Imagine an economically friendly solution that fulfills long missions, which today have to be done by manned aerial carriers, like helicopters or planes, for the analysis of large areas for agriculture, resource exploration surveys, forestry and many more.

h-aero® combines the advantages of the known concepts balloon, helicopter and airplane and is able to switch between a rotationally symmetric (helicopter) and a mirror symmetric (airplane) configuration. It uses dynamic lift and buoyancy generated by an aerodynamic ellipsoid volume (hull) filled with helium. With a start-weight of less than 250g, it’s safe enough to fly over crowds and sensitive areas. Our carriers have a certification (DE.SORA.001-0001) to be operated over human gatherings in enclosed halls and rooms.

A masterpiece of technology
h-aero® is patent protected, a novel airborne system, which has the following unique combined features and characteristics:

- Vertical take-off and landing (VTOL)
- Aligned cruise flight like an airplane
- High aerodynamic shape
- Safety, as the carrier comes down like an open parachute if malfunction occurs
- Sustainability given by natural lift, wind sailing effect and solar cells
- High helium density foil
- Ultralight, separable, plug-in carbon fibre structure

With a payload of up to 800g and up to 120 Minutes of flighttime, our smallest carrier h-aero® zero combines safety, endurance and versatility. Designed for industrial and commercial indoor solutions, h-aero® zero offers completely new applications. Scanning and stocktaking a whole storage hall, inspecting tunnels or power plants. The ability to perform long-duration flights without the risk to damage people or inventor is something unique.

With a payload of up to 3 kg and a flighttime up to 400 Minutes, h-aero® one sets new standards for drones in this performance class. It was developed especially for the requirements of professional pilots. Despite to a high payload of 3 kg, the take-off mass of h-aero® one is below 250g – this ensures that both, the payload as well as surrounding objects and persons, are safe in case of a failure. We can customize the entire system on our customers request.