



Climate Tech Landscape in Arizona

Connecting Arizona and Dutch Business

Introduction

What is Climate Tech?

Technologies and solutions that enable the mitigation of and adaptation to climate change.



Climate Tech Research

Arizona has a well-developed ecosystem of academic Climate Tech Research.



Innovation Sectors

Five highlighted sectors of Climate Tech that feature opportunity for growth.



Climate Tech Research



Who is doing Climate Tech research?

Research Ecosystem

Arizona State University

- Julie Ann Wrigley Global Futures Laboratory
- Rob Walton Sustainability Solutions Service
- Urban Climate Research Center
- Global Center for Water Technology
- Arizona Water Innovation Initiative
- Decision Theater Network
- Swette Center for Sustainable Food Systems
- Circular Living Lab
- Center for Smart Cities and Regions

University of Arizona



- SCORCH (Scenarios, Models, & Solutions for Climate Resilience)
- Controlled Environment Agriculture Center
- Water & Energy Sustainable Technology Center
- Hydrometeorology and Remote Sensing Lab
- Brackish Water and Desalination Group
- Agricultural Water Efficiency Group
- Desert Controlled Environment Ag. Center
- Hydrologic Forecasting and Drought Early Warning System

Other Institutions



Innovation Sectors



SOURCE[®]



Purity ReSource



Arizona Smarte Water

Revolutionizing water



Metrics Water Catalyst

Solving the PFAS Problem™

Water

Climate Tech

Innovations that improve the efficiency, resilience, and reliability of water-related systems or infrastructure to mitigate water-related risks and climate change.

Key Innovators

- SOURCE Global: Uses solar technology to make drinking water from air
- Purity ReSource: Purifies wastewater from semiconductors using membrane separation
- Arizona SmarteWater: Water treatment using copper ionization, CO₂ and smart sensor monitoring
- Metrics Water Catalyst: Licensed through ASU, it removes PFAS using catalytic and biofilm reactors and smart modeling

Networks: Arizona Water Association, Arizona Water Environment Federation, Arizona Hydrological Society, Arizona Desalination & Water Reuse Research Network



Water

Climate Tech

Strengths

- Active utility engagement supporting innovative water climate technology
- Strong research institutions & technical capacity from universities/labs
- Available funding through the Water Infrastructure Finance Authority (WIFA)

Gaps

- Slow regulatory approval & policy uncertainty (Colorado River allocations)
- High adoption costs that limit scaling
- Insufficient predictive and adaptable real-time modeling tools
- Need for deployment of advanced technology to minimize industrial water use

Synergy

Automated precision-irrigation to improve drought/flood resilience



Urban Infrastructure

Climate Tech

The foundational systems that enable a city to function with efficiency and resilience.

Key Innovators

- EnKoat: roof coating to reduce cooling demand
- Steel + Spark: modular, self-sufficient housing units
- ASU: The Zimin Foundation, SHaDE lab, NSF Futures Engine
- Public-Private Partnerships: Heat mitigation in Phoenix, Tempe, & Tucson



Urban Infrastructure

Climate Tech

Strengths

- Hotbed for research & innovation
- Increasing demand for solutions

Gaps

- Inequitable distribution
- Climate-resilient design regulations

Synergy

Smart urban planning with climate adaptation





Desert Food Systems

Climate Tech

Utilizing technology to grow food with less water, less space, and closer to urban populations.

Urban Agriculture Projects

- OnePointOne
- True Garden

Networks

- Farm Tech Connect: U of A
- Center for Urban Smart Agriculture: U of A



Desert Food Systems

Climate Tech

Strengths

- Cultivate Phoenix - ASU
- ARPA Food Grant Opportunities – City of Phoenix
- Strong examples of vertical farm start-up companies

Gaps

- Scaling up, volume and vegetable diversity
- Energy Demand & Capital Costs

Synergy

Precision agriculture and controlled-environment farming



Circularity

Climate Tech

Any company that strives to keep materials and products in circulation for as long as possible.

Key Innovators

- Resource Innovation Campus: circularity hub
- Circular Plastics Microfactory: recycles plastics
- KEPP Energy: Waste to energy
- GreenPlanet21: Industrial recycling
- Cirba Solutions: Battery recycling
- R. City: Composting
- Cyclic Materials: Rare earth recycling





Circularity

Climate Tech

Strengths

- Innovator in circularity
- First of kind plastic recycling

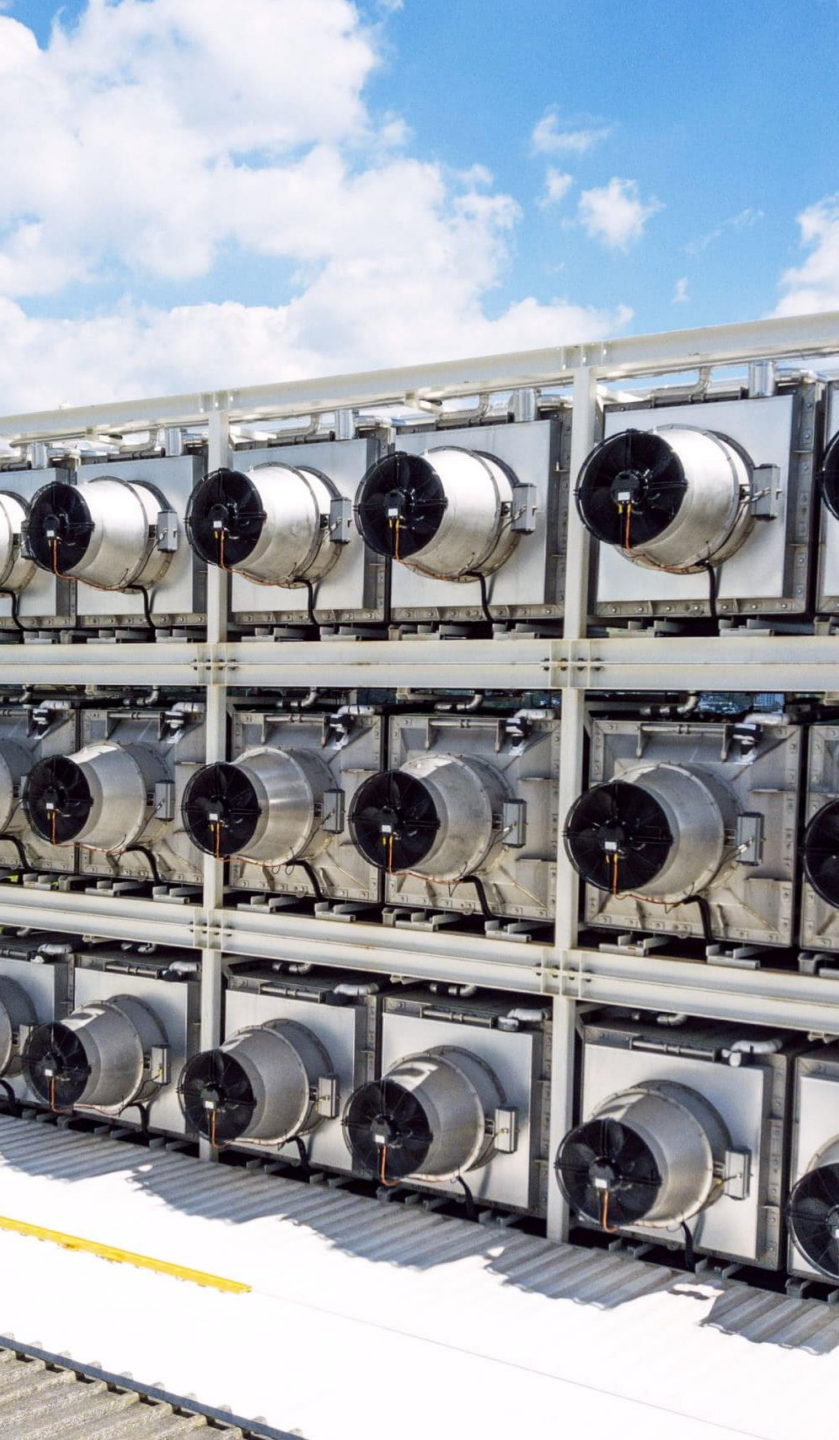
Gaps

- Needs advanced infrastructure
- Needs industry expertise
- Tire and glass recycling

Synergy

Dutch experts help create glass recycling networks





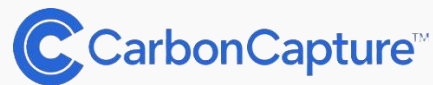
Decarbonization

Climate Tech

Sector includes technology that is helping achieve net-zero/zero-carbon existence. Includes batteries, carbon capture, hydrogen, etc..

Key Innovators

- Carbon Capture Inc: Direct Air Capture for mass production
- Fluence: Battery energy storage systems
- Heliogen: Ai controlled solar panels for industrial heat (cement, mining)
- Dimensional Energy: Produces synthetic crude from CO2 (SAF, diesel)





Decarbonization

Climate Tech

Strengths

- DAC innovation
- CCUS innovation
- Battery and solar friendly

Gaps

- Long-term sequestration frameworks
- Storage logistic knowledge/networks
- CO2 pipeline (Netherlands has expertise!)

Synergy

Dutch experts assist in framework for CO2 storage logistics



Why Arizona?



Strong Support Ecosystem

- Successful Case-Studies
- Academia opportunities
- Municipal support and participation



Growing Attention

- Opportunity for partnership
- Demand for sustainable energy
- Climate Tech Innovations



Dutch Synergies

- Specialized technology expertise to apply to desert climate challenges

