

# ARIZONA

## AMERICA'S SEMICONDUCTOR HQ

### A LEGACY OF INNOVATION

For more than 70 years, Arizona has stood at the forefront of semiconductor design, development, and production. With nation-leading investments, expansive training pipelines, and the country's most-advanced microchip process technology, Arizona has become America's Semiconductor HQ, with even greater opportunity ahead.

#### The Nation's Leader

Since 2020, Arizona has attracted more than 60 expansions in the semiconductor industry, representing roughly 25,000 projected new jobs and more than \$205 billion in investment — more than any other state. These expansions span leading-edge manufacturing, R&D, equipment, materials suppliers, advanced packaging, workforce, and more, positioning Arizona as the hub of the semiconductor value chain.

#### Taking Action

To maximize new opportunities under the CHIPS Act, Arizona has launched an unprecedented collaborative effort, bringing together stakeholders from state and local governments, industry, trade groups, economic development organizations, universities and community colleges, workforce partners and more.

Working together, partners have announced important new initiatives to enhance the state's semiconductor ecosystem including new industry-led apprenticeships and workforce programs, investments in university infrastructure and R&D, first-of-its-kind training accelerators at community colleges, a national industry roadmap and more.

This fact sheet highlights Arizona's work to build America's most robust, end-to-end semiconductor ecosystem.

SINCE 2020:

**60+**

SEMICONDUCTOR  
EXPANSIONS

**25,000+**

NEW JOBS

**\$205B**

NEW CAPITAL  
INVESTMENT

# ALL-IN ON CHIPS

## ARIZONA CONVENES ENTIRE ECOSYSTEM EFFORT

### Leading with NSER

In December 2022, after a year of development and extensive work alongside many state and national partners, the ACA released the much-anticipated [National Semiconductor Economic Roadmap](#) (NSER), a blueprint to increase U.S. semiconductor competitiveness across four key pillars — workforce, supply chain, infrastructure, and entrepreneurship.

### Arizona Semiconductor Task Force

Building on the work of NSER, the Arizona Semiconductor Task Force represents a statewide effort led by the Arizona Commerce Authority (ACA) to coordinate the state's pursuit of competitive funding opportunities under the CHIPS Act, grow the semiconductor talent pipeline, strengthen and enhance connectivity throughout the supply chain, and invest in semiconductor R&D infrastructure. Driven by industry-led efforts, the group includes more than 100 partner organizations from private industry, academia, and the public sector working to maintain and grow Arizona's semiconductor leadership.

The ACA has convened nine full task force meetings since August 2022 as well as numerous subcommittee meetings in areas such as workforce, advanced packaging, entrepreneurship, and the supply chain.

Under the ACA's leadership, the Task Force is focused on helping companies navigate their applications for direct incentives, leveraging Arizona's unique capabilities and strengths to lead federal CHIPS R&D programs.

### Science Foundation Arizona

Facilitated by the Arizona Commerce Authority, Science Foundation Arizona relaunched in December 2024 with a clear focus on strengthening Arizona's semiconductor R&D ecosystem. Led by a newly installed Board of Directors composed of Arizona's top semiconductor executives, Science Foundation Arizona will identify and develop pre-competitive R&D priorities with a focus on growing shared-facility assets and workforce training programs that support all ecosystem partners.

### Arizona Supplier Consortium

On September 29, 2023, the U.S. Department of Commerce released a funding opportunity for supply chain projects less than \$300 million. In response, the ACA and partner organizations formed the Arizona Small-Scale Supplier Consortium (AZ SSC), a subgroup of the Arizona Semiconductor Task Force.

The consortium includes key supply chain operators in Arizona representing materials, equipment, R&D, advanced packaging and more. The AZ SSC combined projects, which are backed by the support of more than 20 partner organizations in the state, represent nearly \$1.8 billion in investment and will create over 3,800 high-paying and high-skilled jobs in Arizona.



Science Foundation  
Arizona Board  
Members meet in  
December 2024

# AMERICA'S R&D CENTER

## HISTORIC NEW INVESTMENTS IN SHARED EQUIPMENT & FACILITIES

### Arizona and ASU Selected For Flagship Prototyping and Advanced Packaging R&D Facility

In January 2025, The U.S. Commerce Department and Natcast selected Arizona as the site of the co-located NSTC Prototyping and NAPMP Advanced Packaging Piloting Facility (PPF), the

third of three CHIPS for America research and development flagship facilities.

**"The new Arizona facility will benefit from — and build upon — the state's already-strong semiconductor fabrication and advanced packaging ecosystem."**

**John Neuffer**

President & CEO, SIA



Located at the Arizona State University Research Park and representing a more than \$3 billion investment, the facility will combine 300mm research and prototyping for front-end manufacturing and packaging capabilities,

meeting a unique need for advanced packaging R&D within the U.S. semiconductor ecosystem.

### University Investments

To maximize Arizona's competitive position for research and development opportunities under the CHIPS Act while spurring additional private sector investment, the State of Arizona allocated \$100 million to the ACA to further enhance Arizona's semiconductor infrastructure, workforce, and research capabilities. Investments from the ACA include:

- ✓ **\$47.5 million** to ASU, enabling the first-of-its-kind Applied Materials/ASU Materials to Fab (MTF) Laboratory at ASU's MacroTechnology Works facility and supporting the development of advanced packaging and GaN capabilities;
- ✓ **\$35.5 million** to the University of Arizona, enabling a major expansion of the university's Micro/Nano Fabrication Center and advancing R&D and industry partnerships. The partnership includes a collaboration with Pima Community College and Central Arizona College to advance training opportunities;
- ✓ **\$13 million** to Northern Arizona University to launch the Microelectronics Metrology certificate program, training center, and research laboratory; and
- ✓ **\$4 million** to establish Registered Apprenticeship Programs for semiconductor technicians





# NATION-LEADING INVESTMENTS

Arizona companies have secured significant new investments under the CHIPS Act including agreements with Intel, TSMC, and Amkor Technology. In addition, and on top of the \$3 billion Advanced Packaging R&D Facility, Arizona partners have secured more than \$200 million in CHIPS Act research and workforce development funding, including:

**SWAP Hub - \$40 million:** In September 2023, the Department of Defense selected an ASU-led consortium of more than 170 partners, including the ACA, as one of eight **Microelectronics Commons regional innovation hubs**. The Southwest Advanced Prototyping (SWAP) Hub will work to accelerate the lab-to-fab transition between research, development, and production and collaborate to build the microelectronics workforce of the future.

**SWAP Hub R&D Initiatives - \$30 million:** In September 2024, the ASU-led SWAP Hub was awarded nearly \$30 million to advance five microelectronics R&D initiatives, advancing innovation in areas such as 5G and 6G, AI, radio spectrum, and more.

**SHIELD USA Initiative - \$100 million:** In November 2024, NIST announced up to \$100 million to ASU and Deca Technologies to advance R&D related to advanced packaging technology. The award, which is focused on organic materials and substrates, represents the first of several R&D initiatives from the Advanced Packaging Manufacturing Program (NAPMP).

**MCCCD NSTC Workforce Partner Alliance - \$1.7 million:** In September 2024, the CHIPS Program Office selected Maricopa Community Colleges (MCCCD) for a \$1.7 million award through the NSTC Workforce Partner Alliance program to support expanded semiconductor technician training and the launch of the Maricopa Accelerated Semiconductor Training program.



A researcher inspects equipment at the ASU MacroTechnology Works facility

**International Technology Security and Innovation (ITSI) Fund - \$13.8 million:** In February 2024, the State Department awarded ASU \$13.8 million to bolster assembly, testing, and packaging capabilities in partner countries in the Americas and Indo-Pacific.

**The NSF Futures Engine in the Southwest - \$15 million:** In January 2024, NSF selected the ASU-led NSF Futures Engine in the Southwest as one of the first Regional Innovation Engines authorized under the CHIPS Act. The NSF will fund initial development with \$15 million over the next two years. The engine can be renewed for up to 10 years with \$160 million in funding available for each regional engine.

# ENHANCING SEMICONDUCTOR WORKFORCE DEVELOPMENT

Arizona offers one of the most robust and diverse semiconductor workforce ecosystems in the world, with more than 90 training providers and 579 direct and indirect semiconductor-related education and training programs.



## Launching the Future48

**Workforce Accelerator:** As part of a network of advanced manufacturing training centers, Governor Hobbs launched the semiconductor-focused

Future48 Workforce Accelerator in Phoenix.

Developed in collaboration with Maricopa Community Colleges, Intel, TSMC, and NXP, the facility will feature a full-size mock clean room, providing students with firsthand experience across 11 customizable modular stations.

## Launching semiconductor apprenticeships:

To support technician apprenticeship offerings, the ACA launched the AZ Semi Career and Apprenticeship Network in partnership with the SEMI Foundation. Through the partnership, employers have access to customized training and curriculum as well as an established network of training providers, education institutions, and community-based organizations.



1: Intel announced the launch of its inaugural U.S. registered apprenticeship program at the ACA.  
2: Governor Katie Hobbs announced a semiconductor-focused Future48 Workforce Accelerator at GateWay Community College in Phoenix.



## MORE WORKFORCE ACTIONS

### Leveraging the Arizona Advanced Technology

**Network (AATN):** Led by the ACA in partnership with community colleges and local manufacturers, the AATN provides a unified, industry-recognized curriculum to develop 21st-century manufacturing skills needed for high-tech jobs. This unique partnership supports stackable Advanced Industrial Technology certificates and degrees, preparing talent to operate, monitor, and maintain a variety of automated electro-mechanical, product assembly, process control, and product distribution systems.

**Engaging High School Learners:** In partnership with the ACA and University of Arizona, Chandler Unified School District launched a two-year CTE program offering high school students a broad understanding of the principles, processes, and tools involved in the semiconductor manufacturing process

### Expanding Arizona's Semiconductor Technician

**Quick Start Program:** In partnership with Intel and TSMC, Maricopa Community Colleges launched the Semiconductor Technician Quick Start program in 2022. The affordable two-week program prepares students for careers as semiconductor technicians through hands-on learning from private-industry instructors. Additionally, MCCCD is developing and implementing the Maricopa Accelerated Semiconductor Training



TSMC announces the expansion of its Registered Technician Apprenticeship program

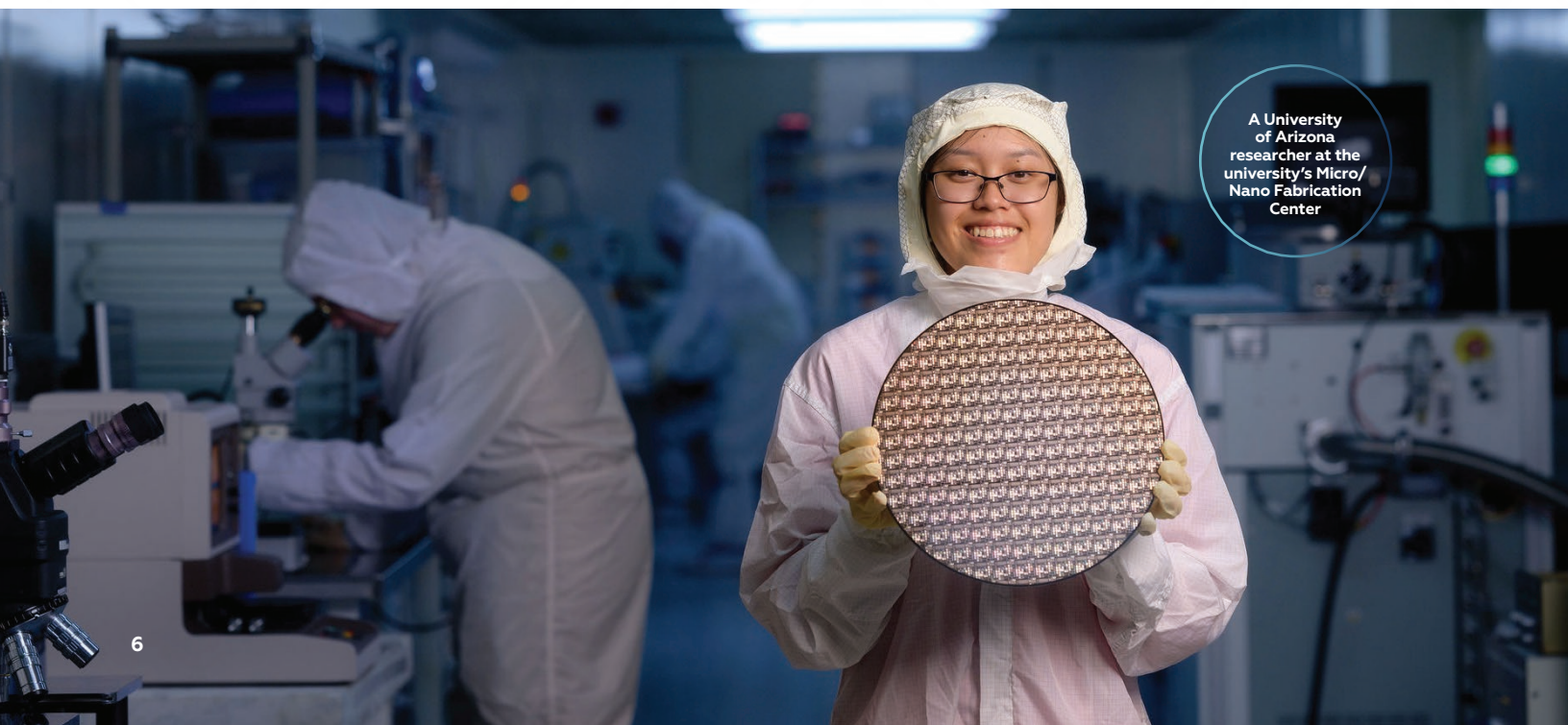
(MAST), a stackable course that will support in-demand, technician-level positions identified by industry.

### Increasing trade apprentices through BuilditAZ:

Launched in August 2023, the BuilditAZ Apprenticeship Initiative aims to double the number of construction and trades registered apprentices by 2026.

### Expanding the Joint Apprenticeship Training

**Center:** Arizona Pipe Trades plans to expand its Joint Apprenticeship Training Center after receiving a \$15 million investment from TSMC. The Joint Apprenticeship Training Center supports about 1,000 apprentices at a time with plans to expand to over 2,000.



A University of Arizona researcher at the university's Micro/Nano Fabrication Center

# TIMELINE OF RECENT SEMICONDUCTOR ACTIONS IN ARIZONA

SEPT 2021	ACA convenes national effort to develop semiconductor industry roadmap (NSER)
AUG 2022	CHIPS Act signed into law
AUG 2022	ACA launches the <b>Arizona Semiconductor Task Force</b> , a statewide effort to coordinate CHIPS Act efforts
DEC 2022	Industry, state leaders publish <b>National Semiconductor Economic Roadmap (NSER)</b>
JAN 2023	SEMICON West announces <b>annual rotation</b> in Phoenix
JUL 2023	Applied Materials, ASU, ACA announce new <b>\$270 million</b> "Materials-to-Fab" Center
SEPT 2023	ACA forms Arizona Small-Scale Supplier Consortium (AZ SSC)
SEPT 2023	DoD selects ASU-led effort for <b>\$40 million</b> ME Commons hub (SWAP HUB)
NOV 2023	ACA, the U of A announce <b>\$35.5 million</b> investment for Micro/Nano Fabrication Center (MNFC)
NOV 2023	Governor Katie Hobbs announces <b>new apprenticeships</b> support
NOV 2023	Amkor announces <b>\$2 billion</b> advanced packaging and test facility in Peoria, Arizona
DEC 2023	ASM announces <b>\$300 million</b> R&D expansion in Scottsdale
DEC 2023	ACA allocates <b>\$17.5 million</b> to expand ASU R&D, workforce initiatives
JAN 2024	Phoenix, TSMC announce <b>new workforce initiatives</b>
FEB 2024	ACA allocates <b>\$13 million</b> for NAU training and research programs
FEB 2024	ASU awarded <b>\$13.8 million</b> from ITSI Fund
MAY 2024	10 Arizona suppliers invited to round II of <b>Small-Scale Supplier NOFO</b>
JULY 2024	Intel launches its first U.S. Registered Apprenticeship Program for manufacturing facility technicians
SEPT 2024	SWAP Hub awarded <b>\$30 million</b> to advance microelectronics R&D
SEPT 2024	MCCCD wins first award through NSTC Workforce Partner Alliance program
NOV 2024	ASU, Deca Technologies awarded <b>\$100 million</b> for advanced packaging substrates R&D
NOV 2024	Governor Katie Hobbs, MCCCD, ACA launch semiconductor-focused Future48 Workforce Accelerator
DEC 2024	Science Foundation Arizona relaunches to advance semiconductor R&D
JAN 2025	Arizona and ASU selected for flagship prototyping and advanced packaging R&D facility
JAN 2025	TSMC commences high-volume production at first Arizona fab
MAR 2025	TSMC announces additional <b>\$100 billion</b> investment, bringing total investment to <b>\$165 billion</b> , including three fabs, two advanced packaging facilities, and a major R&D center
AUG 2025	Applied Materials announces <b>\$200 million</b> manufacturing and R&D facility in Chandler, Arizona
OCT 2025	Coming soon! SEMICON West takes place in Phoenix, Arizona, relocating from California for the first time in 50 years