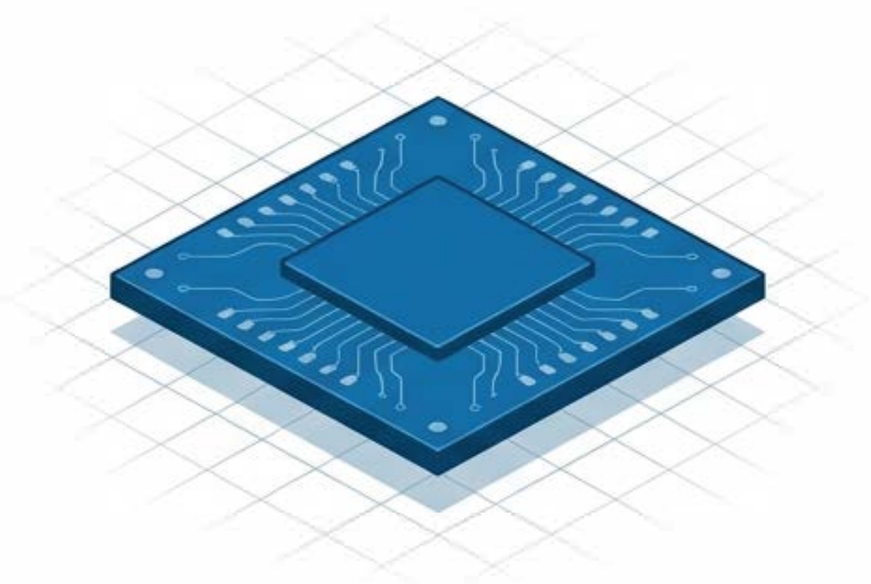
The Florida Semiconductor Engine

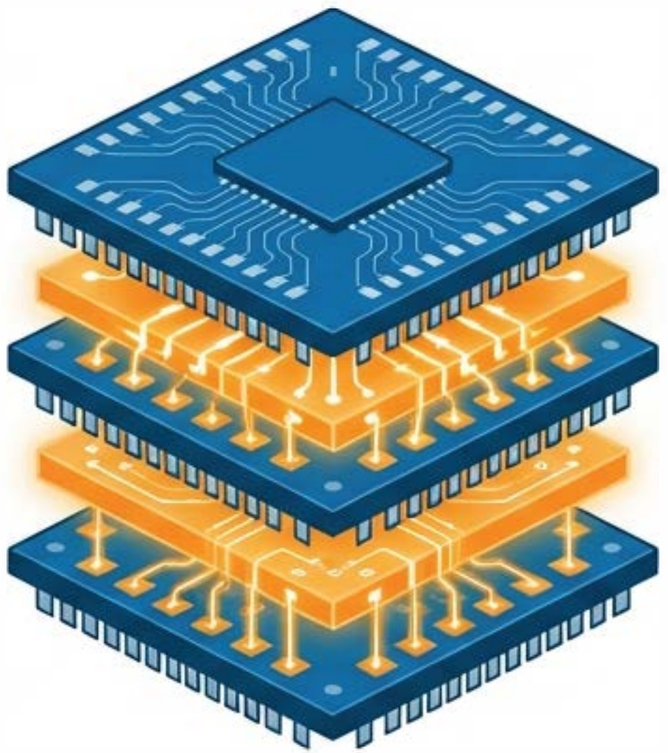
Powering the Future of Advanced Packaging

The New Frontier of Microelectronics

The world doesn’t just need more chips. It needs smarter packaging.



Traditional Chip (2D)



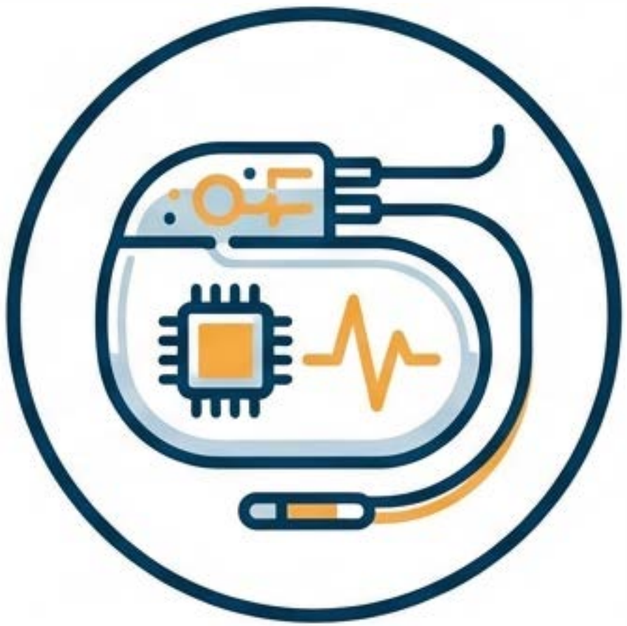
Advanced & Specialty Packaging (ASP)

- Moore’s Law is slowing: We can’t just keep making chips smaller.
- The Solution: Integrating diverse components into a single, vertical package.
- The Opportunity: The U.S. must capture this critical market.

Uniquely Florida: The High-Reliability Niche

Space & Aerospace

Defense Systems

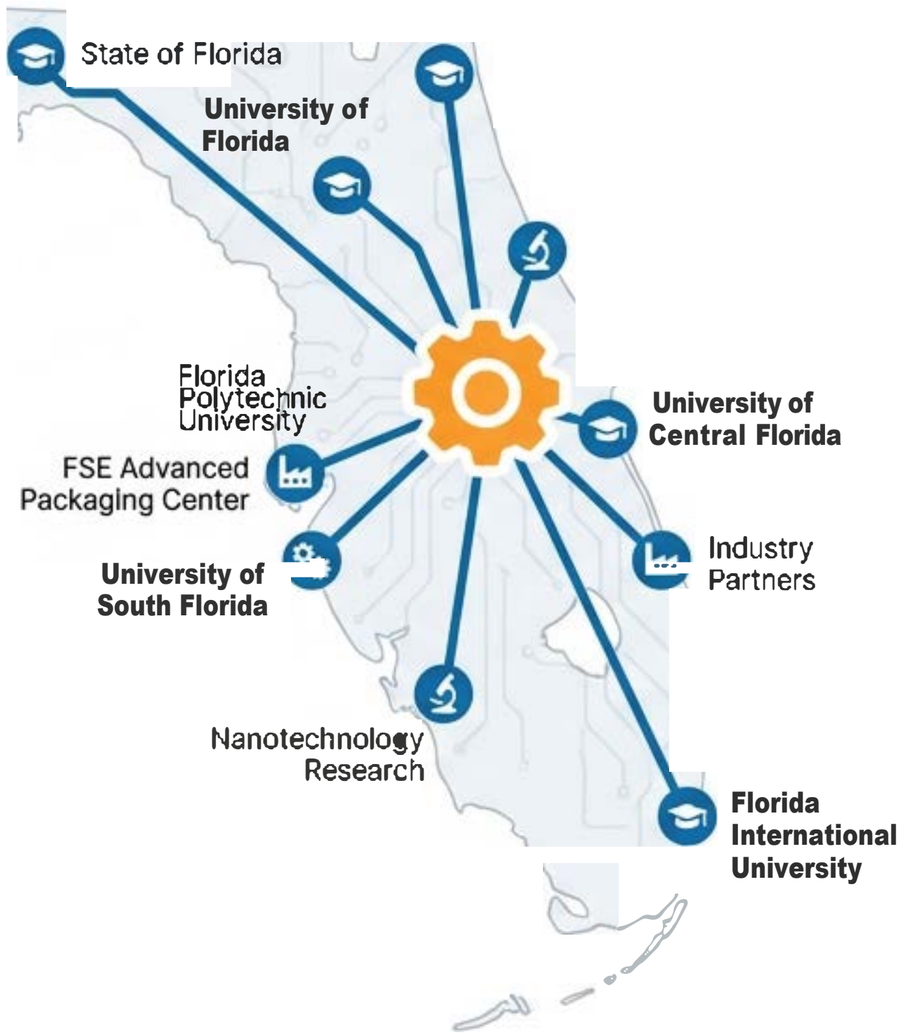


Medical Technology

We are the global leader in High-Mix, Low-Volume, High-Reliability.

Our heritage is building systems where failure is not an option.
This requires specialized chips that survive extreme environments.

Enter the Florida Semiconductor Engine (FSE)



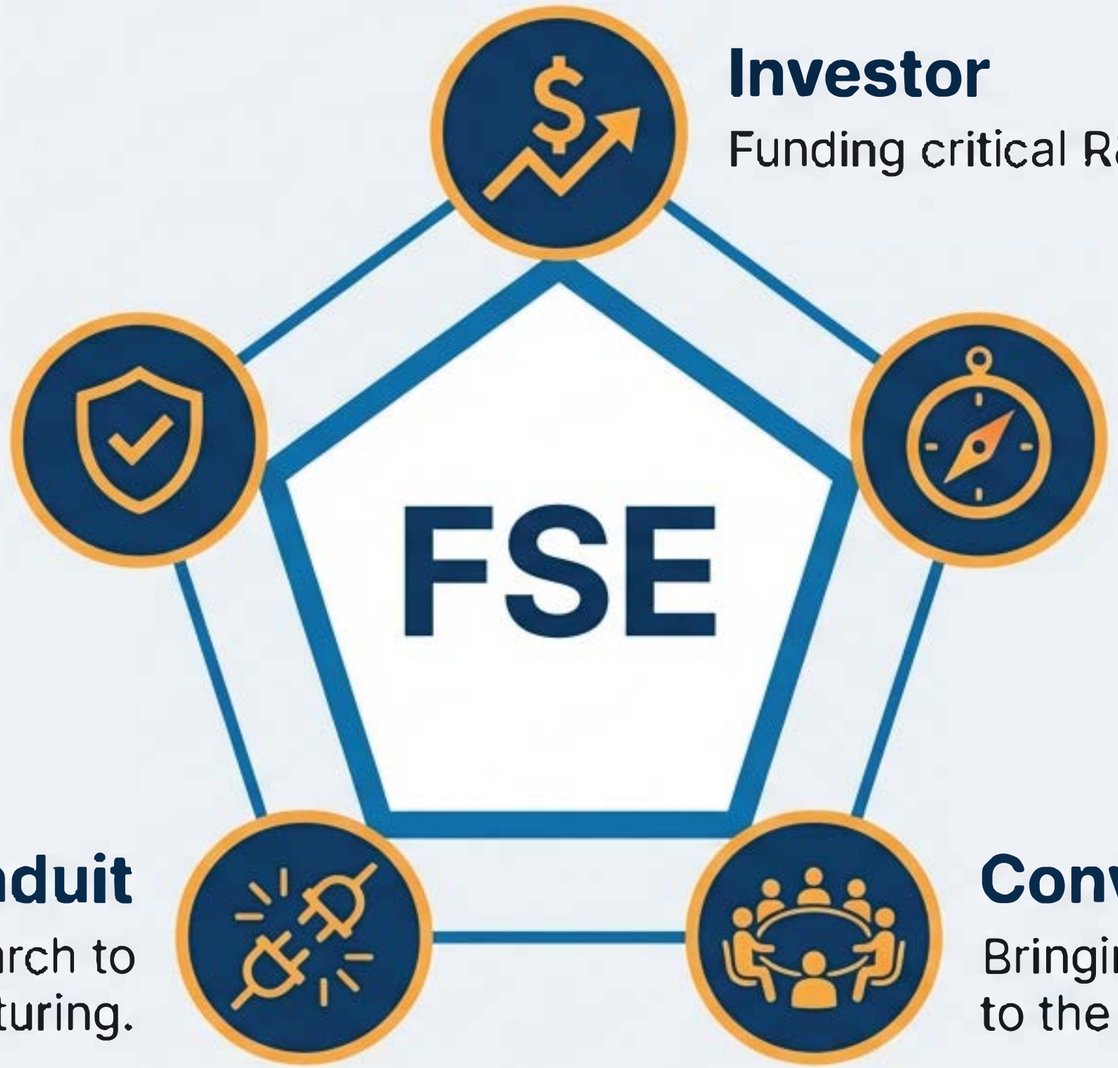
Mission:

To transform Florida into a global leader in Advanced and Specialty Packaging (ASP) by unifying the region's assets.

Role:

FSE is the System Integrator: aligning research, industry, and workforce into a cohesive engine.

The Five Roles of the Engine



Investor
Funding critical R&D.

Mentor
Guiding startups through the Valley of Death.

Convener
Bringing stakeholders to the table.

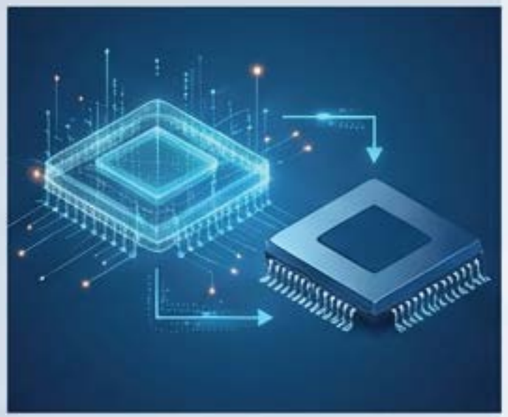
Conduit
Connecting research to manufacturing.

Source of Credibility
Validating technology for global markets.

Areas of Focus: Technology & Innovation

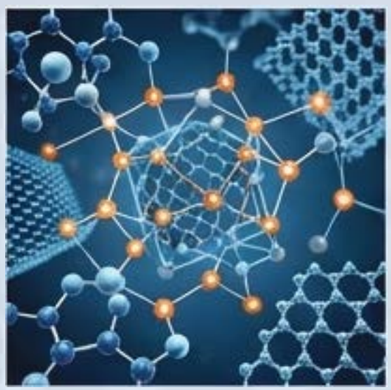
Advanced Packaging

Integrating chips for higher performance.



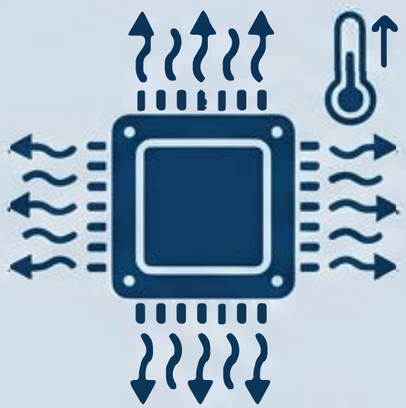
Digital Twins

Simulating designs virtually before building.



Material Innovation

Developing new inputs for faster data transfer.



Thermal Management

Keeping powerful chips cool and efficient.

Bridging the Lab-to-Fab Gap

The Solution:
Infrastructure and prototyping
to prove manufacturability

University
Lab / IP

Manufacturing
/ Product

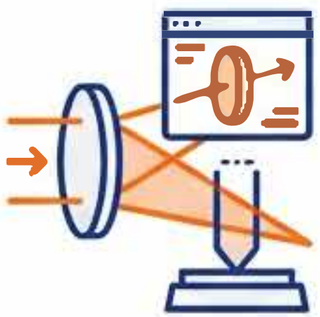
The Challenge:
The "Valley of Death"
where research
often stalls

Florida's Academic Powerhouse

UF

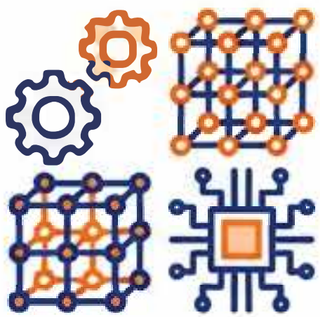
Research flagship &
Patent generation

UCF



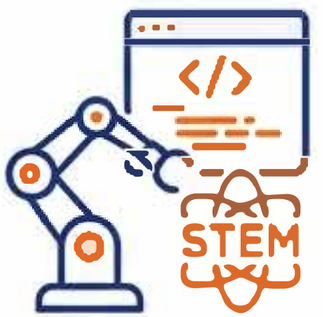
Optics, Photonics
& Modeling

USF



Applied engineering
& Materials

Florida Poly



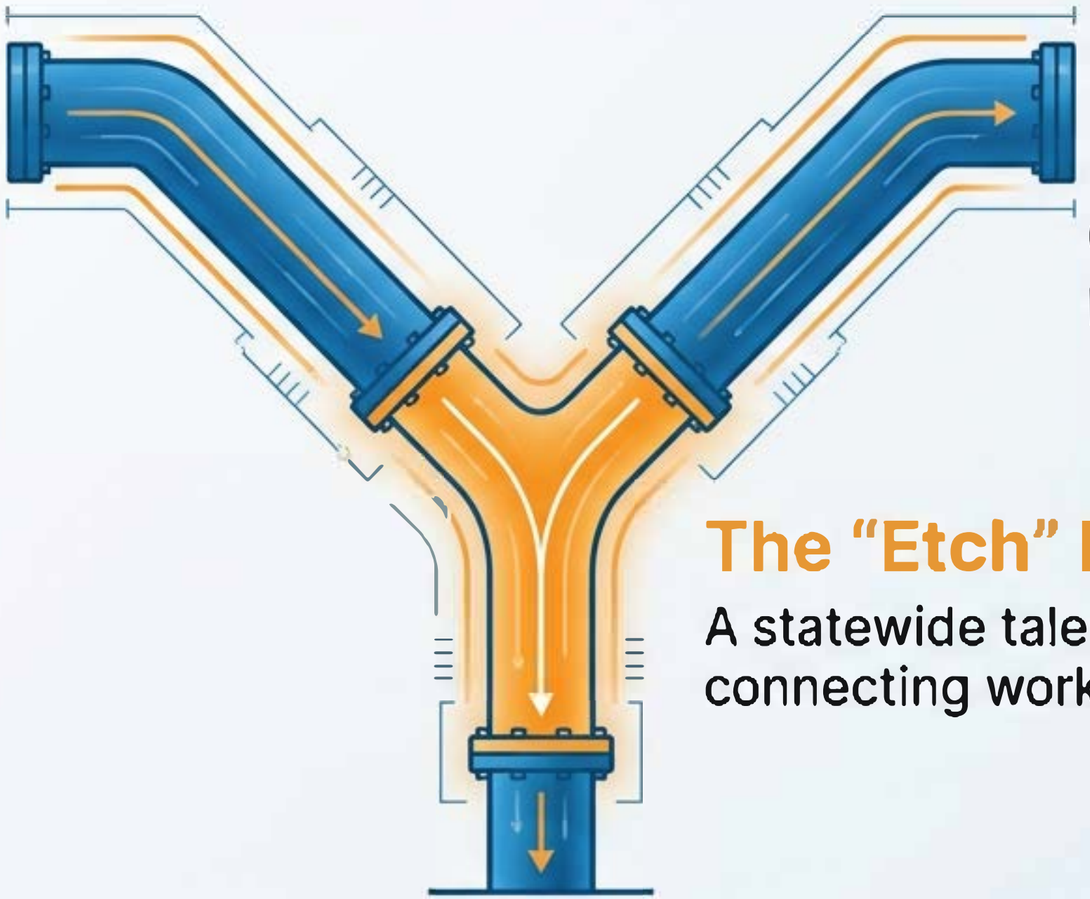
STEM-focused
curriculum

Generating patents, conducting R&D, and educating the next generation

Fueling the Workforce

Technicians

Valencia College:
Florida's first AS degree
in Semiconductor
Engineering Technology



Engineers & Scientists

Graduate programs at
partner universities

The "Etch" Platform

A statewide talent-matching tool
connecting workers directly to jobs

Building a complete pipeline
from entry-level to Ph.D.

The Physical Hub: Center for NeoVation at NeoCity

Concept: Product Enablement

A shared-use facility where companies prototype and test without building their own billion-dollar factory.

Tailored for High-Mix, Low-Volume production.

Expanding Markets: From Defense to MedTech

Shared Requirement:
Extreme Reliability &
Miniaturization

Defense & Aerospace is the Anchor.
Medical Technology is the Opportunity.

Economic Impact & Prosperity

$160,000

Average Semiconductor Wage
(Double the state average)

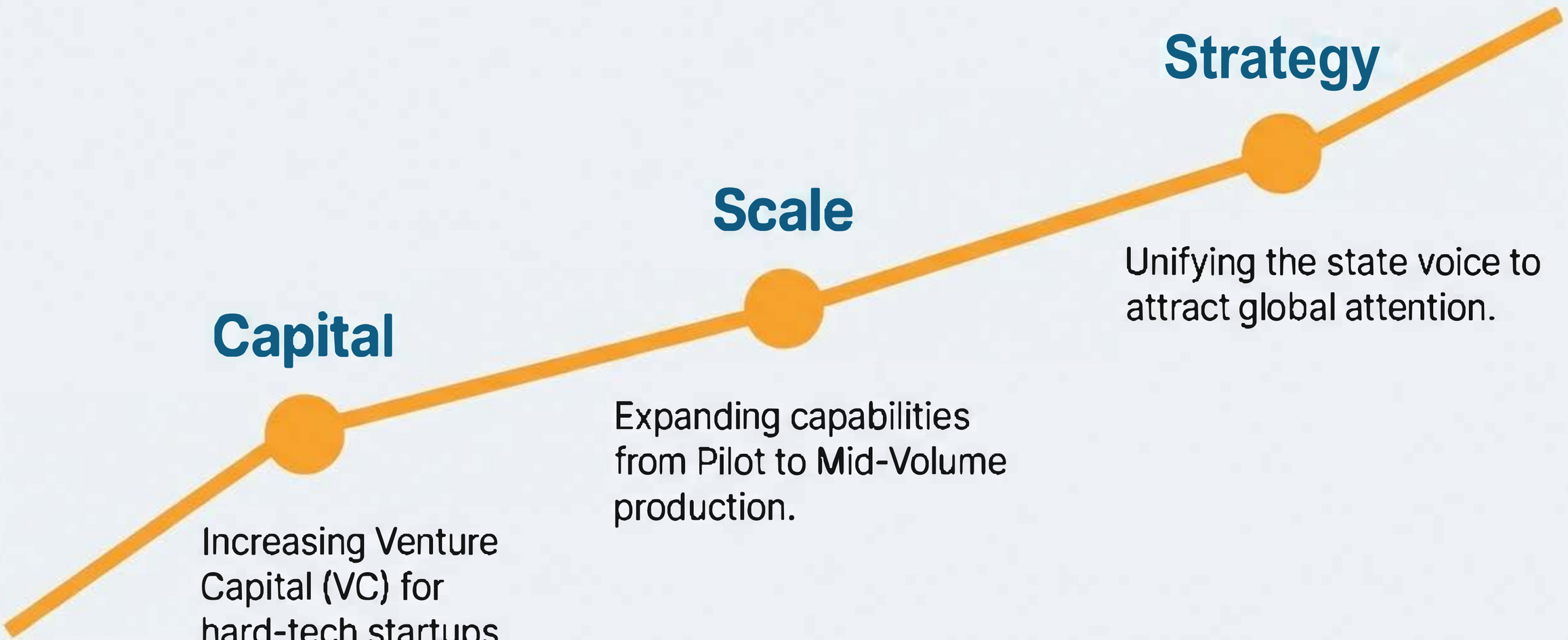
1 : 5

Multiplier Effect: Every 1 semiconductor job supports 5 industry jobs.

Diversification

Reducing reliance on tourism and agriculture.

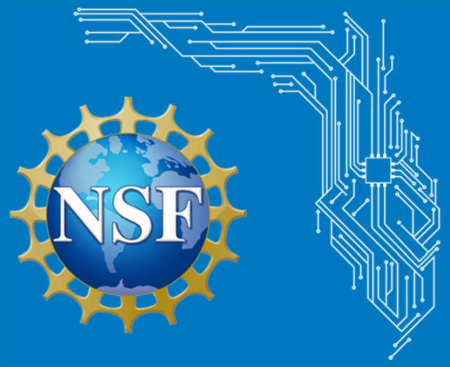
Areas of Opportunity



FSE's Vision: A Cohesive Statewide Ecosystem

Securing the U.S. supply chain for critical, high-reliability chips

Transforming isolated strengths into a unified, world-class engine



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SemiconductorEngine.org