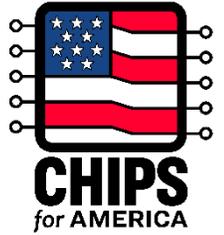


CHIPS for America Notice of Funding Opportunity Launch

Briefing with the **National Governors Association** – CHIPS Funding for Commercial leading-edge, current and mature-node fabrication facilities



March 15, 2023

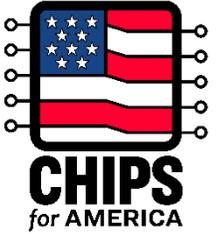


WELCOME



- We look forward to your questions. We will answer as many questions as possible today.
- Visit [CHIPS.gov](https://www.chips.gov)
 - Get the Notice of Funding Opportunity
 - Access additional resources for applicants and stakeholders
 - Sign up for email updates
 - Register for webinars

Today's Speakers



Michael Schmidt
Director of the CHIPS
Program Office



Morgan Dwyer
Chief Strategy Officer

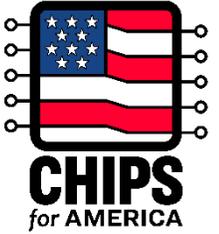


Todd Fisher
Chief Investment Officer



Ayodele Okeowo
Director of
Intergovernmental Affairs

CHIPS for America Vision



Economic Security

The CHIPS Act will strengthen supply chain security and increase economic resilience in critical sectors.



National Security

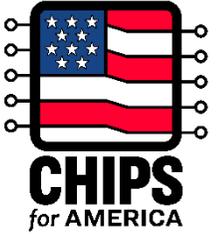
The CHIPS Act will ensure that the U.S. can manufacture advanced technologies, including secure chips for the U.S. military.



Future Innovation

The CHIPS Act will spur innovation, increase competitiveness, and ensure long-term U.S. leadership in the sector.

CHIPS for America Programs



\$39 billion for manufacturing

Components:

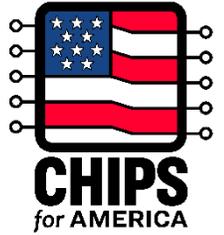
1. Attract large-scale investments in advanced technologies such as leading-edge logic and memory
2. Incentivize expansion of manufacturing capacity for mature and other types of semiconductors

\$11 billion for R&D

- National Semiconductor Technology Center
- National Advanced Packaging Manufacturing Program
- Manufacturing USA institute(s)
- National Institute of Standards and Technology measurement science

Together with CHIPS initiatives from other agencies, including DOD, State, NSF, and Treasury

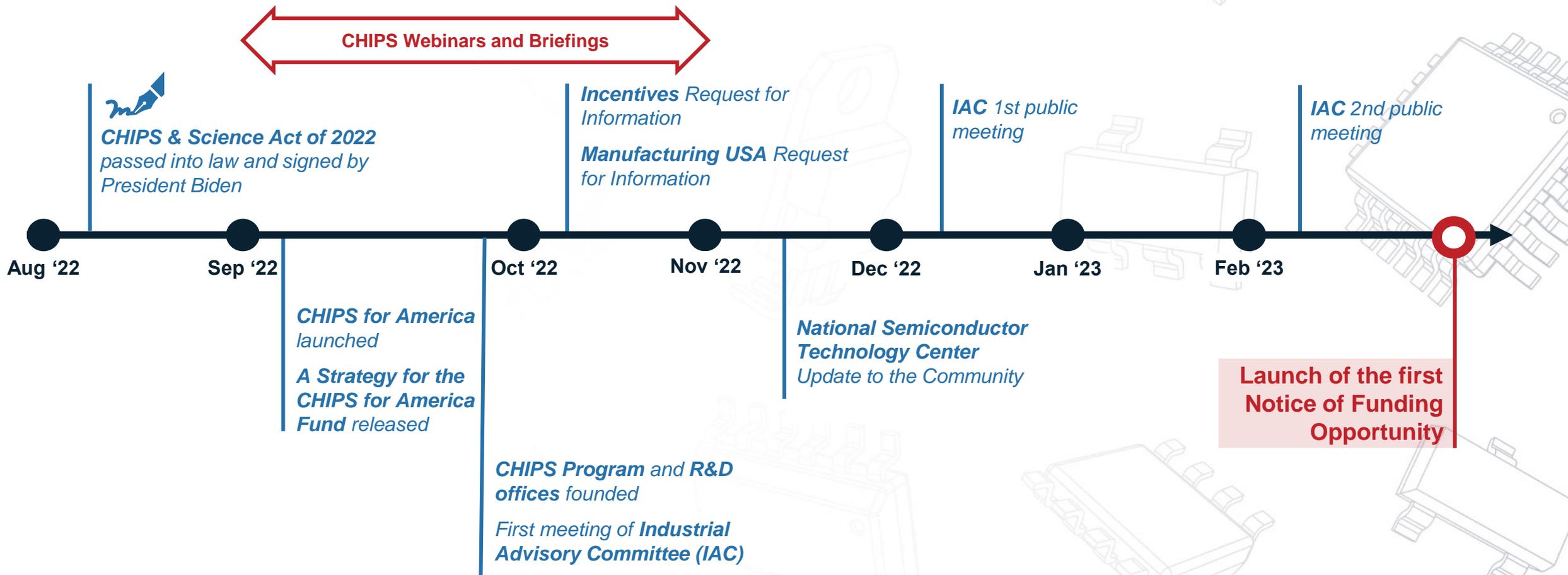
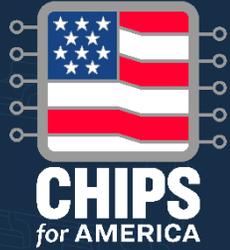
Workforce development

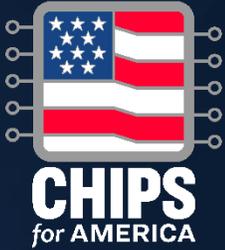


CHIPS Incentives Program Objectives

- Strengthen security and resilience of the semiconductor supply chain
- Provide a supply of secure semiconductors for national security
- Improve resilience of semiconductor supply chains for critical industries
- Bolster the semiconductor and skilled technical workforces
- Strengthen U.S. leadership in semiconductor technology
- Promote inclusion of economically disadvantaged individuals and small businesses
- Grow the U.S. economy and support job creation

We have spent the last 6 months preparing for this milestone



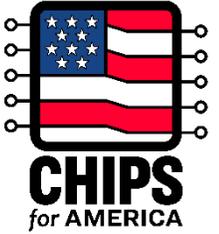


First Funding Announcement*

Released on February 28, 2023

*The CHIPS Incentives Program - Commercial Fabrication Facilities NOFO is the official funding announcement document. Nothing in this presentation or the accompanying materials is intended to contradict or supersede information in the NOFO. The NOFO controls in the event of any conflicts.

Funding Opportunities



Today

1st Notice of Funding Opportunity

For commercial leading-edge, current, and mature node fabrication facilities

Focus of today's webinar

Late Spring 2023

2nd Notice of Funding Opportunity

For material suppliers and equipment manufacturers

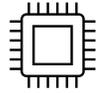
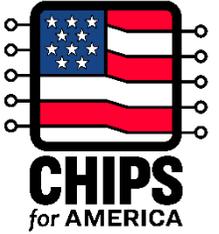
Fall 2023

3rd Notice of Funding Opportunity

To support the construction of **semiconductor R&D facilities**

Statements of Interest for all funding opportunities encouraged starting today

Vision for Success



Leading-Edge Logic

- ✓ The U.S. will have at least **two new large-scale clusters of leading-edge logic fabs**
- ✓ **U.S.-based engineers** will develop the process technologies underlying the **next gen of logic chips**



Memory

- ✓ U.S.-based fabs will **produce high-volume memory chips on economically competitive terms**
- ✓ **R&D for next-generation memory** technologies critical to supercomputing and other advanced computing applications will be **conducted in the U.S.**



Advanced Packaging

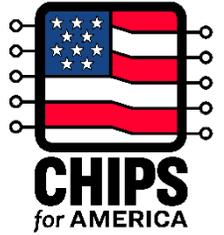
- ✓ The U.S. will be home to **multiple high-volume advanced packaging facilities**
- ✓ The U.S. will be a **global leader in commercial-scale advanced packaging technology**



Current-Generation and Mature

- ✓ The U.S. will have **strategically increased its production capacity** for current-gen and mature chips
- ✓ Chipmakers will also be able to **respond more nimbly** to supply and demand shocks

By the
end of the
decade...



Accomplishing these objectives requires:

Catalyzing private investment

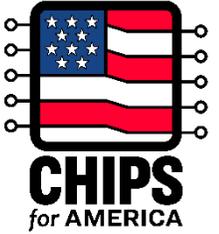
Protecting taxpayer dollars

Building a skilled and diverse workforce

Engaging with U.S. partners and allies

Driving economic opportunity and inclusive economic growth

Funding Eligibility



For organizations
that are...

- private
- non-profit
- consortia

that can
substantially...

- construct
- expand
- modernize

a U.S. facility for...

- fabrication
- assembly
- testing
- packaging
- production

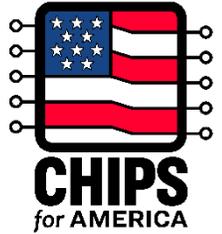
of...

- semiconductors

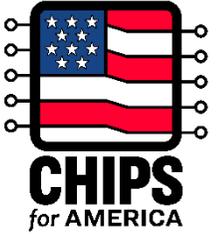
**More details available in the funding opportunity announcement*



Covered Incentives From State or Local Governments



- An eligible entity must have been offered a covered incentive from a state or local jurisdiction where the project is located, for the purposes of construction, expansion, or modernization of the facility.
- Examples of this can be:
 - ✓ Concessions related to real property
 - ✓ Workforce pipeline and technical training investments
 - ✓ Funding for research and development with respect to semiconductors
 - ✓ 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



This funding announcement contains:

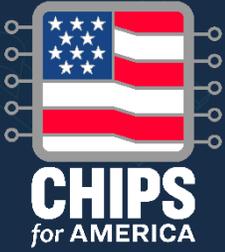
Program objectives and priorities

Funding instruments

How to apply

Application evaluation and selection processes

Program Priorities



Economic
and national
security
objectives



Commercial
viability



Financial
strength



Technical
feasibility
and
readiness

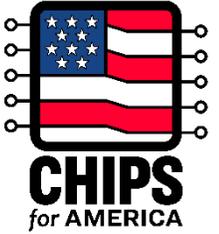


Workforce
development



Broader
impacts

Economic Security



SEEKING PROJECTS THAT

- Increase U.S. semiconductor production and align with U.S. strategic needs
- Create a more resilient semiconductor supply chain
- Build foundry or other capacity to serve many different customers
- Attract supplier, workforce, and other investments
- Contribute to a self-sustaining ecosystem and catalyze future upgrades

Leading-edge

- Use the most advanced tech and produce products that are most critical to enhancing U.S. competitiveness
- Commit to ongoing investment in U.S.

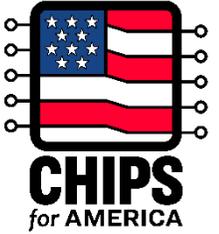
Current-generation and mature-node

- Support production of chips vital to automobiles, aerospace and defense, and other critical infrastructure
- Use processes that convert to make other types of chips in times of disruption

Back-end production

- Advanced packaging

National Security



SEEKING PROJECTS THAT

Produce semiconductors that are relied upon by the Department of Defense, other government systems, or by critical infrastructure

Support U.S. government national security needs, such as by providing U.S. government access to facility output, or adapting commercial production for low-volume and high-mix national security components

Mitigate operational and cybersecurity risks

Strengthen supply chain resilience by analyzing and managing risks to their own supply chains

Ensure that foreign entities of concern will not pose undue risks

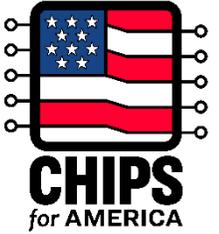
Produce mature-node semiconductors that are then supplied to critical manufacturing industries



Guardrails

- Funds may not be provided to a foreign entity of concern
- Recipients will be required to agree to restrict their ability to expand semiconductor manufacturing capacity in foreign countries of concern for ten years
- Recipients must not knowingly engage in any joint research or technology licensing effort with a foreign entity of concern that involves sensitive technologies or products
- Failure by CHIPS incentives recipients to comply with these restrictions may result in recovery of the full amount of funding

Commercial Viability



Demand for the product

Size / diversity of customer base

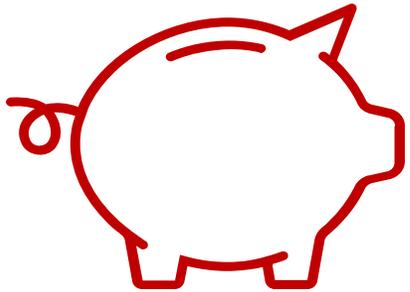
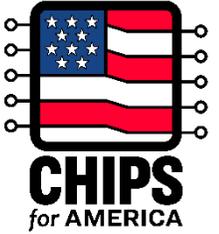
Existing and planned supply

Expected volume and pricing dynamics

Ability to counter potential technological obsolescence of the facility

Stability and predictability of key supplies

Financial Strength



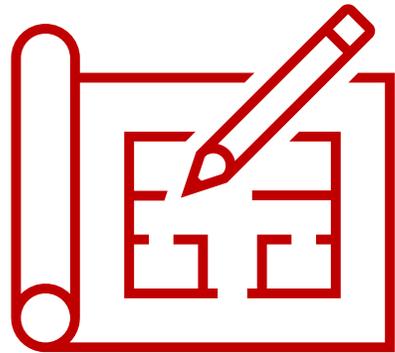
Financial strength of the applicant / parent

Financial strength of the project

Commitment of private/third-party investment

Reasonableness / suitability of CHIPS funding request

Technical Feasibility and Readiness



Organizational
readiness

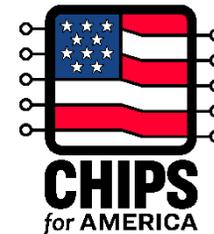
Technology and
manufacturing
processes

Construction
plan

Environmental
risk



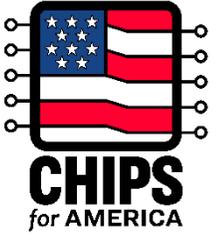
CPO Environmental Review, NEPA Compliance & Environmental Permitting



- CPO environmental questionnaire mandatory for all applications
 - Form environmental questionnaire forthcoming
 - CPO encourages potential applicants to submit the environmental questionnaire with pre-application
 - CHIPS environmental review team will use the environmental questionnaire to assess environmental risks and merits of application
 - Upcoming webinars will provide detailed information
- NEPA Compliance:
 - Applicants are encouraged to begin assessing potential environmental impacts for NEPA purposes as soon as possible
- Environmental Permitting (Federal, State and Local):
 - Applicants are encouraged to begin assessing potential environmental impacts for permitting purposes as soon as possible
 - Collaboration and dialogue with permitting authorities can help ensure projects stay on schedule while remaining safe, environmentally friendly, and otherwise compliant with relevant laws

The Department intends to prioritize applications that demonstrate a clear path to meeting these permitting requirements in a timely manner.

Workforce Development



Create good jobs

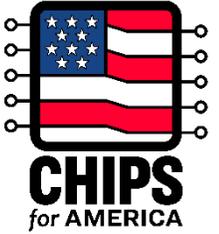
Recruit, hire, train, and retain a diverse and skilled construction and manufacturing workforce

Include women and economically disadvantaged individuals

Engage with community partners

Child care

Broader Impacts



Commitments
to future
investment

Support for
semiconductor
R&D

Inclusive
opportunities
for businesses

Climate and
environmental
responsibility

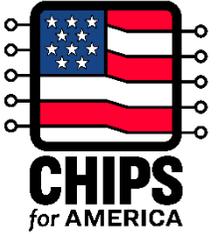
Community
investments

Domestic
content
preferences

Upside
sharing



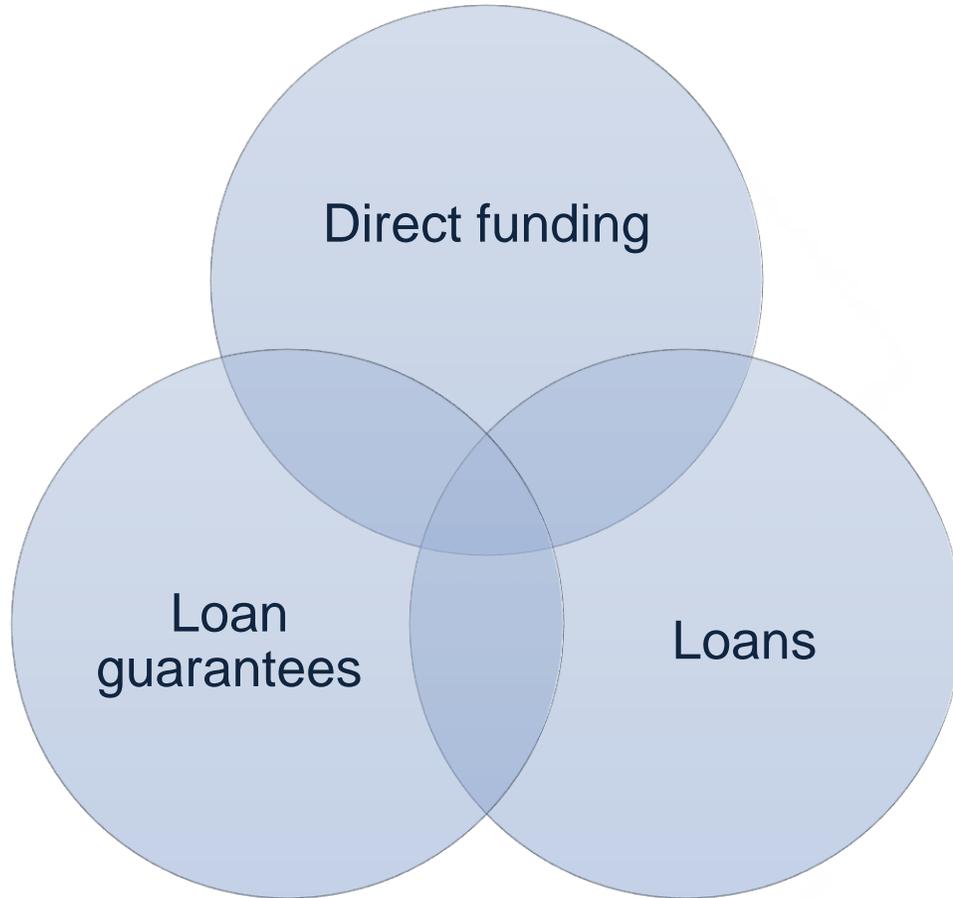
Funding Instruments



Funding Availability

Total funding

Funding by project



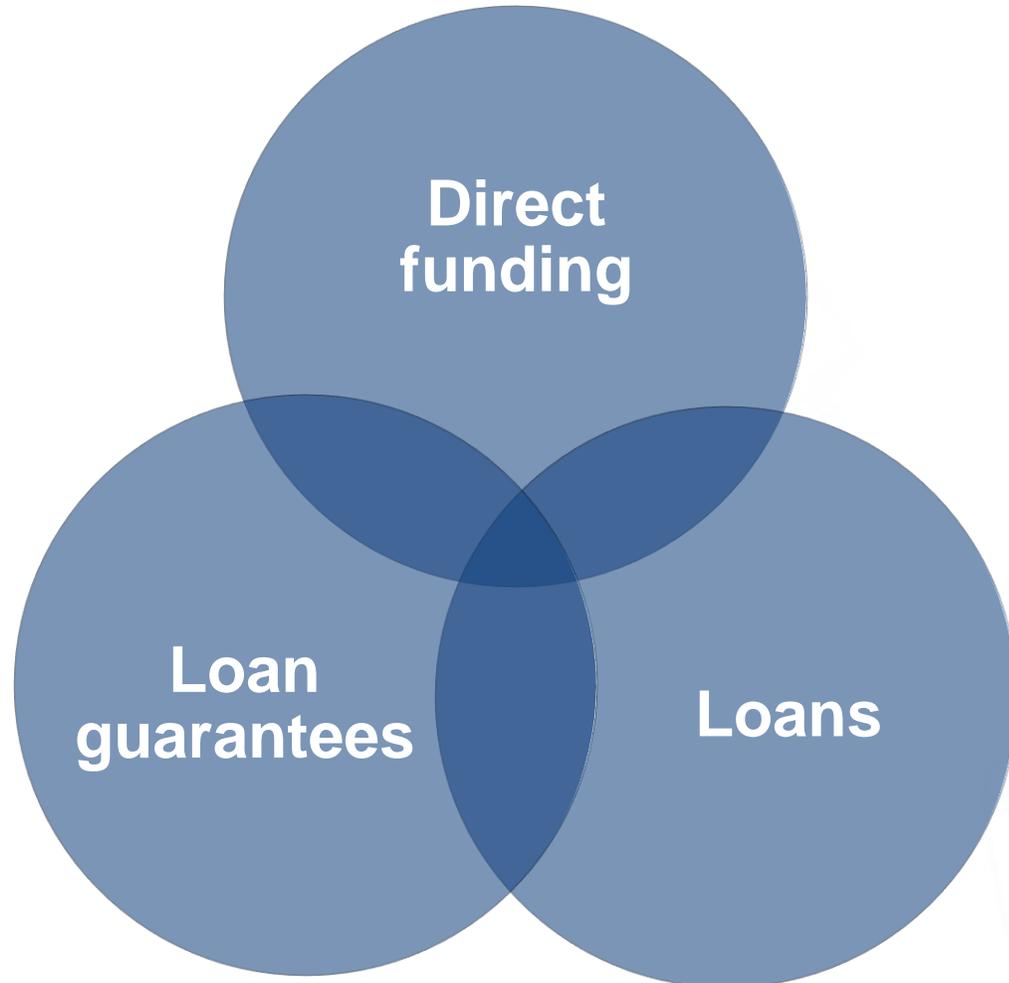
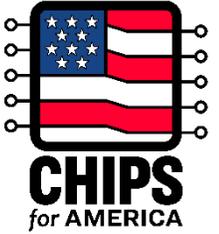
For CHIPS **Direct Funding, up to \$38.2B** available in total

Direct funding expected to be **5-15% of project capital expenditures**

For CHIPS **Loans and Loan Guarantees, up to \$75B** in total in direct loan or guaranteed principal

Expected total amount of a CHIPS Incentives Award expected not to exceed **35% of project capital expenditures**

Funding Allocation

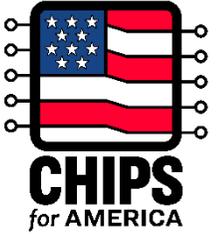


Total funding

For CHIPS **Direct Funding**,
up to \$38.2B
available in total

For CHIPS **Loans** and **Loan Guarantees**,
up to \$75B in
total in direct loan or
guaranteed principal

Funding Restrictions



No funds may be used to construct, modify, or improve a facility outside of the U.S.

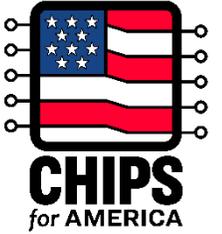
Funds may not be used to physically relocate existing facility infrastructure to another jurisdiction in the U.S., unless the project is in the national interest

Public funds cannot be used for stock buybacks or dividend payments

Recipients of funds may not charge above the actual costs incurred in executing the award's approved scope of work

Funds to be returned if taxpayer funds are misused

Application Overview



Highly iterative and dynamic



Substantial back and forth between the CPO and applicant



Applications accepted on rolling basis



Holistic review process

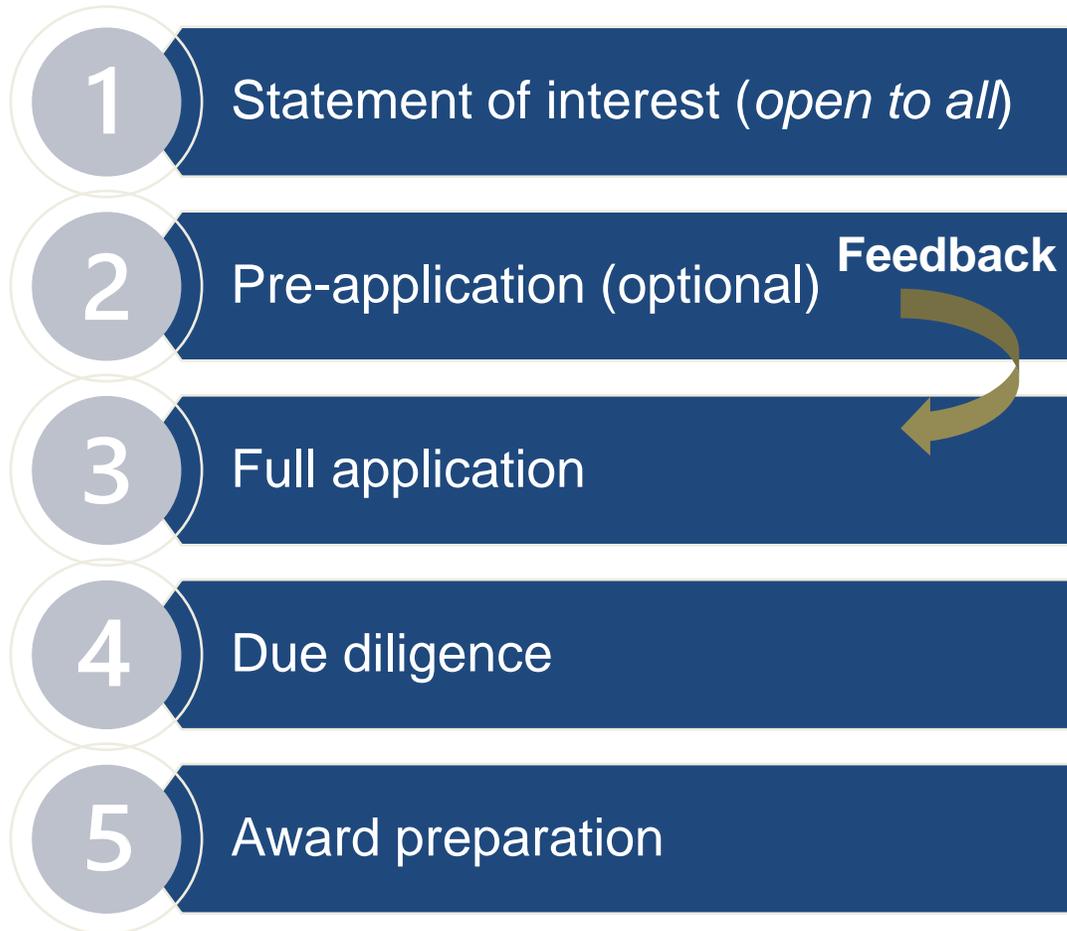
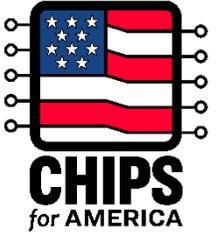


Multiple projects can be on the same application; a single applicant can submit multiple applications



CPO takes extremely seriously the importance of protecting confidential business information

Application Process



Submissions accepted as of...

Leading-edge	Current-gen, mature-node, and back-end
February 28, 2023	February 28, 2023
March 31, 2023	May 1, 2023
March 31, 2023	June 26, 2023

1

Statement of Interest (SOI)

Purpose

Help CPO gauge interest in the program and the types of projects and applicants applying, and prepare to review applications

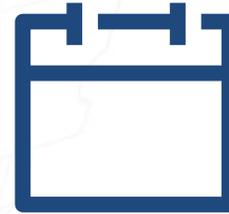
The SOI will not be evaluated for purposes of review and selection of awards

What is needed?

- Applicant information
- Basic project information including nature of the project and potential scope
- Estimated timeline for next submission
- 1 SOI per application

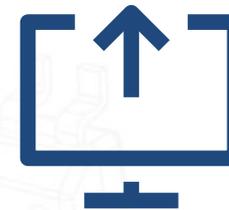


All applicants eligible for funding across any funding opportunity



Earliest submission on February 28, 2023

Required 21 days before next submission



Submit an SOI via CHIPS.gov

2

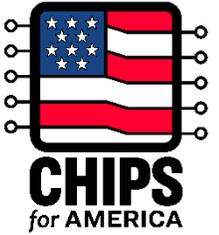
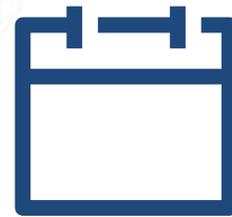
Pre-Application

Purpose

Create an opportunity for dialogue between CPO and the potential applicant *before preparation of full application* to ensure it is ready to meet program requirements and address program priorities

What is needed?

- More detailed description of proposed project(s)
- Summary financial information (refer to NOFO section IV.H.3)



Strongly recommended for current-generation, mature-node, or back-end production facilities

Earliest submission for leading edge applicants: March 31, 2023

Earliest submission for current-generation, mature-node or back-end production facilities: May 1, 2023

3

Full Application

Purpose

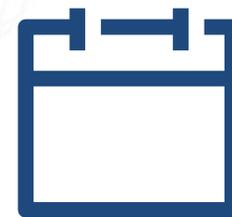
Submit a full application to be officially considered for a CHIPS Incentive Award

What is needed?

- Detailed information on the proposed project(s) to enable evaluation of its merits
- Detailed financial modelling (refer to NOFO section IV.I.7)
- CPO will make use of available benchmarks in the semiconductor industry

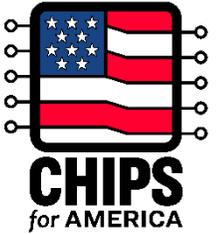


Required for all applicants



Earliest submission for leading-edge applicants: March 31, 2023

Earliest submission for current-generation, mature-node or back-end production facilities: June 26, 2023



4

Due Diligence

If CPO determines that a full application is reasonably likely to receive an award and there is, or likely will be, agreement on a **Preliminary Memorandum of Terms**, the application will enter the due diligence phase.

What is needed?

- Validation of national security, financial, and other information
- Possible engagement of outside advisors; applicants will be asked if they are willing to cover costs before moving to this stage

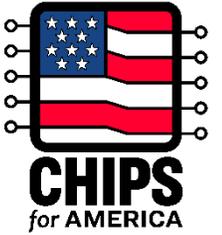
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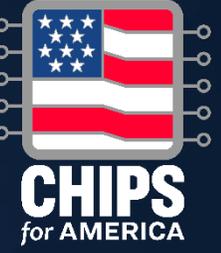
Award Issuance

The Department will prepare and issue one or more CHIPS Incentive Awards for applications selected for funding. Specific terms and conditions will vary by award.

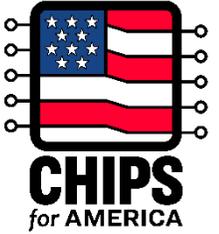
When will these funds be disbursed?

- Disbursements will be tied to project milestones
- Project milestones will be determined during the application process
- Milestones will vary by project





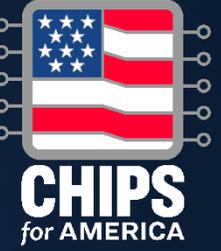
Next Steps



Next Steps

- Potential applicants can submit a Statement of Interest¹
- Visit [CHIPS.gov](https://chips.gov) for resources, including:
 - Notice of Funding Opportunity
 - Vision for Success paper
 - Applicant guides and templates
 - FAQs and fact sheets
 - Webinar schedule (and recordings of prior webinars)
- Join our mailing list
- Contact us
 - askchips@chips.gov – general inquiries
 - apply@chips.gov – application-related inquiries

1. Statements of Interest are welcome beginning Feb. 28, 2023 for all three funding opportunities



Question and Answers