

FIVE-YEAR PLAN

LEVERAGING NEXT-GEN TRENDS TO GROW ARIZONA'S ECONOMY





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THE FUTURE STARTS HERE

For centuries, advancements in technology have altered and improved the human condition – from steam power, to electrical power, to electronics. Yet the digital transformation we are undergoing today is truly unprecedented in speed, scale and complexity. It is disrupting industries and empowering populations by breaking down economic and geographic barriers. We are living in the most exciting time in our history.

In Arizona, we recognize the incredible opportunities that lie ahead of us as a result of this next revolution – and we are perfectly positioned to capitalize on them to advance our state as a worldwide leader in innovation.

We also know that now more than ever, *place matters*. Companies look for states with top talent, pro-business policies and robust innovation ecosystems. They seek strategic locations, reliable infrastructure and affordable costs. They need to know the next move they make will be the right one – and now they have the entire world to choose from.

At the Arizona Commerce Authority (ACA), we understand the factors that impact the future of a business starting up, expanding or relocating. We know that Arizona’s culture of innovation and unique value proposition meet the demands of global businesses – and the proof is in the results.

During our first five years, the ACA worked with some of the most respected names in industry to create over 87,000 projected new jobs and secure more than \$9.5 billion in capital investment commitments. We worked collaboratively with Governor Doug Ducey and the Arizona Zanjeros to host visiting CEOs, showcasing Arizona’s value proposition. We also built a portfolio of early-stage companies that have commercialized their technologies, generated almost \$100 million in revenue and attracted more than \$130 million in investment.

Under the leadership of Governor Ducey and an esteemed board of directors, the ACA is recognized nationwide as a high-performance, customer-centric, professional services organization.

True to Arizona’s forward-thinking approach, the ACA is raising the bar for the next five years. Our action plan is focused on capitalizing on existing strengths and opportunities, executing strategies that grow Arizona’s economy, targeting high-growth industries in key markets and identifying emerging growth sectors.

Through this focus on the future and aggressive pursuit of our goals, we will advance Arizona’s reach far beyond our geographical borders and play our part in changing the world.

**SANDRA
WATSON**
PRESIDENT
AND CEO
ARIZONA
COMMERCE
AUTHORITY



MOVING FORWARD: FIVE-YEAR GOALS

IN ADDITION TO THE ACA'S THREE KEY GOALS FOR JOB CREATION, WAGE GROWTH AND CAPITAL INVESTMENT, WE'VE ADDED NEW MEASURES OF SUCCESS FOR ENHANCING ARIZONA'S ENTREPRENEURIAL ECOSYSTEM AND GROWING OUR ECONOMY THROUGH EXPORTS.



JOB CREATION

Lead efforts to create **80,000** projected new jobs with a focus on high-wage target industries.



WAGE GROWTH

Increase average wage of the jobs created to **150%** of the state's 2017 median wage.



CAPITAL INVESTMENT

Attract **\$7 billion** in capital investment to Arizona.



ENTREPRENEURIAL VITALITY

Elevate Arizona to a **top-five state** as measured by entrepreneurial density, funding and connectivity.



INCREASED EXPORTS

Expand export revenues across target industries by **25%** over five years.

PEOPLE. PLACE. POLICY.

WITHOUT QUESTION, ARIZONA IS THE IDEAL LOCATION FOR BUSINESS.

Our unique value proposition includes top talent with the skills modern businesses require, an incredible location for both business operations and quality of life and a pro-business climate with low costs and light regulation.



PEOPLE

As emerging technologies propel business into a faster-paced and more-connected realm, talent is a key driver of prosperity and a highly skilled workforce is essential. Arizona offers companies a consistently growing pool of available talent, fed by world-class educational institutions.

**Top 10 State
For Qualified Workforce**

America's Top States for Business
and CNBC Best States for Business

**#2 Higher Education
Efficiency**

U.S. Chamber Foundation
2015 Enterprising States Report

[READ MORE](#)



PLACE

Arizona's superior geographic location, adjacent to some of the world's largest economies, and lack of natural disasters provide the ideal platform for competing in the global economy. An unmatched quality of life and affordable cost of living make it easy to attract and retain high-quality employees.

**Access 70 Million
Consumers in a One Day
Trucking Radius**

**300+
Sunny Days per Year**

[READ MORE](#)



POLICY

Arizona is committed to policies that keep government out of the way of innovation and growth. Our pro-business mindset, competitive tax structure, affordable operating costs and the lean regulatory environment make Arizona the best place to launch, test and scale new business models.

**#1 State for Economic
Competitiveness,
5 to 8 million population**

Area Development Magazine

**4.9% Corporate Income
Tax — Among the Lowest
in the Country**

[READ MORE](#)

TARGET INDUSTRIES

THE ACA HAS STRATEGICALLY CHOSEN TO FOCUS ON DEVELOPING SIX ESTABLISHED INDUSTRIES. These industries create high-wage jobs, generate exports and encourage capital in-flows, have strong supply chains and multiplier effects and generate tax revenues that support public services. To enhance the development of key industries in Arizona, the ACA has partnered with the Arizona Zanjeros to provide private sector leadership by establishing subcommittees focused on three of the six target industries: aerospace & defense, bioscience & health care and technology & innovation. These subcommittees have conducted a thorough analysis of each industry and have recommended strategies for growth.



Aerospace & Defense

[READ MORE »](#)



Bioscience & Health Care

[READ MORE »](#)



Business & Financial Services

[READ MORE »](#)



Film & Digital Media

[READ MORE »](#)



Manufacturing

[READ MORE »](#)



Technology & Innovation

[READ MORE »](#)

A 2017 report by the Seidman Research Institute at the Arizona State University W.P. Carey School of Business shows the significant economic and fiscal impacts target industries have had in Arizona:

Over 50% of the state's total annual GDP

\$153 BILLION

60% of the state's total annual employment

1.8 MILLION

64% of the state's total annual labor income

\$105.7 BILLION

OVER \$9.4 BILLION

in state and local government taxes – more than 35% of the state's total state and local tax revenues.

For every 100 direct jobs created, at least 100 additional indirect or induced Arizona jobs are generated.

NEXT-GEN TECH TRENDS

ESTABLISHED. EMERGING. ENABLING.

Cutting-edge technologies are rapidly giving rise to the industries of the future. That’s why in Arizona, we’re looking to the future and thinking **BIG**. In addition to our continued focus on developing high-value established industries, the ACA will also focus on emerging technologies that are changing existing industries and enabling new ones.

Our state has always been a place that encourages bold ideas and embraces new solutions. The ACA has conducted a research effort to identify challenges the world will face in the future. These include issues such as supplying a

growing number of people with adequate food and clean water, caring for an aging population, and providing connectivity to everyone, everywhere. Based on this research, we have identified ten next-gen technology trends in which Arizona has core competencies which lay the foundation for Arizona to establish a global leadership position.

The ACA will work closely with industry leaders and academia to develop a roadmap to leverage these core competencies. Arizona’s public universities alone have over 400 top experts conducting research in these ten

areas and have produced nearly 3,100 publications between them. Consistent with our state’s legacy of innovation, we will work together to become a hub for new industries and play our part in solving world challenges.

These trends and new technologies will change the way business is conducted, lead to new innovations and facilitate economic growth. They present a powerful opportunity for Arizona to extend our reach beyond our own borders and become known worldwide as the best place for BIG ideas – **B**usiness, **I**nnovation and **G**rowth.



Autonomous Vehicles



Internet of Things



Fresh Water Science



Personalized Medicine



Telemedicine



Education Technology



Renewable Energy



Agricultural Technology



Smart Materials



Nanosatellites

Click Icons To Learn More About Solving World Challenges

TARGET MARKETS

TODAY'S GLOBAL ECONOMY PRESENTS STRATEGIC OPPORTUNITIES AND MARKETS FOR ARIZONA'S PRODUCTS, SERVICES AND IDEAS.

The ACA will engage in both national and international campaigns to elevate our global leadership position, attract new businesses and increase trade and investment.

CALIFORNIA

California's burdensome regulatory environment perfectly positions Arizona as the ideal location for companies that want access to the California market without the onerous business restrictions. Additionally, California's top imports include semiconductors, aerospace products and parts, navigational equipment and medical devices – presenting trade opportunities for Arizona companies.

MEXICO

Mexico is Arizona's largest international trading partner, accounting for nearly 38 percent of Arizona's exports and imports in 2016.

CANADA

Canada is Arizona's largest contributor of foreign direct investment and second largest export market.

EUROPE

The United Kingdom, Germany, France, Spain and Switzerland together represented more than \$4 billion (11%) of Arizona's international trade in 2016.

ASIA

In 2016 China was Arizona second-largest trading partner, while South Korea was its third.



CALIFORNIA



MEXICO



CANADA



EUROPE



ASIA

STRATEGIC FRAMEWORK

TO ACHIEVE OUR CORE MISSION, THE ACA UTILIZES A THREE-PRONGED APPROACH, SUPPORTED BY 10 STRATEGIES. Our vision serves as an overarching guide to our work, and our cultural values are foundational.

VISION

Arizona is the top location for high-quality business growth.

MISSION

To grow and strengthen Arizona’s economy and facilitate the creation of quality jobs for its citizens by supporting and attracting businesses in targeted, high-value base sectors throughout the state.

1

Attract businesses to Arizona.

2

Grow Arizona businesses.

3

Create new Arizona businesses.

STRATEGIES

Monitor & Strengthen Competitiveness

Increase Awareness

Lead Economic Development Efforts

Target High-Value Industries

Accelerate Advanced Manufacturing

Cultivate Entrepreneurial Ecosystem

Expand International Trade

Create Workforce of the Future

Encourage Infrastructure

Enhance Rural Economic Growth

CULTURE

Transparency • Accountability • ROI • Leadership • Engagement • Long-Term Vision • Short-Term Action • Collaboration

A NEW WAY OF THINKING

IF WE DON'T MEASURE IT, WE CAN'T IMPROVE IT.

Arizona has deployed a results-driven management system to achieve Governor Ducey's vision for our state to be the best place to live, work, play, recreate, retire, visit, do business and get an education. The Arizona Management System has transformed the way our state government thinks and does business as one enterprise.

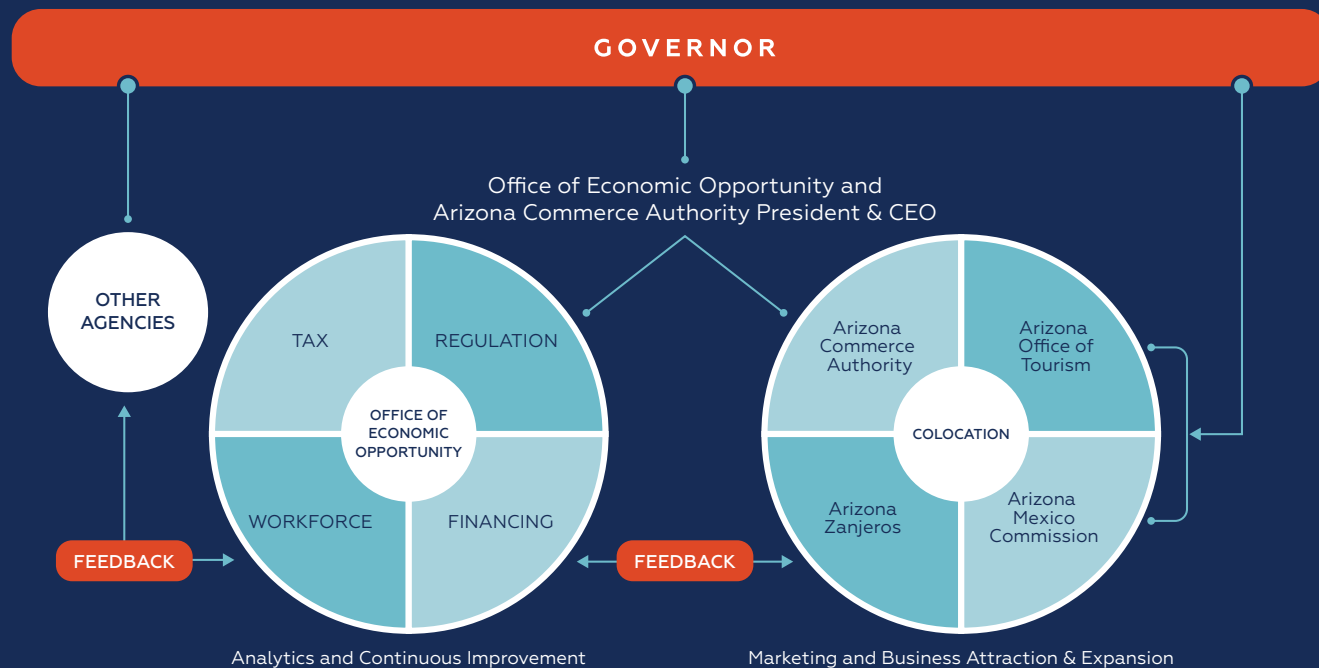
As a part of this enterprise, ACA 2.0 has been implemented. This new approach

co-located the entities responsible for marketing Arizona and created the Office of Economic Opportunity, to enhance collaboration and ensure a data-driven approach is used to promote Arizona's many advantages.

Over the next five years, the ACA will utilize the lean principles the Arizona Management System is based on to scale our capabilities, our engagement and our impact. For each of the ten strategies

outlined in this plan, benchmarks will be established and quantifiable metrics that demonstrate measurable progress will be developed. Through data analytics and a continuous improvement process, we will eliminate inefficiencies and optimize for success.

Each short term, performance-based action will correlate directly with achieving our long term mission.



TEN STRATEGIES FOR SUCCESS

1 MONITOR AND STRENGTHEN ARIZONA'S COMPETITIVENESS

The ACA knows business decision-makers have options when considering locations to start, expand or relocate a company in an increasingly connected economy. Ensuring Arizona remains competitive is critical to our success. To continually monitor and strengthen Arizona's competitive position, the ACA will:

COLLABORATE

with the Office of Economic Opportunity to gather and analyze data to assess Arizona's business climate and competitiveness.

CAPITALIZE

on globally significant research and development being conducted by Arizona's universities and private industry.

IDENTIFY

areas of opportunity and approaches to improving Arizona's business climate and improving competitiveness.

ENGAGE

with Arizona elected officials and business leaders to shape economic development and workforce policies that support Arizona's competitiveness.

Arizona's strong value proposition

PEOPLE,
PLACE &
POLICY

gives our state an advantage over others.

TEN STRATEGIES FOR SUCCESS

2

INCREASE AWARENESS OF ARIZONA'S ATTRACTIVENESS

Our progress to date provides a solid foundation for ensuring that Arizona stands out and remains top-of-mind among business leaders. To position Arizona as a global leader, promote the advantages our state offers to businesses and drive qualified leads, the ACA has created a strategic, integrated marketing and communications plan that will:

LEAD

a network of ambassadors and partners in deploying consistent messaging.

CREATE

and publish original content to communicate strengths and tell success stories.

ENGAGE

target audiences through advertising placements in a strategic mix of mediums.

INCREASE

earned media coverage by continually strengthening media relations.

EDUCATE

decision-makers through experiential events, trade shows and conferences.

MEASURE

progress through detailed reporting on key performance metrics.

Arizona has gained a solid reputation as a

**PREMIER
BUSINESS
LOCATION.**

TEN STRATEGIES FOR SUCCESS

3 LEAD ARIZONA'S ECONOMIC DEVELOPMENT EFFORTS

This coordinated method ensures that decision-makers considering Arizona experience a streamlined process and feel fully supported at every level. To continually improve effectiveness and maximize success of statewide economic development efforts, the ACA will:

LEAD

joint responses to business attraction opportunities to ensure seamless coordination.

MATCH

partners to appropriate aspects of economic development projects based on their respective missions and expertise.

ADVANCE

strategic international partnerships to increase cross-border economic development opportunities.

MOBILIZE

“action tanks” – the next iteration of “think-tanks” – to address issues and advance innovations that will strengthen Arizona’s position as a global leader.

Arizona takes a

UNIQUE COLLABORATIVE APPROACH

to economic development – with state, regional and local partners working in lockstep.

TEN STRATEGIES FOR SUCCESS

4 TARGET BUSINESSES IN HIGH-VALUE INDUSTRIES

Continuing to strengthen Arizona’s economy by supporting and growing target industries will remain a key strategy for the ACA and the Arizona Zanjeros. To continue building on all five of Arizona’s target industry strengths and to support the development of nascent industries, the ACA will:

INCREASE

business attraction and expansion activities that will achieve key goals in targeted sectors.

FOCUS

a dedicated team on each target industry and consistently support that industry throughout the ACA.

ENGAGE

industry stakeholders to maximize awareness and delivery of the Arizona value proposition.

IMPLEMENT

strategies for industry growth identified by the three Arizona Zanjeros subcommittees.
(click to learn more about the Arizona Zanjeros)

ARIZONA'S TARGET INDUSTRIES

contribute over 50% of the state’s total annual gross state product, 60% of the state’s total annual employment and 64% of the state’s total annual payroll.

TEN STRATEGIES FOR SUCCESS

5 ACCELERATE MANUFACTURING IN ARIZONA

Manufacturing creates high-wage jobs, and its supply chain and logistics needs produce a positive ripple effect through the state’s economy. Additionally, manufacturing will play a prominent role in the creation of emerging technologies that will change the way we live and work. To accelerate the growth of manufacturing in Arizona, the ACA will:

PROMOTE

Arizona’s assets, advantages and experience to build clusters in high-value manufacturing.

FOCUS

on global recruitment of manufacturers and their high value-added supply chain.

GROW

small and medium manufacturers through technology commercialization; adoption of advanced manufacturing processes; and capital investments in automation, computation, software, sensing and networking.

EMPHASIZE

high-value manufacturing across the state and build on each region’s manufacturing base.

Arizona is a leader in manufacturing, which employs more than 158,000 people and

GENERATED \$24 BILLION

in gross state product in 2016.

TEN STRATEGIES FOR SUCCESS

6 CULTIVATE ARIZONA'S ENTREPRENEURIAL ECOSYSTEM

One person may formulate an idea that can change the world, but it requires a nurturing, supportive environment to bring that idea to life. To ensure Arizona's startup ecosystem continues to thrive and provide critical resources to entrepreneurs, the ACA has created a plan that will:

LEVERAGE

the ACA's entrepreneurial programs and startup data into an analytics platform for benchmarking and growing Arizona's startup ecosystem.

INCREASE

venture capital investments made in Arizona companies, both originating in Arizona and from outside the state.

LAUNCH

a new public-private accelerator network to advance early stage ventures and position them to attract follow-on venture capital.

PROVIDE

mentorship and growth services to new ventures from a network of accomplished business leaders, serial entrepreneurs, investors and technical experts.

ARIZONA'S LONG-TERM ECONOMIC VITALITY

relies on entrepreneurship, the creation of new businesses and the commercialization of ideas and products.

TEN STRATEGIES FOR SUCCESS

7 EXPAND INTERNATIONAL BUSINESS RELATIONSHIPS

In order to continue to prosper, Arizona must capitalize on the opportunities presented by an increasingly interconnected world. Our strategic geographic location, adjacent to some of the world’s largest economies, provides a perfect platform for growing international trade and investment. To facilitate increased cross-border collaboration and trade, the ACA will:

STRENGTHEN

Arizona’s partnerships throughout Mexico, particularly in our neighboring state of Sonora, and Canada.

POSITION

Arizona as both a gateway and destination for international trade and investment with Mexico, Canada, Asia and Europe.

SUPPORT

the economic diversification and trade capacity of Arizona’s border communities through engagement of public and private experts to mobilize Arizona’s trade-facilitating assets.

PROVIDE

international trade and export assistance programs to increase the number of new exporters, new market exports and global supply chain penetration.

Arizona recognizes that today’s global economy provides new opportunities for investment and

ACCESS TO STRATEGIC MARKETS

for our products, services and ideas.

TEN STRATEGIES FOR SUCCESS

8 CREATE THE WORKFORCE OF THE FUTURE

As new technologies emerge and industries evolve, an available workforce with the skills modern businesses require will be critical to establishing Arizona’s global leadership position. In order to continually develop and attract top talent, the ACA will:

COLLABORATE

with the Office of Economic Opportunity to identify and remove barriers to workforce participation.

BUILD

on successful partnerships between industry and academia to replicate initiatives such as the Arizona Advanced Technologies Corridor.

EXPAND

the reach and success of Arizona’s STEM education initiatives, such as Arizona SciTech Festival and Chief Science Officer Program.

ALIGN

institutions and workforce development organizations on economic development strategies, curricula and programs.

LEVERAGE

statewide workforce resources by integrating workforce experts into the deal teams for business attraction, expansion and creation projects.

ENHANCE

partnerships between Arizona universities and private industry that strategically align with development of target industries.

TALENT IS A KEY DRIVER OF ECONOMIC PROSPERITY

and Arizona is home to some of the best and brightest minds in the world.

TEN STRATEGIES FOR SUCCESS

9 ENCOURAGE STRATEGIC INFRASTRUCTURE DEVELOPMENT

Global competition for business investment and job creation demands a robust system of infrastructure assets that enables companies to move goods and information efficiently and effectively. To ensure that Arizona’s physical infrastructure keeps pace with the rate of population and business growth, the ACA will:

SUPPORT

the development of multimodal infrastructure for economic growth and access to critical markets.

ATTRACT

additional foreign investment into Arizona’s infrastructure, through tools such as public-private partnerships.

ENHANCE

safety, security and the efficiency of Arizona’s trade corridors through investments in transportation, telecommunications and economic infrastructure.

LEVERAGE

Arizona’s transportation assets to better market supply chain capacity and expertise.

Arizona’s progress is defined by

BOLD STRATEGIC INVESTMENTS

in infrastructure that support economic growth.

TEN STRATEGIES FOR SUCCESS

10 **ENHANCE ECONOMIC GROWTH
IN RURAL ARIZONA**

Rural Arizona provides exceptional opportunities for increased economic performance across both traditional and emerging sectors of the economy. To enhance economic development efforts throughout rural Arizona, the ACA will:

FACILITATE

the enhancement of rural infrastructure, with a specific emphasis on technology-oriented infrastructure, to ensure communities are positioned for success and connected to the global economy.

PROVIDE

expert counseling and technical assistance to rural stakeholders in order to help them better leverage their unique assets and diversify their economies.

DEVELOP

strategies to support and advance the diversification of economies in rural areas.

ENGAGE

with community and business leaders to create policies that support the economic well-being of rural Arizona.

Rural regions with
**SUCCESSFUL
INDUSTRY
CLUSTERS**

enjoy higher average wages, productivity, rates of business formation and innovation.

LEADING THE WAY TO TOMORROW

FIVE YEARS AGO, THE ACA WAS CREATED TO LEAD ARIZONA INTO A NEW FUTURE. Our objective wasn't to simply create new jobs and increase capital investment, it was to fundamentally change the economic development landscape, making Arizona a better place for business and innovation. By any standard, we far exceeded our goals. Now, under the leadership of Governor Ducey and the ACA Board of Directors, we look forward to working with our partners over the next five years to raise the bar and establish Arizona as a global leader.

Arizona will play our part in revolutionizing the way we

LIVE AND DO BUSINESS

FIVE-YEAR PLAN

ADDITIONAL READING



ARIZONA VALUE PROPOSITION: **PEOPLE**

**OUR STATE BOASTS A YOUNG, ABUNDANT AND TALENTED WORKFORCE,
SUPPORTED BY WORLD-CLASS PUBLIC AND PRIVATE EDUCATIONAL INSTITUTIONS.**

Arizona’s three public universities awarded over 27,000 bachelor’s degrees and nearly 9,000 master’s degrees during the 2015-2016 academic year.

- **Arizona State University** was named the most innovative university two years in a row by U.S. News and World Report, ahead of MIT and Stanford.
- **The University of Arizona** ranks in the top “100 Most Innovative Universities in the World” by Reuters.
- **Northern Arizona University** is ranked as a “2017 Best Tier-Two National University” and has become an international leader in STEM education.

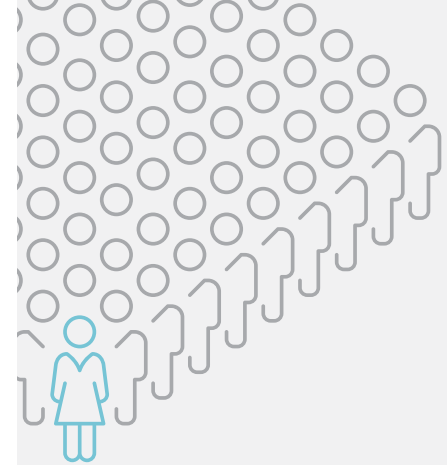
Arizona is also home to many world-class private universities. Highlights include:

- **University of Phoenix** is both Arizona’s and the nation’s largest private university, with 171,000 students currently enrolled and over 900,000 graduates since founding.
- **Grand Canyon University** is experiencing impressive growth, with current enrollment at 16,000 on-campus and 67,000 online students.
- **Embry-Riddle Aeronautical University** is the world’s largest, fully-accredited university specializing in aviation and aerospace, and offers more than 70 baccalaureate, master’s and Ph.D. degree programs.

Arizona’s robust community college systems ensure students graduate with the skills employers need.

- In 2016, Arizona’s community colleges awarded nearly 19,000 degrees as well as 25,000 certificates.
- The **Maricopa Community College District** enrolls 200,000 students annually, making it one of the largest systems in the nation.
- In 2016, two Maricopa Community Colleges were ranked in the top 15 community colleges in the country.

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3.1 million

**people employed
in Arizona in 2016**

**Median age
of 36.8,**

**younger than the national
average of 37.6**

Arizona provides a

**SKILLED
WORKFORCE**

**across a wide range
of industries.**

ARIZONA VALUE PROPOSITION: **PLACE**

ARIZONA OFFERS EASY, RELIABLE ACCESS TO CUSTOMERS AND SUPPLIERS THROUGHOUT THE WORLD. OUR STATE'S SOUTHWEST LOCATION PROVIDES ACCESS TO MORE THAN 70 MILLION CONSUMERS AND THREE OF THE LARGEST ECONOMIES IN THE WORLD - CALIFORNIA, MEXICO AND TEXAS.

- 66,000 miles of highway
- 2,000 miles of rail
- 33 public transit systems
- 2 international airports
- 11 commercial airports
- 70+ general aviation airports
- Direct flights to 102 destinations
- 6 border ports of entry on the border with Mexico

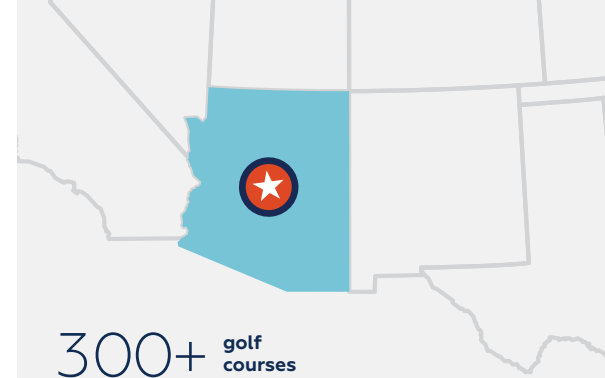
Over one half billion dollars in recent improvements to modernize ports of entry along the Mexico border allows Arizona to handle billions in cross-border commodities and people.

Arizona has **few natural disasters**, particularly near urban areas. There is virtually no risk of earthquakes, hurricanes or tornadoes, making Arizona an ideal location for critical systems and year-round production.

Decades of sound public policy created a reliable infrastructure of water and low-cost power.

Easy commutes, world-class sporting events and a modest cost of living help to create a **desirable quality of life** that attracts and retains high-quality employees.

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300+ **golf courses**

22 **national parks, monuments & preserves**

7 **James Beard chefs**

6 **professional sports teams**

5 **wineries scored 90+ by Wine Spectator**

Arizona is the

BEST PLACE

in the nation to live, work, play and do business.

ARIZONA VALUE PROPOSITION: **POLICY**

GOVERNOR DUCEY IS LEADING THE EFFORT TO MODERNIZE AND TRANSFORM GOVERNMENT INTO A CUSTOMER-FOCUSED, SERVICE-DRIVEN, VALUES-BASED ORGANIZATION THAT AIMS TO IMPROVE THE LIVES OF OUR CITIZENS.

- 4.9% Corporate Income Tax Rate
- 4.5% Top Personal Income Tax Rate
- 100% Electable Sales Factor for Multistate Operations

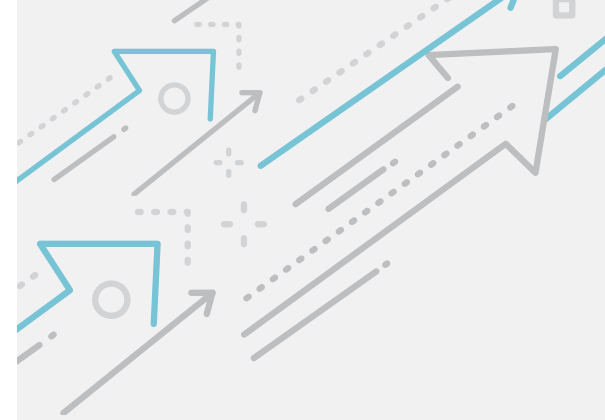
Shortly after taking office, Governor Ducey called for a moratorium on all agency rule-making efforts that would hurt business. Since then, **Arizona has lifted regulations** on the sharing economy, making life easier for ride- and home-sharing businesses. Governor Ducey has also signed legislation that **removed onerous licensure requirements** on job creators and small businesses.

Arizona's leadership maintains balanced budgets and continues Arizona's trend of reducing tax burdens and increasing investment in human and business capital.

A property tax depreciation program for business equipment and other personal property keeps commercial operating costs low and encourages new investment. **Arizona has no business inventory tax, franchise tax, estate tax, "throwback rule," or worldwide unitary taxation, and it is a right-to-work state with competitive wages.**

The clear **trend in Arizona is toward lower taxes**, greater competitiveness and enhanced fiscal stability.

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Top 10

Best State for Business
(CNBC)

Aa2

Credit Rating (Moody's)

Arizona's business-centric approach is leading the way in developing

ECONOMIC OPPORTUNITY FOR ALL.

ACA TARGET INDUSTRIES (continued)



AEROSPACE & DEFENSE

Arizona's aerospace & defense sector is among the largest in the United States, employing over 54,000 workers and contributing more than \$11 billion to the state economy each year. Arizona has a long history of U.S. military partnerships in the state, and defense employment in Arizona at bases and other facilities totals nearly 39,000 jobs.

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500+

A&D companies
in Arizona

1,200+

companies in
Arizona supply chain

#1

for space and defense
system manufacturing –
12,000 employees

Top 3 State

for Aerospace Manufacturing
Attractiveness (PwC)

Top 3 State

for aircraft MRO sector –
economic impact of \$4 billion

ACA TARGET INDUSTRIES (continued)



BIOSCIENCE & HEALTH CARE

Arizona is a center of excellence in medical devices, diagnostics, precision medicine and health IT. Recent advancements include:

- Mayo Clinic is ranked the #1 hospital in Arizona and nationwide by U.S. News & World Report.
- Phoenix Children’s Hospital will serve as the hub in the Pediatric Consortium of the Cancer Moonshot 2020, which is the nation’s most comprehensive cancer collaborative initiative aimed at accelerating genomics and immunotherapy as the next-generation of care for cancer patients.
- In 2016, Arizona’s Translational Genomics Research Institute merged with California-based nonprofit City of Hope – the combined organization covers the bench-to-bedside continuum of care, creating precision approaches to disease prevention and treatment.

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13,000

bioscience & health care establishments in Arizona

300,000+

employees

7 Arizona hospitals are ranked in the

TOP 1%

of best hospitals in the nation

Arizona led the nation in pharmaceutical and medicine manufacturing growth at

13%

from 2015 - 2016

Arizona’s bioscience & health care employment continues to grow at

NEARLY 2X

the national rate

Top 5 State

for bioscience & health care employment growth

ACA TARGET INDUSTRIES



BUSINESS & FINANCIAL SERVICES

Business & Financial Services is one of Arizona’s largest industries, and is composed of three sub-industries: financial activities, professional & business services and data centers. Arizona’s stable climate and reliable energy provide companies in these industries with the ideal operating environment.

[\[back\]](#)

28,000
establishments

400,000+
employees

15%
of total private
employment

2nd largest
concentration in the
country with a location
quotient of 1.22

Arizona is home to
3 OF THE 10
largest data center
operators in the U.S.

ACA TARGET INDUSTRIES (continued)



FILM & DIGITAL MEDIA

The creative sector, which includes the production of films and other forms of digital media, is a critical component of any region’s economy. Arizona has a strong opportunity to elevate its position a preferred destination for film and digital media production, creating new jobs and attracting capital. Few states offer Arizona’s endless variety of outdoor scenic vistas—all within a few hours’ drive—along with production studios and post-production facilities rivaling the best in the nation.

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500+
feature films shot
in Arizona

1,026
employees

\$54,667
average wage

Major Motion Pictures Filmed In Arizona

Fools Rush In (Grand Canyon)

Waiting To Exhale (Phoenix, Fountain Hills)

Thelma & Louise (Grand Canyon)

Forrest Gump (Flagstaff)

The Lone Ranger (Canyon de Chelly)

Nurse Betty (Kingman, Grand Canyon)

National Lampoon’s Vacation (Flagstaff & Grand Canyon)

Transformers: The Last Knight (Phoenix)

Fear and Loathing in Las Vegas (Kingman)

Planet of the Apes (Lake Powell)

Bill & Ted’s Excellent Adventure (Phoenix, Scottsdale, Mesa)

Wayne’s World (Scottsdale, Mesa)

Psycho (Phoenix)

Jerry Maguire (Tempe)

3:10 to Yuma – 1957 (Sedona)

Tombstone (Tucson)

Furious Seven (Mesa/ Eloy)

The Hangover III (Nogales)

Vacation (Historic Navajo Bridge, Marble Canyon)

Hell or High Water (Thatcher/Safford)

Piranha 3D (Lake Havasu)

John Carter (Vermillion Cliffs, Grand Canyon, Agatha Peak, Blue Canyon)

The Magnificent Seven (Coconino National Forest, San Francisco Peaks)

Bad Santa 2 (Phoenix)

ACA TARGET INDUSTRIES (continued)



MANUFACTURING

Manufacturing plays a critical role in the state’s economy and future, with thousands of companies of all sizes using new technologies and high-tech advancements that have made Arizona a growing manufacturing magnet in the U.S. This success has expanded Arizona’s manufacturing supply chain and is advancing the technologies that will drive the future, such as composites and complex assembly and sensor technologies.

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4,600

manufacturing companies
in Arizona

158,000+
employees

Manufacturing accounts for

over 8%
of Arizona’s GSP

One Arizona manufacturing
job supports an additional
1.4 jobs – generating

222,000
indirect jobs

Arizona is a
Top 4
state for semiconductor
manufacturing employment

ACA TARGET INDUSTRIES (continued)



TECHNOLOGY & INNOVATION

Arizona has a dynamic ecosystem of global technology giants in established industries including semiconductor and aerospace and defense manufacturing, as well as innovative startup companies emerging in multiple growth sectors – particularly information technology and biotechnology. Arizona has historical strength and is an industry leader in semiconductor design and manufacturing. This strength positions Arizona to lead in disruptive technologies that will enable the industries of the future.

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27 OUT OF EVERY 1,000

Arizona private sector workers are employed by an IT or software firm

Information technology accounts for over

\$12.3 BILLION

of Arizona's GSP

#3

for tech and info jobs
(Forbes)

#6

tech company density
(Bloomberg)

#10

STEM concentration
(Bloomberg)

#4

for semiconductor employment and employment concentration
(EMSI)

ARIZONA ZANJEROS

THE ARIZONA ZANJEROS, FOUNDED BY GOVERNOR DOUG DUCEY, SERVE AS ARIZONA'S AMBASSADORS AND PROVIDE INDUSTRY EXPERTISE TO SUPPORT THE DEVELOPMENT OF ARIZONA'S TARGETED INDUSTRIES.

The Zanjeros have formed subcommittees with an initial focus on three of the ACA's five target industries to provide direct industry input that will support the ACA's efforts. These subcommittees have identified the following strategies and opportunities for Arizona.



AEROSPACE & DEFENSE

- Capitalize on cybersecurity strengths to establish leadership position
- Leverage strengths to attract and increase maintenance, repair and overhaul investment
- Leverage existing supplier relationships to enhance supply chain opportunities
- Attract avionics and unmanned aerial vehicles development, research and testing



BIOSCIENCE & HEALTH CARE

- Capitalize on personalized medicine strengths to establish leadership position
- Develop and leverage bioscience corridors
- Increase clinical trials
- Promote health care tourism



TECHNOLOGY & INNOVATION

- Capitalize on autonomous vehicle and Internet of Things strengths to establish leadership position
- Increase connectivity infrastructure through initiatives like broadband
- Leverage cross-industry workforce similarities to attract talent
- Promote proximity to California market

ACROSS ALL INDUSTRIES, OPPORTUNITIES EXIST

to create industry strengths awareness campaigns, streamline industry partnerships for efficiency and develop the future workforce through STEM initiatives.

NEXT-GEN TECH TRENDS SHAPING OUR FUTURE



CONNECT: INTERNET OF THINGS

An information-driven economy demands an ever expanding and sophisticated infrastructure. Every day the world grows more connected. People, supply chains, vehicles, appliances, phones, medical instruments and satellites are linking up on digital networks that didn't exist five years ago. This universal connectivity will allow businesses to function with unprecedented speed, range and flexibility. Companies are no longer tethered by physical boundaries. In a globally competitive world, broadband levels the playing field. Access to high-capacity, high-speed Information and Communications Technology (ICT) infrastructure enables companies to extend their reach globally from virtually any location. A business in rural Arizona will be able to compete with one in Boston or Beijing.

The Internet of Things will impact the supply chains of every industry. Manufactured goods will diagnose their own problems and contact the manufacturer for solutions. Access to data will democratize analysis for the individual, smart phones will become spectroscopic devices to detect retinal degeneration and vast amounts of environmental data provided by project NEON will empower a journey by citizen scientists.

Arizona is poised to lead the big bang of connectivity. Our private industry leaders and nationally recognized research universities are now at the forefront of leveraging universal connectivity and discovering ways to make Internet access faster and cheaper to help tackle global challenges.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)

**BRIGHT FUTURE: EDUCATION TECHNOLOGY**

Engaging students in rigorous and relevant learning is a significant challenge facing education. The current model of “delivering” knowledge, assigning homework and assessing student progress via standardized tests, may become a relic from the past. Expanding the learning experience beyond the four walls of a traditional classroom is the way of the future. The thirst for knowledge and the need for improving skills are stronger than ever. Broadband Internet will make technology-augmented learning the norm, with students setting their own pace while engaging in cross-disciplinary learning and collaboration with fellow students who may be on the other side of the globe.

Powerful mobile devices will create new channels for delivering learning and skills, such as technology-enhanced classrooms and mobile applications. This will usher in a new era of customized learning that can take place anywhere, anytime. Education technology will also transform learning in the workplace, with employers creating courses specific to a company’s needs that encourage employees to engage in lifelong learning and acquire stackable sets of skills and credentials.

Arizona companies and educational institutions, both established and startups, have pioneered the use of technology to expand access to education. They have been at the forefront of distance learning, giving students throughout the country the ability to acquire skills and knowledge needed in the 21st-century economy. Starbucks Corporation has extended access to a college degree to potentially thousands of part- and full-time employees through ASU online. A critical mass of companies in our state is leading the way in making transformative and customized learning a reality.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)

**HEALTHY OUTLOOK: TELEMEDICINE**

People are living longer than ever, yet chronic diseases increasingly affect their treatment needs, quality of life and productivity. Diseases such as type II diabetes and Alzheimer's require regular monitoring to prevent the patient from suffering debilitating and expensive medical interventions down the line. Enter the era of remotely controlled instruments. Inexpensive portable devices will allow patients to conduct their own lab tests and download their results. 3-D printing will give patients access to new skin, prosthetics and limbs. Nearly 200 telemedicine networks are operating in the nation, and seven million Americans are currently using a remote cardiac monitor. Patients worldwide are using telemedicine to monitor their vital signs and reduce hospital time. The global market for telemedicine technologies is expected to reach 43.4 billion by 2019.

Arizona's Telemedicine Program, launched decades ago, optimizes technology to drive medical services to rural communities around our state. Techniques under design in Arizona could also be the key to defeating highly infectious and difficult to treat diseases. Fast disposable blood tests detect HIV pathogens, wearable sensors could monitor balance and gait of a diabetic and chemical sensors could detect changes in enzymes in under two minutes for diagnosis of cancer tumors.

Arizona imagination and tenacity do not stop there. Our ideas today ask fresh, new and multi-disciplinary questions that envision a future where we do more and have better lives. The global human and economic power that will be unleashed when entire communities face fewer diseases and enjoy quality healthcare is extraordinary. Arizona researchers and entrepreneurs will be key players in facilitating these advancements for the benefit of all.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)



CUSTOM CURES: PERSONALIZED MEDICINE

With adverse effects of prescribed drugs being a leading cause of preventable death in the U.S., providing the right drug to the right person at the right time is one of the holy grails of medicine.

Physicians scrutinizing our genes before they read our charts is the new era of personalized medicine. Medicine is already distancing itself from the traditional approach that prescribes treatment based on population averages. Cancer therapies are being calibrated to target specific strains of cancers and how they affect specific patients. By following paths laid down by genetic markers, researchers are working to customize more effective therapies for diseases.

Arizona scientists are targeting advanced therapies that could prevent Alzheimer's and revolutionize treatments for nearly 50 million inflicted with dementia worldwide. Hospitals, research centers and biotech companies around our state are developing new diagnostic technologies. They are investigating protein biomarkers as indicators of individual health. They are standardizing the techniques used to identify these markers quickly and economically by examining large numbers of samples with robotic lab machinery. Storage and computational capabilities in a genome cloud will enable virtual experiments and information sharing, while other companies are developing methods to process the terabytes of medical data generated by monitoring devices and genetic testing.

This concentration of biotech players means Arizona's innovators are well ahead of the game, mapping the molecular signature of diseases and developing molecular diagnostics to identify which patients will benefit from improved therapies. Our universities and private research institutions and world-class medical institutions are teaming up to use molecular and genomic data to discover the mechanisms of disease – leading to new ways to diagnose patients and tailor individual treatments.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)

**FRESH THINKING: FRESH WATER SCIENCE**

With the world's population at 7.6 billion and predicted to grow to 9.8 billion by 2050 the demand for potable and irrigation water has never been greater. Only 2.5% of the world's water is fresh, and only 1% of that amount is easily accessible. Smart monitoring will be critical to water conservation. In the future, water will increasingly come from enhanced reuse techniques and desalination. Both rely more on organic approaches and solar energy. Over the next five years, look for wastewater to be treated and reused as potable water. Open canals with pumps now driven by fossil fuels will be powered by solar energy, reducing evaporation and fuel use.

That's why the world is looking to Arizona. Our experts know how to capture, store, move and manage water for millions of residents, agricultural enterprises and industries. Our leaders have mounted massive projects that have virtually re-engineered nature. Water treatment methods using microorganisms will not only clean the water but also generate energy in the process – a technique that is being pioneered right here in Arizona. The Southwest population is expected to grow from 56 million to 94 million by midcentury. Arizona is working collaboratively with our neighboring states to design new processes to generate electricity and treat water in a near-zero discharge desalt system. These advanced techniques will help sustain and replenish vital resources.

Arizona is at the forefront of adapting to an arid climate. Our state has spent more than a century addressing the challenges of scarce water. This hundred-year head start in water conservation and resource management positions our state to share our expertise and become a world leader.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)



HARVEST GROWTH: AGRICULTURAL TECHNOLOGY

Feeding nine billion people with limited resources already looms as one of the century's greatest challenges. The well-being — and political stability — of entire nations will hinge on boosting agricultural production. However daunting it sounds, the future is indeed bright. Emerging technologies will increasingly relegate food shortages to history.

New plant cultivars, farming technology and irrigation will draw more out of arable land while using a fraction of the water. Land management techniques will stop deserts from devouring arable land and halt the erosion of topsoil. Crops will be grown in fields where water runoff is virtually nonexistent. Solar-powered combines will harvest crops from fields with productivity that was unheard of fifteen years ago. The nutritional content of crops will greatly increase because of advances in soil enrichment and in the breeding of plants for special characteristics, such as resistance to disease. Farmers in developing nations will have access to cold storage. Food will be transported without risk of spoilage, making more food available to more people and putting more money in farmers' pockets.

A new center of excellence in Yuma Arizona, an innovative public-private partnership, positions the state as the preeminent global location for arid land agricultural solutions. The Southwest, including northern Mexico, produces the majority of specialty fruits, nuts and vegetables for the U.S. and Canada. For decades the brightest minds in this dynamic region have been engineering innovative ways to grow foods. With groundbreaking research and partnerships with the private sector, scientists in Arizona are developing cost-effective, sustainable methods for growing food and increasing yields in arid, water stressed climates — solving what is arguably the world's most urgent problem.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)



POWER FORWARD: RENEWABLE ENERGY

Demand for energy will grow faster than the population – and reliable, non-polluting, cost-effective supply is pivotal for sustained economic growth and maintaining living standards. Innovations in renewable energy technologies that go beyond the familiar initiatives promise true energy independence. Photovoltaic cells will cover roofs, cars, airplanes, schools, businesses and a dizzying variety of devices. Lightweight and ultra-long-lasting batteries will power transportation. Soon vehicles, factories, homes, phones and countless other devices can be powered fossil-free 24/7. Bringing these innovations to market requires careful planning, collective commitment and coordinated action with industry, universities and foundations pooling their best minds and resources.

Much of the groundbreaking work on renewable energy has already taken place in Arizona. Scientists here are developing new materials that allow the capture and storage of renewable energy even when the sun doesn't shine or the wind doesn't blow. Researchers are now turning algae into high-value products and fuel. The task for some in Arizona is to unlock the secrets of plants and mimic photosynthesis to produce a clean, cheap and scalable renewable energy alternative. Others seek marine life energy to support data collection over longer periods and to emulate the hydraulic system of trees to haul water out of the soil without using direct metabolic energy.

Our state also stands tall in the solar industry – the solar panels and solar farms sprouting across Arizona are impressive. With over 300 solar energy companies, major reforms to Mexico's energy sector, and the potential for California to increase its energy portfolio mandates, Arizona is poised for additional market opportunities. These strengths – combined with a bountiful supply of sunshine, entrepreneurial momentum and innovative research – ensure that Arizona will continue to show the world how to harness renewable energy.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)



SMART TECH: SMART MATERIALS

Industries are being rapidly transformed by products made of incredibly light, yet strong materials.

Ever-faster semiconductors. Solar-powered turbines. Devices talking to each other. Microchips transmitting bytes via laser, performing 100 times faster than today's devices, triggering a complete redesign of the computer. Materials that are connected to the internet and each other.

Advanced circuitry will make devices faster with less power, unleashing new applications. Stronger, thinner alloys mean that tomorrow's cars and planes will go faster and farther on much less energy. The convergence of information technology and advanced manufacturing means that the smallest motors, instruments and circuitry will talk to each other and to the Internet. New advanced circuitry will allow devices to be connected, deployed and guided remotely, transforming the fields of biotech, semiconductors, aerospace and defense. New materials will create smaller, lighter and more fuel efficient vehicles, planes, turbines and machines.

Many of these products are designed and engineered in Arizona. Scientists in our state are designing and testing materials to withstand temperatures five times hotter than the surface of the sun, ensuring aircrafts carrying people and cargo can withstand bolts of lightning that strike more than eight million times a day. Arizona innovators are developing advanced materials from the atomic level on up and connecting them to the internet. Even the notorious "urban heat island" effect will be addressed. In the future, Arizona's roads may be covered by asphalt made of permeable materials that reflect heat instead of trapping it. Building walls covered in virtually invisible photovoltaic cells will cool interiors with solar energy. These new materials will help urban areas and cities reduce rising temperatures while enabling rural regions to gain access to electricity without relying on fossil fuels.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)

**NEXT WAVE: NANOSATELLITES**

The downsizing of satellites is radically changing global communications. Relentless miniaturization and related developments are opening up exciting new frontiers for companies in a wide range of fields, including broadband and broadcasting, information technology and environmental sciences.

As smartphones get bigger, satellites grow smaller — and cheaper. Space-worthy devices once the size of automobiles now fit in a shoebox. In the future, putting a satellite in space will cost a fraction of what it does today. The time to develop and launch a satellite — and start reaping benefits — will drop from years to days. Many incredible uses are forecast for these space-borne devices: Micro-satellites will distribute broadband to previously unreachable areas around the globe. Other satellites will measure shifting currents in our oceans with greater precision than ever before.

Arizona's universities and aerospace & defense companies are advancing seemingly unlimited ways to put satellites to work in communications, navigation and environmental monitoring. In developing new satellites, Arizona industry leaders are borrowing best practices of manufacturing technology from the mobile phone, defense and medical products industries. Our state is at the forefront of a world that is both shrinking and expanding.

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NEXT-GEN TECH TRENDS SHAPING OUR FUTURE (continued)



ROAD AHEAD: AUTONOMOUS VEHICLES

Population growth will require a greater capacity to move people and goods more efficiently across increasingly interconnected regions. Autonomous vehicles promise to make surface and air transportation safer and cheaper, reduce congestion and fuel consumption and ultimately reduce the cost of doing business to increase productivity.

The potential offshoots of this technology seem almost limitless. When disaster strikes in isolated regions, autonomous airborne vehicles could deliver medicine, supplies and hope. Unmanned balloons, planes and low-flying micro-satellites will deliver high-speed broadband – connectivity – to every corner of the world. Autonomous trucks, cargo ships and planes fueled by renewable energy will reduce transportation costs and open new markets. Self-driving trucks will transport products throughout North and South America, developing a quasi-automated, multimodal logistics hub, internationally recognized for its capacity and efficiency. A smooth-flowing infrastructure network will include driverless vehicles alongside next generation rail and aerial technology, as well as possible ultra-high-speed systems such as the Hyperloop.

Arizona has already established a strong leadership position as the best place for testing autonomous vehicles. Uber, Waymo, GM, Mobileye and Ford are all testing their self-driving cars in our state. Facebook chose Arizona to test its autonomous internet beaming drone, Aquila. Arizona universities offer renowned engineering programs in aviation, bolstered by technical schools providing expertise in maintenance, repair and overhaul. State-of-the-art surveillance, monitoring and targeting equipment is produced by several of the state's many aerospace & defense companies. Arizona's commitment to embracing innovation, open skies, and strong public-private partnerships make it a fertile ground for capitalizing on its existing assets and developing the autonomous vehicles and systems of tomorrow.

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