Technology is rapidly changing the way we live, and no technology offers more potential to revolutionize mobility than Advanced Air Mobility (AAM).

AAM leverages electric vertical takeoff and landing (eVTOL) aircraft to enhance connectivity, promote equity and accessibility, and reduce the current strain on infrastructure and carbon emissions.
Hyundai UAM is taking a human-centered approach to mobility solutions and sees AAM as a path to inclusiveness in the future of mobility

**Safety**
Safety is the top priority for Hyundai UAM. For the industry to scale and for the public to accept AAM, we must meet rigorous safety standards set by national CAAs for the aircraft, pilot and operations.

**Environment**
AAM will provide a sustainable mobility solution, leveraging electric propulsion. The infrastructure will also rely on renewable energy. AAM adoption will help lower carbon emissions and reduce congestion.

**Equity & Accessibility**
Traditional aviation has left many groups behind, including people with disabilities and racial minorities, but AAM can – and must – play an important role in righting those historical wrongs. Public infrastructure funding is the best way to ensure equity and accessibility across AAM.

**Economic Impact**
The AAM market will significantly contribute to workforce development, by adding 280,000 high paying jobs in the US by 2035. These jobs, in turn, could contribute $30 billion in wages and benefits in 2035 (and $8 bn in tax revenue).
Powering human-centered cities through multi-modal, e-mobility innovation
Hyundai has been at the forefront of innovation and plans to continue this legacy as a global leader in Air Mobility.

1940s-1960s:
Transportation infrastructure

- 1947: Hyundai Engineering and Construction is founded
- 1965: Hyundai expands overseas to develop highways

1960s-2010s:
Vehicle reliability and affordability

- 1968: Hyundai becomes a motor vehicle company
- 1976: Hyundai releases South Korea’s first mass-produced car
- 1999: Hyundai releases the industry’s best automotive warranty

2010s-present:
Advanced ground and air mobility

- 2018: Hyundai successfully tests autonomous vehicle capabilities
- 2019: Hyundai invests in alternative energy, releasing the longest-range fuel cell vehicle
- 2020: Hyundai unveils its SA-1 UAM concept vehicle at CES
Hyundai is making a long-term commitment to develop the AAM space.

We want to build human-centered cities that leverage innovative mobility solutions and technology advancements to deliver affordable and universal mobility services.
Hyundai sees 3 future advanced air mobility markets:

1. Urban Air Mobility (UAM)
2. Regional Air Mobility (RAM)
3. Medium Cargo
We envision a multi-modal, seamless journey that combines our expertise in advanced air and ground mobility.
Integrating AAM into the Mobility Ecosystem

Key Locations for Infrastructure:

- Publicly owned/operated transportation and intermodal assets
- Central business districts/dense locations
- Regional airports and airfields
- Suburban and exurban locations with poor access or limited modal choice
AAM Ecosystem and the Built Environment

- **Federal Regulators**
  - Airspace Access, Monetization, and Airspace Management
  - Vehicle Certification
  - Flight Operations Compliance and Regulation
  - Defining Local Authority

- **Land use and planning entities**
  - Nuisance
  - Infrastructure Standard, Operations, and Certification

- **Public asset owners/operators**
  - Energy
  - Autonomy and Connectivity
  - Multi-modal Ops
Significant investment in infrastructure is needed to enable this industry, which is why we are advocating for public-private funding for the development of AAM infrastructure.

Hyundai UAM is working with the National Business Aviation Association (NBAA) and other industry stakeholders to develop and advocate for a DOT AAM Infrastructure Development Grant program for state, local, and tribal governments.

Hyundai UAM will work with government and community stakeholders to ensure the benefits of this technology are available to all communities including racial minorities and people with disabilities.
## Opportunity in Washington State

<table>
<thead>
<tr>
<th>Puget Sound Regional Council – Aviation Baseline Study</th>
<th>Strong cultural alignment with local partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport Siting Commission and Study</td>
<td>National-level Energy Management Studies</td>
</tr>
<tr>
<td>Statewide Electric Aircraft Planning</td>
<td>Focus on demonstration and infrastructure – electrification, demand, and vertiport planning</td>
</tr>
<tr>
<td>UAM Consortium in multiple parts – unify and harmonize under OEM leadership</td>
<td>Strong aviation culture, educated workforce with high spending power, accustomed to aviation</td>
</tr>
<tr>
<td></td>
<td>Strong network of small aircraft operators</td>
</tr>
<tr>
<td></td>
<td>Opportunity for multi-affiliate collaboration</td>
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<tr>
<td></td>
<td>Statewide priorities for electrification</td>
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<tr>
<td></td>
<td>Growing with a need to creatively add capacity to network</td>
</tr>
<tr>
<td>Legislative Directive and Funding Opportunities</td>
<td></td>
</tr>
<tr>
<td>Collaborative and willing stakeholders</td>
<td></td>
</tr>
<tr>
<td>Serious and significant congestion issues</td>
<td></td>
</tr>
<tr>
<td>Strong energy profile (renewable)</td>
<td></td>
</tr>
</tbody>
</table>
Hyundai UAM’s priorities in creating an AAM ecosystem align with Washington’s future of mobility and policy priorities

**Green Energy** | AAM and associated infrastructure will rely on green renewable energy, which will help the state’s overall goal of reducing carbon emissions.

**Equity of Access** | We are building an equitable form of transportation which will have more in common with a subway system than an exclusive mode of transport for the elite. We will work with community stakeholders to ensure infrastructure placement and technology best serve local community needs.

**Workforce Development** | With an estimated 280,000 jobs in 2035, the AAM workforce could represent about 8% of America’s A&D workforce.¹

**Reduced Burden on Infrastructure** | Utilizing areal transit routes will reduce the current strain on roads and rail lines.

**Leadership in Government** | In November 2020, WSDOT published their electric aircraft feasibility study, showing leadership and dedication to embracing electric vertical takeoff and landing (eVTOL) technology.

WA Commitment to Electric Aircraft

Figure 6.3.1 BVS, 50 – 200 NM

Table 6.3.3 Number of Airports Capable of Supporting Electric Aircraft by Range

<table>
<thead>
<tr>
<th>Associated City</th>
<th>Airport</th>
<th>FAA ID</th>
<th>Number of Airports by Evaluation Radii (nm)</th>
<th>Cumulative 500 nm Total</th>
<th>Tier (+Points)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>Burlington</td>
<td>Skagit Regional</td>
<td>BVS</td>
<td>19</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Hoquiam</td>
<td>Bowerman Field</td>
<td>HQM</td>
<td>9</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>Moses Lake</td>
<td>Grant County International</td>
<td>MWH</td>
<td>12</td>
<td>28</td>
<td>42</td>
</tr>
<tr>
<td>Omak</td>
<td>Omak Municipal</td>
<td>OMK</td>
<td>9</td>
<td>14</td>
<td>53</td>
</tr>
<tr>
<td>Port Angeles</td>
<td>William R Fairchild International</td>
<td>CLM</td>
<td>16</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Seattle</td>
<td>Boeing Field/King County International</td>
<td>BFI</td>
<td>21</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Spokane</td>
<td>Spokane International (Gelger Field)</td>
<td>GEG</td>
<td>12</td>
<td>28</td>
<td>34</td>
</tr>
<tr>
<td>Vancouver</td>
<td>Pearson Field</td>
<td>VOU</td>
<td>12</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>Walla Walla</td>
<td>Walla Walla Regional</td>
<td>ALW</td>
<td>5</td>
<td>19</td>
<td>33</td>
</tr>
<tr>
<td>Yakima</td>
<td>Yakima Air Terminal (McAllister Field)</td>
<td>YKM</td>
<td>6</td>
<td>16</td>
<td>44</td>
</tr>
</tbody>
</table>

Sources: WSP 2020, ArcGIS 2020, FAA NFDC 2020
WA Commitment to Electric Aircraft
AAM technology could enhance connectivity for Washington’s unique geographic characteristics. Several areas face restrictions on infrastructure growth due to water and geographic characteristics. AAM would not only help to promote urban and suburban commuting, but would increase connectivity to and from rural areas and access to jobs.

1. I-5 corridor
2. Everett
3. Seattle
4. Bellevue
5. Puget Sound
6. Federal Way
7. Tacoma
8. Sound South
Geographic Benefits

1. Spokane
2. Walla Walla
3. Quincy
4. Wenatchee
5. Moses Lake
6. Yakima
7. Pasco/Kennewick/Richland (Tri-Cities)
Scaling UAM in Phases

2021-2023: Testing and Demonstration
- Functional ecosystem
- Business case and gaps analysis
- Partner mobilization
- Physical and digital demonstration
- Validation
- Proof of concept

2024-2026: Market Development
- Initial operational sites
- PPP/blended investment
- National workforce training
- Off-airport site development
- Revenue generating use cases

2027-2029: Network Expansion
- HMG vehicle launch
- Integrated ground-air services
- Connectivity to transit
- Integrated network – airports, commercial, multi-modal
We’re focused on confronting the challenges and concerns of our city stakeholders in enabling the UAM market.

What do stakeholders worry about with AAM?

- Funding
- Conflicting timelines
- Roles and responsibilities
- Regulation
- Demand
- Public Acceptance

What do they stand to gain?

**Societal**
- Capacity to the network
- Modal diversity
- Access to transportation
- Productivity
- Emissions
- Congestion

**Economic**
- Land use efficiency and asset utilization
- Green jobs
- Tax revenue/profits
- Agglomeration effects
- Infrastructure costs
- Lost time
Despite progress in the industry, we all need:

- A clear pathway for infrastructure development
- Public awareness, capacity building, and consumer acceptance
- Clarity on multi-jurisdictional governance and coordination
- A roadmap for multimodal integration
It will take a village to enable this competitive market.
But those efforts must extend beyond the UAM market for UAM to be successful.
We do this by forging deep partnerships across the mobility ecosystem to address the key barriers to AAM system development.

Our Mission:

to empower cities and states by enabling the human-centered mobility market, including AAM.

Our Method:

Drive collaboration

Capture transportation’s true benefits

Be both economically and environmentally sustainable

Align UAM industry around common vision and needs for the UAM market

Identify areas of common concern to the industry

Develop industry standards and requirements

Drive public awareness and understand acceptance of UAM technologies

Provide structures and support for incubating key market enablers

Build a policy and regulatory framework for UAM that recognizes roles and responsibilities
Bringing Our Partners Together

- ACES NW Network
- AUVSI Cascadia
- Canadian Advanced Air Mobility
- Translink Vancouver
- Helijet
- City of LA Fellow
- Policy
- Partnerships
- PNW Econ. Region
- Alaska Airlines
- Harbour Air
- Canadian Advanced Air Mobility
- Community Air Mobility Initiative
- UC Berkeley
- NASA
- Teague
- Village Reach
Partnership Focus Areas

Social and Consumer Acceptance
- Focus efforts to build awareness, trust, and confidence in the AAM market
- Define locations, use cases in the PNW based on highest value to communities
- Identify the value-add role of AAM within the existing and projected multi-modal transportation ecosystem

Public Engagement
- Build community and planners’ adoption methods through community engagement programs that emphasize inclusivity and accessibility
- Develop physical and digital experience centers to facilitate immersion
- Develop and engage in a workforce development roadmap to support operations, support, and research

Policy + Environment
- Define and develop studies to validate and characterize operational impacts, including noise, emissions, safety and accessibility, incentives and fee structuring
- Drive policy and regulations to support scaling of operations, environments, and access
Accessibility in AAM

Hyundai UAM is dedicated to creating the most accessible form of transportation for people with disabilities.

We are designing aircraft and infrastructure that will meet the needs of people with physical, intellectual, developmental and psychiatric disabilities, hearing and visual impairment, and more.

Collaborating with the accessibility community:
- Organizations representing disability communities
- University of Pittsburgh
- California Department of Rehabilitation
Washington is the nation’s leader in the aviation workforce. AAM will create new high-paying jobs in aviation. Hyundai UAM is working with Air Line Pilots Association (ALPA) to support their Aviation Works 4U workforce development program and will align with local Washington workforce development initiatives.

In addition to promoting a robust aviation workforce, Hyundai UAM is committed to making sure the future of aviation has a diverse and equitable workforce. We are partnering diversity organizations to ensure our workforce includes minority groups, and members of the disability community.
The full potential and benefits of AAM can not be reached without close collaboration between industry, state and local government, and community stakeholders.

Hyundai UAM is seeking a collaborative approach to implementation by working with state and city governments to determine how AAM solutions can best fit into individual communities.

Vertiport development, transit connectivity, and public acceptance do not have a “one size fits all” approach. We will work with each individual community to make sure AAM solutions best meet the local needs.
Policy Implications

- Developing smart policies to foster AAM industry

Established forums for collaboration between government and industry to assess the needs of a fast-moving industry.

Alignment with ongoing efforts of FAA, NASA, and DOT to safely integrate AAM into national airspace.

Clear and transparent guidelines regarding zoning, infrastructure development, noise ordinances, and integration into transit networks.
Thank you

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