

## Press Release

### **Airbus partners with Amprius, leader in high energy density battery technology**

- Strategic investment by Airbus Defence and Space in Amprius, Inc.
- A new generation of Silicon Nanowire Anode-based Lithium Ion Batteries.
- Expanding production capability to match near term needs of the Zephyr program.

**Munich, 31 October 2019** – Airbus Defence and Space has partnered with U.S. based Amprius Inc's current equity funding. This financing will further boost the development of new generation batteries based on Silicon Nanowire Anode technology.

Airbus Defence and Space's investment will help drive the development of higher volume production capacity along with higher energy density cells for Airbus Defence and Space aerospace programmes, including the Zephyr High Altitude Pseudo Satellite and Urban Air Mobility innovation initiatives.

"This partnership re-inforces the link between two market leaders, the newest generation batteries of the market matched with the most advanced HAPS programme. Zephyr is currently the only one operating in the stratosphere at an average altitude of 70,000 and running exclusively on solar power, providing persistent local satellite-like services and supporting a wide range of applications and tasks." said Jana Rosenmann, Head of Airbus Unmanned Aerial Systems.

The first to introduce 100% silicon anodes in lithium ion batteries to the market in 2013, Amprius manufactures the highest energy density commercial batteries in the industry. The company's products and technology platforms include a 100% silicon nanowire anode, silicon-graphite composite anodes, lithium-rich cathodes, and high voltage electrolytes tailored for silicon.

"We are extremely pleased to be working with Airbus and supplying batteries for the Zephyr program," said Jon Bornstein, COO of Amprius. "The incorporation of Amprius' 100% silicon nanowire anode-based lithium ion batteries into the Zephyr platform represents an important validation of this technology. Likewise, our development of high energy power cells for Urban Air Mobility will enable exciting opportunities in new aviation markets."

Amprius Inc.'s high energy density batteries are used for smartphones, wearables, drones, robotics, aerospace vehicles, electrical transportation, and military equipment.

Zephyr is the world's leading, solar-electric, stratospheric Unmanned Aerial Vehicle (UAV). It will bring new see, sense and connect capabilities to both commercial and military customers. Zephyr will provide the potential to revolutionise disaster management, including monitoring the spread of wildfires or oil spills. It provides persistent surveillance, tracing the

## Press Release

world's changing environmental landscape and will be able to provide communications to the most unconnected parts of the world.

Zephyr is enabled by the latest in battery technology. Both the increase in production volumes of the new generation batteries and research for future development will be used to further the Zephyr programme and build on its market leading position.

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### About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2018 it generated revenues of € 64 billion and employed a workforce of around 134,000. Airbus offers the most comprehensive range of passenger airliners. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world's leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

### About Amprius

Amprius, Inc. is a leading manufacturer of high energy and high capacity lithium-ion batteries producing the industry's highest energy density cells. The company's corporate headquarters is in Fremont, California where it maintains an R&D lab and pilot manufacturing facility for the fabrication of silicon nanowire anodes and cells. Amprius, Inc. has a materials R&D lab in Nanjing, China; and a high volume battery manufacturing facility in Wuxi, China.

### About the Airbus Zephyr Programme:

The original target mission of the Zephyr is to provide local persistence at an affordable price with a re-usable solar-powered aircraft, providing a wide scope of applications, ranging for example from maritime surveillance and services, border patrol missions, communications, forest fire detection and monitoring, or navigation. Operating in the stratosphere at an average altitude of 70,000 feet / 21 kilometers, the ultra-lightweight Zephyr has a wingspan of 25 meters and a weigh of less than 75kg, and flies above weather (clouds, jet streams) and above regular air traffic, covering local or regional footprints.

Ideally suited for "local persistence" (ISR/Intelligence, Surveillance & Reconnaissance), the Zephyr has the ability to stay focused on a specific area of interest (which can be hundreds of miles wide) while providing it with satellite-like communications and Earth observation services (with greater imagery granularity) over long periods of time without interruption. Not quite an aircraft and not quite a satellite, but incorporating aspects of both, the Zephyr has the persistence of a satellite with the flexibility of a UAV. The only civil aircraft that used to fly at this altitude was Concorde and only the famous military U2 and SR-71 Blackbird could operate at similar levels. The Zephyr successfully achieved several world records, including the longest flight duration without refuelling when in 2018, on its maiden flight, the Zephyr S, the first production model of the aircraft, flew for over 25 days and achieved very high altitude records of 71, 140 feet (over 21 kilometers).

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