

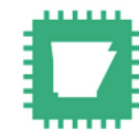
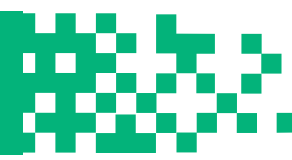
# Welcome!

## Arkansas Proposers Day: EDA Tech Hubs & Recompete Programs



Hosts:





**SURGE**

**surgearkansas.org**

## **Morning Session Part 1: Overview of EDA Tech Hubs and EDA Recompete Programs**

9:00 am - 9:10 am Welcome & Introduction of Surge

9:10 am - 9:30 am CHIPS+ Landscape

9:30 am - 9:50 am Overview of EDA Tech Hubs Program, Notable Criteria

9:50 am - 10:00 am EDA Tech Hubs NOFO Q&A

10:00 am - 10:20 am EDA Recompete Program Overview & Q&A

**10:20 am - 10:30 am Coffee Break**

## **Morning Session Part 2: Mapping Opportunities in Arkansas**

10:30 am - 10:40 am Review Arkansas' Regional Strengths

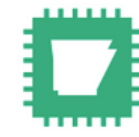
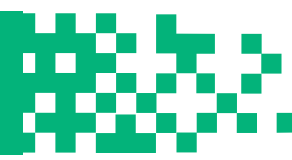
10:40 am - 11:00 am Consider Your Region, Your Strengths, and Alignment

11:00 am – 11:50 am Breakout Session in Regional Efforts

Discuss Elements for Designation with Groups

11:50 am – 12:00 pm Return to Main Room to Debrief

**12:00 pm – 12:30 pm Lunch catered by Little Greek**



**SURGE**

**surgearkansas.org**

## **Afternoon Session: Developing a Plan**

12:30 pm – 12:40 pm Reconvene, Review Discussions, Readjust (as needed)

12:40 pm – 1:40 pm Breakout Session in Regional Efforts

## **Continuing Unpacking Designations, Begin to Develop a Plan**

1:40 pm – 1:50 pm Return to Main Room to Debrief

1:50 pm – 2:00 pm Final Remarks and Next Steps

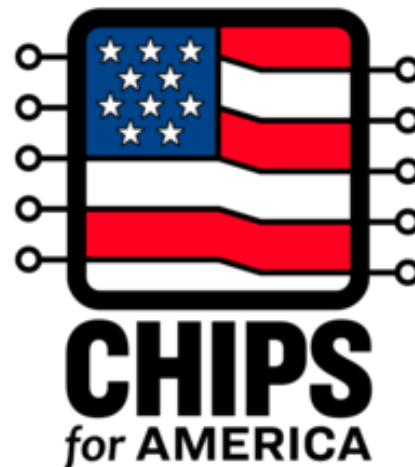
2:00 pm Adjourn

# About Surge



# Scaling Up the Regional Economy (Surge) Arkansas

- **Effort was initially directed by Secretary of Commerce Hugh McDonald (former CEO of Entergy)**
- **Surge is an initiative to build a broad network of stakeholders in a public-private partnership to ultimately make Arkansas more competitive for funding from the CHIPS+ Act and other Federal programs**



# **Scaling Up the Regional Economy (Surge) Arkansas**

- **Seed funding was awarded to the Community Venture Foundation / Startup Junkie Foundation to develop a roadmap and lay groundwork for Surge**
- **Surge is not its own entity yet and will not be submitting proposals in 2023**
- **Eventually Surge will be housed in a new 501c3 that will broadly focus on securing collaborative Federal grants in Arkansas**
- **The vision for Surge is a member-based consortium of collaborators from public, private, and academic sectors**

## Surge Team Members:



**Matt Francis**  
Founder/CEO  
Ozark Integrated Circuits  
Director of Arkansas CHIPS+  
Working Group



**Katie Thompson**  
Executive Director  
Science Venture Studios  
Winrock International



**Jennifer Fowler**  
Director & PI  
Arkansas NSF EPSCoR  
Arkansas Economic  
Development Commission

## Surge Team Members:



**Walter Burgess**  
Co-CEO  
Power  
Technology  
Member of  
Arkansas CHIPS+  
Working Group



**Rudy Ortiz**  
SBS  
(Formerly AEDC)  
Member of Arkansas  
CHIPS+ Working Group



**Brittany Hillyer**  
Director of Education,  
Outreach, & Diversity  
Arkansas NSF EPSCoR  
AEDC

**Additional Collaborators:**  
Secretary Hugh McDonald  
(Commerce)  
Clint O'Neal (AEDC)  
Justin Majors (AEDC)  
Keith Gammill (AEDC)  
Bob Kucheravy (AEDC)  
Caleb Talley (Startup Junkie)  
Jeff Amerine (Startup Junkie)  
Mike Malone (UARK)  
David Snow (UA-TVF)  
Hugh Churchill (UARK)

**Others...**

# **Initial Big Project: Assisting AEDC with submission to NIST Incentives Program for Commercial Fabrication Facilities**



## **Eligible Projects from Companies:**

- **Expansion, or modernization of eligible facilities;**
- **Site development for like facilities**
- **Workforce development for like facilities (facility workers, construction workers, childcare)**
- **Reasonable operating expenses for like facilities as approved by NIST**

# Questions About Surge?

# CHIPS+ Overview:

## Historical Context



1957

U.S. Views Satellite as Russian Victory

Fights Flare In Warsaw for Fourth Night

Russians Work on New One

Cold-War Effect Is Assayed

By William J. Humphreys

Special to the Herald Tribune

WARSAW, Oct. 6.—Clashes between riot police and civilians, touched off Thursday by university students battling for the right of free speech, tonight ranged up and down the principal thoroughfares of Warsaw for the fourth consecutive night.

At the same time, Stefan Cardinal Wysynski, Roman Catholic Primate of Poland, told the nation's students that while he could

It May Get Down With Instruments

By B. J. Cutler

From the Herald Tribune Bureau

MOSCOW, Oct. 6.—The Soviet Union is working on a new satellite designed to return to earth undamaged and with its data-laden instruments intact.

This was disclosed today by Yevgeni Fedorov, scientist in charge of Russia's upper-atmosphere research program, which already has

Symington Calls For Investigation

Editorial—Page 4

By Robert J. Donovan

From the Herald Tribune Bureau

WASHINGTON, Oct. 6.—The rueful reaction here yesterday to news of the Soviet earth satellite was that the United States has had the daylight beat out of it in an epic contest of the 20th century.

While the Soviet projectile whizzed over this chagrined capital, the



Monday, Evening, October 7, 1957

U.S. - Moscow Satellite Press

PRICE: Five Cents

Russians Win Race To Launch Earth Satellite

Man On Threshold Of Space Travel

U.S. May Speed Up Satellite Program

By DANIEL F. HILGNER

Times Press Staff Correspondent

LONDON (UPI)—The pulsating radio "beep" of the first man-made earth satellite signalled today to the world that man had crossed the threshold into the age of travel through space.

The Soviet Union announced it had won the race into space by launching an earth satellite Friday, a 184-pound, 22-inch globe now circling the earth at 18,000 miles an hour, 160 miles up.

Millions of jarring, throbbing beeps heard the "beep-beep-beep," transmitted every 10 to 15 seconds and continued that man had taken his first flying step into the new era.

Launching of the satellite was a tremendous victory for science. It was a great technological victory for Soviet propaganda. It is also the triumph of the world's first step into the new era of space.

Subsequent U.S. claims that the satellite was a "beep-beep-beep" were a disappointment.

How To Spot Satellite

By JAMES H. HILL

There's now a look for the first man-made satellite which will be whizzing through the sky at 18,000 miles an hour.

The best time to spot it is at dawn or dusk when the sky is clear and dark. There are chances that it could be seen if it is directly across the line of the sun at night.

The best instruments to use are ordinary binoculars or telescopes. Powerful telescopes won't give a big increase of detail because of the satellite's speed.

Through optical instruments, the satellite will look like the brightest star which can be seen with the naked eye.

Keep a sharp eye out. The satellite is expected to be seen again in the morning for only a few minutes and chances of spotting it have been estimated at one in a hundred.

U.S. May Speed Up Satellite Program

By JAMES H. HILL

Times Press Staff Correspondent

WASHINGTON (UPI)—A new satellite, built following Russia's lead, launching of the man-made globe, indicated to the United States that speed in its earth satellite program.

Leaders of the U.S. satellite group also said that it had taken evidence of the Soviet launch satellite was a good sign for the U.S. program.

That could mean that the U.S. satellite program will be speeded up.

That could mean that the U.S. satellite program will be speeded up.

WEATHER

NEW YORK: Partly cloudy with showers in the afternoon and evening. Low 50, high 60.

CHICAGO: Partly cloudy with showers in the afternoon and evening. Low 50, high 60.

LOS ANGELES: Partly cloudy with showers in the afternoon and evening. Low 50, high 60.

Fair-Making





# 1958



- NASA is officially created
- Congress doubles the annual NSF appropriation to \$134 million (\$1.4B in today's dollars)
- Public education funding was tripled
- Space Race begins





# 2021



## Intel chief warns of two-year chip shortage

🕒 28 July 2021

**Intel's chief executive, Pat Gelsinger, says the worst of the global chip crisis is yet to come.**

Mr Gelsinger predicts the shortage will get worse in the "second half of this year" and it will be "a year or two" before supplies return to normal.

The disruption, caused by huge demand for devices, the pandemic, and poor relations between the US and China, has created "a very large gulf", he says.



## Why the Chip Shortage Is So Hard to Overcome

Semiconductor producers are trying to increase output, but the small gains are unlikely to fix the shortfalls hampering production of everything from cars to home appliances to PCs

*By Eun-Young Jeong in Seoul and Dan Strumpf in Hong Kong | Photographs by Gabby Jones for The Wall Street Journal*

April 19, 2021 11:08 am ET



# 2022

## Intel to invest up to \$100 billion in Ohio chip plants

PUBLISHED FRI, JAN 21 2022 5:37 AM EST | UPDATED FRI, JAN 21 2022 12:20 PM EST

### Governor Cooper Announces Wolfspeed Selects North Carolina for 445 Acre Manufacturing Campus

Semiconductor company will create 1,800 new jobs at the Chatham-Siler Advanced Manufacturing Site

Wolfspeed, Inc., a leading manufacturer of Silicon Carbide semiconductors, will create more than 1,800 new jobs in Chatham County by 2030, Governor Roy Cooper announced today.

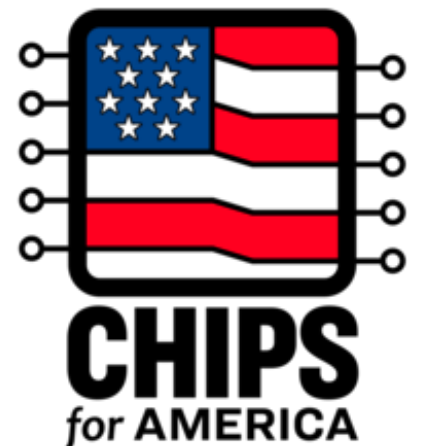
## BREAKING: Integra Selects Kansas for Largest OSAT Semiconductor Project

## The CHIPS Act Has Already Sparked \$200 Billion in Private Investments for U.S. Semiconductor Production

Wednesday, Dec 14, 2022, 8:00am

by [Robert Casanova](#), Director, Industry Statistics and Economic Policy

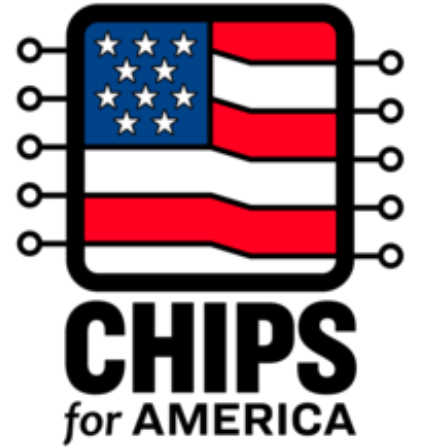
Samsung says it will build \$17B chip  
factory in Texas





## Agencies named / receiving funds through CHIPS+:

- National Science Foundation (NSF)
- Department of Energy (DOE)
- Department of Commerce
  - US Economic Development Administration (EDA)
  - National Institute of Standards and Technology (NIST)
- US Secretary of State
- Department of Defense (DOD)

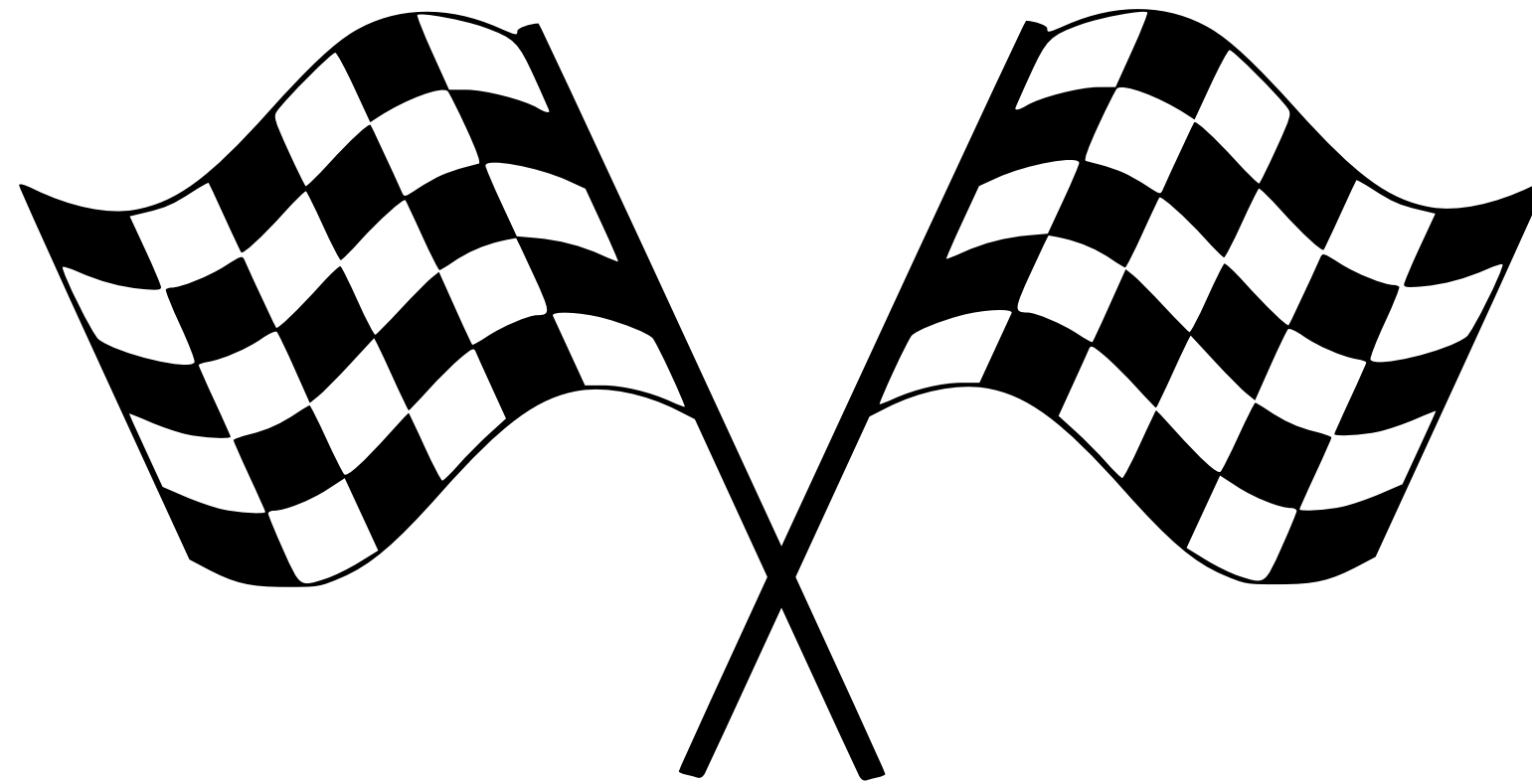


U.S. DEPARTMENT OF  
**ENERGY**

**NIST**  
**National Institute of**  
**Standards and Technology**  
U.S. Department of Commerce



**It's a marathon relay – not a solo sprint**



**It's meant to catalyze/complement  
private investment**

# EDA was assigned two programs under the CHIPS+ Act:



- **\$9.9B Request for FY23 - FY27**
- **\$500M allocated for first funding round**
- **Designed to increase regional capacity to deploy commercial technologies under a defined set of key tech areas**



- **\$1B requested for FY23 - FY27**
- **\$200M allocated for first round (not yet announced)**
- **Focused on workforce development in distressed areas**

**You're invited to  
attend/sponsor:**

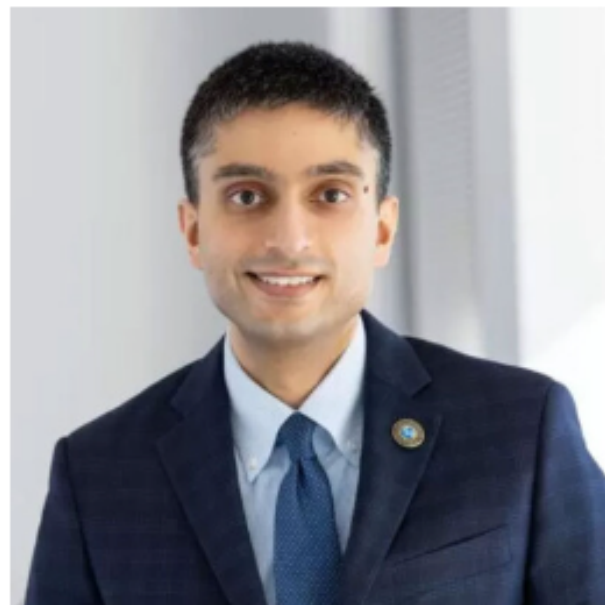


**September 13-15  
in Little Rock**

## **The Innovation, Workforce, and Research Conference: Convergence of Ecosystems**

### **Meet Our Speakers**

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**Erwin Gianchandani**

Assistant Director for  
Technology, Innovation and  
Partnerships (TIP), NSF

[+ Speaker Bio](#)



**Becky Taylor**

Executive in Residence,  
Austin Technology Incubator

[+ Speaker Bio](#)



**Dr. JD Swanson**

Program Director, NSF

[+ Speaker Bio](#)



**Weston Waldo, MBA**

Austin Technology Incubator @  
UT Austin  
Director, NSF I-Corps Southwest  
Region Hub

**[iwrc.ieeeusa.org](http://iwrc.ieeeusa.org)**



# Questions About CHIPS+?



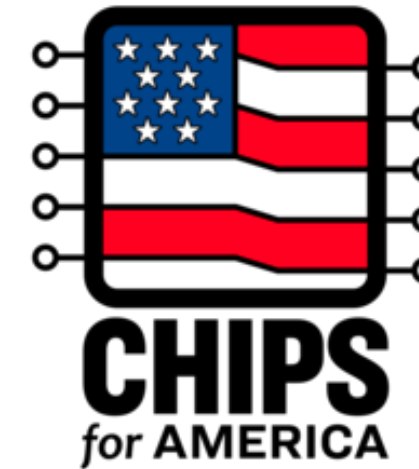
**EDA**

**Tech Hubs**



**Full program name:  
Regional Technology and Innovation Hubs**

**An economic development initiative designed to  
drive regional technology- and innovation-centric growth  
by strengthening a region's capacity to manufacture,  
commercialize, and deploy critical technologies.**



## Key dates:

**May 12- Phase 1 solicitation posted**

**August 15- Phase 1 proposals due**



## General Criteria

- **Proposals have to come from consortia loosely representing a metropolitan statistical area**
- **Phase 1 Designation is required to pursue later funding**
- **Designation does not provide any funding**
- **Phase 1 applicants can request additional/optional Strategy Development Grant**
- **Phase 2 to be announced fall 2023**
- **Awards are expected to impact regional economy within 10 years**

**Proposals MUST be submitted by a consortium with representation from AT LEAST the following categories:**

- **Industry or Private Sector**
- **Academia**
- **State or Local Government**
- **Workforce Development**
- **Economic Development**

**Proposals MUST be submitted by a consortium with representation from AT LEAST the following categories:**

- **Industry or Private Sector**

**AT LEAST TWO Industry firms in relevant technology, innovation, or manufacturing sectors (aligned with the proposed key technology focus areas)**

**Proposals MUST be submitted by a consortium with representation from AT LEAST the following categories:**

- **Academia**

**Institutions of higher education, which may include Historically Black Colleges and Universities, Tribal Colleges or Universities, and Minority-Serving Institutions (2- and 4- year colleges)**

**Proposals MUST be submitted by a consortium with representation from AT LEAST the following categories:**

- **State or Local Government**

**State, territorial, local, or Tribal governments or other political subdivisions of a State, including State and local agencies**



**Proposals MUST be submitted by a consortium with representation from AT LEAST the following categories:**

- **Workforce Development**

**Labor organizations or workforce training organizations, which may include State and local workforce development boards (EDA encourages a labor organization to be part of the consortium)**

**Proposals MUST be submitted by a consortium with representation from AT LEAST the following categories:**

- **Economic Development**

**Economic development organizations or similar entities that are focused primarily on improving science, technology, innovation, entrepreneurship, or access to capital**

# **Proposals are allowed to include these organization types optionally:**

- **Economic development entities with relevant expertise, including a district organization**
- **Organizations that contribute to increasing the participation of underserved populations in science, technology, innovation, and entrepreneurship**
- **Venture development organizations**
- **National or Federal Laboratories**
- **Cooperative extension services**
- **Manufacturing extension centers**
- **Manufacturing USA Institutes**
- **Elementary schools and secondary schools, including area career / technical education schools**
- **Transportation planning organizations**
- **Organizations that represent the perspectives of underserved communities in economic development initiatives**
- **Organizations that promote local economic stability, high-wage domestic jobs, and broad-based economic opportunities, such as employee ownership membership associations and State or local employee ownerships and cooperative development centers, financial institutions and investment funds, including community development financial institutions and minority depository institutions**

# **The lead organization, or prime, has to be the employer (or very close to the employer) of the proposed Regional Innovation Officer**

- **The purpose of the RIO is to appoint a strong individual to lead its overall innovation agenda. Among their responsibilities, the RIO will be accountable for ensuring clear and effective governance and leadership of the consortium.**
- **Proposals must either name an RIO and include their resume, or include a clear plan for identifying the individual and to have described clearly the profile of the future RIO.**

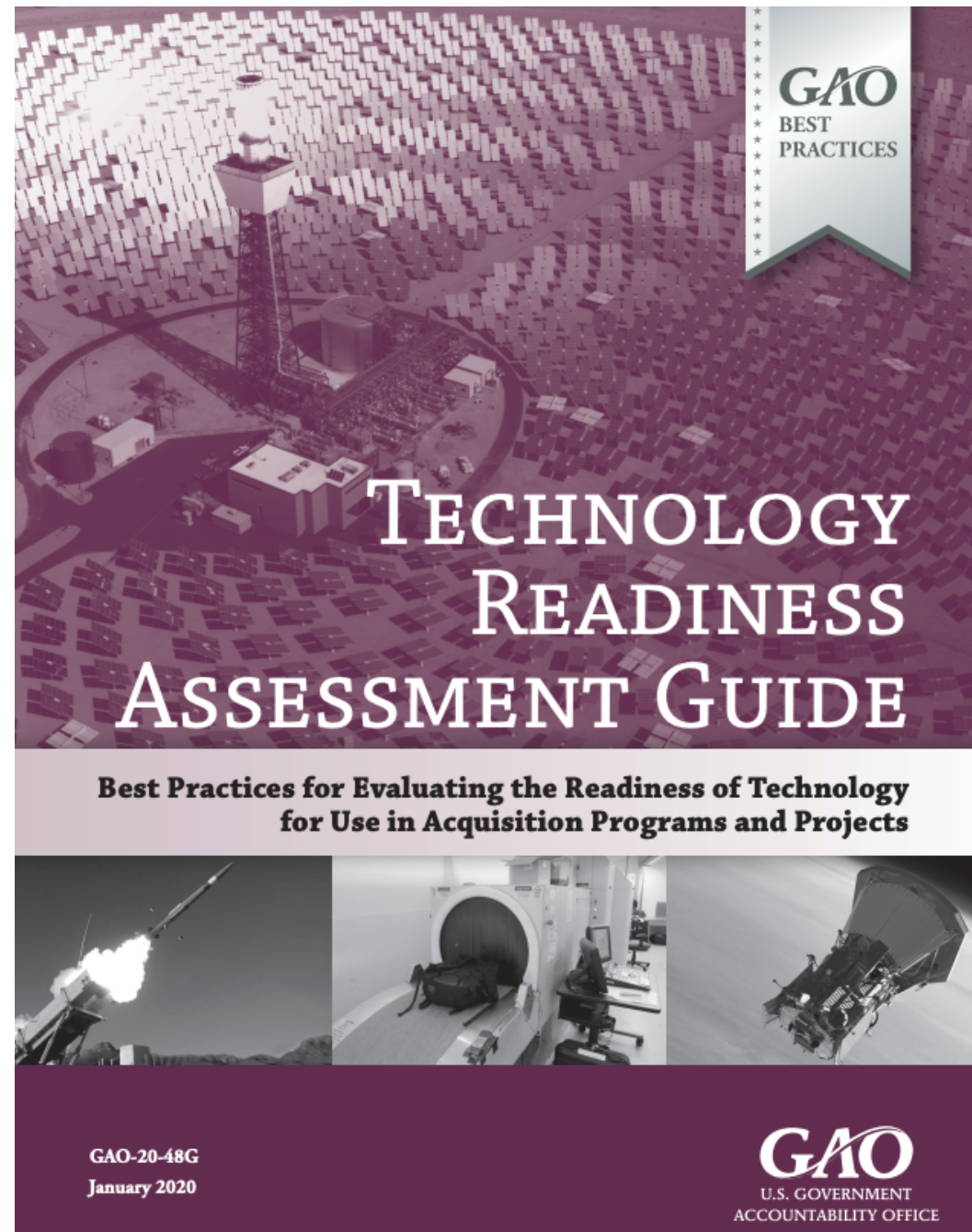
## These are the 10 'Key Technology Focus Areas' or KTFAs

- 1 Artificial intelligence and machine learning**
- 2 High performance computing, semiconductors, advanced computer hardware and software**
- 3 Quantum information science and technology**
- 4 Robotics, automation, and advanced manufacturing**
- 5 Natural and anthropogenic disaster prevention or mitigation**
- 6 Advanced communications technology and immersive technology**
- 7 Biotechnology, medical technology, genomics, and synthetic biology**
- 8 Data storage, data management, distributed ledger technologies, cybersecurity, biometrics**
- 9 Advanced energy and industrial efficiency technologies, such as batteries and advanced nuclear technologies**
- 10 Advanced materials science, including composites 2D materials, other next-generation materials, and related manufacturing technologies**

# Technology Readiness Levels



# Technology Readiness Levels



**Managed by the  
U.S. Government  
Accountability  
Office**

# Technology Readiness Levels

Applied research, proof-of-concept, early prototypes

System validated, technology proven operational

1

2

3

4

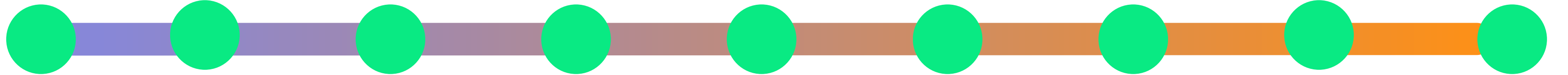
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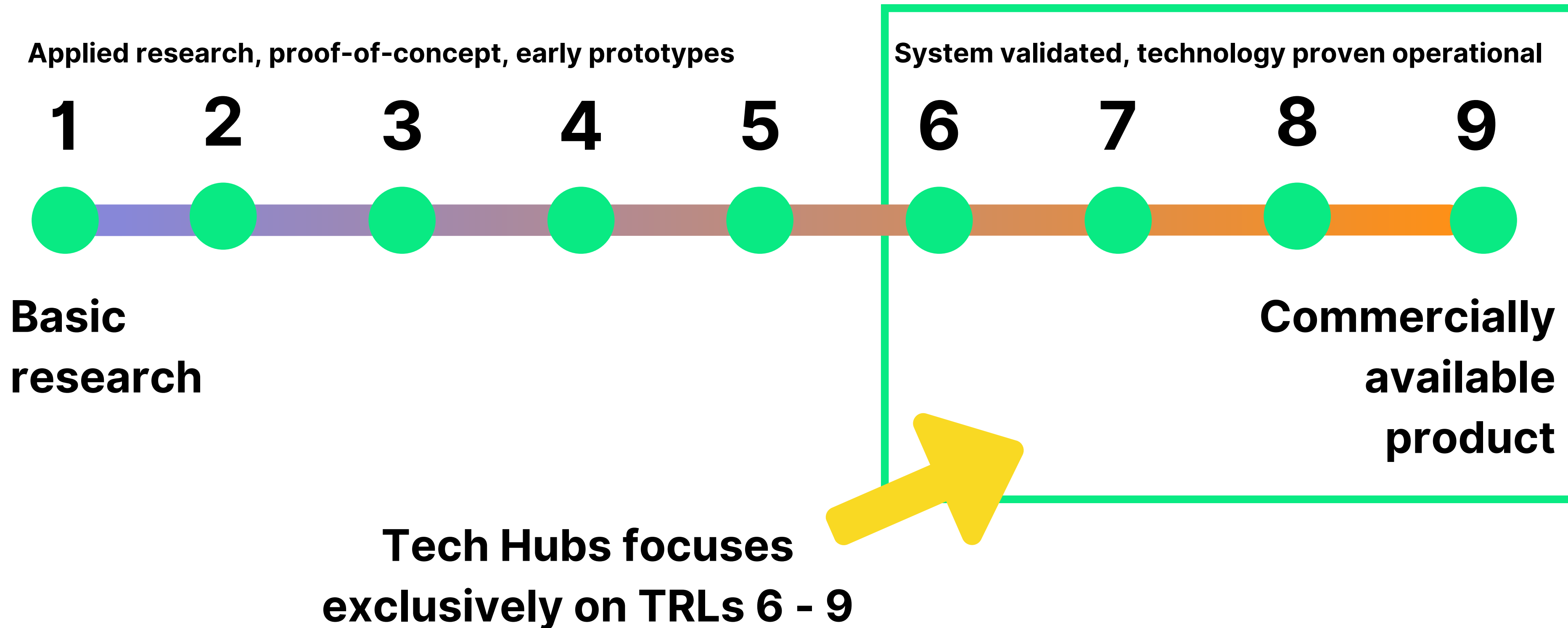
Basic  
research

Prototype  
validation

Commercially  
available  
product



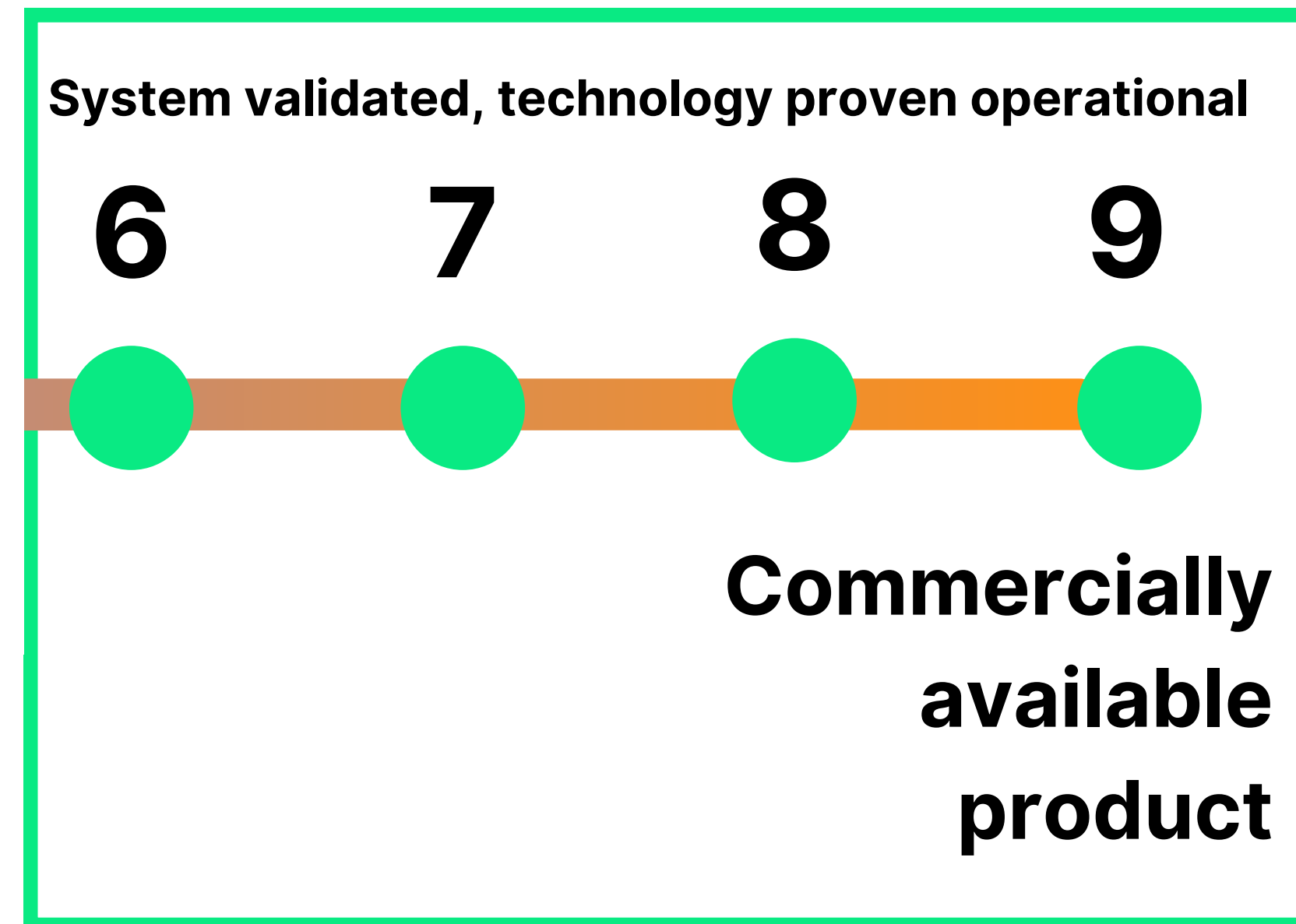
# Technology Readiness Levels



# Technology Readiness Levels

Proposals should describe how this is currently being done in the region.

EDA is clear: the goal is to strengthen existing infrastructure.



# Technology Readiness Levels

Applied research, proof-of-concept, early prototypes

1

2

3

4

5

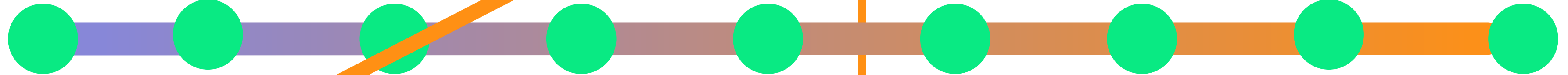
System validated, technology proven operational

6

7

8

9



Basic  
research

Commercially  
available  
product

TRLs 1-5 are out of scope  
for this program\*

**Questions About  
Tech Hubs  
Solicitation  
Language?**

# EDA Recompete Program

- **Solicitation is expected in July**
- **Phase 1 and Phase 2 (similar to Tech Hubs)**
- **Applications must come from:**
  - **local government**
  - **economic development agency**
  - **public entity or nonprofit on behalf of government**
  - **economic development district**
  - **consortium of above orgs**



**TRLs 1-5 are out of scope  
for this program\***

**\*BUT**

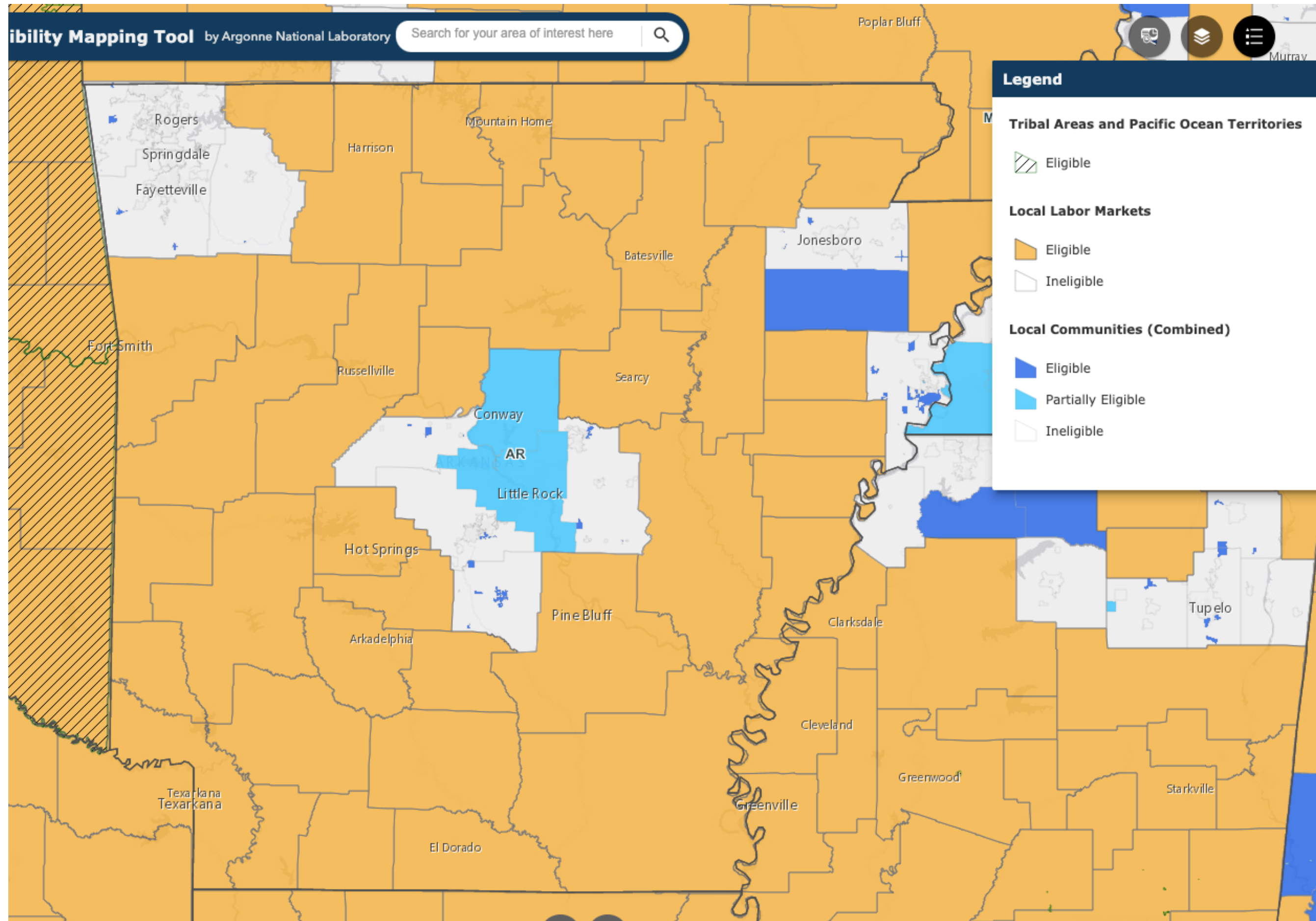
**If you propose to move technologies from TRL  
6 through 9, you have to have a pipeline of  
technologies already moving through 1-5.**

**Phase 1 applicants can pursue approval/designation, strategy development grant, or both.**

**Phase 2 investments can support a wide range of implementation activities across workforce development, business and entrepreneur development, infrastructure, and additional planning, predevelopment, or technical assistance.**







**Communities should collaborate to develop regional strategies addressing various CHIPS+ opportunities in context of state and national landscape**

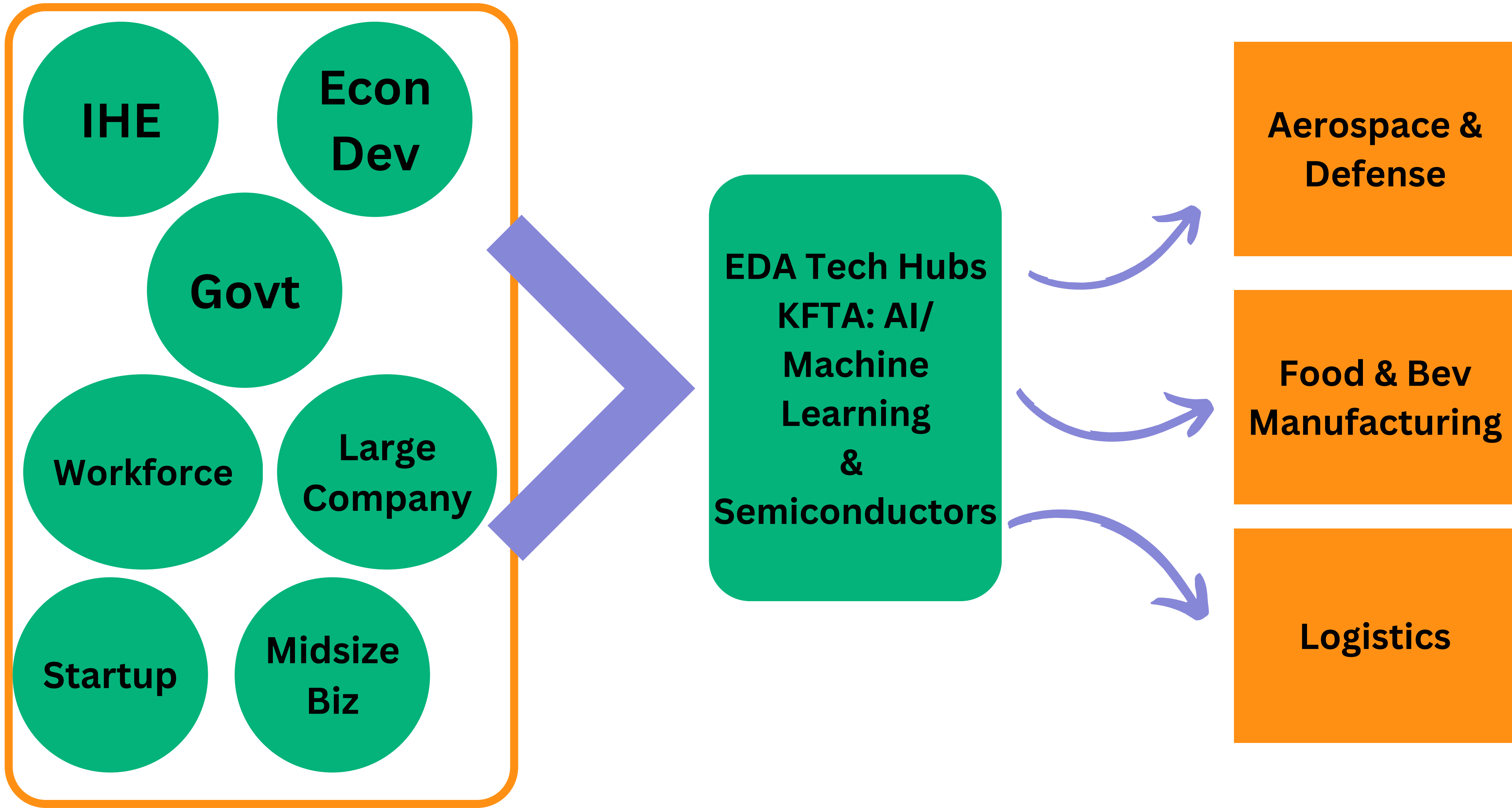
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**What key focus areas would make an economic impact in your region with investment?**

**What collaborators are needed for success?**

**What are the short term and long term outcomes?  
What is a reasonable time scale?**

# Questions About Recompete?



**Proposals should be focused on the key  
technology focus areas.**

**What technologies are you going to deploy?**

**The industry sectors are the customers**

**Most of the KTFAs serve LOTS of industry sectors**

**Proposers don't have to choose one!**