The autonomous systems (AS) revolution is upon us. The **Tulsa Hub for Equitable & Trustworthy Autonomy (THETA)**, led by <u>Tulsa Innovation Labs</u> (TIL), will transform the Greater Tulsa Region (GTR) into the world's leading source of innovations and talent in **Trustworthy & Equitable Autonomous Systems (TEAS)**. Innovations in autonomous technologies are critical to the future of U.S. economic and national security, and the development of AS is an across-the-board federal government priority. The AS market is expected to be worth \$1.36 trillion by 2032. Their widespread adoption has the potential to <u>increase mobility</u>, <u>improve</u> <u>medical outcomes</u>, <u>lower the cost of manufacturing</u>, <u>protect Americans on the battlefield</u>, and <u>support the energy transition</u>. But these benefits can only be realized if autonomous systems are designed to be <u>secure and trustworthy</u> and if the U.S. can develop the technologies and policies to mitigate the malicious use of AS, such as the threat of <u>swarms of uncrewed aerial systems</u> (UAS).

With a Tech Hubs designation, the Tulsa region intends to leverage the technologies and practices that will allow society to realize the maximum benefit of complex autonomous systems without compromising safety, security, privacy, or public trust. Tulsa's core technology area is a combination of Key Technology Focus Area (KTFA) No. 1 (autonomy) and KTFA No. 8 (cybersecurity), and THETA will emphasize the development of UAS and counter-UAS (CUAS), artificial intelligence (AI), and cybersecurity technologies. As a historic center of aerospace and energy innovation, our region has already shown its commitment to leveraging these technologies to establish Tulsa as a nationwide leader in equitable economic development through start-up creation, rebuilding "Black Wall Street" as a hub for Black tech talent, expanding economic opportunity for tribal citizens, diversifying the region's economy to insulate it from "boom-and-bust" cycles, drawing on our legacy manufacturing industry to build future technologies, and creating hundreds of thousands of jobs with equitable and accessible pathways to employment.

The GTR has the breadth and depth of existing industry-driven scientific capacity, commercialization resources, and a talented workforce to simultaneously advance AS technologies while proactively addressing their inherent challenges. Leveraging these assets, THETA addresses the AS use cases of today (e.g., CUAS, agriculture, and pipeline inspections), tomorrow (e.g., parcel delivery and urban mobility), and a decade from now (e.g., regional transportation). Tech Hubs investment would enable our region to capture up to \$4 billion in the AS global market size, resulting in nearly 200,000 new jobs over the next decade. These jobs would enable the GTR to add more than 66,000 women and 39,000 Black, Latinx, and Native American people to the region's workforce in TEAS-related occupations with wages \$7,000 higher than regional average.¹ At the same time, TEAS advancements in Tulsa would cement U.S. global leadership of AS technologies and reinvigorate the domestic production of these systems.

The Greater Tulsa Region

The <u>Greater Tulsa Region (GTR)</u> consists of the Tulsa Metropolitan Statistical Area (Creek, Okmulgee, Osage, Pawnee, Rogers, Tulsa, and Wagoner counties); the Bartlesville (Washington), Muskogee (Muskogee), Stillwater (Payne), and Tahlequah (Cherokee) micropolitan areas; and Mayes County. The region is home to the largest American city within a reservation (Tulsa), historic Black Wall Street in Tulsa's Greenwood neighborhood, and is located in an <u>NSF EPSCoR</u> state.ⁱⁱ Historically, the GTR has been reliant on the oil and gas industry, with 25% of the region's GDP coming from this sector in 2019. Tulsa's presence as an urban hub in a rural region will ensure that small, rural, and underserved communities both influence the development of AS and significantly benefit from Tech Hubs investment.ⁱⁱⁱ

Equity & Diversity (Evaluation Area 4)

THETA is building a TEAS ecosystem in the shadow of the 1921 Tulsa Race Massacre and the historic exclusion of Black and tribal citizens from economic opportunity. This gives our region acute insight into what happens when diverse voices are excluded during major inflection points. If not done carefully, current growth efforts will repeat the mistakes of the past and the development of a Tech Hub will exacerbate economic inequalities in our community. THETA is intentionally co-led by partners, such as <u>Black Tech Street</u> (BTS), <u>Cherokee Nation Aerospace & Defense</u> (CNAD), and <u>Osage LLC</u>, that have a proven ability to engage diverse communities and ensure that the benefits accrue equitably to underserved populations. Tech Hubs also presents an opportunity to build capacity at THETA's under-resourced tribal partners, such as <u>Osage Nation</u>, to meaningfully leverage federal funding to expand economic opportunity for their citizens. Furthermore, these partners will bring diverse, critical perspectives to the development of technologies and practices, ensuring that the next generation of TEAS technologies is unbiased, will purposefully detect and deflect potential attacks or harm, and will not perpetuate systemic

inequities, either by design or in practice. THETA's commitment to advancing equity through evidence-driven initiatives is described in detail below.

Impact on Economic and National Security of the U.S. (Evaluation Area 7)

Leadership in TEAS is a critical priority to all executive agencies and departments and integral to maintaining America's economic and military leadership in the 21st century. The DOD has defined numerous TEAS-related "<u>Critical Technology Areas</u>," including Trusted AI and Autonomy, Directed Energy for CUAS, Integrated Network Systems-of-Systems, and Integrated Sensing and Cyber. The White House, through the <u>Domestic Counter-Unmanned Aircraft Systems</u> <u>National Action Plan</u>, has also identified the development of counter-UAS technologies and regulations as a national security priority, and recent UAS incursion into domestic airspace has highlighted the salience of this issue. There is also a strategic imperative to rapidly increase domestic manufacturing capacity for UAS, AS, and related components as Asian tech companies are projected to overtake American suppliers in the next three years, according to Omdia data. In specific applications, such as commercial UAS, this has already occurred as Chinese-made drones account for more than <u>70% of the market</u>.

Technology-Based Potential of the Greater Tulsa Region (Evaluation Area 1)

The pace of innovation in AS technologies has accelerated rapidly over the past 10 years, making the possibilities of widespread AS deployment more tangible and the challenges more apparent. Recent incidents, such as a series of <u>drone crashes in Switzerland</u> and a self-driving Uber crash that <u>killed a pedestrian in Arizona</u>, have demonstrated that advancements in AS cannot be separated from the trustworthiness and equitability of the technologies. As a result, security and public trust of AS have become priorities for regulatory bodies (e.g., FAA, NHTSA), federal labs (e.g., MITRE), industry groups (e.g., AUVSI), and the defense community (e.g., DIU, AFWERX). These authorities have also identified a need to closely coordinate technology development with regulatory frameworks and to test AS in increasingly complex environments.

THETA is uniquely suited to drive innovations in TEAS due to the region's expertise in UAS/AS, cybersecurity, and complementary technology domains. Oklahoma State University (OSU) operates the <u>Unmanned Systems Research Institute</u> (USRI), housed at the <u>Oklahoma Aerospace Institute for Research and Education</u> (OAIRE), a national leader advancing UAS technologies. With more than \$40 million in federal funding, OAIRE has developed relevant TEAS technologies, such as UAS collision avoidance and BVLOS operations, autonomous methane leak detection, and microweather data gathering. OAIRE expanded its focus on UAS commercialization and industry-aligned research by <u>establishing the LaunchPad Center for Advanced Air Mobility</u> at OSU's Tulsa campus through EDA funding. The region's UAS expertise is augmented by the University of Tulsa's (TU) long-standing excellence in cybersecurity innovation. TU was one of the first universities awarded a National Security Agency (NSA) Center of Academic Excellence designation in both Research and Cyber Defense. The university expanded commercialization of cyber research by launching the <u>Oklahoma Cyber Innovation Institute</u> (OCII) with \$12 million in American Rescue Plan Act (ARPA) funding from the State of Oklahoma and an additional \$10 million in funding from the George Kaiser Family Foundation (GKFF). OCII will develop and pilot cyber technologies across multiple domains, including smart city environments, self-adaptive AS, and human-machine teaming.

Tulsa's TEAS expertise also includes complementary domains that enable holistic innovation across autonomy technologies. First, THETA is committed to ensuring that AI algorithms driving TEAS do not perpetuate systemic bias. Innovation in this area is led by a partnership between <u>BTS, TU, and Microsoft</u> to establish Tulsa's historic Black Wall Street as a center of excellence for the development of equitable, generative AI technologies. Second, TU has established the Institute for Robotics, AI, and Autonomy (IRAA) through a partnership with DOD to conduct applied research and commercialize technologies related to the use of AS in smart environments. Third, OSU, TIL, and TU are partnering with AUVSI and the Defense Innovation Unit (DIU) to develop testing protocols for Green UAS, a certification program for drones that addresses the security of connectivity, operations, and communications. This positions the GTR to lead the development of AS regulation. Leveraging this work, THETA will partner with the National Institute of Standards and Technology (NIST) to develop further certifications and standards for UAS and CUAS operations under Tech Hubs. Lastly, THETA is acutely aware of the threat to commerce posed by UAS and other AS. OSU's <u>Counter-UAS (CUAS) Center of Excellence</u> (COE), a partnership with DOD and the Department of Homeland Security to rapidly develop and test counter drone capabilities, positions the GTR to lead advancements in this area.

This center has already produced new technologies that are in use on the Ukrainian battlefield, and through Tech Hubs, the CUAS COE will expand to Tulsa to prototype and test urban applications.

Further, the GTR is home to nationally unique testing facilities, including the Skyway Range flight corridor, a joint venture between OSU, TIL, and Osage LLC funded in part by EDA. Skyway Range's position on the urban-rural divide and proximity to Tulsa International Airport and downtown Tulsa allow for the testing of emerging AS technologies in an unparalleled variety of complex, real-world environments. OSU and MITRE (in their capacity as the FAA's FFRDC) are forming a partnership to enable next-generation testing in areas of critical interest to the FAA, including the development of cybersecurity, microweather, and certification standards for UAS operations and projects to enable the integration of AS with Class C airspace and urban logistical and mobility applications. THETA will expand on this nationally unique testing range through new partnerships with industry and regulatory bodies, enabling Tulsa to secure its position as the goldstandard testing and certification platform for TEAS technologies.

THETA, through Tech Hubs, will leverage existing expertise to build the structures and policies necessary to encourage cross-institutional collaboration in the development of TEAS technologies. OSU and TU have already begun this process, signing a memorandum of understanding (MOU) to expand research and venture collaboration at OAIRE, LaunchPad, OCII, and IRAA. The MOU includes specific commercialization provisions based on OSU's FastTrack commercial engagement agreement. THETA has also engaged the Tulsa Higher Education (THE) Consortium to advise on how to integrate Tech Hub activities with other regional colleges and universities, including Langston University, a Historically Black College and University (HBCU).

The region's scientific capacity in TEAS is demonstrated by significant growth in scientific output over the last decade. There were 4.9x more TEAS-related patents awarded to GTR filers in 2019-2021 than in 2011-2013 (compared to a 2.3x increase across the Austin EDA region over the same time period). These discoveries are driven by a clear understanding of market needs as twothirds of these patents were awarded to industry. TEAS-related Small Business Innovative Research (SBIR) awards to companies in the GTR demonstrate growing industry R&D, including SBIR awards for the use of UAS for meteorological sampling, supercapacitors for energy storage in airframe components, and sensor configurations for flight systems. Established firms are also driving regional R&D, highlighting the wealth of commercializable TEAS IP in the GTR. For example, L3Harris Aeromet, based in Tulsa, OK, is supporting the Missile Defense Agency in developing the Airborne Sensors program for High Altitude Observatory aircraft.

Tulsa's Innovative "Lab-to-Market" Approaches (Evaluation Area 6) The innovations generated by the GTR's leading R&D assets are being commercialized, tested, deployed, and manufactured right here in the region. Access to entrepreneurial support services and capital has been a historic challenge for our region, especially for founders from underserved communities. In response, significant investment has been dedicated to expanding the access for Black entrepreneurs in Tulsa to mentoring and capital networks through organizations like BTS, Build in Tulsa, and Lightship Foundation. Build in Tulsa alone will start hundreds of new tech companies in the GTR as a pathway to Black wealth creation. Additionally, America's Frontier Fund (AFF), in partnership with TIL and GKFF, has committed to establishing a venture studio focused on TÉAS technologies in Tulsa. The studio would source IP with commercialization potential from across the nation to create new start-ups in Tulsa, accelerating the speed with which our region can take ideas from lab to market.

Industry partners have been critical in driving TEAS-related commercial activity in the GTR. Regional energy companies including Williams, ONEOK, and Helmerich & Payne (major regional employers with a combined market cap in excess of \$105 billion) are partners, along with TIL and Energy Innovation Capital, in the launch of EIC Rose Rock, a \$50 million venture fund designed to bridge the gap between corporate innovation and growing start-ups in our region. The collaboration also includes <u>Rose Rock Bridge</u>, which provides \$100,000 in non-dilutive funding and support services to energy tech start-ups in the GTR. Rose Rock Bridge's portfolio includes Safety Radar, an AI-enabled platform to prevent jobsite accidents. EIC Rose Rock and their corporate partners have committed to supporting THETA in expanding the use of TEAS technologies in the energy sector.

New TEAS technologies developed in the Tulsa region can also be built here. The GTR is a leading center of aerospace manufacturing (4.78 labor quotient in 2022), and is home to the world's largest American Airlines maintenance, repair, and overhaul facility, which employs more than 6,000 Tulsans. Further, the region has more than 3,000 acres of shovel-ready sites poised for industrial use with facility costs 11% below the national average. <u>Skyway36</u>, the Osage-owned node of Skyway Range, has more than 80,000 square feet of industrial space specifically for AS companies and a runway/vertiport for testing these technologies. Earlier this year, Windshape, a Swiss firm, announced it was <u>building a drone testing and validation facility</u> at Skyway 36. Expanding on our regional strength, THETA will partner with the state's manufacturing extension partner, <u>Oklahoma Manufacturing Alliance (OMA)</u>, to connect small- and medium-sized manufacturers from across the region, especially in rural and tribal areas, to the technologies they need to capture the TEAS supply chain. This effort will leverage <u>OMA's CONNEX platform</u>, which is designed to incorporate the "Manufacturing Marketplace" developed by the National Association of Manufacturers and includes more than 160,000 manufacturers across the U.S.

Role of the Private Sector (Evaluation Area 2)

Tulsa's start-up community is backed by growing availability of investment capital across the various stages of maturity, reversing a historic trend of underinvestment in homegrown startups. Tulsa-based Atento Capital is a <u>\$100 million fund</u> for investing in early-stage tech start-ups aligned with TEAS industries, such as UAS and cybersecurity. <u>Radius Capital</u>, a \$50 million fund also based in Tulsa, makes seed and series A investments in the enabling technologies driving the future of AS. Furthermore, <u>BloomOK</u>, supported by a B2S Capital Challenge award, provides due diligence support to Oklahoma investors interested in UAS companies in order to increase availability of early-stage capital and build investors' confidence to invest in highly-specialized companies. Non-dilutive capital is available through TEDC Creative Capital, which received \$33 million from Oklahoma's SSBCI allocation to lead the <u>Oklahoma Business Lending Partnership</u> <u>Program</u>, and at least 20% of the funding will go to underserved entrepreneurs. Beyond capital providers, THETA has secured commitment from numerous industry

Beyond capital providers, THETA has secured commitment from numerous industry partners to participate, with each partner recognizing the GTR's potential to become globally competitive in TEAS technologies. The consortium includes TEAS-focused firms, including Airwise Solutions, a Tulsa-based advanced air mobility start-up developing an NDAA-compliant ground control station and an OAIRE partner on drone swarming; Skydweller Aero, an Oklahoma-based company developing solar powered aircraft; and L3Harris Aeromet, a Tulsa-based aerospace defense contractor (see letters of commitment). Further, the involvement of CNAD and Osage LLC, both of which have invested in UAS as a corporate priority, will ensure THETA's activities drive economic prosperity for tribal citizens. Regional firms have committed to advising THETA on workforce needs and exploring sponsored research and commercialization opportunities.

Composition and Capacity of the Greater Tulsa Region's Workforce (Evaluation Area 5)

Tulsa's robust technology, commercialization, and industrial assets are amplified by one of the strongest TEAS-capable workforces in the EDA region. There are currently more than 96,000 workers in TEAS-related occupations in the GTR, representing nearly a fifth of its overall workforce. Of these jobs, 33,000 are production occupations (e.g., machinists), 11,200 are tech occupations (e.g., computer programmers), and 6,100 are engineering occupations (e.g., mechanical engineers). TEAS jobs have historically been more resilient than other industries, representing an opportunity to insulate Tulsans from the instability of the GTR's legacy industries. While Tulsa's overall employment has still not returned to pre-pandemic levels, TEAS employment has fully recovered and is growing 4.3x faster than other sectors.^{iv} The Oklahoma AFL-CIO has committed to advising THETA on how to expand access to TEAS jobs and the potential impact of automation on the existing workforce (see letter of commitment).

THETA partners are actively shaping the future of Oklahoma's workforce. Representatives from Madison Strategies Group (MSG) and GKFF, both THETA partners, participated in Gov. Kevin Stitt's <u>workforce initiative</u> to reimagine the state's workforce development system, resulting in the creation of the Oklahoma Workforce Commission and the realignment of federal workforce dollars for high-demand occupations (including TEAS). In addition, BTS has committed to <u>adding 1,000 Black cyber professionals</u> to the Tulsa workforce over the next decade, with support from Microsoft and TIL, which will bring demographic parity to Tulsa's tech workforce. This partnership was cited by the White House in its release of the <u>National Cyber Workforce and Education Strategy</u>. THETA will further this goal by establishing a center of excellence in Greenwood to train Black tech talent in cybersecurity and fund research into generative AI.

With several directly-relevant efforts already underway to develop and grow our TEAS workforce, a Tech Hub would allow THETA to scale efforts, such as the ones below, in order to meet growing workforce demand. The <u>TU/Team8 Cyber Fellows</u> program currently supports 40 Ph.D. students per year focused on cyber research that leads to commercial licensing. This program

complements TU's <u>NSF and NSA Cyber Corps</u>, the largest corps in the nation, which has sent 350 graduates to federal service since 2001. OSU has the nation's first UAS design graduate program and graduates more Native Americans with STEM degrees than any other R1 institution. This is a critical example of an effort THETA can expand upon while also creating economic opportunity for historically disadvantaged populations. Tulsa has also prioritized recruiting of national and international STEM talent, creating programs for relocation to Tulsa through <u>Tulsa Remote</u>, a \$10,000 incentive attracting remote workers to Tulsa, and the InTulsa Visa Network, which is a <u>novel resettlement program</u> providing immigration assistance and job placement services to individuals seeking refuge with capabilities or interest in technology-based careers.

Additionally, THETA recognizes that creating accessible pathways to good jobs for nontraditional learners is essential to the prosperity of our region. Tulsa Community College (TCC), the largest two-year college in Oklahoma, has extensive tech-focused programming targeted at its more than 33,000 students. In partnership with TIL, TCC operates the <u>Cyber Skills Center</u> (CSC), where 60% of students identify as people of color and 40% identify as women. TCC also has longstanding STEM-related federal partnerships, including the FAA Center of Excellence for Technical Training and Human Performance, the NASA Jet Propulsion Lab internship program, and the National Science Foundation (NSF) high-technology technician program. EDA has also supported workforce development programs related to TEAS in the GTR, including an expansion of UAS certifications at Tulsa Tech, the largest technology center in Oklahoma's CareerTech system, and an advanced manufacturing apprenticeship program run by OMA. MSG thoughtfully supports these programs with extensive wrap-around services to support student success (see letter of commitment). Through Tech Hubs, THETA will augment these programs with a regional apprenticeship program that engages educational partners at all levels (including K-12) to create pathways into TEAS occupations for non-degree holders.

Regional Coordination & Partnerships: Tulsa's Tech Hub Consortium (Evaluation Area 3)

TIL, with the support of the Tulsa Community Foundation (TCF), is the lead applicant for THETA. TIL was established in 2019 to catalyze the GTR's innovation economy, releasing Tulsa's first tech-based economic development strategy, which emphasizes advanced mobility and cybersecurity. TIL's work has already invested \$215 million in funding toward establishing the GTR as a Tech Hub. As a result, TIL currently serves many of the functions EDA seeks in Tech Hubs lead organizations. For example, TIL is a critical convener of regional partners, leading efforts such as the EDA-backed Tulsa Regional Advanced Mobility (TRAM) Cluster, and regularly brings together leaders across public, private, academic, and civic organizations to advance Tulsa's tech economy. The EDA and TIL also already have a collaborative relationship, with TIL Managing Director Jennifer Hankins serving as the Regional Economic Competitiveness Officer for TRAM (see letter of commitment). Jennifer is THETA's proposed Regional Innovation Officer to ensure continuity between the programs (see attached resume for qualifications).

In addition to TIL, THETA is co-led by a steering committee ("SteerCo") of regional organizations, each with a broad interest in advancing technology and innovation across the GTR. They include: BTS, MSG, OSU, TCC, TU, TEDC, and PartnerTulsa.^v These partners, and the other members of the THETA consortium, have a demonstrated history of collaboration, including <u>TRAM's Build Back Better Regional Challenge (BBBRC) award</u>. THETA intends to leverage the overlapping leadership to create shared governance structure across BBBRC and Tech Hubs.

Should Tulsa receive a Tech Hubs designation, the THETA consortium will formalize the SteerCo structure to become its central governance mechanism. TIL will serve as the backbone of THETA, serving as the central coordinator of the consortium. The SteerCo will be supported in designing and implementing the specific Phase 2 projects by working groups composed of all consortium members, with each partner having equal opportunity to contribute to planning efforts. Further, to support the implementation of the Tech Hub, the consortium will consider the following activities to strengthen regional governance: Joint appointment of the RIO to accelerate tech-based competitiveness at regional universities; establishment of a formal vehicle (e.g., MOU) to facilitate accountability for funding; development of a charter to outline consortium responsibilities; and a committee structure to facilitate project development, implementation, and oversight.

The strength of the Tulsa Hub for Equitable & Trustworthy Autonomy consortium, coupled with the region's strong legacy of innovation and the breadth and depth of its assets, give the GTR the implementation capacity necessary to advance U.S. global leadership of TEAS technologies while unlocking \$4 billion in market share and creating nearly 200,000 new, good jobs accessible to communities across the region.

ⁱEconomic analysis, based on Omdia and Lightcast data, estimates the Global AS market size at \$1,355 billion in 2032. The same analysis estimates Tulsa's 2022 AS market size at \$87.3 million, representing 0.10% of global market share (for comparison, San Francisco is estimated to have 0.67% of global market share in 2022). Tulsa's baseline growth scenario, absent EDA investment, is estimated to be \$1.4 billion by 2032, representing 0.11% share of the global market, and resulting in the creation of 9,000 jobs. Under a medium growth scenario, based on Phoenix's historic TEAS employment growth, Tulsa could potentially reach \$2.7 billion in market size, 0.21% of global market share, and the creation of 97,000 by 2032. Under a high growth scenario, based on Dallas' historic TEAS employment growth, Tulsa could reach \$4 billion in market size, 0.29% of global market share, and the creation of 198,000 jobs by 2032. Exact estimates would require specific funding amounts and anticipated project impacts. For the purposes of the market estimates, AS includes both hardware and embedded software components. The sub-categories of AS included in this market sizing are consumer robots, industrial robots, healthcare robots, military robots, UAVs, and autonomous vehicles.

ⁱⁿMost of these counties remeter. ⁱⁿMost of these counties are part of the <u>Census-defined Tulsa Combined Statistical Area</u>, a recognition of the interconnectedness of these communities based on employment interchange. Other relevant regional assets include the Tulsa Ports of Catoosa and Inola, the most inland seaport in the U.S.; access to I-35 and I-40, two of the highest volume freight corridors in the country; and nineteen institutions offering TEAS-related programs, including career tech (e.g., Tulsa Tech, Spartan College of Aeronautics), two-year institutions (e.g., College of the Muskogee Nation, OSU Institute of Technology), and public and private four-year institutions (e.g., OSU, TU, Northeastern State University, Rogers State University). Mayes County is home to Mid-America Industrial Park, one of the largest industrial parks in the country and a center of TEAS-related manufacturing, including a Canoo facility (THETA partner) and a Google data center.

ⁱⁱⁱTHETA will significantly benefit the Stillwater micropolitan area, a **small and rural community**. Stillwater is home to OSU, a THETA partner. In line with its land grant mission, OSU has committed significant resources to developing the Stillwater-based businesses, including the New Product Development Center, venture capital through Brightest Orange Ventures, and the Revitalizing Rural. Key THETA assets, such as the Skyway Range and the CUAS Center of Excellence, are owned by rural partners, including OSU and Osage Nation, ensuring the benefits accrue to across the GTR. Further, Tulsa's unique geographic positioning and testing assets positions the region to benefit Heartland communities across the nation in ways that coastal communities cannot. In addition, THETA has and will significantly engage and benefit **underserved communities**, in line with Executive Order 13985. THETA encompasses partners that operate numerous programs aimed at benefiting underserved communities, including TCC's Cyber Skills Center (target: Black, Latinx, Native, and women) and GenCyber (women, Native); BTS and Microsoft's partnership centered on developing 1,000 black cyber professionals in the next decade; Build-in-Tulsa's Techstars Accelerator (Women, Black, Latinx, and Native); and TEDC's SSBCI administration. Further, key assets, such as the Skyway Range, are Native-owned, and THETA intends to work with Osage LLC and Cherokee Nation Aerospace & Defense to ensure the economic benefits of Tech Hubs accrue to the GTR's Native communities. Further, THETA intends to augment these efforts with Tech Hubs investment, e.g., establishing an equitable generative AI center of excellence in Greenwood and supporting tribal capacity.

^vThe required consortium members include: Oklahoma State University, Tulsa Community College, Tulsa Higher Education Consortium, the University of Oklahoma Tom Love Innovation Hub, and the University of Tulsa (institutes of higher education); Oklahoma Aeronautics Commission, Oklahoma Center for the Advancement of Science and Technology, Osage Nation, and PartnerTulsa (government); Accenture, Airwise Solutions, Applied Energetics, Association for Uncrewed Vehicles Systems International, Canoo, Cherokee Nation Aerospace & Defense, Fortress Information Security, Helmerich & Payne, L3Harris Aeromet, ONEOK, Osage LLC, QuikTrip, Skydweller Aerospace, Team8, UAS Cluster Initiative, Williams Companies, and WindShape (industry); Black Tech Street, TEDC Creative Capital, and Tulsa Innovation Labs (econ. dev. orgs); and edX, Holberton Tulsa, Madison Strategies Group, and Oklahoma AFL-CIO (labor/workforce). Other consortium partners include: Indian Nations Council of Government (econ. dev. district); 36 Degrees North, America's Frontier Fund, Atento Capital, Build in Tulsa, EIC Rose Rock, Radius Capital, and Lightship Foundation (venture dev.); inTulsa and Tulsa Regional Chamber of Commerce (orgs. promoting local economic stability); ImpactTulsa and Tulsa Tech (schools); Oklahoma Manufacturing Alliance (manufacturing extension partnerships); and the George Kaiser Family Foundation and Tulsa Community Foundation (orgs. representing perspectives of underserved in economic development).