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
Molly Ritner
Director of External Affairs, CHIPS Program Office
CHIPS for America Vision
Chips are the foundation of the modern world
Chips were invented in America

But most chips are made outside of the U.S.

Logic chip production by country, 2021

Memory chip production by country, 2021
Supply chain disruptions halt U.S. commerce

- Pandemic, storms and fires paused chip production
- Workers were furloughed
- Prices increased
- Demand outstripped supply
- Geopolitical tensions over Taiwan present even greater supply chain risks going forward
One Hundred Seventeenth Congress of the
United States of America

AT THE SECOND SESSION

Began and held at the City of Washington on Monday, the third day of January, two thousand and twenty-two

An Act

Making appropriations for Legislative Branch for the fiscal year ending September 30, 2022, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

Sec. 1. Table of contents.
Sec. 2. References.

DIVISION A—CHIPS ACT OF 2022

Sec. 101. Short title.
Sec. 102. Creating helpful incentives to produce semiconductors (CHIPS) for America fund.
Sec. 103. Semiconductor incentives.
Sec. 104. Opportunity and inclusion.
Sec. 105. Additional GAO reporting requirements.
Sec. 106. Appropriations for wireless supply chain innovation.
Sec. 107. Advanced manufacturing investment credit.
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.
Sreenivas Ramaswamy
Senior Advisor to the Secretary of Commerce

Implementation:
CHIPS for America Fund
Strategy Paper
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
Strengthen and expand regional manufacturing and innovation clusters

- Long-term competitiveness requires large economies of scale and investments across the supply chain.

- Regional clusters containing manufacturing facilities, suppliers, basic and translational research, and workforce programs, along with supporting infrastructure, will be the foundation for a competitive industry.

- The CHIPS program will facilitate the expansion, creation, and coordination of semiconductor manufacturing and innovation clusters that benefit many companies.
# CHIPS for America Incentives

<table>
<thead>
<tr>
<th>$39 billion for manufacturing</th>
<th>$11 billion for R&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Incentivize expansion of manufacturing capacity for semiconductors</td>
<td>• National Semiconductor Technology Center</td>
</tr>
<tr>
<td>• Attract large-scale investments in advanced technologies such as leading-edge logic and memory</td>
<td>• National Advanced Packaging Manufacturing Program</td>
</tr>
<tr>
<td>• Advance U.S. technical leadership</td>
<td>• Manufacturing USA institute(s)</td>
</tr>
<tr>
<td>• NDAA Section 9902</td>
<td>• National Institute of Standards and Technology measurement science</td>
</tr>
<tr>
<td></td>
<td>• NDAA Section 9906</td>
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</tbody>
</table>

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 in large-scale clusters
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
- Facility 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!
CHIPS Incentives Program Implementation: How to Get Started
Sreenivas Ramaswamy
Timeline

- **Summer 2022**: CHIPS & Science Act of 2022 Passed into Law and Signed by President Biden
- **Fall 2022**: A Strategy for the CHIPS for America Fund Released
- **Winter 2023**: CHIPS for America is Launched with EO on the Implementation of CHIPS and Science Act of 2022
- **Spring 2023**: CHIPS Webinars and Briefings
- **Summer 2023**: CHIPS Program Office (CPO) and CHIPS R&D Office are founded, senior leadership announced
- **Fall 2023**: IAC Members Announced
- **Winter 2024**: Funding Application Process Released; Rolling Applications Begin
- **Fall 2023**: Review, Due Diligence & Funding

*Timeline is tentative.*
## Eligibility for Manufacturing Incentives

<table>
<thead>
<tr>
<th>For organizations that are...</th>
<th>that can substantially...</th>
<th>a U.S. facility for...</th>
<th>of...</th>
</tr>
</thead>
<tbody>
<tr>
<td>private</td>
<td>finance</td>
<td>fabrication</td>
<td>semiconductors</td>
</tr>
<tr>
<td>non-profit</td>
<td>construct</td>
<td>assembly</td>
<td>materials</td>
</tr>
<tr>
<td>consortia</td>
<td>expand</td>
<td>testing</td>
<td>manufacturing</td>
</tr>
<tr>
<td></td>
<td>modernize</td>
<td>packaging</td>
<td>equipment</td>
</tr>
</tbody>
</table>

- production
- R&D
## Guidance for Incentive Applicants

<table>
<thead>
<tr>
<th>Increase scale and attract private capital</th>
<th>Leverage collaborations to build out ecosystems</th>
<th>Secure additional incentives and support to build clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish a secure and resilient supply chain</td>
<td>Expand the workforce pipeline</td>
<td>Create inclusive opportunities for businesses and communities</td>
</tr>
</tbody>
</table>
The CHIPS for America statute requires that applicants demonstrate they have secured incentives from state or local government.

Those Incentives Can Take Multiple Forms And Can Include:

- Workforce-related incentives
- Concessions with respect to real property
- Funding For R&D
Things for YOU to consider:

- state and local incentive packages are encouraged to create the potential for large spill-over benefits
- projects are encouraged boost regional and local economies gains and semiconductor ecosystems rather than just a single company
- Incentives are encouraged to be performance based

POTENTIAL STATE AND LOCAL INCENTIVES

- Investments in industrial infrastructure that specifically support the proposed project, but that also could support broader development of a supplier ecosystem such as shared utility, logistics, and production capacity.
- Workforce investment to ensure broad talent pipelines.
- Long-term tax credits to ensure that firms continually invest in upgrading and expanding facilities to maintain competitiveness.
Things for YOU to consider:

- Incentives or actions that can help projects move quickly
- Incentives or actions that project reduce risk
- Incentives or actions that promote regional cooperation—e.g., through expedited processes, single-window liaisons, and project integration

STATE AND LOCALITIES COULD SHOW THIS COMMITMENT IN VARIOUS WAYS

- **Permitting**: Expedited processes for environmental, health, and safety reviews and permits.
- **Liaisons**: point of contact to assist with site selection, supplier discovery, and compliance with local laws.
- **Integration**: A systems integrator that works with ecosystem companies to address shared issues like navigating permits, building infrastructure, finding workers, and coordinating incentive applications.
- **Cooperation**: Planning and support for other ancillary investments such as housing and community development.
- **Collaboration**: Where relevant, partnership with other states and localities to develop regional ecosystems and corridors that encompass multiple jurisdictions.
Workforce Development

- Scientists and engineers in many fields
- Specialty construction workers:
  - Cleanroom architects
  - High-purity welders
  - Pipefitters
- Equipment technicians:
  - Installation and tooling
  - Maintenance
  - Operations
- Innovators

Workforce programs included in applications for manufacturing incentives

NSTC will establish programs in partnership with industry and educational institutions
Economic Development

Applicants for CHIPS for America incentives should consider:

• Extending access to paid training and jobs to underserved and underrepresented populations

• Working with unions and workforce development organizations to create training and hands-on learning

• Widespread and long-term spillover benefits to the local community and regional ecosystem

• Significant industrial infrastructure (such as upgraded power grids, gas lines, and water treatment facilities) and other local infrastructure needs, such as housing and community amenities

• Measurable benefits to small businesses and startups, including those from disadvantaged backgrounds and regions
### 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 to 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
Question and Answers
Attendee View
(David Lee)

Entry banner alerts Attendee that nobody will be able to see or hear them.

- Event title
- Speaker Volume
- Mute Speaker
- Full Screen
- Questions & Answers
- Exit the event
- Expand side navigation (display Presenter roster)
- Settings (choose which speaker to use)

Slider bar – drag to change the size of video and content
Click the Q&A button, type out your question, and click “Post Question”.
Thank you for attending