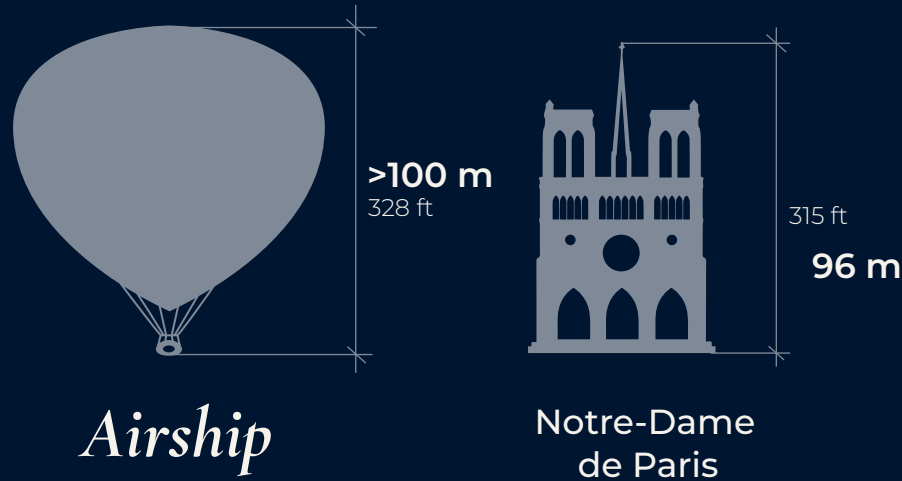


The Zephalto Balloon: How it works

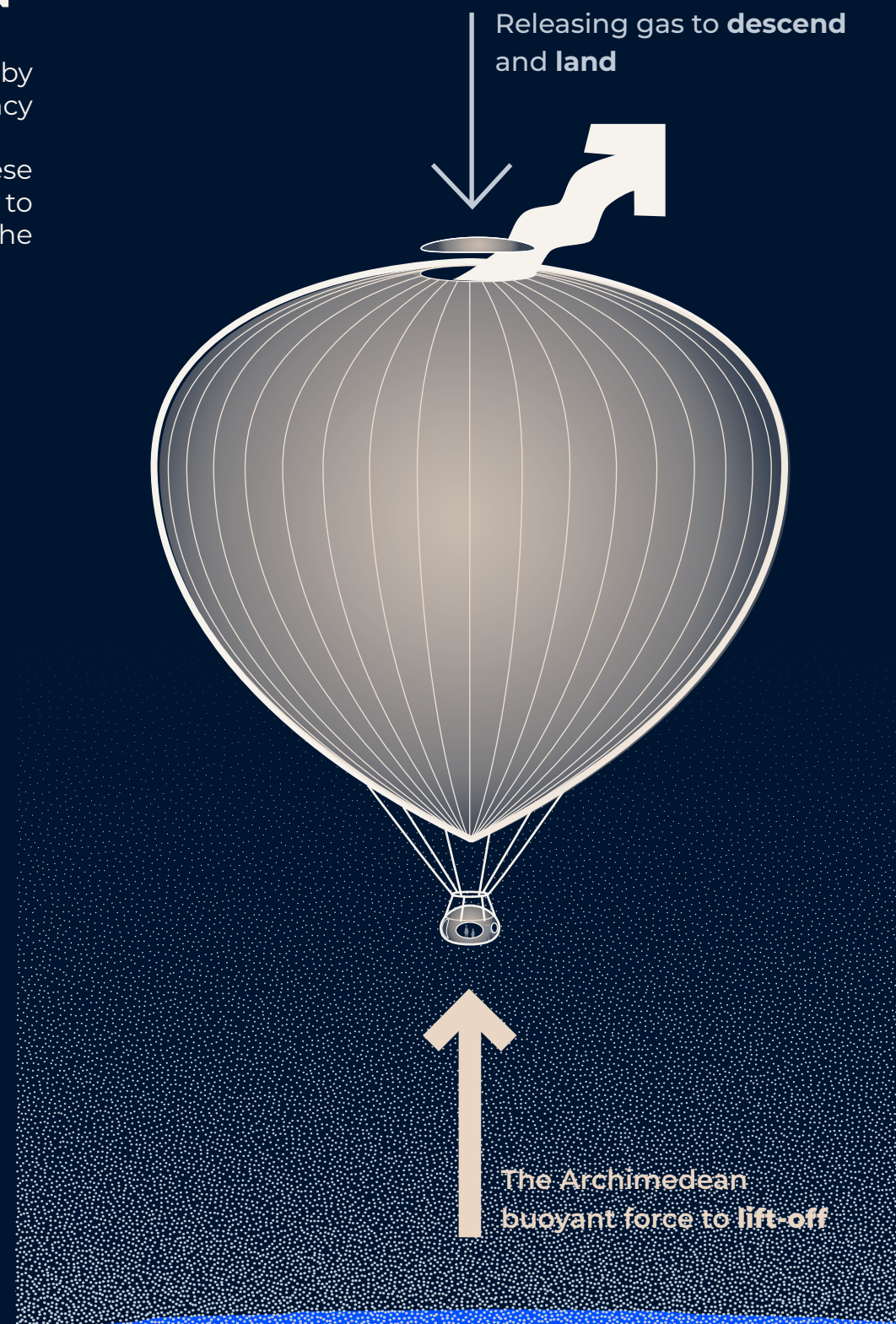
THE STRATOSPHERIC BALLOON

The balloon represents a major innovation, developed by Zephalto in partnership with the French space agency (CNES). Our balloon is reusable : a worldwide exclusivity for these altitudes. It is made of synthetic materials, allowing it to withstand environmental conditions at 25 km above the Earth.



PRESSURIZED CAPSULE

The capsule is made with our special composite material and coated in silver to reflect the surroundings. All the electronic onboard equipment has been specially developed to ensure the most efficient safety process. Guests will be comfortably in the same air conditions as in a plane.



LIFT-OFF AND LANDING

The balloon contains hydrogen, a gas lighter than air, which allows it to float in the atmosphere : the Archimedean buoyant force. Thanks to this principle, it is possible to regulate smoothly the altitude of the balloon . To descend or land, we release a small amount of gas by a valve located at the top of the balloon. To keep on flying and gain altitude again, we release a small amount of ballast.

STEERING THE BALLOON

The balloon is steered by 2 pilots on board the capsule. Based on trajectory simulations conducted by our ground teams and relying on extremely precise meteorological forecasts (updated several times a day) the pilots can determine the wind at different altitudes. By adjusting the balloon's altitude, they can stabilize it and steer it in the desired direction.

THE PILOTS

Our pilots have professional balloon's license and follow the dedicated Zephalto's training program.

Safety on board: our commitment to our travelers

Technical Expertise

More than 30 experts in aerospace, space, engineering and safety work for Zephalto's development.

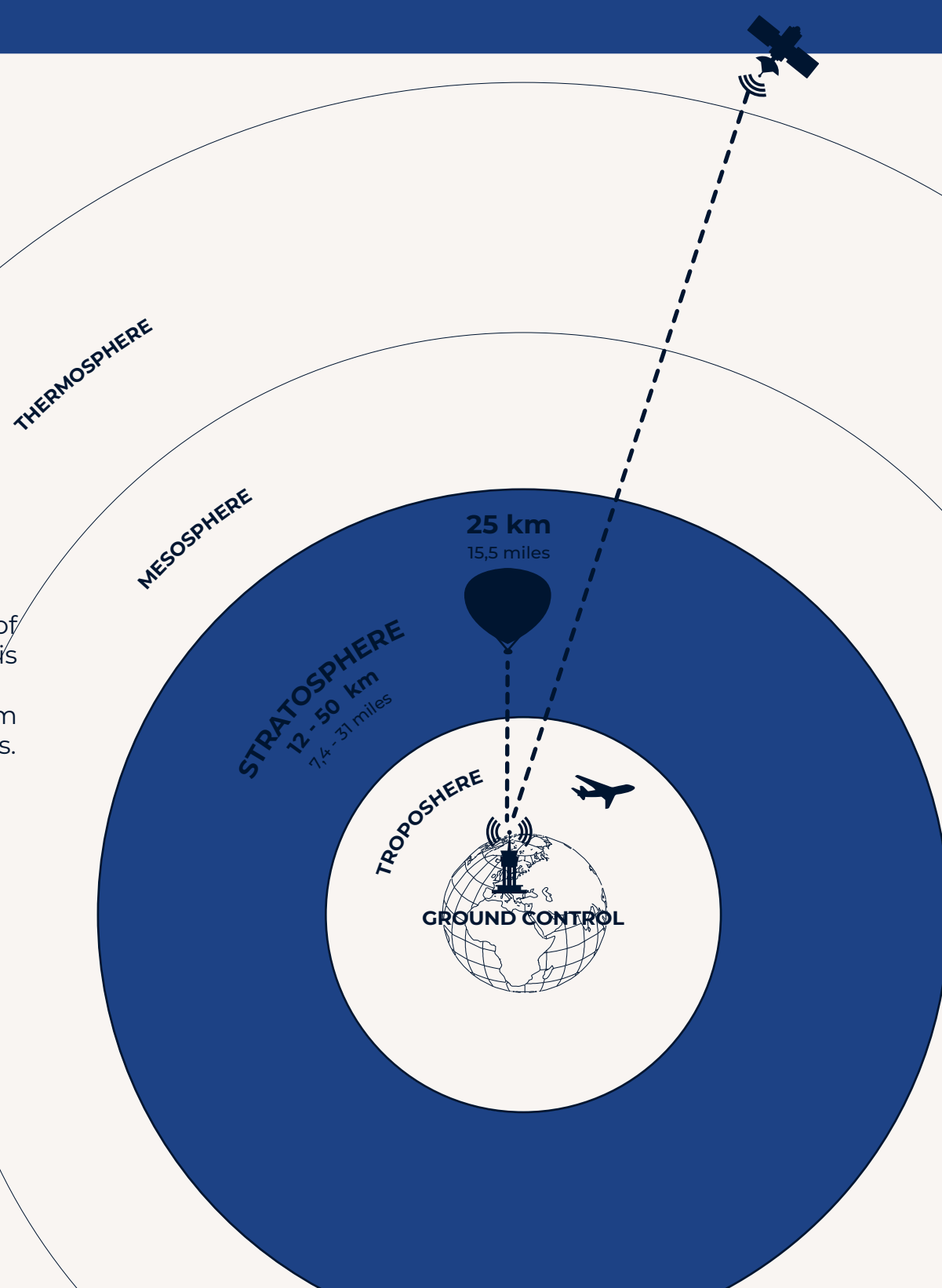
Partnership with CNES

Centre National d'études spatiales

The Zephalto experience relies on the 60 years of expertise of CNES in balloons. CNES Toulouse is the largest space technical center in Europe. This partnership allows Zephalto to benefit from exclusive technology transfers as well as supports.

Patents

Zephalto benefits from over 150 operational procedures achieved by CNES, which have been registered with INPI (French National Institute of Industrial Property). Additionally, more than 11 key safety patents are currently in progress by Zephalto.



EASA Control

European Aviation Safety Agency

EASA delivers aircrafts' certifications. Zephalto is already working on the different steps to ensure the approval from Easa's experts on manufacturing, safety design, reliability, materials ... The design and production process will ensure that capsules and envelopes correspond exactly to the definition approved by the authorities of EASA. The certification issued by EASA will be as for a commercial airline.

DGAC

Direction Générale Aviation Civile

As for the previous test flights already done, the DGAC will give in advance the autorisation before each flight.

Monitoring

Control, communication and supervision will be ensured from a control room to check all phases of the journey. We will be also continually in contact with the air traffic control tower managing the regulated airspace.