



TRANSPORTATION AND TRADE CORRIDOR ALLIANCE

THE ROADMAP

ARIZONA'S PATH TO GLOBAL MARKET EXPANSION



Transportation and Trade
Corridor Alliance



ADOT





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THE ROADMAP:

A view from above.

The Transportation and Trade Corridor Alliance (TTCA) is focused on creating better jobs and higher household incomes by growing value-added industries that bring new money to Arizona. To achieve this mission, Arizona requires modern and efficient infrastructure to ensure effective connectivity to both domestic and global markets. This Roadmap provides strategic direction for the state of Arizona to maximize opportunities for trade development.

The TTCA comprises experts in transportation and trade-oriented businesses. Three state agencies - the Arizona Department of Transportation (ADOT), Arizona Commerce Authority (ACA), and Arizona-Mexico Commission (AMC) - are working together in a unique partnership with the private sector and local and regional community representatives. The effort is focused on moving Arizona toward a more globally competitive second century, focused on high-value trade and investment, market connectivity, and alignment of policy and actions.

On February 2, 2012, Arizona's Governor, Janice K. Brewer, announced the TTCA's creation. The TTCA is chaired by John Halikowski, Director of ADOT, and Jim Kolbe, former U.S. Congressman from Arizona and Senior Transatlantic Fellow for the German Marshall Fund of the U.S. Additionally, serving as Vice Chairs are Margie Emmermann, AMC Executive Director and the Governor's Policy Advisor for Mexico and Latin America and Sandra Watson, President and CEO of the ACA. The TTCA leadership team is grateful to the Steering Committee members who have generously given their time, talent, and expertise.

Michael Hunter, *Director of Policy and Special Advisor on Tax Policy and Reform*
Office of the Governor

Vanessa Hickman, *Commissioner*
Arizona Land Department

Steve Betts, *President*
Chanen Construction Company

Gary Magrino, *Owner*
Multi Tech Trucking LLC

J.B. Manson, *President*
Pacific Brokerage Company

Bruce MacRae,
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Vice President Western U.S.
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Dave Williams, *Vice President*
Knight Transportation

LaTonya Finch, *Regional Manager*
of Economic Development
BNSF

The TTCA has five subcommittees that are represented by the following co-chairs and members:

Freight: Gene Seroka, Chair; Dave Williams, Chair; Tamie Fisher; LaTonya Finch; Mike Levin

Trade and Economic Development: Sandra Watson, Chair; Steve Betts, Chair; Carol Colombo; Farhad Moghimi; Cherie Campbell

Logistics and Supply Chain Development:
Adam Wasserman, Chair; Bruce MacRae, Chair; Gary Magrino; Sharon Mitchell; Dennis Smith

Mexico and Ports of Entry: Margie Emmermann, Chair; J.B. Manson, Chair; Carlos Fernandez

Education and Communication: Mary Peters, Chair; Bruce Wright, Chair; Victor Flores; Eve Ross; Vanessa Hickman

In addition, a multidisciplinary team has greatly contributed to the TTCA efforts and served as the primary Roadmap drafters.

Arizona Department of Transportation
Gail Lewis, Director, Office of P3 Initiatives and International Affairs
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Ramirez Advisors Inter-National, L.L.C.
Luis Ramirez Thomas, President

Partners for Strategic Action, Inc.
Peggy Fiandaca, President

A VISION BEYOND OUR BORDERS.

Arizona has always been an export-based economy. From the original five C's - Copper, Cattle, Cotton, Citrus, and Climate - that drove Arizona's early growth, the state has evolved to become today's center of excellence in key areas of high-tech manufacturing, with global leaders such as Intel, Honeywell, Raytheon, Boeing, and Apple, to name a few. In fact, Arizona added a sixth "C" - competition - to reflect the state's commitment to economic development.

Over the six decades since the end of World War II, the state has experienced virtually uninterrupted population growth as people moved to Arizona for job opportunities. The growth of the state's aerospace, defense, and advanced manufacturing sectors generated consistent demand for skilled workers. Continuing to capitalize on these core competencies and keep pace with the evolving high-tech sector is critical to ensure the state's future prosperity.

The **Roadmap** is about moving Arizona toward a more globally competitive second century, focused on trade, investment, and infrastructure to bring new wealth and jobs.



Now, as the state enters its second century, the Transportation and Trade Corridor Alliance (TTCA) is looking to build on this strong economic base. Arizona is committed to fully utilizing a 21st century transportation system as the means of connecting Arizona to global markets while moving toward a future economy focused on high-value trade and investment.

Arizona's Opportunity: Tradable Goods and Services

Trade is vital to Arizona's economy because it facilitates attracting new money and wealth from the outside. The consistent injection of new money is one of the most important elements of a thriving, resilient economy. There are essentially two ways to bring new money into the state: first, by attracting outside investment capital; second, by creating or adding value to a product and selling it in markets outside of Arizona, or by delivering a service to an outside market.

**BUSINESSES THAT "EXPORT" GOODS AND
"IMPORT" MONEY ARE KEYS TO BRINGING
NEW WEALTH TO ARIZONA.**

The second method is based on a well-developed tradable business sector. "Tradable" goods and services are those that can be sold in a location some distance from where they are produced. Tradable goods typically last longer and involve transportation costs that are a lower proportion of their total value.



Tradable goods and services are sold in diverse markets and tend to be high-value, high-technology components, which result in higher wages and drive the entire economy.

Tradable goods and services are frequently “exported” from the local economy to other markets for sale. They have a large and geographically dispersed customer base. The ability to tap into a wide variety of outside consumer markets enables the Arizona economy to hedge against market downturns. Further, tradable goods and services tend to have higher proportions of production technology or product-related intellectual property. Consequently, these products generally have a higher value. High-value production and steady markets facilitate higher wages. High-wage jobs drive household incomes, thus lifting the entire economy.

The outside money that tradable goods and services brings back into Arizona facilitates the “non-tradable” sector – goods and services that are typically consumed close to where they are produced. Both are consumed immediately after production and are not easily transported long distances, if at all. A portion of the income earned from outside of the state is spent locally on these types of goods and services – thus income earned in the tradable sector helps local businesses flourish.

Arizona’s Advantage: Connectivity to Markets

Arizona’s geographic position in the heart of an economically powerful mega-region with accessibility to three dynamic world-class markets – Southern California, central Texas, and northern Mexico – is an advantage that few locations can match. As shown in Figure 1, this strategic position is critical for developing more tradable goods and export-focused businesses.

ARIZONA’S LOCATION IS A
HUGE STRATEGIC ADVANTAGE.





Figure 1: Arizona's Strategic Advantage

The proximity of large population centers allows for both a variety of sources for inputs and, most importantly, easy access to potential marketplaces. Southern California is a large, easily accessible market of 23.3 million people, as well as a gateway to the world with its seaports and international airport. Central Texas to the east represents accessibility to some of the fastest-growing economies in the country. Arizona's closest international market is in northwest Mexico and represents a rapidly growing economy that serves as a platform for central Mexico and Latin America. Arizona is geographically positioned with easy access to large domestic and global markets that tradable goods require.

Arizona's long history of strong economic and population growth has fostered the economy's diversity and size. The state has evolved to become a very attractive consumer market. With a population of over 6.5 million people and a projected growth to over 10 million by 2040, companies are looking at Arizona not just as a production base but also as a consumer market.

The **Roadmap** puts forth an action plan for developing a more trade-driven economy, bringing new money into the state from outside its borders.



Arizona's Edge: Alignment and Focus

Through the TTCA, Arizona has demonstrated its commitment to align in a common vision focused on trade, investment, and connectivity to markets. This Roadmap provides a strategic direction for the state of Arizona to maximize its opportunities for trade development. Through economic development strategies, public policy focus, support for transportation investment priorities, and consistent communication, local, regional, state, and federal government leaders and key private sector organizations can align economic development and transportation to create wealth and opportunity statewide. As a result of these efforts, Arizona has set a goal of doubling trade with global markets by 2025.

**ARIZONA'S VISION: DOUBLE TRADE
WITH GLOBAL MARKETS BY 2025.**



Figure 2: Strategic Direction

Arizona recognizes that the global landscape has changed dramatically and that competition has increased. These changes necessitate a far more thoughtful and strategic approach to economic development. The Roadmap identifies three areas of focus that Arizona can use to strengthen its transportation infrastructure and trade corridor development in support of an export-based economy focused on tradable goods and services. To accomplish Arizona's vision, the Roadmap's strategic direction as illustrated in Figure 2 is to:

1. Create and grow high-value trade and investment
2. Improve connectivity to markets
3. Ensure alignment among stakeholders and decision makers

FORWARD STRATEGIES

#1: High-Value Trade and Investment

Why is this important for Arizona?

Businesses that produce high value-added goods and services to sell primarily in other states and nations – those in the tradable goods sector – are the foundation of a strong, vibrant economy. Serving diversified consumer markets in other states and countries allows businesses to weather market downturns more effectively while bringing new revenue to Arizona. Furthermore, the tradable goods sectors traditionally pay more than non-trade sectors – approximately 17% higher, on average.

Strategic Direction Discussion

THE IMPORTANCE OF EXPORTS Trade is the means by which locally produced goods are transferred and sold in out-of-state markets (exports), as well as the process by which out-of-state goods are brought in (imports). While the word export often carries with it the connotation of international trade, within the Roadmap context exporting is considered a global enterprise – every place from California to Canada or Texas to Taiwan. For Arizona, the sale of goods or services to California is an export, just as it is to Mexico. Tourism is also an export industry with the state essentially “selling” its beauty, weather, arts, sports, and culture to tourists who bring money into the state.

Selling a service or intellectual capacity outside of the state also brings new money into Arizona and is considered a tradable asset. However, services are much more challenging to measure, and as a result their full impact on the economy is often an estimate. Service and professional jobs often support, or lead to, production jobs.

Whether manufactured goods, intellectual property, or tourism venues, all of these “exports” have the same important, fundamental characteristic – they are made here and sold there. These exports incorporate the value created or added by Arizonans into products or services that are then sold to out-of-state customers. “Make it here, sell it there,” is the fundamental characteristic of an economy built around the tradable goods sector.

STRONG DOMESTIC TRADE BASE Arizona’s historic industries have evolved over time to become focused on high technology, aerospace and defense, and advanced manufacturing. Intel, Honeywell, Boeing, Raytheon, Freescale Semiconductor, and now Apple are major players in the state’s tradable goods economy.



The state’s manufacturing industry, badly hurt by the recession, is coming back strong. Arizona ranks fourth in the nation for semiconductor production employment and fifth in the nation in aerospace and defense manufacturing employment. Manufacturing supports about 155,000 jobs in the state and accounts for over 10% of Arizona’s real gross state product (GSP).

As a result of their long history in the state, Arizona’s “tradable sector” businesses employ technologically proficient workers with easily transferable skills for new manufacturing opportunities. As American manufacturing retools to take advantage of lower energy costs and the trend toward re-shoring, the state’s skilled workforce provides an advantage and solid basis for growing Arizona’s capacity in this sector.

Over the years, these industries have built a strong domestic trade base, exporting billions of dollars in goods outside of Arizona. Figure 3 shows that in 2012, Arizona sent over \$76 billion in all commodity categories to other U.S. states and imported from the other U.S. states over \$119 billion¹.

The state’s largest two domestic trading partners are California and Texas; together they account for approximately \$70 billion in annual trade. Not only do Texas and California represent huge markets - California’s economy alone represents \$1.75 trillion - both are geographically advantageous for Arizona.

Figure 3: Arizona Domestic Trade 2012
(in billions, current dollars)

	Exports	Imports	Total Trade
California	\$ 17.49	\$ 35.27	\$ 52.76
Texas	\$ 8.49	\$ 8.65	\$ 17.14
All U.S. states	\$ 76.08	\$ 119.09	\$ 195.17

Source: U.S. DOT, Federal Highway Administration, Office of Freight Management and Operations

Domestic exports are the backbone of the state’s economy, consistently representing between 25 and 35% of the state’s total GDP.

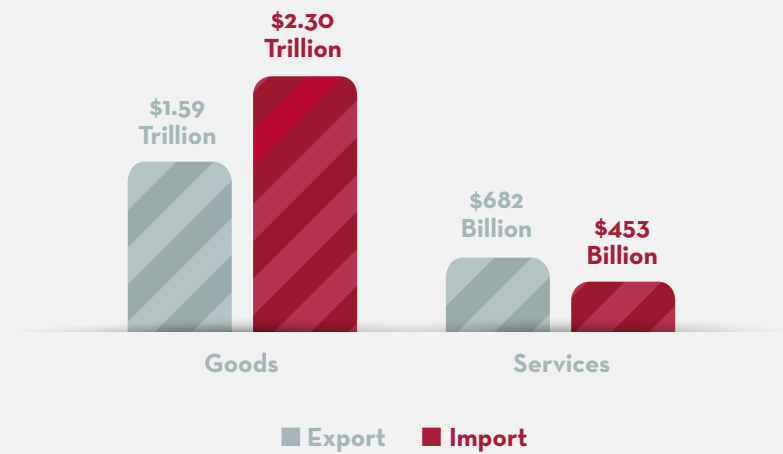
¹Office of Freight Management and Operations of the Federal Highway Administration

The Arizona Commerce Authority (ACA) is beginning to define a new approach to increase engagement with California, the state's largest trading partner. Similar to the relationship Arizona has with Mexico through the Arizona-Mexico Commission (AMC), the state is more closely tracking activities in California to determine how these may change market opportunities in the future. For example, regulatory changes in California may provide an opportunity for the affected industry to grow in Arizona, or it may imply a decline in what had previously been a strong market for Arizona companies. In either event, Arizona needs to be alert to changes, able to respond quickly to opportunities or threats, and to have good working relationships with government and business contacts. This same approach could have merit with Texas and with other key international partners, notably Canada and the United Kingdom.

GLOBAL TRADE IS GROWING While Arizona sells its tradable goods and services overwhelmingly to out-of-state domestic markets, approximately 95% of the world's population and 80% of its purchasing power is outside of the U.S. Arizona is well-positioned to take advantage of this opportunity. Total international trade activity is expected to grow to \$53.8 trillion by 2026.

Since the early 1990s, countries worldwide have engaged in multilateral negotiations to ease the flow of goods from one country to another and to create environments that provide clarity and predictability for foreign investment.

Figure 4: U.S. Exports and Imports, 2013



The U.S. is the world's largest trading nation, accounting for \$5.025 trillion in trade value in 2013, as shown in Figure 4. The top five U.S. export and import markets in 2013 are shown in Figure 5.

Approximately 95% of the world's population and 80% of its purchasing power is outside of the U.S. Arizona must capitalize on its strengths, including its strategic location and natural trade corridors, and identify emerging growth sectors and strategies to tap into these huge markets.



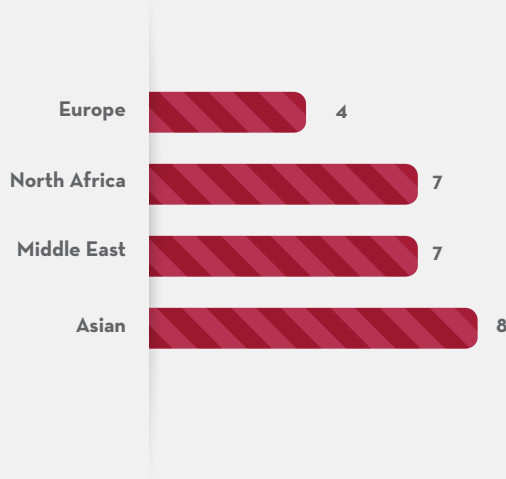
Figure 5: U.S. Top 5 Export and Import Markets

The U.S. top five export markets in 2013 were **Canada, Mexico, China, Japan and Germany**.
The top five origin nations for imports to the U.S. were **Canada, Mexico, China, Japan and Germany**.



Growth of U.S. exports over the next 15 years is expected to increase most rapidly with Asian economies, with an average annual growth rate of 8%, followed by export growth to the Middle East, North Africa, and the advanced economies of Europe, as shown in Figure 6.

Figure 6: U.S. Exports Percentage of Annual Growth



SHIFTING GLOBAL LANDSCAPE In addition to the sheer volume of global trade, other worldwide trends provide opportunities that are tailor-made for Arizona's economic base and geographic location. One is the renaissance of manufacturing in the Americas. For many years, companies have turned to China and other manufacturing centers for production. However, factors such as rising labor costs, poor quality control, intellectual property protections, shipping costs, and time-to-market are causing companies to re-shore operations back to the Americas. While the overall numbers associated with the re-shoring phenomenon may never rival the U.S.' manufacturing peak, the strategic importance and high value-add associated with manufacturing will be vital to keeping the U.S. competitive. Arizona is well positioned to capture some of these opportunities in key industries. Additionally, the state can leverage its proximity to Mexico and Latin America as shown in Figure 7 (on the next page) to become a player in the value chain for manufacturing investments to the south.



Figure 7: International Trade through Arizona Ports of Entry

The state’s international trade statistics are shown in Arizona’s trade numbers, which plummeted as a result of the 2008 recession and are beginning to increase again, providing an indication of Arizona’s global trade opportunity.

As depicted in Figure 8, Mexico and Canada are Arizona’s most important international trade partners. Together, Mexico and Canada comprised \$9.3 billion, or 48%, of Arizona’s total export market in 2013 and were the source nations for 45% of the state’s imports. Arizona had a \$28 million trade surplus with Mexico in 2013 and a \$727 million trade surplus with Canada². Capitalizing on the benefits of trade and investment in North America will be partly contingent on improved transportation corridors that create efficient connections within this vital market.

Figure 8: Arizona International Trade 2013

(in billions, current dollars)

	Exports	Imports	Total Trade
Mexico	\$ 7.07	\$ 7.04	\$ 14.11
Canada	\$ 2.23	\$ 2.48	\$ 3.74
Total International	\$19.40	\$18.99	\$ 38.39

Source: *Global Trade Information Statistics, U.S. Census Bureau*

Arizona’s **strategic position** provides the state incredible competitive advantages to maximize increased global trade opportunities.



² U.S. Department of Commerce International Trade Administration, 2013 Total Exports Data, January 2014 and Arizona: Exports, Jobs, and Foreign Investment March 2014.

Even with the heightened security since September 11, 2001, U.S. trade with Canada and Mexico has more than tripled since the implementation of the North American Free Trade Agreement (NAFTA), from \$300 billion two decades ago to approximately \$1.1 trillion in 2013. Additionally, the U.S.-Mexico and U.S.-Canada borders serve as gateways for hundreds of millions of people crossing into the U.S. each year.

ARIZONA BENEFITS SUBSTANTIALLY FROM ITS STRATEGIC POSITION IN NAFTA, AND ALSO FROM ITS CLOSE HISTORIC TIES TO CANADA AND MEXICO.

The top international destinations for Arizona exports in 2013, in rank order of export value, are Mexico, Canada, China, Japan, the United Kingdom, Germany, and Hong Kong.

Arizona's primary exporting industries also represent its top-traded industry clusters as measured by employment. Additionally, Arizona's top two export products are computer and electronic products and transportation equipment, originating from manufacturing industry clusters that include micro technology, analytical instruments, aerospace vehicles, and defense product sectors.

Export-supported jobs linked to manufacturing account for an estimated 3.5% of Arizona's total private sector employment. Of all manufacturing workers in Arizona, 27% depend on exports for their jobs. This data reflects the substantial engine that exports represent in terms of manufacturing and production jobs.

IMPORTANCE OF MEXICO Arizona shares a 300-mile border with its neighbor Mexico and has six ports of entry as shown in Figure 9. Arizona's ports of entry with Mexico process approximately \$28 billion worth of imports and exports annually. Of that, in 2013, Arizona exported \$7.1 billion to Mexico and imported \$7.0 billion. The additional \$14 billion processed at the border moved beyond Arizona to other locations, emphasizing the role the state plays as a gateway for the nation.

Figure 9: Arizona's Ports of Entry



Arizona's ports of entry processed approximately 48 million people, 15 million cars, and nearly 800,000 trucks in 2013. These statistics represent a dramatic improvement from the 2008 recession. These numbers increased, in part, due to major infrastructure improvements, such as the rebuilt commercial port in Nogales, as well as the deployment of trusted traveler programs such as SENTRI and the addition of READY lanes, which allow known travelers to cross the border in an expedited manner.

Mexico's growth and development provides a variety of opportunities for Arizona. Northwestern Mexico alone encompasses 13.75 million consumers, thousands of businesses, and more than \$100 billion of regional GDP. The Mexican middle class is growing quickly and represents a burgeoning consumer market.

More importantly, Mexico can be a lower-cost manufacturing partner for Arizona and expand the role it currently plays in supporting Arizona industries with supply chain opportunities.

In addition, approximately 60 to 70% of the winter fruits and vegetables entering the U.S. market from Mexico come through the Nogales port-of-entry. Warehousing and distribution centers in Nogales provide thousands of jobs in the immediate community and also provide the state with expertise regarding global logistics in produce and agriculture. A recent study by the University of Arizona estimated that the produce industry generates approximately \$437 million of economic impact for Santa Cruz County through the payment of salaries and taxes in the community³. Maintaining and growing this industry will demand focus on infrastructure improvements and industry relationships throughout western Mexico, particularly the states of Sonora and Sinaloa. The transportation corridor from western Mexico into the western U.S. is underdeveloped and both highways and rail need attention.

Leverage security verifications already approved by the federal government so that approved travelers can travel throughout Arizona without additional documentation.



Mexican visitors are an important source of Arizona revenues. Santa Cruz County estimates that nearly 50% of their sales tax revenues are directly attributable to Mexican visitors. Visitors from Mexico have a significant impact in border communities. Even in more distant communities such as Tucson (60 miles from the border) and Metro Phoenix (170 miles from the border), substantial spending and sales tax revenues can be attributed to Mexican visitors.

Facilitating legitimate trade and improving individual travel processes would increase the benefits statewide. One of the ways to encourage more international travelers is to leverage the federal verification associated with border crossing through trusted travel programs such as SENTRI or NEXUS to enable these visitors to travel throughout Arizona without additional documentation.

IMPORTANCE OF CANADA Long-standing personal and business relationships have helped to fuel the significant Canadian Foreign Direct Investment (FDI) flowing into Arizona. Canada is Arizona's largest source for FDI projects. Between 2008 and December 2013, 18 Canadian companies completed 20 greenfield or expansion projects in Arizona, investing over \$1.1 billion of capital investment and creating more than 1,300 new direct jobs. Three of the projects were in the pharmaceuticals industry, two were in aerospace, two were in electronics components manufacturing, and two were in metals. Other industries

³ *Fresh produce and Production-Sharing: Foundations and Opportunities; UA, June 2013.*



represented by Canadian FDI into Arizona included alternative/renewable energy, biotechnology, ceramics and glass, coal, oil, and natural gas projects⁴.

TRADABLE GOODS OFTEN HAVE COMPLEX GLOBAL SUPPLY CHAINS.

Canada is Arizona's second-largest export partner, receiving 11.5% of Arizona's total exports and totaling nearly \$2.2 billion annually. The top Arizona exports to Canada in 2013 were computer and electronic products, transportation equipment, agricultural products, chemicals, and machinery (except electrical). Arizona exports to Canada declined more than 24% between 2008 and 2009, and have not returned to the peak export volume of \$2.3 billion that was registered in 2008. Still, Arizona exports to Canada were 38% higher in 2013 than they were in 2005⁵.

PROJECTED ARIZONA TRADE GROWTH As world trade continues to expand and Arizona's tradable industries continue to grow, sales of Arizona-produced goods to out-of-state and out-of-country buyers will grow significantly. Arizona will see a considerable uptick in both domestic, out-of-state trade, and international trade.

Arizona's international exports in 2013 accounted for 1.2% of the U.S. total, and ranked 21st in 2013 for value in total U.S. state exports. Arizona represents about 2.1% of the total U.S. population and ranks 15th in terms of population. Arizona represents 1.7% of national GDP, ranking 20th among states by Gross State Product, according to the U.S. Bureau of Economic Analysis. While not a perfect comparison, it appears that Arizona could expect to have higher export figures relative to the size of its economy, population, and national economic rankings. This correlation indicates that significant export growth is an achievable goal.



Firms in the tradable goods sector require their suppliers to be readily accessible, reliable, and sometimes in close proximity.

⁴ Arizona Commerce Authority, *The Financial Times/FDI Markets Database, Companies Investing In Arizona Between January 2008 and December 2013*.

⁵ U.S. Department of Commerce International Trade Administration, *2013 Total Exports Data, January 2014, and Arizona: Exports, Jobs, and Foreign Investment, March 2014*.

IMPORTANCE OF THE SUPPLY CHAIN Inputs as a result of a global supply chain may come from around the world, and goods may go on to become part of more complex products in other locations. Finished goods in the tradable sector, as noted, are exported worldwide.

Businesses in the tradable sector are highly dependent on the supply chain. Understanding the supply chains of targeted industries can provide insight into the industry's mechanics and dynamics as well as its future. The other end of the supply chain is equally important to high-value firms - the ability for companies in the tradable sector to get their goods to customers in the global marketplace in a timely, reliable, and economical manner.

An accessible supply chain and market base attracts not just one firm, but provides the foundation for an entire industry sector.



To become a stronger player in the tradable goods sector, Arizona must understand the supply chains of the high-value industries that it seeks to grow and attract. By considering methods and approaches to enhance the supply chain as a strategy for attraction and investment, Arizona can grow core industries and promote diversification of the economy as well.

The viability of a supply chain strategy is highly dependent upon first-class infrastructure in all modes, and particularly highways. While infrastructure alone will not support a supply chain or market connectivity strategy, growth in sophisticated tradable goods sectors is nearly impossible without modern, competitive transportation infrastructure.

Effective implementation of Arizona's global economic vision requires a strong collaborative partnership between the public and private sector. This collaboration can address a multitude of critical and dynamic needs, including multimodal transportation, freight, and logistics. Industry partners are vital for developing and attracting the supply chain that will strengthen Arizona's current and future competitiveness.

BY FOCUSING ON THE DEVELOPMENT OF A WORLD-CLASS TRANSPORTATION SYSTEM THAT PROVIDES EFFECTIVE MARKET CONNECTIVITY, ARIZONA CAN BE EVEN MORE COMPETITIVE FOR TRADABLE GOODS.

EXPAND GLOBAL COMMERCE

ACTION PLAN:

Establish Arizona as a leader in High Value Trade and Investment.

- 1. USE A SUPPLY CHAIN STRATEGY TO FURTHER DEVELOP THE TRADABLE GOODS SECTOR.**
Businesses in the tradable sector are highly dependent on the supply chain. Developing supply chains for the industries that Arizona wishes to maintain, grow, and attract is an important strategy. Understanding target industry supply chains can provide insight for business retention and recruitment efforts. There are also growth opportunities at various points in the supply chains, particularly those in manufacturing industries that have re-shored into North America. Linking transportation improvement strategies directly to the supply chain effort is one way to develop this sector.
- 2. STRENGTHEN RELATIONSHIPS AND BUSINESS LINKAGES WITH ARIZONA'S KEY TRADE PARTNERS** In addition to proximity, one of the reasons the trade relationship between Arizona and Mexico is strong is because of Arizona's deep engagement with Mexico on policy, government-to-government relations, collaborative infrastructure planning, and cooperative economic development. The same approach would strengthen sustainable relationships with the state's major domestic trade partners, California and Texas, as well as key international partners such as Canada and the United Kingdom.
- 3. ATTRACT A HIGHER PERCENTAGE OF FDI TO ARIZONA.**
FDI in Arizona remains a small percentage of the state's total private industry employment. However, with the increase in projects over the past five years, FDI has had a tremendous positive economic impact on Arizona. Arizona's marketing strategy should include increased attention to foreign investment.
- 4. DEVELOP MULTIDIRECTIONAL AND MULTIMODAL LOGISTICS HUBS.**
Implement policy changes and improvements to ensure Arizona ports of entry and other select locations are strategically positioned to become multidirectional and multimodal logistics hubs.

ACTION PLAN (CONT)

5. FACILITATE TRAVELER MOVEMENT FROM MEXICO AND CANADA.

Leverage and expand trusted traveler programs so business visitors and tourists have easy access to the entire state.

6. DOUBLE ARIZONA'S EXPORTS TO MEXICO BY 2020.

Implementation will require a variety of strategies, but beginning steps include:

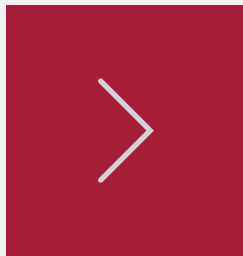
- Implement a strategy to promote and develop the Pacific Western Corridor between the western states of Mexico and the U.S. with the recognition that Arizona is the primary gateway between western Mexico and the U.S.
- Work with the private sector and Mexican government to reduce the time delays that impact the flow of goods and people at the Querobabi military inspection station in Sonora, a key point along the main highway leading from western Mexico into Arizona.
- Focus efforts on improvements to older highways in the corridor that slow trade movement.
- Market the value of the western trade corridor to the private sector, particularly the manufacturing and fresh produce sectors in Mexico.
- Identify ways to expedite the processing and value-add potential of fresh produce and other perishable commodities at Arizona's ports of entry.
- Follow through with current plans by several government entities to open an Arizona trade office in Mexico City, and match those efforts with sufficient additional staffing and marketing in Arizona.
- Improve Arizona's rail-based trade with Mexico by facilitating an ongoing dialogue between rail service operators, logistics service providers, federal inspection agencies, and industry representatives with the purpose of increasing capacity and finding opportunities for manufactured goods, autos, minerals, and produce to take more advantage of rail. A first step might be a pilot program to ship fresh produce from the Arizona border region to key distribution hubs in the Midwest and/or East Coast.

#2: Improve Connectivity to Markets

Why is this important for Arizona?

The movement of tradable goods requires a safe, efficient, and reliable transportation system. Virtually all tradable goods rely on surface transportation for at least a portion of the supply chain. Connectivity to markets is critical to the promotion of trade and attraction of investment. The foundation of the tradable goods economy – make it here and sell it there – is impossible without a state-of-the-art transportation system.

Arizona is located between three economic powerhouses that provide thriving markets for the state's businesses. As an indication of the size of Arizona's nearby markets, the combined regional production of Phoenix, Tucson, Los Angeles, San Diego, Dallas, and Houston would be the 8th largest national economy in the world – larger than South Korea, Canada, or Russia. Improving the most important corridors for market access, Arizona's Key Commerce Corridors as shown in Figure 10, is paramount to take maximum advantage of Arizona's strategic location.



Arizona is strategically positioned to access key consumer markets in Southern California, central Texas, and northwest Mexico.

Figure 10: Key Commerce Corridors 20-Year Plan



Strategic Direction Discussion

The Key Commerce Corridors comprise the major interstates that crisscross Arizona. I-8 and I-10 connect the state to target markets to the west (California and the Pacific Rim) and to the east (Texas and beyond). I-17, I-19, and the future border-to-border I-11 corridor connect Arizona to the key emerging market in northwest Mexico as well as to the western U.S. and Canada. These strategic highways are in need of significant improvements. Since the 1970s, the basic carrying capacity of Interstates 8 and 10, for example, has remained virtually unchanged.

The Key Commerce Corridors have been identified by professional Arizona Department of Transportation (ADOT) staff and consultants as being those that provide the state with primary connectivity to critical outside markets. These corridors are important to firms in the tradable sector, which depend on the reliability and predictability of the transportation system to ensure product delivery in a timely manner. The Key Commerce Corridors are the primary trade corridors between Arizona and its top two domestic markets, California and Texas, and its top international market, Mexico. They provide access to the world as well – through connectivity to the ports and airport in the Los Angeles area, and through northwest Mexico to central Mexico and Latin America.

Nearly 85% of all freight and cargo entering and leaving the state uses the highway system. Even those destined for rail, air, or ships depend on highways for some portion of the journey. Highway accessibility forms the essential nexus between workers, suppliers, producers, distributors, and markets.

Minutes matter to business, especially in the logistics and manufacturing sectors where transportation costs are critical business components. The Chief Operating Officer for United Parcel Service (UPS) recently testified to the U.S. House of Representatives' Committee on Transportation and Infrastructure that a delay of five minutes per day for every vehicle would cost UPS over \$100 million annually. The cascading costs to UPS customers and to the firms involved in their supply chains drive the numbers even higher.

Inefficient, outdated, and congested infrastructure has tremendous business costs that create a ripple effect throughout the economy. Those costs will impact firms' decisions when considering locations for investment or growth in Arizona.

Improvements to Key Commerce Corridors allow Arizona's economy to maximize its unique location.



Arizona's ability to bring the Key Commerce Corridors up to the standards expected by business is limited by its current revenue structure. The estimated cost of making the necessary improvements to the Key Commerce Corridors is approximately \$20 billion over the next 20 years. This amount greatly exceeds ADOT's expected revenue from current sources.

INFRASTRUCTURE IS IMPORTANT FOR BUSINESS Arizona is strategically situated for various supply chains located between the three major markets of Texas-Mexico-California. Freight and supply chain attributes should be used as catalysts to grow Arizona's economy, create sustainable jobs, and generate wealth. The reliability and predictability of the state's infrastructure system are critical components of the state's geographic advantage that can be used to support Arizona's economy.

Cargo flows through Arizona from West Coast ports are often carrying imported goods eastward. Much of the cargo coming in from Mexico also joins this east-west flow of trade. The reality is that Arizona is often a “pass-through state”, in which the transportation infrastructure is utilized by the passing of cargo that is headed east or west to other markets.

This phenomenon also occurs at the ports of entry, where approximately \$14 billion worth of products simply use the ports as a gateway and pass through Arizona to other destinations.

Effort needs to be dedicated to reversing this trend. Arizona’s largest metropolitan centers, Phoenix and Tucson, offer very attractive consumer markets with 5.3 million people. Other parts of the state also offer attractive consumer markets and present opportunities for value-add in the manufacturing chain. Analysis needs to be conducted to determine if there is an opportunity to provide value to those products, or if there are opportunities for Arizona businesses to supplant these products with those originating in the state.

Inadequate attention has been paid to the need to attract private risk capital for property ventures and related utility and transport infrastructure. While some assets are being developed in the state, private capital for logistics-oriented development, private investment for roads and rail that benefit property owners, and collaborative investment between various surface transportation interests, air, shippers, and manufacturers has not been a focus for Arizona and could be very beneficial in the future.

**ARIZONA OFFERS STATE-OF-THE-ART
INFRASTRUCTURE TO SUPPORT
BUSINESS VENTURES IN NORTH
AMERICA AND THE REST OF THE WORLD.**



Arizona offers tremendous value to businesses that are dependent upon or provide freight and logistics services.

The rising cost of fuel is forcing companies (both shippers and service providers) to look for lower-cost alternatives. Balancing cost, quality of service, and time to destination causes companies to look for alternatives to meet their transportation needs. For instance, larger, more fuel-efficient ocean-going vessels will change the dynamics of ports of call and origin-and-destination pairs, with potentially longer port stays and working hours dictating the need to maintain intermodal cargo flows.

By facilitating the transfer of cargo between truck and rail, the inland port concept has the potential to increase the efficient utilization of transportation infrastructure. The strategic placement (within 50 miles of metropolitan areas) of privately developed and funded inland port facilities should be considered in the context of transportation system planning and development. The Port of Tucson is an example of how an inland container terminal can position Arizona to have greater value-add in north-south and east-west flows through the state.

A BROADER UNDERSTANDING OF THE CONNECTION BETWEEN TRADE AND TRANSPORTATION INFRASTRUCTURE IS ESSENTIAL TO ENSURE BROAD-BASED SUPPORT FOR FUTURE INFRASTRUCTURE INVESTMENTS.

The trucking industry is facing a number of issues that are of concern for future supply chain efficiencies. The maximum allowed weight and dimensions of the trucks that are permitted on U.S. roads is a topic of state and national debate. Additionally, the industry is facing a persistent shortage of truck drivers, particularly for long-haul trips. Transportation service providers continue to emphasize equipment management dynamics and increasing reverse flows. These trends reinforce Arizona's need to pivot toward a more export-oriented economy and the supportive surface transportation capacity.

Arizona, and metro Phoenix in particular, is underserved by rail. With rising fuel costs and congestion, rail is an important option for moving large amounts of cargo. The metro areas are increasingly becoming destination markets for inbound rail, but often the trains leave empty. This fact provides an opportunity for Arizona producers. With only one rail crossing into Mexico and no direct rail access to Canada, Arizona lacks a robust multimodal platform and should consider how to partner with the railroads, private developers, and users to increase mode options.

The air transport industry has significant assets in the state. Additionally, Sky Harbor is one of the busiest passenger airports in the country, providing a real opportunity for freight in the bellies of its numerous passenger flights. Phoenix-Mesa Gateway Airport stands to be an anchor in the freight and supply chain domains with intermodal capability. A recent air cargo study found Sky Harbor and Phoenix-Mesa Gateway airports are both well-positioned for future opportunities. However, the same study also indicated a lack of future growth in demand based on today's business needs. Tucson International Airport provides transport, land, and logistics assets, and can become a market-specific multimodal hub in conjunction with the Port of Tucson.

A robust tradable goods sector needs solid and reliable air cargo options, and the development of air cargo alternatives needs to be a priority. Understanding the hub and gateway routes in the large California markets will continue to help Arizona identify and pursue the right markets for additional services.

Mexico's importance in the freight and logistics chain will continue to grow. One of the best ways to incentivize cargo to continue to flow through Arizona would be to examine what improvements need to be made throughout the logistics chain from the point of origin in Mexico to the final destination in the Americas. For instance, produce from Sinaloa that is destined for the Midwest or East Coast is generally shipped by truck. Improvements to the surface transportation routes in Mexico, at the ports of entry, and in the state's Key Commerce Corridors can help guarantee Arizona's continuance as a produce hub. Understanding the freight and logistics chain of products being produced in western Mexico could equate to real opportunities for Arizona to be a supplier of component parts, to add value to partially

Congestion, increasing truck numbers, and limited rail service are factors that will all place increasing demand on Arizona's Key Commerce Corridors.



finished goods coming into the U.S., or to become a consolidation or shipping hub, similar to the role Nogales currently plays for produce.

The dynamic and complex port of entry system processed nearly 400,000 trucks, 866 trains, and some 22.7 million people in northbound traffic. Once you factor in southbound traffic, Arizona's ports of entry processed close to 800,000 trucks, 1,730 trains and more than 45 million people. CBP does not currently track the exact numbers for southbound traffic, but the doubling of the data provides a reasonable estimate for the volume of traffic that our ports of entry need to process each year.

INCREASED AIR CARGO CAPACITY IS ESSENTIAL FOR ARIZONA'S FUTURE WORLDWIDE TRADE.

Figure 11: Mode of Transportation (2013)

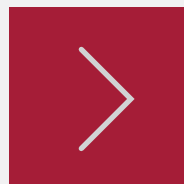
	Trucks	Car	Pedestrians	Buses	Trains	Total People
Douglas	32,497	1,470,933	1,804,110	2,076	0	4,509,898
Lukeville	53	289,997	40,699	486	0	665,924
Naco	3,947	284,677	81,146	17	0	590,341
Nogales	311,669	3,162,451	2,912,077	8,699	866	9,430,872
San Luis	33,402	2,948,504	2,315,369	16	0	7,404,195
Sasabe	0	15,630	730	0	0	26,894
Totals	381,568	8,172,192	7,154,131	11,294	866	22,628,124

Source: U.S. Department of Transportation

Figure 12: Northbound Commercial Truck Volumes by Port of Entry

Location	2006	2007	2008	2009	2010	2011	2012	2013
Douglas, AZ	21,951	26,718	26,062	25,162	25,504	29,833	31,636	32,497
Lukeville, AZ	654	481	432	297	90	33	22	53
Naco, AZ	4,052	4,628	2,446	1,661	2,512	3,376	3,728	3,947
Nogales, AZ	289,590	295,267	303,757	276,877	307,510	287,091	307,626	311,626
San Luis, AZ	45,581	42,716	43,791	39,644	37,103	34,190	34,891	33,402
Sasabe, AZ	392	296	362	120	0	0	0	0
Totals	368,490	370,106	375,850	343,761	372,719	354,573	377,903	381,525

Source: U.S. Department of Transportation



As a border state, Arizona offers a strategic location to leverage the state's low cost of doing business and state-of-the-art R&D with Mexico's low cost of manufacturing and a growing consumer market.

Recognizing the importance of the Arizona-Mexico relationship, in 2006-2007 Arizona conducted an initial assessment of the port-of-entry system and created Vision 2015, an effort to double the throughput at the ports. Since then, projects totaling more than \$450 million have been completed, reaching the goal a full year early.

ADOT, in collaboration with the state of Sonora, developed the Arizona-Sonora Border Master Plan (BMP), which maps out the port-of-entry and related transportation projects on both sides of the border for the next 30 years. Figure 14: Border Master Plan depicts the three zones that were the study's focus. This plan will guide priority investments in both countries.

The gas tax has remained flat in Arizona, at 18 cents per gallon, for 25 years. The combination of decades of inflation and great improvements in miles per gallon consumption has resulted in much smaller revenues for ADOT. A dollar of gas tax revenue in 1990 is worth only 54 cents in 2014.



Figure 13: Border Master Plan



FEDERAL REVENUES ARE ALSO BECOMING LESS RELIABLE. THE HIGHWAY TRUST FUND, FUNDED BY A FEDERAL FLAT GAS TAX, IS FACING A SIGNIFICANT SHORTAGE AND IN FISCAL YEARS 2008, 2009, 2010, AND 2012 AND HAD TO BE AUGMENTED BY THE GENERAL FUND.

ISSUES IN TRANSPORTATION FUNDING Public funding for roads, bridges and highways has been eroding for decades. Much of the public transportation infrastructure funding at the federal and state level comes from vehicle fuel taxes. However, these revenue sources have been under significant pressure from inflation and increasing vehicle fuel economy. Furthermore, fuel tax rates at the federal and state have not been increased in many years. The state gas tax, currently 18 cents per a gallon, was last increased in the early 1990, then by only one cent and only to offset other transfers from highway funding. The last significant increase, a five cent increase along with other road revenue increases, was enacted in the 1980's. More recently, Arizona road highway funding has also suffered from the significant declines in vehicle license tax collections - another major funding source and diversions of monies to other uses.

As a consequence, the “purchasing power” of current transportation infrastructure funding has substantially declined. In fact, the preponderance of state highway spending, aside from that supported by locally generated revenues, must now be committed to maintaining and preserving the current statewide system. Very little, currently about \$25 million per year, is available for system expansions or improvements to the statewide system. The proposed improvements within the Key Commerce Corridors plan will total \$20 billion based on a 20 year planning horizon, averaging to about \$1 billion annually.

Thus, without a significant increase in dedicated funding, undertaking of the Key Commerce Corridor improvements will be impossible.

Figure 14: Surface Transportation Federal Funding

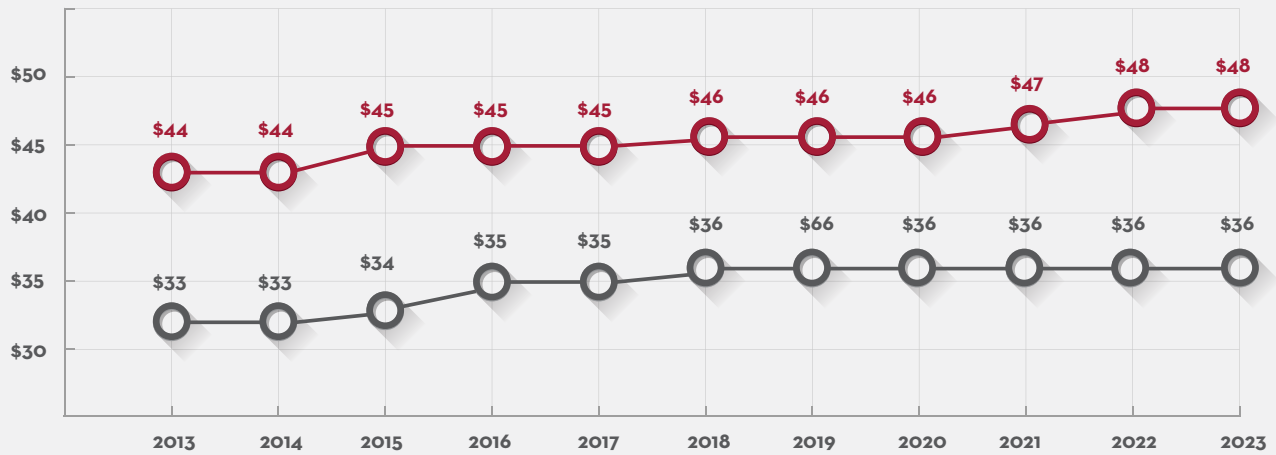
Source: Arizona Department of Transportation



It is important to note the situation for the federal highway funding is even more constrained. Dedicated revenues are forecast to continue to fall below projected outlays. By some estimates, the shortfall could exceed \$90 billion just between 2015 and 2023. In light of those constrains, it is unlikely there will be substantial increase in federal funding that could be used for the Key Commerce Corridor improvements. It is important to note that highway funds do not include the needed investment that may be required for both air and rail transportation. Ensuring a state of the art and safe multimodal transportation infrastructure remains a top priority if Arizona is to remain as a beacon of development and growth in the nation.

Figure 15: Projection for Highway Account of the Federal Highway Trust Fund

Source: Arizona Department of Transportation



The cumulative shortfall of the Federal Highway Trust Fund from 2015 through 2023 totals \$92 billion.



BOLSTER CONNECTIVITY TO MARKETS

ACTION PLAN:

Develop an integrated transportation system supporting Arizona's strategic economic goals.

1. SUPPORT KEY COMMERCE CORRIDORS.

The Key Commerce Corridors plan represents Arizona's major statewide transportation initiative for the next 20 years. Essentially, no progress can be made on the Key Commerce Corridors without a reliable and sustainable funding source. In order to make progress, two steps must be taken:

- The TTCA is the ideal entity to take on the task of educating officials and the public regarding the linkages between high-value trade and investment and critical transportation infrastructure.
- In partnership with other key stakeholders, the TTCA can help to mobilize a broader transportation stakeholder group to explore funding ideas and champion the concept of additional funding for transportation.

2. BETTER LINKAGE BETWEEN HIGHWAYS, RAIL, AIR, AND SEA FOR CARGO MOVEMENT WITHIN ARIZONA AND ACROSS ITS BORDERS.

The following steps could provide better linkages for improved cargo movement:

- Develop a rail working group, possibly as part of the Freight Advisory Committee, to address connectivity and long-term improvements.
- Develop an air cargo working group, similar to the rail group noted above. Action Item 3 below further expands on the issues surrounding air cargo.
- Use rail, air, and truck availability as part of the Arizona economic development story, adding availability as an asset for attracting and growing export-oriented companies.
- Promote freight-related economic development opportunities in the Sun Corridor, the central Arizona region encompassing the state's most populated cities and metropolitan areas, by assessing the existing global supply chain, identifying value-added opportunities, and developing a freight framework that diversifies the regional economic base.

ACTION PLAN (CONT)

3. DEVELOP AN AIR CARGO STRATEGY FOCUSING ON THE ROLE PLAYED BY AIR CARGO IN BUILDING A HIGH-VALUE TRADABLE GOODS SECTOR.

Develop a working group consisting of airports, cargo personnel from passenger airlines, air cargo carriers such as UPS and FedEx, shippers, and manufacturers who specialize in high-value goods. Work with the state's larger airports on a long-term strategy for additional air cargo service. Include international air freight in the strategy, both by encouraging direct service and by leveraging availability in California.

4. USE CREATIVE STRATEGIES TO HELP FUND TRANSPORTATION IMPROVEMENTS AND CAPACITY.

Arizona must identify and pursue new ideas to fund, finance, and allocate revenues for transportation improvements. Creative ideas for an era of reduced federal funding include new state and local revenue sources, private infrastructure, P3s, user fees, local funding, and high-impact, low-cost projects to meet infrastructure needs.

5. ENSURE A SAFE, RELIABLE TRANSPORTATION SYSTEM TO SUPPORT TRADE.

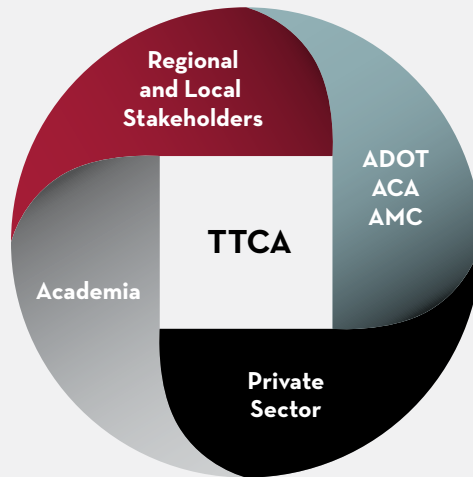
Ensuring that Arizona has a safe, reliable, and adequate road transportation system to support trade is the responsibility of ADOT. Although the state's rail lines are owned and managed by private parties, ADOT and other state and local agencies continually work with these private ventures to ensure seamless multimodal connections. While the major airports statewide are operated by local governments or authorities, ADOT and other state agencies also work with these airport operators to ensure seamless multimodal connections between ground and air transport. By serving as a facilitator and convener, ADOT can help ensure that the modes are communicating and working together in support of a transportation system that enables trade.

6. IMPROVE AIR SERVICE BETWEEN ARIZONA AND MEXICO. Arizona and Mexico would both benefit from additional passenger and cargo service. For example, the state of Sinaloa, Mexico, which is the source of much of Arizona's multi-million-dollar produce industry, currently has no direct air service to any Arizona city. Arizona needs a coordinated approach for improved cargo, business travel, and tourism service from more Mexican destinations.

7. DEVELOP A STRATEGY TO BRING MORE PRIVATE CAPITAL INTO THE STATE TO ENCOURAGE ADDITIONAL INVESTMENT IN ALL TRANSPORTATION MODES AND IN FACILITIES SUCH AS MULTIMODAL LOGISTICS HUBS AND INLAND PORTS.

A clear plan of action that delineates Arizona's needs, supported by appropriate policies and consistent marketing, can bring the necessary private investment into the state in support of economic development goals.

#3: Ensure Alignment



Why is this important for Arizona?

It is critical that Arizona's leaders in the public and private sectors coalesce and align with a common vision about the importance of investment, trade, and connectivity to markets. Alignment of purpose and a long-term commitment are critical to accomplish the state's strategic trade, transportation, and economic goals. This public-private partnership has never been more imperative. The TTCA provides a unique opportunity to convene state agencies, regional and local stakeholders, academia, and the private sector to align policies, actions, strategies, and messages regarding the value of a trade-based economy with an effective, supportive transportation system.

Strategic Direction Discussion

The Roadmap provides direction for the state of Arizona through its three agencies to maximize opportunities for strategic trade development. It is through alignment at every level, such as communicating and executing priorities uniformly and consistently, that the Roadmap's objectives will be achieved. The communities and regions that have become economic leaders have undertaken a long, sustained path, celebrating success as it occurs and constantly calibrating to respond to change. It is critical to connect the efforts of ADOT, AMC, and ACA for focused action on the Roadmap vision. While major action is needed, many small shifts by these and other public agencies are cumulative over time, potentially resulting in big changes.

Alignment between state, federal, regional and local stakeholders, both private and public, can fundamentally improve Arizona's economy over time



Additionally, it is critical to vertically align statewide in Arizona. Federal, state, regional, and local entities working together and focused on tradable goods and market connectivity will assist Arizona in achieving its aspiration vision - to double trade with global markets by 2025.

Arizona realized success when the state completed Vision 2015, which outlined needed border infrastructure improvements and initiated an education program targeting the general public and public officials. Through coordinated advocacy efforts, over \$450 million in new infrastructure funding was secured for the border region.

The same kind of focused and persistent education and advocacy needs to occur with respect to trade and transportation. The TTCA brings the right stakeholders to the table to educate elected officials on the importance of the Roadmap's strategies, and to advocate for attention and development.

Finally, the team must continue to monitor trends, review data, and adjust accordingly. Achieving the Roadmap's goals will demand flexibility and require periodic review and adjustment as needed. The TTCA's Education and Communication Subcommittee will take a leadership role in developing action and communications strategies that will help ensure that this alignment is achieved.

The strategic direction outlined in the Roadmap is vital and ambitious. It will not be easy to implement or accomplished overnight. Nevertheless, experiences around the world have demonstrated that locations that pursue consistent strategies over time in a coordinated fashion ultimately succeed better than those that do not.





ENSURE STRATEGIC ALIGNMENT

ACTION PLAN:

Unwavering focus on Arizona's transportation and trade vision.

1. STRENGTHEN THE ARIZONA BRAND AS A LOCATION FOR INVESTMENTS.

Identify and assess those factors that attract existing foreign companies into the state and identify common strengths and prevalent factors to build upon for future attraction efforts.

2. IDENTIFY, DEVELOP, AND MAINTAIN GOOD DATA.

Determine key data points in support of the TTCA efforts to implement the Roadmap by identifying and pursuing data sources and maintaining the data set to ensure its ongoing relevance.

3. BECOME ADVOCATES FOR TRADE AND TRANSPORTATION.

Take the key messages established in the Roadmap and carry them consistently to elected officials at all levels, stakeholders, and the media. Use a variety of venues to discuss the importance of the tradable goods sector, the need to grow exports, and the role of a robust transportation system in supporting a vibrant economy.

4. DEFINE RETURN ON INVESTMENT (ROI).

TTCA needs to define the market opportunities and define the projected ROI in our trade initiatives for the media, general public, and elected officials.

TOMORROW AND DOWN THE ROAD

The Roadmap's vision is an Arizona that is creating better jobs and higher household incomes by growing value-added industries that bring new wealth into the state. The Roadmap aims to be transformational to ensure that Arizona remains competitive and economically strong - we cannot continue to do business as usual. In order to truly achieve this vision, the TTCA will provide leadership in bringing public sector entities and the private sector together to support a transportation and trade agenda for Arizona.

The TTCA Steering Committee along with the input secured through the Public Hearings in Phoenix and Tucson, provided the overall framework, guidance, ideas, and background research for the Roadmap. With the strategic planning process complete, the TTCA will work with various public and private statewide stakeholders to ensure a cohesive and collaborative approach for an effective implementation of the Roadmap. The hard work that goes into implementing the various recommendations is the difference between a strategy that sits on a shelf and one that is a catalyst for positive change.

The TTCA will continue to:

- Tackle specific issues, particularly those surrounding long-term transportation funding.
- Weigh in on shorter-term issues such as the reauthorization of the transportation bill, the Federal Motor Carrier Safety Administration truck safety inspections at the border, the modernization, expansion and construction of our port of entry system, the shipping of fresh produce from Mexico via rail to East Coast markets and other similar issues that have been identified within this Roadmap as critical to our State's competitiveness and growth.
- Provide a forum for dialogue and debate on trade and transportation issues.
- Ensure alignment by local and state public entities taking on trade and investment issues.
- Provide intelligence regarding trends and activities in trade and transportation.
- Monitor progress on the goals outlined within the Roadmap.
- Serve as a unified voice for the interests of trade-based economic development, advocating the cause to public officials at all levels, and communicating key messages to the media and stakeholders.

Ensuring Future Transportation Funding

During the course of preparing the Roadmap, members of the leadership team heard again and again that declining funding, particularly from the federal government, is significantly impacting Arizona's competitiveness in transportation and trade. From surface transportation infrastructure to ports of entry and staffing, the gap between needs and availability was expressed repeatedly by public and private sector stakeholders from around the state.

Continuing the current funding level, which is inadequate even to maintain today's transportation network, can serve as a detriment to Arizona's future. A significant change in how public and private funding is identified and developed is an essential theme that will impact the TTCA's work in the future.



Identifying sustainable funding streams for an integrated transportation system that facilitates and supports the tradable goods sector is a critical role for the TTCA. Providing a 21st century, multimodal integrated transportation system is a necessity although not singularly sufficient step to increased trade. Transportation infrastructure is at the core of a trade-based economy and must be considered as an intrinsic necessity for the achievement of any economic development goals. At both the state and federal levels, transportation funding depends primarily on a flat tax on traditional carbon based fuels – a source of funding that has proven to be insufficient to meet our nation’s needs. Arizona cannot depend exclusively on federal government funding to meet its future needs and therefore needs a long-term funding source as well as a creative approach to using new tools. A robust economy supported by a vibrant tradable goods sector doing business with the world will be the result.

Smarter Approach to Public/Private Collaboration

With diminishing federal resources, the trend throughout the nation has been for local and state governments to explore public-private partnerships in order to meet existing and future transportation infrastructure needs. The Roadmap highlights the inseparable linkage between transportation infrastructure and growth in economic development. Strengthening this linkage moving forward requires a coordinated and comprehensive effort led by the state’s economic development agency – the Arizona Commerce Authority – with support from ADOT, AMC, and regional and local agencies statewide for Arizona to be successful. The Roadmap is a key input to the continuing efforts for statewide economic development and will roll into ACA’s business plan. The TTCA will continue to be the conduit for these agencies and private sector to work on and implement action related to improving Arizona’s position in relationship to commerce and trade corridor. When asked many people indicate that their top priority is job creation and economic development but when asked the importance of transportation infrastructure, the level of priority decreases dramatically. It is imperative that the connection between economic development and transportation infrastructure be cemented into a general public perception.

What Gets Measured Gets Done

The Roadmap work program is intended to provide the strategy along with the details about the tactics and action that must be taken to achieve Arizona’s vision. The vision is the desired future state that Arizona strives to achieve as it relates to trade and transportation while the work program presents the specific steps that must be taken with what partners.

TTCA, with support from the agency partners, will meet as needed in order to evaluate the performance and confront if the Roadmap’s goals are being achieved. It is one thing to produce and disseminate the data and have reports but to be successful Arizona must have a mechanism in place for measuring success. The Roadmap work program identifies the implementation timeframe, partners, resources, and metrics that will be used to measure implementation over time. This evaluation will allow for course changes if needed and ensure that the Roadmap remains an evolving planning effort.

GOAL #1:

Establish Arizona as a Leader in High-Value Trade and Investment

	Tactics	Timeframe	Partners	Metrics
<p>Use a supply chain strategy to further develop the tradable good sector</p>	<ul style="list-style-type: none"> Increase understanding of industry supply chains to inform business retention and recruitment efforts. <ul style="list-style-type: none"> Utilize ACA programs to determine the breadth of the supply chains “connective tissue” (gaps and specialized strengths) for targeted industries that span domestic and international borders. Identify opportunities for Arizona firms to optimize proximity/relationship with California seaports and maximize multimodal freight services between and to each state. 	August 2014 through January 2015	Lead: ACA; USDOC Commercial Services, A&D Commission	<ol style="list-style-type: none"> Completed and ongoing maintenance of a database of the Tier 1-5 suppliers for Arizona firms (high-value manufacturing). Increase in the number of firms that diversify supply capacity beyond Arizona’s targeted sectors.
	<ul style="list-style-type: none"> Incorporate supply chain metrics into ADOT funding prioritization tools. <ul style="list-style-type: none"> Link transportation improvement strategies directly to the supply chain effort. 	October 2014 through October 2016	Lead: ADOT & ACA; AMC, Ports of LA, Tucson; TTX, T&L Partners	<ol style="list-style-type: none"> Outputs and ROI for projects and project categories within the ADOT prioritization framework for programming of capacity expansion, preservation, and modernization.
	<ul style="list-style-type: none"> Establish relationships with companies doing value add in northern Mexico in aerospace, automotive, electronic, electric & medical sectors as well as agribusiness. <ul style="list-style-type: none"> Identify opportunities to source products and components in AZ, and if not available identify opportunities establish manufacturing them. 	Ongoing	Lead: ACA & AMC; Sonora State Office, ED partners	<ol style="list-style-type: none"> Increase access to data that highlights Arizona’s supply chain.
<p>Strengthen relationships and business linkages with Arizona’s Key Trade Partners</p>	<ul style="list-style-type: none"> Expand Mexico engagement strategy to encompass additional domestic partners in California and Texas as well as international partners in Canada and United Kingdom. <ul style="list-style-type: none"> Utilize AZ’s California offices and upcoming trade shows to initiate outreach with public and private sector organizations to determine policy, planning and project collaboration opportunities between CA-AZ ecosystems. Utilize the Canada-Arizona Business Council and Honorary Consul to build means of informing Arizona agencies and businesses about ongoing issues and opportunities in Canada. 	September 2014 – June 2015	Lead: TTCA Agencies (ACA, ADOT, AMC); CABC, Sistema de Parques Industriales de Sonora, U.S. Chamber; Consulates of Canada, Mexico, and UK	<ol style="list-style-type: none"> Increase in the value of trilateral trade. Increase in diversification of the supply chains in Arizona targeted industries. Attendance of trade events that market a branded trilateral trade identity (vs. a solo approach).
	<ul style="list-style-type: none"> Strengthen the Mexico relationship by establishing a focused outreach effort to states that have great potential for Arizona. <ul style="list-style-type: none"> Utilize the Arizona-Mexico-Commission, the state’s trade offices and the relationships established through the border governors conference to advance relationships. 	CY14 through CY15	Lead: AMC; ACA, ADOT, AOT, ED partners	<ol style="list-style-type: none"> Implementation of working agreements that will provide results for advancing economic agendas and key corridor development. Increased awareness of opportunities in Arizona by Canadian businesses.
<p>Attract a higher percentage of FDI to Arizona</p>	<ul style="list-style-type: none"> Increase attention in AZ marketing strategy to foreign investment. <ul style="list-style-type: none"> Participate in strategic missions, forums, and conferences in D.C., Ottawa, and Mexico City. 	September 2014 – June 2015	Lead: ACA; TTCA Agencies (AMC, ADOT), U.S. Chamber, CDFAI, Mexico SRE, Pacific Northwest Economic Region	<ol style="list-style-type: none"> Increase in FDI from Canada and Mexico markets by 10%, year over year.

	Tactics	Timeframe	Partners	Metrics
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Develop multidirectional and multimodal logistic hubs

- Implement policy changes and improvements to ensure Arizona Ports of Entry (POE) competitiveness.
 - Work with Customs & Border Protection (CBP) to determine viability of increased POE commercial operation hours
 - Work with USDOT to frame discussions on Oversize/Overweight issues
 - Support initiatives of POE communities to expand and modernize existing and build new ports.

August 2014 – October 2016

Lead: ADOT; CBP, USDOT

1. Growth in off-peak movements (*peak-spreading reduces cost of serving this trade by reducing capacity demand*).

Ongoing

Lead: ADOT; AMC, local governments, GSA, CBP

2. Increase in the demand for warehouse space in Arizona.

Facilitate traveler movement from Mexico and Canada

- Leverage and expand the trusted traveler program to business travelers and tourists to the entire state.
 - Convene high level discussion with Department of Homeland Security, DOS, AMC, Arizona Office of Tourism, JPAC, SRE and private industry to champion a program to extend I-94 exemption for international visitors beyond Tucson to cover the rest of the state

August 2014 organize meeting with approximately 6 months for enactment; February 2015

Lead: ACA & AMC; DHS, DOS, SRE, AOT JPAC, and private industry

1. Extension of I-94 exemption to entire state.

Double Arizona exports to Mexico by 2025

- Assist AZ SMEs with export plan development and implementation, including Mexico market.
 - Recruit AZ SMEs statewide to ACA ExporTech program and deliver four such programs in Year 1
- Provide AZ SMEs with export opportunities in Mexico market.
 - Assist AZ SMEs via AZSTEP to undertake various export initiatives (trade shows, trade missions, B2B and B2G matchmaking and others) to export goods/services to Mexico.
- Implement Pacific Western Corridor strategy.
 - Participate in Federal Highway Administration / SCT peer exchange where AZ makes the case for investment in Western Mexico.
- Reduce wait times at Querobabi military inspection station in Sonora.
 - Work with SRE on this issue; continue advocacy efforts with SCT, SRE, Mexican Congress and US Embassy.
- Improve older highways in corridor.
 - Targeted investments in expansion, preservation, and modernization, as justified by trade volumes.
- Expedite processing and value add potential of fresh produce.
 - Explore value chain opportunities in packaged foods in agricultural regions.
- Open an Arizona trade office in Mexico City.
- Pilot a rail shipment initiative beginning with produce.
 - Organize public and private sector team to outline a strategy for assessing the opportunity and develop a rail pilot for produce shipments.

April 2014 – June 2015

Lead: ACA; USCS, USSBA, AZSBDC, Private Sector

1. Graduate 24 firms from ExportTech (*16 with a focus on Mexico*).

April 2014 – June 2015

Lead: ACA; USCS, USSBA, AZSBDC, Private Sector

2. Increase in the number of firms that diversify supply capacity beyond Arizona's targeted sectors.

August 2014 – October 2016

Lead: ADOT; Mexican state governments, Class I railroads

3. Increase the number of Arizona Small and Medium Enterprises (SME) that are newly exporting or expanding exports into Mexico; increase overall export sales.

Meetings throughout CY14 & 15 – and ongoing until resolved

Lead: AMC; ADOT local communities, CBP, GSA, State of Sonora & Municipalities SRE, SCT

4. Increase in the percent of outbound goods leaving state with AZ value-add.

January 2015 – Onward

Lead: ADOT; SCT, SRE, ADOT, FHWA

5. Opening of an Arizona office in Mexico City.

Ongoing

Lead: ACA; AMC, border Communities

August 2014

Lead: ACA & City of Phoenix; AMC and 20+ municipalities

Initial meeting in August 2014, with pilot implementation TBD

Lead: AMC & UP; Ferromex, TTX, Shortline RR, Fresh Produce Association, Maquiladora Association, DHS, FRA

CONNECTIVITY GOAL #2:

Develop an Integrated Transportation System Supportive of Arizona's Economic Goals

	Tactics	Timeframe	Partners	Metrics
Support Key Commerce Corridors	<ul style="list-style-type: none"> Educate officials and the public on the link between trade and transportation investments. <ul style="list-style-type: none"> Continue to educate elected officials, stakeholders, industry leaders, and the public on the benefits Key Commerce Corridors. Freight Advisory Committee (FAC) to inform structure of ADOT freight prioritization framework for funding. Complete analysis of nexus between travel time reduction (and reduced cost) and firm productivity. 	August 2013 – August 2016	Lead: ADOT, ACA	<ol style="list-style-type: none"> Transportation costs as a % of total Economic Potential. State funding share (vs. federal) per lane mile, % of funding from non-traditional sources (peer comparison). Independent private group takes over leadership of the funding issues.
	<ul style="list-style-type: none"> Mobilize a stakeholder group to identify funding ideas and champion addition funding needs. <ul style="list-style-type: none"> TTCA team will meet with federal and state policymakers Regular funding updates as part of TTCA meetings to keep issues current and visible. 	October 2014 – October 2016	Lead: TTCA Agencies (ACA, ADOT, AMC)	
Better linkage between highways, rail, air and sea for cargo movement within Arizona and across its border	<ul style="list-style-type: none"> Develop rail working group to address connectivity and long term improvements. <ul style="list-style-type: none"> Form modal sub-committees within ADOT FAC. 	October 2014 – October 2016	Lead: ADOT; Class I railroads and short lines railroads	<ol style="list-style-type: none"> Connectivity measured by peer state comparison of modal split for each major commodity group. Number of rail improvements multi-modal facilities and increase in outbound rail shipments. Increase in the number of Arizona jobs in the distribution and manufacturing industries (as categorized by the BLS).
	<ul style="list-style-type: none"> Develop an air cargo working group similar to rail. <ul style="list-style-type: none"> Form modal sub-committee. 	October 2014 – October 2016	Lead: ADOT; ACA, City of Phoenix/PHX Sky Harbor, TIA, MAG	
	<ul style="list-style-type: none"> Use rail, air, and truck availability in Arizona's economic development story to attract and grow export oriented industries. <ul style="list-style-type: none"> Gauge capacity demand for intermodal connectors to highways (the primary means of goods movement within Arizona). 	October 2014 – October 2016	Lead: ADOT & ACA	
	<ul style="list-style-type: none"> Promote freight related economic development opportunities in the Sun Corridor by assess the global supply chain, identify value added opportunities and develop a freight framework. <ul style="list-style-type: none"> Building on distribution function as base, climb value chain and attempt value-add at progressive points. 	October 2015 – October 2016	Lead: ACA & ADOT; Major airports, Class I railroads, Sun Corridor (COG/NPO)	
Develop an air cargo strategy focusing on the role played by air cargo in building a high-value tradable goods sector	<ul style="list-style-type: none"> Develop a working group that specializes in high value goods. <ul style="list-style-type: none"> Solicit input from Sky Harbor stakeholders identified in previous market analysis. 	October 2014 – October 2016	Lead: ADOT & ACA; PHX Sky Harbor	<ol style="list-style-type: none"> Increase in the annual volumes of air cargo. Modal split by commodity group, peer comparison with other states such as Texas and national modal split data to determine air demand for each freight type. New markets identified, new markets served.
	<ul style="list-style-type: none"> Work with larger airports on a long term cargo service strategy that encourages direct service and leverages availability in California. <ul style="list-style-type: none"> Explore brokerage relationships between Arizona third-party logistics (3PLs) and California airports to determine AZ's role in expanding connectivity. 	October 2014 – October 2016	Lead: ADOT & ACA; major airports, AOT	



	Tactics	Timeframe	Partners	Metrics
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Use creative strategies to help fund transportation improvements and capacity

- Identify and pursue new ideas to fund, finance and allocate revenues for transportation improvements.
 - When practical, explore Public-Private Partnerships (P3) potential for new capacity additions, also other revenue source.
- Delineate Arizona needs, appropriate policies and consistent marketing to attract private investment.
 - Assess local container flows and demand patterns to determine if hub/spoke model is appropriate and can justify addition of facility capacity in studied locations.
- Develop strategy to promote to potential investors.

August 2014 – October 2016

Lead: ADOT; FHWA

March 2016

Lead: ADOT; ACA, ATA, MAG, PAG, inland ports in southern Arizona

August 2014 – August 2016

Lead: ACA

1. Increase in state funding for transportation infrastructure as a percentage of state GDP.
2. Increase in the percentage of funding that originates from non-traditional sources.
3. Increase in the percentage of import or export containers to/from AZ that use an inland port.
4. New investment in transportation or logistics services.

Ensure a safe, reliable transportation system to support trade

- ADOT facilitating the convening of public and private multimodal entities to ensure communication and collaboration on multimodal opportunities.
 - Beginning with the development of the freight plan, ADOT (TTCA) will convene regular discussions among modes to develop and implement more cooperative and collaborative approaches.
 - Study modal split for existing commodity flows to determine growth potential.
 - ADOT will expand its emphasis on safety for freight and cargo movements.
- Improve state cargo safety performance where practical.
 - Obtain national cargo theft data source from federal law enforcement entity and compare best practices.
- Coordinate an approach for improved cargo, business travel and tourism service with more Mexican destinations.
 - Complete an origin-destination study to determine if possible belly cargo city pairs are congruent with passenger service

December 2014

Lead: ADOT; ACA, ATA, class 1 railroads, major airports

Ongoing

Lead: ADOT; ATA, 3PLs

March 2016

Lead: ADOT; AMC, AOT, major airports

1. Improvement of Arizona's federal cargo theft statistics.
2. Increase in the percentage of goods that predominantly travel by air; growth in air cargo volumes in Arizona.
3. Additional passenger services to Mexico from Phoenix and/ or Tucson.

GOAL #3:

Ensure Alignment of Arizona's Vision for Transportation and Trade

	Tactics	Timeframe	Partners	Metrics
Strengthen the Arizona brand as a location for investments	<ul style="list-style-type: none"> Identify and assess factors that attracted existing foreign companies to Arizona and build efforts for future attraction strategy. <ul style="list-style-type: none"> For key industrial sectors, disaggregate transportation costs as a % of total landed cost and model most effective means of reducing cost. Looking across commodity groups and origin-destination pairs, spot trends in mode choice, clustering, and distribution issues. 	October 2016	Lead: TTCA Agencies; regional planning agencies	<ol style="list-style-type: none"> Increase in the number of Foreign Direct Investment opportunities and locates originating from targeted markets. Increase in the visibility of Arizona as a pro-business location.
	<ul style="list-style-type: none"> Leverage relationships with partner companies to increase awareness of Arizona's assets and opportunities. 	Ongoing	Lead: ACA	
Identify, develop and maintain good data	<ul style="list-style-type: none"> Determine and maintain key data points to monitor Roadmap implementation. <ul style="list-style-type: none"> Implement AZ-Mexico Indicators: Arizona's trade & competitiveness in the US-Mexico Border Region project. <ul style="list-style-type: none"> Work with Dallas Federal Reserve Bank El Paso Branch to identify key trends not covered by indicators to have them monitor. Collect and analyze DUNS, NAICS, Department of Commerce, FAF, and Transearch data to better understand supply chain relationships. 	August 2014 - October 2016	Lead: TTCA Agencies; UofA, AOT, El Paso Federal Reserve	<ol style="list-style-type: none"> Increase in availability of real-time economic data and annual report evaluating data and trends. Decrease in the overall cost of data per unit, age of data, and evaluation of reliability of free public data (compared to ADOT-collected data). Survey results yielding a better understanding of FDI into Arizona.
	<ul style="list-style-type: none"> Determine key data points to measure international trade and FDI success; collect baseline data. 	August 2014 - August 2015	Lead: ADOT; USDOC, TRB, USDOT/RITA	
	<ul style="list-style-type: none"> Conduct structured interviews/survey of foreign companies that have invested in Arizona in the past five years to better understand their decision, the benefits and challenges they face and their plans for engagement with Arizona going forward. 	March 2015- March 2016	Lead: ACA	
Become advocates for trade and transportation	<ul style="list-style-type: none"> Consistently deliver message to elected officials, stakeholders and the media at a variety of venues. <ul style="list-style-type: none"> Develop policy briefs and white papers on transportation funding, supply chain competitiveness issues, capacity needs, associated cost estimates, and peer comparisons. Include elected officials/staffers, stakeholders and media as attendees in selected AZ STEP outreach programs. Schedule visits to policy makers at the state capitol and in Washington D.C. and Mexico City. 	October 2014 - October 2016	(ACA, ADOT, AMC); GPEC, MAG, and PAG	<ol style="list-style-type: none"> Sustainability of surface transportation funding going forward Transportation investment as a % of state GDP. Modal choice statistics by commodity group and sector, compared to peer states' freight models. Increased number of stakeholders attending briefings and updates on AZ STEP program successes.
		August 2014 - October 2016	Lead: TTCA agencies (ACA, ADOT, AMC)	



	Tactics	Timeframe	Partners	Metrics
<p>Define return on investment (ROI)</p>	<ul style="list-style-type: none"> • Define market opportunities and projected ROI to media, general public and elected officials. - Analyze across industries and origin-destination freight market pairs to find opportunities for value-add for Arizona based upon existing and future supply chain relationships and clusters. 	<p>June 2015 - October 2016</p>	<p>Lead: ADOT; USDOT/RITA, Class I railroads and short lines</p>	<ol style="list-style-type: none"> 1. Growth in percentage of freight (<i>by volume and value</i>) that is inbound, outbound, or intrastate, instead of only overhead or pass-through. 2. Increase in the number of jobs in the Transportation and Manufacturing industries (<i>as categorized by the BLS</i>). 3. Improved cost of ADOT capacity expansion, preservation, and modernization efforts (<i>per lane-mile, per TI, per bridge, etc.</i>).

EXPORT DATA, 2013

Exports
(billions, 2013)

\$19,396

Rank among 50 U.S. States + DC

21

Annualized Export Growth Rate,
2004-2008

8.0%

Rank among 50 U.S. States + DC

35

Annualized Export Growth Rate,
2009-2013

6.7%

Rank among 50 U.S. States + DC

35

Annualized Real GDP Growth Rate,
2009-2012

1%

Rank among 50 U.S. States + DC

39

Exports Share of U.S. Total

1.3%

Top 5 Goods Categories Exported from Arizona, 2013 (\$millions)

Computers & Electronic	\$4,705
Transportation Equipment	\$3,549
Minerals & Ores	\$1,932
Machinery (except Electrical)	\$1,615
Metal Products	\$1,047

Top 5 Countries by Total Value of Exports from Arizona, 2013 (\$millions)

Mexico	\$7,071
Canada	\$2,233
China	\$1,078
Japan	\$856
United Kingdom	\$808
All Others	\$7,351

Exports by Metropolitan Area, Arizona, 2012 (\$millions)

Phoenix-Mesa-Glendale MSA	\$10,834
Tucson MSA	\$2,508
Yuma MSA	\$374
Flagstaff MSA	\$274
Prescott MSA	\$43
Lake Havasu City-Kingman MSA	\$224

Arizona Manufactured Commodities Exports as a % of Total (2013)

80.3%

Countries for Arizona Export Opportunity	2013 Exports	U.S. Avg.
India	\$103M	\$413M
South Korea	\$228M	\$784M
Turkey	\$47M	\$228M

Commodities with largest increase in
Total Value Exported, 13/12 (\$millions)

	%	\$
Civilian Aircraft, Engines, and Parts	24.29%	\$536
Copper Ores & Concentrates	74.07%	\$659
Petroleum Gases & Other Gaseous Hydrocarbons	46.59%	\$174

Commodities with largest loss in
Total Value Exported, 13/12 (% \$millions)

	%	\$
Cotton	-18.81%	-\$74
Communications Apparati	-24.44%	-\$121
Parts for Circuit Boards	-16.54%	-\$70

Rank	Country/Region	Exports (2013)	Imports ('13)	Total Trade ('13)
-	Total	\$19,396,136,643	\$18,989,293,255	\$38,385,429,898
1	Mexico	\$7,070,674,138	\$7,042,806,292	\$14,113,480,430
2	Canada	\$2,232,966,891	\$1,505,989,515	\$3,738,956,406
3	China	\$1,078,400,582	\$2,477,112,957	\$3,555,513,539
4	Japan	\$855,848,378	\$1,357,057,015	\$2,212,905,393
5	United Kingdom	\$807,557,514	\$431,447,025	\$1,239,004,539
6	Germany	\$740,443,556	\$570,710,351	\$1,311,153,907
7	Hong Kong	\$567,233,409	\$105,246,424	\$672,479,833
8	Thailand	\$464,178,375	\$236,071,218	\$700,249,593
9	France	\$457,967,659	\$283,766,944	\$741,734,603
10	Singapore	\$432,477,505	\$397,877,964	\$830,355,469

Source: Global Trade Information Services, Accessed May 2014

IMPORT DATA, 2013

Imports (billions, 2013)

\$18,989

Rank among 50 U.S. States + DC

25

Imports Share of U.S. Total

0.85%

Top 5 Goods Categories Imported Into Arizona, 2013 (\$millions)

Computers & Electronics	\$4,453
Machinery (except Electrical)	\$2,445
Agricultural Products	\$2,387
Transportation Equipment	\$2,114
Electrical Equipment	\$1,304

Top 5 Countries by Total Value of Imports into Arizona, 2013 (\$millions)

Mexico	\$7,042
China	\$2,477
Canada	\$1,506
Japan	\$1,357
Malaysia	\$1,199
All Others	\$5,408

Arizona Top 5 Trading Partners (\$millions)

Mexico	\$14,114
Canada	\$3,739
China	\$3,556
Japan	\$2,213
Malaysia	\$1,599

Trade Surplus / Deficit, 2008-2013 (\$millions)

2008	\$4,626
2009	\$1,722
2010	\$98
2011	\$283
2012	-\$545
2013	\$407

Arizona has had a trade surplus for 5 of the last 6 years, and is one of only 12 states to perform so well

Commodities with largest increase in Total Value Imported, 2013 (\$millions)

	%	\$
Measuring Instruments & Appliances	222.45%	\$129
Road Tractors for Semi-Trailers	112.69%	\$97
Semiconductor Mfg. Machinery	26.99%	\$222

Commodities with largest loss in Total Value Imported, 2013 (\$millions)

	%	\$
Diodes, Transistors	-40.97%	-\$399
Communications Apparati	-36.14%	-\$279
Arms & Ammunition	-38.13%	-\$70

Sources: International Trade Administration, U.S. Census Bureau, Global Trade Information Statistics, U.S. Department of Transportation; last updated May 2014

Transportation and Trade Corridor Alliance
azttca.org

Arizona Department of Transportation
azdot.gov

Arizona-Mexico Commission
azmc.org

Arizona Commerce Authority
azcommerce.com