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Australia-UAE CEPA Coordinator
Middle East FTAs Branch
Regional Trade Agreements Division Department of Foreign Affairs
and Trade RG Casey Building, John McEwen Crescent Barton ACT 0221
Via email: UAECEPA@dfat.gov.au

Dear Sir/Madam,

Re: Australia-UAE CEPA – Advanced Air Mobility Industry Submission

Pegasus International Group Pty Ltd is an Australian start-up that has produced three models of manned flying cars with police, civil aviation, and air taxi functionalities and which plans to complete prototype production at the end of 2023 and begin scale production in 2024. Therefore, Pegasus is pleased to take this opportunity to make a submission to the Department of Foreign Affairs and Trade in support of the proposed Comprehensive Economic Partnership Agreement (CEPA) between Australia and the United Arab Emirates.

The Global Advanced Air Mobility (AAM) Industry

Flying cars are an emerging technology whose genesis lies in the need to better utilise three-dimensional space to alleviate road congestion in urban areas, to provide highly efficient transport options for commuting, tourism, emergency services and in regional, rural and remote areas, and to enhance law enforcement options available to the police and border control agencies.

Flying cars in their optimal form are vehicles that can drive on the road like conventional cars, vertically take off and land (VTOL) like a conventional helicopter, and also fit into a standard parking space or garage. Flying cars are designed to fly in low altitude space at designated altitudes and cruise at conventional speeds, and these vehicles can be manned or unmanned. Flying car propulsion is provided by pure battery or by hybrid battery plus petrol solutions. As battery technologies improve, pure-play electric flying cars will become the preferred development option.

As many as 200 companies around the world have been investing in developing flying car models, including Boeing, Airbus, Rolls Royce, Toyota, United Airlines/Archer Aviation, Uber, Amazon, and, indeed, Australia's Pegasus.

Flying cars can be piloted or unmanned. Currently, piloted flying cars require only 20 hours of flight training to obtain a flight license, and as automated driving technology evolves, flight licenses will in fact become unnecessary. In addition to being speedier than conventional automobiles, flying cars are also far more energy-efficient, and have a lower carbon-footprint. Therefore, given these advantages, flying cars are ideal for applications such as air taxis, emergency services, and tourism, and it is therefore in these sectors where flying cars are first expected to make their large-scale debut.

Accordingly, a Morgan Stanley report published in 2021 predicts that the urban air mobility (UAM) market alone will constitute a US\$ 1.0 trillion industry by 2040; flying cars are no longer figments of imagination in the realm of science fiction movies and will enter into mainstream service in the very near future.

The Australian Advanced Air Mobility Industry

Australia, which contains both rapidly densifying urban areas and vast expanses of sparsely populated but economically critical agricultural and mining spaces, is ideal for developing a thriving AAM sector. Although fragmented, the current flying car industry in Australia consists of local companies as well as overseas companies interested in operating in Australia and is growing rapidly from a low base. A few key players are noted below:

- **AMSL Aero**, a start-up based in NSW, has received A\$23 million in investor funds in 2022 to complete development of both battery and hydrogen cell-powered VTOL flying vehicle prototypes and to establish a testing facility at a regional airport in NSW. The flying vehicle, dubbed "Vertiia," will eventually be targeted at defence force and air ambulance applications as well as air taxi fleet operators.

- **Pegasus International Group**, a Melbourne-based start-up, has developed three flying car models for air taxi, civil aviation, and police applications and will ship completed flying cars to overseas customers in March 2023. In addition, Pegasus will launch its 4-seater air taxi by year-end 2023. Pegasus' flying car is the world's only VTOL that is also roadable. Currently, Pegasus is actively seeking partners globally to allow it to begin scale production and sales.
- **Alauda Aeronautics**, founded in 2016 and based in South Australia, has developed an electric VTOL racing flying car called "Airspeeder" which has gone through several hundred test flights and will be produced in a new factory in South Australia. Airspeeder will be positioned as an eco-friendly Grand Prix-type event racing vehicle that will be raced in normally inaccessible areas of the world.
- **FlyOnE**, a Western Australian company established in 2020, is focusing on importing and distributing eVTOL aircraft, providing pilot training and aircraft maintenance services, and developing and distributing innovative renewables-based charging solutions for eVTOLs
- Anticipating the need for numerous designated take-off and landing sites for flying cars, **Skypartz**, an Australian-based start-up, has gathered expressions of interest from many owners of real estate whose properties would be suitable for this purpose. These "vertiport" sites include existing airports and helicopter landing sites, business parks, shopping malls, commercial carparks, event sites such as stadium complexes, and industrial sites.
- The **Council of Mayors Southeast Queensland** has signed a memorandum of understanding (MOU) with Boeing-backed **Wisk Aero** of the United States to partner to create a framework for the safe and smooth introduction of AAM solutions into these Local Government Areas (LGAs) in the lead-up to the 2032 Brisbane Olympics.

Flying Car Regulatory Frameworks

Whereas technological concerns and approaches are rapidly moving toward resolution and consensus, regulatory frameworks remain the key impediment to widespread commercial use of flying cars. In 2022, the **European Union Aviation Safety Agency (EASA)** issued a regulatory framework proposal for public comment for air taxi flying cars. The **Federal Aviation Administration (FAA)** in the United States has followed EASA with an air taxi regulatory framework proposal covering aspects such as airworthiness standards, pilot licensing, and flight path approval standards. The **Civil Aviation Authority of Australia (CASA)** has published a regulatory roadmap for advanced air mobility (AAM) technologies, including flying cars, that acknowledges the need for regulation that allows AAM technologies to be commercially viable by 2026. The **Civil Aviation Authority of China (CAAC)** has approached regulatory framework creation by setting up customised airworthiness standards for each

major producer of flying cars within China, allowing for substantial test flying and simulated tourism and air taxi operations in designated areas. It is noteworthy that in the UAE, the government of Dubai's **Dubai Civil Aviation Authority (DCAA)** has established efficient online systems whereby owners and operators of drones and aircraft such as flying cars can apply for safe usage permits, thereby handling practical regulations on a case by case.

Why the Australia – United Arab Emirates CEPA is Important for the Advanced Air Mobility Industry

Firstly, aviation is a critically important industry to the UAE, contributing more than US\$ 47 billion to total annual GDP. Secondly, the UAE is highly welcoming of high-tech companies and offers an excellent service value proposition and business ecosystem, making it very attractive to Australian tech companies such as Pegasus. Thirdly, as illustrated above, the UAE, and Dubai in particular, has developed a relatively advanced regulatory framework around flying cars and drones that makes commercialisation more feasible than in many other jurisdictions. Finally, as evidenced in this submission, Australian AAM companies already possess the capacity to contribute to and benefit from the business and investment opportunities available in the UAE aviation space.

Given the highly attractive nature of the UAE as a potential market for the sale and wider distribution of flying cars across the Middle East, Pegasus strongly supports closer trade ties between Australia and the UAE. Pegasus supports tariff-free export terms for Australian-manufactured manned and unmanned flying cars of all types so long as they possess CASA airworthiness credentials. We would also like to note that we strongly recommend that the CEPA include provisions allowing for reciprocal regulatory approval recognition in the aviation and road vehicle sectors; aircraft and vehicle airworthiness and roadworthiness approval in Australia should be recognised in the UAE and vice versa, for example.

Pegasus sincerely believes that if the Australia – United Arab Emirates CEPA includes provisions for tariff-free flying car export to the UAE, reciprocal regulatory approval recognitions, and support for bilateral R&D collaboration, it will materially support the development of a vibrant Australian flying car export market.

Thank you for the opportunity to contribute to this critically important endeavour.

Yours Sincerely,

Michael Yang,
Founder, MD, and CEO of Pegasus International Group Pty Ltd