ecosystem building, and scale up production of advanced and emerging technologies. This research will inform policymakers, industry leaders, and academic institutions on strategies to ensure long-term U.S. technology leadership and economic security through a robust set of interconnected technology ecosystems.

It is expected that policy studies commissioned under this solicitation will be for a duration of six (6) to eight (8) months from start to finish and during that time the study team will:

- Analyze the disconnect between U.S. innovation and scale-up production and recommend policies to bridge the gap.
- Assess the role of taxation, trade, workforce development, education, standards setting, and regulatory frameworks, among other industrial policy tools, in strengthening U.S. competitiveness.
- Study the effectiveness of current U.S. industrial policies to provide insights on approaches that work.

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- Evaluate the impact of geopolitical dependencies on supply chains and propose strategies to build resilience without sacrificing economic efficiency.
- Investigate the challenges of manufacturing at scale in the U.S., identifying impediments and policy-based solutions.
- Provide policy recommendations grounded in the tools of U.S. policymaking and based on historical lessons, case studies, and economic analysis.

TCIP Center invites proposals on the following priority research topics as they pertain to the technology areas of *semiconductors*, *batteries*, and *electric vehicles*:

# • From R&D to Advanced Manufacturing

- o What is a new strategy for emerging and fundamental technology R&D in the U.S.?
- o Is the leadership of technology R&D in public institutions diminishing in the U.S.? How do we recover its leadership role, or is R&D in private companies enough?
- O How do we design an ecosystem to support and accelerate U.S. onshore technology development?
- o How do we create the end-market pull force to productize emerging technologies?

# • Collaborative and International R&D Ecosystems

- o How can we connect lab to fab by building up a cohesive and effective R&D ecosystem?
- o How can we collaborate with friendly nations to expand pre-competitive R&D?
- How can an effective supply chain ecosystem contribute to reducing the manufacturing cost of a new technology?
- How would ecosystem development improve the effectiveness of the semiconductor / battery / EV manufacturing supply chain in the U.S.?
- What is the cost gap between the U.S. and the best in the world, and why?
- o How can we strike a competitive balance between the productivity and the social cost of the U.S. labor force?

#### • Cost Drivers and Competitiveness of U.S. Manufacturing

- o What are the cost gaps in semiconductor / battery / EV manufacturing in the U.S.?
- o How can we streamline unnecessary regulatory measures?
- How can the semiconductor / battery / EV global supply chain be optimized for security and productivity?

## • Cultivating Talent to Meet Long-Term National Manufacturing Goals

- o What kind and how much U.S. onshore manufacturing capacity are we pursuing?
- What kind and how much talent should be cultivated and/or immigrated to meet long-term goals?
- O How can we create the market pull of talent for manufacturing in the U.S. and prioritize the required elements to achieve it?

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## • Government Signaling to Industry

- o How should government signal and lead in a capitalistic economic system?
- o What incentives should government provide to energize a critical industry sector?
- What is the long-term effect of tariffs on domestic technology competitiveness?
- What are the assumptions of the positive impact of tax credit and subsidy on U.S. technology competitiveness?

It is anticipated that additional technology areas will be added to this list in future solicitations.

# Policy Study Proposal Preparation Instructions

Proposals should use 11-point font and have 1" margins. Proposals should be no longer than five (5) letter (8.5 x 11 inches) pages and include the following sections:

#### 1) Project Team

[The names of the policy study lead researcher and other study team members; for each person include their full name, title, organizational affiliation, and contact information (at a minimum email address and telephone number, but also websites and social media handles if desired]

# 2) Background and Context

[A description of the policy issue or problem being studied; relevant existing policies and their impacts; the rationale for conducting the study]

# 3) Objectives and Research Questions

[Clear and specific research questions the study aims to answer; specific policy-related goals the study aims to achieve]

# 4) Scope of Study

[Defined boundaries of the research, including geographic areas, target populations, and policy areas to be examined; the key stakeholders to be consulted]

#### 5) Methodology

[Research design (e.g., qualitative, quantitative, mixed methods; data collection methods (e.g., surveys, interviews, document analysis); data analysis approach]

# 6) Deliverables

[Detailed list of outputs expected from the study (e.g., research report, policy brief, presentations); format and timeline for delivering outputs]

#### 7) Timeline and Milestones

[The key project phases and deadlines for completion]

## 8) Project Team Roles and Qualifications

[The names of the policy study lead researcher and other study team members, with their respective responsibilities; brief expertise and qualifications of the study lead and study members]

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# 9) Dissemination Plan

[Strategies for sharing research findings with relevant stakeholders]

# 10) Proposed Budget and Resource Requirements

[Estimated costs, both direct and indirect, associated with conducting the study; details on expected resources needed (e.g., data access, travel)]

# Policy Study Proposal Submission Instructions

Proposals should be submitted as a single PDF file via e-mail to <u>info@tcip.org</u> with the subject "TCIP Center Policy Study Proposal."

Proposals must be received no later than <u>Wednesday</u>, <u>April 30</u>, <u>2025</u> by midnight Pacific Daylight Time (PDT).

Proposal award decisions are expected to be made by May 30, 2025.

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