CHIPS for America Incentive Program

Presented by Donna Dubinsky, Sreenivas Ramaswamy and Jason Boehm
September 2022
WELCOME

• We look forward to your questions. Click the Q&A button, type your question, and click “Post Question” to submit.

• We will answer as many questions as possible today.

• Visit CHIPS.gov
  • Get the strategy paper
  • Sign up for email updates
CHIPS for America Vision

Donna Dubinsky
Senior Counselor to the Secretary
for CHIPS Implementation
Chips are the foundation of the modern world
Chips were invented in America

But most chips are made outside of the U.S.
CHIPS for America Vision

Economic Security
This act enables us to build more resilient supply chains for important components.

National Security
This act enables us to bring the most sophisticated technologies back to the U.S.

Future Innovation
Chips are key to the technologies and industries of the future, so we need to be at the forefront. This act will ensure long-term U.S. leadership in the sector.
CHIPS for America Overview

Sreenivas Ramaswamy
Senior Advisor to the Secretary of Commerce
CHIPS for America will:

Return leading-edge chip manufacturing to U.S.

Expand capacity to make current/mature chips and critical supplies

Reinforce U.S. strengths in chip design and equipment

Grow a U.S. workforce and strengthen communities

Create a domestic semiconductor ecosystem for national and economic security
## Guiding Principles

1. Meet economic and national security needs
2. Ensure long-term leadership in the sector
3. Strengthen and expand regional clusters
4. Catalyze private sector investment
5. Generate benefits for a range of stakeholders and communities
6. Protect taxpayer dollars
## CHIPS for America Incentives

<table>
<thead>
<tr>
<th>$39 billion for manufacturing</th>
<th>$11 billion for R&amp;D</th>
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<td><strong>Two component programs:</strong></td>
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<tr>
<td>1. Attract large-scale investments in advanced technologies such as leading-edge logic and memory</td>
<td>• National Semiconductor Technology Center</td>
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<td>2. Incentivize expansion of manufacturing capacity for mature and other types of semiconductors</td>
<td>• National Advanced Packaging Manufacturing Program</td>
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<td></td>
<td>• Manufacturing USA institute(s)</td>
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<td>• National Institute of Standards and Technology measurement science</td>
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Together with CHIPS initiatives from other agencies, including DOD, State, NSF, and Treasury.

Workforce development
LARGE-SCALE INVESTMENTS IN LEADING-EDGE LOGIC AND MEMORY MANUFACTURING CLUSTERS

Projects could include:
• Construction or expansion of manufacturing facilities to fabricate, package, assemble and test leading edge logic and memory chips
• Multiple high-cost, production lines and associated supplier ecosystems
EXPANDING MANUFACTURING CAPACITY FOR MATURE AND CURRENT-GENERATION CHIPS, NEW AND SPECIALTY TECHNOLOGIES, AND FOR SUPPLIERS TO THE INDUSTRY

Projects could include:

• Construction or expansion of facilities for the fabrication, packaging assembly and testing of mature and current-generation semiconductors
• Facilities to produce new or specialty technologies
• Facilities that manufacture equipment and materials
• Equipment upgrades
CHIPS for America Overview

R&D

Jason Boehm
Chief of Staff
National Institute of Standards and Technology
Research & Development

- Strengthen and advance U.S. leadership in R&D
- An integrated ecosystem that drives innovation
- In partnership with industry, academia, government, and allies
- A strategic view of R&D infrastructure, participant value-proposition, and technology focus areas
- Informed by the Industrial Advisory Committee

Members announced today!
Sreenivas Ramaswamy
Senior Advisor to the Secretary of Commerce

CHIPS Incentives Program Implementation:
How to Get Started
Timeline

Summer 2022 - CHIPS & Science Act of 2022 passed into law and signed by President Biden

Fall 2022 - CHIPS for America is launched with EO on the implementation of CHIPS and Science Act of 2022

Winter 2023 - A Strategy for the CHIPS for America Fund released

Spring 2023 - CHIPS Program Office (CPO) and CHIPS R&D Office are founded, senior leadership announced

Summer 2023 - CHIPS webinars and briefings

Fall 2023 - IAC members announced

Winter 2024 - Review, Due Diligence & Funding

We’re just getting started…

*Timeline is tentative*
### Eligibility Criteria

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<th>For organizations that are...</th>
<th>that can substantially...</th>
<th>a U.S. facility for...</th>
<th>of...</th>
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<tbody>
<tr>
<td>private</td>
<td>finance</td>
<td>fabrication</td>
<td>semiconductors</td>
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<tr>
<td>non-profit</td>
<td>construct</td>
<td>assembly</td>
<td>materials</td>
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<tr>
<td>consortia</td>
<td>expand</td>
<td>testing</td>
<td>manufacturing</td>
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<td></td>
<td>modernize</td>
<td>packaging</td>
<td>equipment</td>
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<td></td>
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<td>production</td>
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<td>R&amp;D</td>
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*More details will be released in the funding application document*
Guidance for Incentive Applicants

HOW DO YOU GET STARTED?

- Increase scale and attract private capital
- Leverage collaborations to build out ecosystems
- Secure additional incentives and support to build clusters
- Establish a secure and resilient supply chain
- Expand the workforce pipeline
- Create inclusive opportunities for businesses and communities
What should you do next?

- Consider if you can broaden the scale of previously contemplated projects
- Don’t wait, find other investors now

**INCREASE SCALE AND ATTRACT CAPITAL**

- Economies of scale matter; large fabs are more competitive, more attractive for suppliers to co-locate
- Minimum federal investment required to attract significant private capital
- CPO will use loans and loan guarantees to leverage the impact of government grants to leverage funding, and extend CHIPS benefits to a wider set of small manufacturers
LEVERAGE COLLABORATIONS TO BUILD OUT ECOSYSTEMS

• Purchase commitments and other initiatives to improve demand transparency
• Collaboration between investors, customers, designers, and suppliers is encouraged and will ensure investments match up with future market demand
• Manufacturing incentives will principally support fabs, but fabless companies will benefit substantially and projects that enable fabless design tools and IP, are flexible, and have better portability are encouraged

What should you do next?
• Go to suppliers now and build a consortium
• Go to customers now and build a consortium
What should you do next?

• Talk to states and localities about their interest in supporting your project
• Seek out long-term state & local tax credits that can ensure continued investment in upgrading and expanding facilities

SECURE ADDITIONAL INCENTIVES AND SUPPORT TO BUILD CLUSTERS

• The 2021 NDAA requires that applicants demonstrate they have secured incentives from state or local government
• Encouraged projects:
  • include state and local incentive packages with the potential for large spill-over benefits,
  • are based on performance
  • boost regional and local economies gains and semiconductor ecosystems rather than just a single company
• Encouraged proposals are ones that move quickly, reduce project risk, demonstrate ample local support/regional cooperation, and provide broad based benefits
What should you do next?
• Plan for your project to have a robust information and data security posture
• Begin upgrading your systems

ESTABLISH A SECURE AND RESILIENT SEMICONDUCTOR SUPPLY CHAIN

• We expect to prioritize projects that adhere to standards and guidelines on information security, data tracking and verification, and that collaborate on further development and adoption of such standards

• We expect to prioritize investments that address supply chain risks including,
  • poor demand visibility
  • single sourcing and geographic chokepoints
  • transport and logistical bottlenecks
  • weather-related disruptions
  • counterfeiting and tampering
  • IP theft
  • cybersecurity vulnerability
EXPAND THE WORKFORCE PIPELINE TO MATCH INCREASED DOMESTIC CAPACITY WORKFORCE NEEDS

- We expect to prioritize projects that include effective and creative workforce development solutions
- Programs should be inclusive of populations that have traditionally been underrepresented in the industry
- Encouraged programs:
  - paid training and experiential apprenticeship programs
  - industry to hire based on skills, not just degrees
  - wrap around services
  - connect trainees to jobs
  - exceeding the local prevailing wage including basic benefits and/or are unionized

What should you do next?
- Plan to develop or scale workforce programs now
- Find proven training partners like unions, community colleges, and more
- Begin to update or rethink your hiring practices

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CREATE INCLUSIVE AND BROADLY SHARED OPPORTUNITIES FOR BUSINESSES

- Investments should result in measurable benefits to small and underrepresented businesses, including:
  - Minority-owned
  - Veteran-owned
  - Women-owned
  - Rural

- We expect to prioritize projects that proactively work to ensure that such businesses are included

What should you do next?

- Don’t wait for the application, begin outreach now
- Connect with organizations that can assist this effort, like the Minority Business Development Agency
Accountability

- Projects must be economically viable and compatible with strategy
- Beneficiaries must meet performance, reporting, audit, and oversight requirements
- Beneficiaries may not send funded technology abroad or engage with countries of concern
- Workers on funded construction projects to earn prevailing wages
- Priority to programs that engage a diversity of participants
- Public funds cannot be used for stock buybacks or dividend payments
- Funds to be returned if taxpayer funds are misused
Next Steps

- Funding application process
  - Will be announced in February 2023 (6 months from enactment)
  - Proposals considered on a rolling basis
- Learn more
  - Visit CHIPS.gov
  - Read the Implementation Strategy
  - Join our mailing list
How to ask a question
How to submit your question

Click the Q&A button, type out your question, and click “Post Question”.
Thank you for attending