

The West Texas Aerospace and Defense Manufacturing Coalition is requesting **\$100 million** from the EDA Build Back Regional Challenge. This transformational investment in West Texas will be matched by **\$53 million** in local commitments. The State of Texas recently invested **\$70 million** to build a new Aerospace, Defense and Advanced Manufacturing facility on the University of Texas at El Paso (UTEP) campus which will further amplify the EDA's investment.

The Coalition is led by the University of Texas at El Paso (Aerospace Center and W.M. Keck Center for 3D Innovation) and includes the City of El Paso, the County of El Paso, the El Paso Chamber, Workforce Solutions Borderplex, and the Rio Grande Council of Governments. Our partnerships have expanded through the planning process and includes Town of Horizon City, Culberson County-Allamore Independent School District, the Town of Van Horn, the County of Culberson and Sul Ross State University, National Center for Defense Manufacturing and Machining, Western Technical College, El Paso Community College, and most school districts in West Texas. Industry partners include Lockheed Martin Space | Missiles and Fire Control |Aeronautics, GM, Blue Origin, Boeing, and small/medium manufacturers/defense contractors.

**Reclaiming Aerospace and Defense Manufacturing Dominance through Frontier Technologies** In 2015, the Brookings Institution's report "America's Advanced Industries: What They Are, Where They Are and Why They Matter" identified industries "that encompass the nation's 'tech' sector at its broadest and most consequential," and indicated that "the dynamism of these advanced industries is going to be a central component of any future revitalized U.S. economy. As such, these industries encompass the country's best shot at supporting innovative, inclusive, and sustainable growth."<sup>1</sup> According to this report, El Paso, as the largest population base in West Texas, ranks at 92 out of 100 US metros, for its employment share of advanced industries. In 2015, only 4.2% of jobs were in advanced industries and that share has decreased to 3.6% since the report was published. That means 888,720 West Texas residents have few opportunities in the tech sectors that create wealth and social mobility unless they leave home. Ninety-five percent<sup>2</sup> of graduates from the Aerospace Center and Keck Center, armed with valuable skills and expertise in technology innovations, leave West Texas because of there are very few jobs for them here. Our nation's economic growth is not inclusive or equitable if communities like West Texas—with a population that is 82% Hispanic and 24% rural—can't capture a fair share of U.S. prosperity.

This disturbing economic trend in West Texas is juxtaposed against alarming national trends that the Coalition seeks to address as a means for creating prosperity. First, the Department of Defense has identified "obsolescence, foreign dependency, fluctuating demand, industry consolidations and loss of design teams and manufacturing skills for critical defense products" as threats to the health of our defense industrial base and thus our national security. Second, Korn Ferry, a human resources consultancy, warns that the United States faces one of the most alarming talent crunches of any country. This report, according to Adrian Wooldridge, points to the unsettling conclusion that "the institutions, practices and mind-set that enabled the U.S. to create a workforce capable of powering the world's biggest and most dynamic economy are threatened by decay, disarray and disruption."<sup>3</sup>

The Coalition is marshalling our vast untapped talent, UTEP's research preeminence, established manufacturing base, culture of equity and inclusion, and public and private resources and partners for a full-on assault against our low wage trajectory. We have assets for Aerospace and Defense (A&D) manufacturing that will create a more prosperous West Texas. These include:

- Applied research preeminence that is deeply informed by the priorities and design challenges of the Aerospace Center's and the Keck Center's federal agency and industry partners,
- An industry-ready talent pipeline at UTEP to rival even the most prestigious engineering universities in the U.S. because of significant hands-on experience in applied research,
- A proven, two-decade track record of taking students who are underrepresented in STEM occupations—82% Hispanic, 40% female,<sup>4</sup> two-thirds from families who earn less than \$37,000 and half the first in their family to attend college<sup>5</sup>—and placing them into high paid A&D and advanced manufacturing occupations,

<sup>&</sup>lt;sup>1</sup> <u>America's Advanced Industries: What They Are, Where They Are, and Why They Matter (brookings.edu)</u>

<sup>&</sup>lt;sup>2</sup> Source: Aerospace Center

<sup>&</sup>lt;sup>3</sup> <u>US Jobs Day: America Faces a Great Labor Shortage in 2022 - Bloomberg</u>

<sup>&</sup>lt;sup>4</sup> Source: UTEP-Aerospace Center and W.M. Keck Center for 3D Innovation

<sup>&</sup>lt;sup>55</sup> Source: University of Texas at El Paso

- A nimble manufacturing sector with a specialization and location quotient of 2.05 in primary metals manufacturing<sup>6</sup> which is in high demand in the value chain of A&D manufacturing,
- Strategic military assets including Fort Bliss and White Sands Missile Range, critical to our nation's defense and consistent source of regional presence business of large defense contractors including Lockheed Martin and Boeing Defense, and
- Blue Origin's spaceport in Van Horn, Texas, a significant asset as the economy of commercial space becomes an emerging market ripe with opportunity

The Coalition with resources from EDA through the Build Back Better Regional Challenge (BBRC) will strategically organize these assets into a comprehensive, connected, and virtuous system of supportive infrastructure, services, resources, and business cycles that will:

- Accelerate the entrance of our region's small and medium manufacturers into A&D markets,
- Incubate startups<sup>7</sup> and recruit new businesses focused on A&D and additive manufacturing,
- Train residents in all West Texas zip codes in advanced skills and technologies that lead to family-sustaining wages in the A&D and advanced manufacturing workforce, and
- Make El Paso and West Texas a destination for investment in A&D manufacturing.

## Aerospace and Defense Innovation Network for Manufacturers

The Aerospace and Defense Innovation Network for Manufacturers serves small/medium sized manufacturers and A&D and advanced manufacturing startups in West Texas. Our mission is to arm member companies with the capabilities needed to be competitive in A&D markets and to increase market advantage in their current markets. A&D has been selected as a strategic new market for growth because of existing expertise and market specialization in primary metal manufacturing, and because the federal fovernment requires it to be anchored on American soil for national security purposes. Funding being requested from EDA through the BBBRC for the Innovation Network will democratize access for our small and medium manufacturers to applied R&D at the Aerospace Center and Keck Center, expand acceleration services and support for local manufacturers, recruit new businesses and create incubation services for aerospace, defense, and advanced manufacturing startups in West Texas.

# **Advanced Manufacturing District**

The current physical, cyber, and digital infrastructure of most of our small and medium sized manufacturers is inadequate for selling to A&D markets. In addition, future proofing our defense industrial base will require wide-scale adoption of advanced manufacturing technologies, shortening supply chains on U.S. soil and building green infrastructure that dramatically reduces the carbon footprint required for mass production. This costly infrastructure is out of reach for most small businesses and represents one of the most significant barriers for entrance into the A&D industrial base. To answer these challenges, the City of El Paso has master planned 250-acres near the El Paso International Airport for the **Advanced Manufacturing District** to co-locate A&D design teams and manufacturing operations with supportive services and training. The **Innovation Factory**, located on the Advanced Manufacturing District foot, will incubate advanced manufacturing startups (new and matured) with high-growth potential in A&D markets.

<sup>&</sup>lt;sup>6</sup> El Paso MSA Industry Clusters 2020, Federal Reserve Bank of Dallas

<sup>&</sup>lt;sup>7</sup> Including pre-seed, seed stage, early stage and growth stage startups

### **Aerospace Technology District**

The Department for Defense has prioritized modernization of defense systems creating new business opportunities for innovation. Blue Origin, Virgin Galactic, and SpaceX have charted an ambitious path for private industry in space exploration and tourism. Their success has sparked significant innovation and investment in commercial space exploration. The **Aerospace Technology District** will incubate the growth of A&D start-ups through access to new design-build-test facilities to be built at the **Aerospace Center's Technology Research and Innovation Acceleration Park (tRIAc)** at Fabens Research Airport in Fabens, the Unmanned Aerial System Flight Test Range in Tornillo, and office space at the **Horizon Tech Accelerator** in the Town of Horizon City. This rich collection of A&D research, expertise and design and testing infrastructure in far east El Paso County will be the foundation of a radical reinvention of the economy of the suburban community of Horizon City and the rural Hispanic communities of Fabens and Tornillo.

### Aerospace and Defense Technologies and Manufacturing Training Center (ADTech)

Twenty seven percent of our workforce who have high school degrees or some college are working in low wage occupations and with no prospects for social mobility.<sup>8</sup> The Coalition will create the **Aerospace and Defense Technologies Training Centers (ADTech)** to prepare West Texas residents, as well as transitioning soldiers from Fort Bliss, with the skills and expertise they will need to be successful in A&D and advanced manufacturing. As national leaders in creating educational pathways for the students they serve and experts in the in-demand skills needed by industry, the Aerospace Center and Keck Center will design and deploy just-in time training and on-the-job/internships/apprenticeships in the core technology skills that are in high demand.

## **Comprehensive Economic Development Strategy**

The proposed projects are aligned with the priorities outlined in the Rio Grande Council of Government's 2021-2025 Comprehensive Economic Development Strategy and meets all their goals for resilience that address identified vulnerabilities in the region. Aerospace, defense, and advanced manufacturing are identified as key industries for focus and investment. Our action plan aligns closely with the strategies identified in the CEDS for these industries including providing guaranteed training, building manufacturing infrastructure and developing the supplier base for A&D manufacturing.

Time	Timeline				
	2023 Q3 Q4 Q1 Q2 Q3 Q1 Q1 Q2 Q3 Q1 Q1 Q2 Q3 Q1 Q1 Q1 Q2 Q3 Q1 Q1 Q1 Q2 Q3 Q1				
Aerospace and Defense Innovation Network for Manufacturers					
Planning for Services					
Technology Innovation Services Available					
Incubation Services Available					
Advanced Manufacturing District					
Permit Acquisition & Design					
Phase I Infrastructure Improvements					
Buildings Construction					
Aerospace Technology District					
PreConstruction Activities   Design & Environmental Assesment					
Construction					
Aerospace and Defense Technologies and Manufacturing Training Centers					
Training Center Planning					
Training @Temporary Facilities					
Operational Training Centers ADTech @El Paso, @Van Horn, & @Alpine					

<sup>&</sup>lt;sup>8</sup> Source: Workforce Solutions Borderplex Analysis

### West Texas

The West Texas region is a six-county area covering approximately 21,700 square miles in the westernmost portion of Texas. The region is predominantly rural with a strong urban core. El Paso County, with the city of El Paso at its center, is the region's economic hub and regional core for the delivery of a variety of goods and services for counties located north of I-10. The El Paso MSA is the lone metropolitan statistical area in the region and is comprised of El Paso (48141) and Hudspeth (48229) counties. Counties in the region not associated with an MSA include Brewster (48043), Culberson (48109), Jeff Davis (48243) and Presidio 48337) counties.

The West Texas region had a combined 2020 population of 888,720 that is 82% Hispanic and 24% rural. El Paso County is home to 97% of the region's population, with a median age of 31.6 years, younger than the rest of the state, 34.2 years. The area was a robust manufacturing base reliant on a low-wage labor. That low-wage advantage was wiped out in the 1990s by NAFTA and globalization forces that found cheaper labor markets in Mexico and Asia. Dislocated workers were unable to find employment with similar wages and benefits because they lacked the education and skills needed to reintegrate into the economy.

Other weaknesses persist in the West Texas economy. From 2009 to 2019, the region's employment growth rate lagged six percentage points behind the State of Texas, coming in at 15.7% compared to the state's growth rate of 22.3%. Job growth was predominantly concentrated in the manufacturing and service sectors. Wages are still markedly lower compared to similar communities. Of the region's households, 57% had average incomes of less than \$50,000 in 2018<sup>9</sup>. Strides have been made in increasing the number Associate's and Bachelor's degrees awarded in West Texas. However, when we do graduate STEM students, the region's dearth of STEM occupations—3.6 percent of jobs in West Texas, compared to 6.7% for Texas and the U.S.— leave them few choices but to leave home.

The largely Hispanic West Texas region boasts the presence of three military bases—Fort Bliss, home to the U.S. Army Air Defense Artillery School; White Sands Missile Range, the DoD's largest, fully-instrumented open air range, and Holloman Air Force Base, one of the Air Education and Training Command's busiest installations. It has education and research assets critical to our defense industrial base. The University of Texas El Paso is an R1, minority-serving institution in El Paso County with extensive applied R&D capabilities at the Keck Center in additive manufacturing and the Aerospace Center, a NASA-supported center, in A&D. Both centers are national leaders in supplying a diverse, industry-ready workforce. Western Technical College has developed an A&D Technologies Associate's Degree program. Sul Ross University, located in Brewster County, offers a Bachelor of Science in Industrial Technology and ranks among the top Texas universities in science laboratory space per full time student.

Additionally, West Texas is part of the fifth largest manufacturing hubs in the world which also includes Juarez, Mexico, and Dona Ana County, New Mexico. West Texas is home to Blue Origin's spaceport, one of the pioneers in commercial space travel. Area assets in this sector also include **Aerospace Center's Technology Research and Innovation Acceleration Park** at Fabens Airport and **Unmanned Aerial System Flight Test Range** in Tornillo. By leveraging assets, West Texas offers a resource for the U.S. to improve the readiness of defense industrial base.

<sup>&</sup>lt;sup>9</sup> 2020 Regional Report, Texas State Comptroller

#### **Private Sector Participation**

The successful implementation of the Coalition's vision to create an innovative and fast-growing A&D manufacturing cluster is supported by the private sector across all aspects of the endeavor. Access to capital, supplier sourcing, business investment, job creation, program design and leadership have been committed to the project by industry partners.

Best-in-class industry leaders including Lockheed Martin Space | Aeronautics | Missiles and Fire Control, Blue Origin, General Motors, and Boeing have committed to educating West Texas suppliers about doing business with their companies, participating in the annual supplier summit, and updating the Innovation Network about supplier needs that match West Texas capabilities. They will support ADTech by sharing information about workforce training needs/gaps and hosting interns and apprentices. Lockheed Martin is considering expanding its UTEP Design Center to the Advanced Manufacturing District. GM and El Paso Electric are working closely with the Innovation Network to design the manufacturing infrastructure of the future with investment in small and medium manufacturers for carbon footprinting. GM has committed \$1 million to hire a consultant to identify the costs and feasibility of building a microgrid at the Advanced Manufacturing District. This would make the District a test bed for designing and testing the manufacturing infrastructure and production systems of the future reducing the carbon footprint of manufacturing. Cisco and AT&T will work with the Aerospace Technology District to design a 5G private network that will support A&D research needs.

The National Center for Defense Manufacturing and Machining (NCDMM) will continue to connect us to their national network. Several industry connections that have resulted in job growth here in El Paso have come by way of introduction through NCDMM. Four companies– Aconity3D, Center Street Technologies, Tailored Defense and Bessel–have committed to locating operations to the Advanced Manufacturing District, detailing a need for 72,000 sq.ft. of industrial space and indicating that their investment will create 80 engineering positions, 80 technician positions and 10 full time positions for a technical application center. Also expressing support and interest at an expansion to El Paso to the Advanced Manufacturing District are Rebuild Manufacturing, ADDMAN Engineering, ReLogic Research, and Hadrian. OrbitFab, Ursa Major and ElectaAero, three commercial space companies, have expressed support and interest at locating design centers at the Aerospace Technology District.

Sixteen local manufacturers have written letters of support for the Innovation Network. We have active participation in the Network from 35 local manufacturers and will increase to more as we formally kickoff the Innovation Network this spring. Vincorion indicated that services that will be available through the Innovation Network, would allow them to overcome barriers to growth and add 3 new engineering jobs and 5 technician jobs by 2023. Tigua, Inc owned by a federally recognized Native Tribe, the Ysleta del Sur Pueblo, and is 8(a) certified and participates in the DoD/Indian Incentive Program. They will work with local manufacturers to bid on federal contracts as the prime contractor.

Venture and equity financing have not played a large role in economic development activities in our region in the past but interest in the proposed projects might change this. Venture funds like Blackstone, (\$881 billion in assets), Starburst, Anzu Partners, Audaz Capital, Construct Capital, Cottonwood Technology Fund and GovTech Fund have committed to engaging with Innovation Factory and Aerospace Technology District startups, providing mentoring, guidance, and a potential source of venture funds to worthwhile ventures.

The El Paso Chamber's foundation will launch a capital campaign to raise private funds from industry partners, and the Paso del Norte Community Foundation will engage its philanthropic network to support, implement and sustain the Coalition's vision for West Texas.

These commitments combine to form a robust foundation for economic growth in West Texas, a notable infusion of capacity in the supply chain and a general strengthening of US leadership in innovation and advanced technology.

#### **Sustainability**

This program will be developed with a stringent resource sustainability matrix for its operation beyond the funding period. As the project lead, UTEP commits to institutionalize the program through the **Economic Development and Workforce Excellence Division** under the Aerospace Center. UTEP will develop public-private, as well as industry, partnerships to support the ongoing operations of the Innovation Network, the Innovation Factory, the Aerospace Technology District, and ADTech beyond the funding period. Line-item funding from the State of Texas, the City of El Paso, the County of El Paso, and West Texas Counties will be solicited to support programs. As mentioned in the letter of support from the UTEP President, the university will request a \$5 million state appropriation in the 2023 legislative session to support the program. The Aerospace Center has strong grant writing capabilities and will expand its grant writing efforts beyond federal government agencies to private charitable foundations.

An industry cost-share model will be implemented to support the Innovation Network and ADTech. The El Paso Chamber and the Paso del Norte Community Foundation will assist with fundraising from the region's philanthropic community to support the programs.

The El Paso International Airport (EPIA) will manage the development and construction of the Advanced Manufacturing on behalf of the City of El Paso. EPIA has a large portfolio of real estate that it manages through an enterprise fund that is not part of the City's general fund. Initial funding from the EDA for the Advanced Manufacturing District will make it attractive for future private investment. Real estate developers will be encouraged to build multi-tenant buildings to lease to small and medium manufacturers, and larger operators can invest in build-to-suit facilities. Leases from the Advanced Manufacturing District will pay for facility maintenance.

## Engagement with Community-Based Organizations and Labor Unions

Proposed construction will be managed by the City of El Paso and the County of El Paso. The El Paso Building & Construction Trades Council has worked closely with City and County to ensure policies are in place to require contractors awarded these projects to pay their workers prevailing wages with benefits and hire apprentices enrolled in Department of Labor certified apprenticeship programs. The Council believes that apprenticeship programs are necessary for ensuring that new workers learn skills needed to be successful in construction. The Council also advocates for active contract compliance to ensure that contractors comply with worker protections. The City and County have active compliance programs in place and meet with the Council when concerns are raised about compliance. The Council is a strong advocate for federal construction dollars. The El Paso Building & Construction Trades Council supports this project and urges the EDA to fund it. Funding for the Advanced Manufacturing District and the Aerospace Technology District construction will put El Pasoans to work. In addition, the Council is very supportive of ADTech because of its emphasis on skills-based and on-the-job training.

#### Equity

One of the biggest threats to our defense industrial base is our country's inability to tap the full breadth of our nation's diverse talent pool for participation. We have an aging workforce that doesn't reflect the changing demographics of our nation. We have not built adequate opportunities for underrepresented communities who are our future workforce to access employment in these industries. West Texas talent and skills are currently not contributing to reclaiming dominance in A&D manufacturing, an industry which is predominantly white and male with few concentrations of economic activity located in rural areas. Our nation's A&D manufacturing can't thrive and meet the challenge of this moment without tapping the abundance of talent our country has to offer and without expanding prosperity beyond tech sectors concentrated in a handful of American cities. We cannot compete globally with an A&D workforce that is 8.7% Hispanic and 24.8% female and executive leadership that is 3.7% Hispanic and 28.1% female<sup>10</sup> when our nation is 18.5% Hispanic and 50.8% female.<sup>11</sup>

West Texas, a minority dominant region, outpaces the nation in its successful efforts to expand economic opportunities to Hispanics, women, residents of limited means and from all zip codes. Our cultural competency and historic commitment to equity have allowed us the privilege of embracing the abundance of talent that exists throughout West Texas, even in the most remote areas and even from the most under-resourced neighborhoods. In July 2019, the Presidio Rocketry Team was celebrated on the cover of *Texas Monthly* with the following caption, "Why does Presidio have one of the best high school rocketry clubs in the Country? The West Texas border town is the among the poorest places in the state but year after year its rocketeers send wealthier teams crashing back to earth." In their letter of support, Presidio Municipal Development District had this simple answer, "our kids are extraordinary. The community and family support for them is universal and celebrated. We are a community that understands poverty and struggle and the importance of education allowing you to reach for more."

No institution reflects this equity success more profoundly than UTEP. The Aerospace and KECK Centers at UTEP are national leaders in both the number and percent of undergraduate and graduate engineering degrees awarded to underrepresented minorities.<sup>i</sup> Currently, 85% of students working in the Centers are Hispanic and 32% are women, putting them in a category all their own for R1 universities. UTEP was ranked one in the U.S. for its success in achieving both competitive research and student social mobility. The Aerospace and Keck Centers are experts at creating systems of equity where everyone is responsible for creating and maintaining a culture of diversity, equity, and inclusion. This expertise informs the vision, plan, and deployment of resources throughout this program.

Most of the local suppliers that the Innovation Network has engaged with are minorityowned and/or women-owned and very few of them have been engaged previously through traditional economic development efforts. A couple are also veteran-owned and one, Tigua, Inc., is owned by a federal recognized Native American tribe, the Ysleta del Sur Pueblo. The workforce for these companies is predominantly Hispanic, and women make up a sizable portion of this workforce. These suppliers' successes have been hard earned with very little support from traditional business services programs or networks. These small minority-owned and/or women-

<sup>&</sup>lt;sup>10</sup> 2021 A&D Workforce Study, Aerospace Industries Association

<sup>&</sup>lt;sup>11</sup> Source: US Census 2021

owned enterprises are underrepresented in aerospace, defense, and advanced manufacturing markets. We will make West Texas a leader in changing that reality.

Despite the evidence that diversity increases profitability and performance, a 2020 analysis by the Kaufman Fellows indicate that 79.2% of startup executives were white, and only 2.6% are Hispanic, even though Hispanics make up 17% of the working age population.<sup>12</sup> The Innovation Factory and the Aerospace Technology District will have an intentional focus on recruiting startups that are Hispanic and/or women owned and on matching startups with a workforce that is Hispanic and female and underrepresented in startup ecosystems. These incubators will recruit spinouts from the Aerospace Center and Keck Center and recruit prospective startups from our alumni network who are working in A&D industries. Reflecting the demographics of El Paso this pipeline of prospective startups is predominantly Hispanic, and Hispanic female talent in this pipeline is abundant. The Aerospace Technology District is in a poor, rural area in east El Paso County.

The A&D Technologies and Manufacturing Training Centers (ADTech) expands UTEP's equity impact by creating social mobility through short-term technical training. ADTech @El Paso @Van Horn @Alpine's open talent ecosystem will create social mobility pathways from high school, community college and technical college. ADTech will focus specifically on recruiting from our hidden talent pool, the ninety-one thousand West Texas residents, or 27% of our current workforce with a high school degree or some college who are currently earning less than the living wage (\$14.29) in occupations with no path to the middle class. This population is often unable to pursue training or additional education because they can't forego a paycheck. Providing weekly stipends for trainees will address this barrier. We will ensure that our talent pipeline reflects the demographics of our region which is 82% Hispanic, 49% female and 24% rural. These new participants in the nation's A&D workforce that is predominantly white and male will surge diversity, inclusion and equity advances for the A&D industry. Blue Origin and McDonald Observatory often recruit for skilled technicians outside of rural West Texas because of existing skills gaps. Placing ADTech @Van Horn and @Alpine and providing mobile ADTechs for more remote areas will prepare rural West Texas for quality jobs at Blue Origin and McDonald Observatory.

Across all projects, we will document the demographic information of businesses and residents that we serve to include gender, race, ethnicity and what part of West Texas they live. We will consistently review this information to ensure that we are serving a broad and diverse cross section of our community that is reflective of our community's demographics. If we note any area of weakness, we will identify barriers to participation, make necessary changes to our service delivery to overcome these barriers and strengthen outreach to populations that we have identified as under-represented in our work.

West Texas is 82% Hispanic, 49% female and 24% rural. The business ownership, executive teams, design teams and workforce that will enter our nation's A&D industry through this intervention in West Texas will diversify and strengthen these markets and would be a replicable model for the nation. This would be the single biggest and most transformational public investment in creating equity A&D industry.

<sup>&</sup>lt;sup>12</sup> Deconstructing the Pipeline Myth and the Case for More Diverse Fund Managers - Kauffman Fellows

The Coalition expects a dramatic transformation of our economy through this cluster intervention. In 2020, 16,838 people were employed in manufacturing<sup>13</sup> and only 2,559 engineers<sup>14</sup> were employed in West Texas. Our goal is to create 4,000 new engineering and technologist jobs and 13,000 new manufacturing and technician jobs by 2030.

ADTech will provide 1,200 West Texas residents, both rural and urban, with a path to the middle class through skills training for employment in A&D industries.

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	Aerospace and Defense Innovation Network for Manufacturers
Program Activities	Metrics
Output	By September 2027:
	<ul> <li>300 West Texas manufacturers will be participating in the Innovation Network.</li> </ul>
	<ul> <li>Innovation Network will connect 300 West Texas manufacturers to new customers in A&amp;D</li> </ul>
	markets.
	<ul> <li>Innovation Network will host 5 annual supplier summits.</li> </ul>
	<ul> <li>Innovation Network will attend 20 trade shows to market West Texas supplier to A&amp;D Markets.</li> </ul>
	<ul> <li>Innovation Network will provide tailored services to 280 West Texas manufacturers.</li> </ul>
	<ul> <li>Innovation Factory and Aerospace Technology District incubate 20 startups</li> </ul>
Outcomes	By September 2027:
	<ul> <li>300 Innovation Network manufacturers will be quality certified to compete for A&amp;D business</li> </ul>
	• 300 Innovation Network manufacturers will be prepared to successfully compete A&E
	business.
	Combined annual revenue of Innovation Network manufacturers will increase by 20%.
	Innovation Network manufacturers will collectively add 1,000 new jobs to the economy.
	• 15 Innovation Network startups will successfully exit acceleration services and locate at the
	Advanced Manufacturing District.
	Aerospace and Defense Technologies and Manufacturing Training Center
Program Activities	Metrics
Output	By September 2027:
	<ul> <li>1,200 West Texas residents will enroll in ADTech</li> </ul>
	<ul> <li>95% of trainees will successfully complete training</li> </ul>
	<ul> <li>90% of trainees will be placed in a job at the end of training</li> </ul>
	<ul> <li>100 West Texas manufacturers will place their employees in ADTech for upskilling</li> </ul>
Outcomes	By September 2027:
	• 100% of trainees who successfully completed training and were placed in a job at graduation
	will be making 20% more than the living wage and will have increased their annual earnings
	<ul> <li>100% of manufacturers who placed employees in ADTech training will increase productivity</li> </ul>

#### Phase 1 Planning Work

The Coalition has hosted extensive planning sessions with key stakeholders to refine project plans, identify roles, and develop budgets that reflect the goals of the Coalition. We also had significant engagement with A&D companies and manufacturers located outside of El Paso to share our vision and get feedback; to ensure a fit for market demands. This industry engagement reinforced two drivers in our proposal. Industry-ready talent is in short supply nationwide and access to R&D capabilities and equipment is in demand. From the perspective of the businesses, our key differentiators are quality talent and frontier technologies. This engagement resulted in several companies expressing interest in expanding operations to West Texas. Several existing industry partners made new commitments to the project that will add value and create jobs.

A weakness in our Phase 1 proposal was the lack of potential venture capital partners to assist with building our startup ecosystem. Dr. Heather Wilson, UTEP's President, recruited venture funds to participate and found a strong interest for expanding investments into new technologies and new geographies. We visited the Town of Van Horn and the City of Alpine to meet with community and educational leaders in rural West Texas to discuss ADTech and found eager partners willing to commit resources and time. They indicated that there were few training programs that would help residents with the skills needed to work at Blue Origin, forcing Blue to recruit talent from outside the region. Based on these discussions, we decided to add some mobile training options for residents in very remote areas of West Texas. We hosted these leaders for a tour of Aerospace Center and Keck Center facilities to show them the type of skillsbased learning that residents in their area will experience through ADTech.

<sup>&</sup>lt;sup>i</sup> "Engineering & Engineering Technology by the Numbers," American Society for Engineering Education, 2020.

<sup>&</sup>lt;sup>13</sup> Source: Texas Labor Market Information

<sup>&</sup>lt;sup>14</sup> Source: JobsEQ