

Executive Overview Arkansas Future Mobility Council

EXECUTIVE OVERVIEW Arkansas Future Mobility Council Report



Background & Purpose

Driven by the leadership and foresight of Governor Asa Hutchinson, the Arkansas Council on Future Mobility was created in February of 2022 by <u>EO 22-06</u> to serve as an advisory body for the Governor.

Specifically, the council was asked to:

- 1. Identify State laws and administrative rules that create barriers to the development and enhancement of electrification and Advanced Mobility (AM);
- 2. Make policy and program recommendations to support and facilitate the development of electrification and AM;
- 3. Develop priorities and recommendations for the allocation of federal resources and grant programs in order to invest in critical components of an advanced mobility ecosystem, including energy, infrastructure, security, and transportation;
- 4. Identify future tasks and goals, including strategic goals in education, workforce training, and economic development;
- 5. Create incentives to develop opportunities, amplify economic activity, and create jobs.

The council's work officially concludes upon submission of this final report, which includes a playbook of recommendations for the State to successfully position itself as the epicenter of the next generation of mobility.

Mission

Through the work of the council, specific recommendations are being made for the State for consideration. These recommendations are being made with one mission: to give Arkansans a better life by creating economic prosperity and improved, equitable mobility solutions.



Key Findings

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Future mobility – which can include drones, autonomous and electric vehicles, electric scooters and bicycles, flying cars, spaceships, and other related technologies – is one of the most rapidly-evolving technological areas of advancement and investment.

- A community's access to mobility is tied directly to its quality of life. It is the underlying fabric of society, as well as one of its largest economic drivers as a \$10 trillion annual industry.
- Transportation and mobility comprise the largest source of CO2 emissions in the world. Reducing the industry's impact on the environment has become a priority for companies and governments. As "the Natural State," Arkansas can set an example for the rest of the world in proving that innovation and investment can be the catalyst to make transportation greener and more efficient.
- Every facet of mobility is being disrupted by the convergence of exponential technologies. These technologies are helping humanity move people and goods cleaner, faster, safer, and at lower cost on the ground, air, sea and space.

It is crucial for state officials to work in tandem with the private sector and educational systems to establish and grow the entrepreneurial ecosystem needed for Arkansas to flourish in future mobility.

- The state can support future mobility projects by expediting the permit process, acting as a liaison to the public to promote the benefits, and deferring to local governments to regulate micromobility.
- Attracting and encouraging venture capital is also key to the growth of the future mobility sector, and the state is currently below average in that regard.
- The state can learn from the success of places like Israel which on an annual basis spends \$500M+ to support their local technology community by investing in startups.
- The state has an opportunity to launch an Innovation Fund backed by the \$80B+ of capital controlled by capital living in the state.
- State lawmakers and administrators need to make additional legislative and policy changes to create the entrepreneurial ecosystem necessary for further growth.
- Education and workforce development will be vital to industry growth. An updated STEM-based curriculum in grade schools can help give students the proper skillset and inspire them to stay in state. Dedicated workforce development programs will be a critical component to layer in.

Arkansas becoming a global leader in future mobility will have a positive impact on the region. Interstate cooperation – especially with border states – will continue to be extremely important.

- In March, Gov. Hutchinson entered the state into a three-state partnership with Arkansas and Louisiana to join forces to compete for the \$7 billion available through the Department of Energy's Infrastructure, Investment and Jobs Act of 2021.
- In August, the governor signed a landmark memorandum of understanding with Gov. Kevin Stitt of Oklahoma to establish a "super region" for advanced mobility.

Arkansas has tremendous opportunities for development, manufacturing and facilitation of specific future-mobility sectors such as space exploration, drone readiness, and autonomous vehicles (AVs).

- The state should be prepared to foster the rapidly-growing private space exploration economy.
- Arkansas is already nationally recognized as one of the states most ready for drone commerce.
 - Walmart has enlisted the service of drone-delivery services Zipline and DroneUp at four of its stores in Northwest Arkansas. These were Zipline's first commercial deliveries in the United States.
 - The use of drones has already proven to be a money and time-saver for the state. The state's Department of Transportation's use of drone-based inspections reduced the cost of infrastructure inspections by 72 percent and the time needed for these inspections by 88 percent. To capitalize on these benefits, the Governor's office could work with state agencies, municipalities, and private companies to develop a strategic action plan designed to accelerate smart inspection solutions statewide.
- The Autonomous Vehicle (AV) industry provides a once-in-a-century transformation of our transportation system, and Arkansas can exercise proactive leadership to steer this transformation to benefit the public.
 - The State's lawmakers took a strong first step in promoting the AV industry with the passage of <u>Arkansas Act 468</u>. This law allows companies to enact autonomous vehicle pilot programs on public roads within the state.



AREA	#	RECOMMENDATION
3 - Investment	3.1	Engage more deeply with the Israel Innovation Authority, and Israel more broadly, to learn their best practices from the last 25 years and implement them in Arkansas
	3.2	Council recommends that Arkansas based funds explore establishing a specific private equity allocation towards making direct investments in the Arkansas technology ecosystem and consider using other instruments – including debt and convertibles – to reduce risks and provide access to capital
	3.3	Creation of the Arkansas Innovation Fund to invest in emerging companies
	3.4	Set up a council to explore the creation of the Sovereign Wealth Fund
4 - Workforce and Academic Development	4.1	Encourage the University of Arkansas to launch an Institute for Advanced Mobility
	4.2	Have the State of Arkansas play a role in partnering with the UA Power Group and the MUSiC facility to support and grow opportunities in the State's advanced mobility startup ecosystem
	4.3	Legislation creating a State-wide Center of Excellence to leverage private and public sector resources and target federal grant opportunities to participating COE entities
	4.4	Implement the 20 listed K-12 recommendations as part of a larger comprehensive plan to expand STEM education and workforce development in the State of Arkansas
5 - Organizational Infrastructure	5.1	Elevate or create a dedicated position as Director of Science & Technology
	5.2	Appoint a non-government industry expert as Chief Futurist for the State
6 - Events, Community, and Storytelling	6.1	The State to retain a branding and storytelling consultancy to help ensure the State implements storytelling and communication best-practices
7 - Cross-State Initiatives	7.1	Strengthen relationships with Oklahoma and Louisiana and fund the HALO initiative to win IIJA funding
	7.2	Establish partnerships with Tennessee and Texas to form a regional mobility Super Hub
	7.3	Execute the FLAME Phase II proposal to win NSF Engines funding



AREA	#	RECOMMENDATION
8 - Crafting The Most Comprehensive Advanced Mobility Policy in the World	8.1	Space - Establish an Arkansas Space Authority
	8.2	Space - Execute a feasibility study on the development of an Arkansas Spaceport
	8.3	Micromobility - Consider separated/protected bike and pedestrian lanes
	8.4	Micromobility - Leverage federal funding for innovation and staff dedicated to cycling infrastructure
	8.5	Micromobility - Delegate micromobility regulation to localities
	8.6	Micromobility - Remove restrictive Statewide vehicle specifications and fees
	8.7	Micromobility - Implement suggested best-practices to increase competition and improve operational efficiency for Arkansas citizens
	8.8	Drone - Continue to support the acceleration of the growth and availability of drone delivery services across the State and beyond, including partnerships with drone companies to launch essential healthcare to rural communities
	8.9	Drone - Double down on the use of drone technology for smart infrastructure inspection
	8.10	Drone - Support the Drone Infrastructure Inspection Grant (DIIG) Act
	8.11	Advanced Air Mobility - Work with stakeholders inside and outside the State to express and build support for the FAA to implement their BVLOS ARC recommendations
	8.12	Advanced Air Mobility - Proactively support those seeking to develop ground infrastructure for AAM, including by facilitating expedited permitting for required electric infrastructure work
	8.13	Advanced Air Mobility - When AAM infrastructure is being developed, take on the role of liaising with, surveying concerns, and educating citizens about the benefits of AAM to ensur public acceptance
	8.14	Advanced Air Mobility - Implement the next steps identified in the NEXA report, sponsored by the Walton Family Foundation, <i>Advanced Air Mobility Comes to Arkansas</i>
	8.15	Advanced Air Mobility - Adopt guidelines restricting the use of State funds to purchase drones and other emerging transportation technologies with strong ties to China
	8.16	EV - Increase funding for existing state programs and consider tax credits that other states like Oklahoma have used successfully to build a large network of Level 3 fast chargers.
	8.17	Autonomous Vehicles - Build and maintain a real-time structured database of critical transportation data
	8.18	Autonomous Vehicles - Ensure strong cell coverage over Arkansas roads and create a path for private companies to integrate hardware into Arkansas' infrastructure
	8.19	Autonomous Vehicles - Prioritize road maintenance that advance AV perception testing
	8.20	Autonomous Vehicles - Authorize feasibility study on impact of dedicated AV highway lanes
	8.21	Autonomous Vehicles - Support legislative efforts to update Act 797 of 2017 to align with Act 468 of 2021, in effect removing specific language requiring human operators for steering and system control. Such a change will enhance commercial applications of on-road AV technologies

technologies