

AERE · KUZGUN · PERSISTENT AERIAL PLATFORM

Built in Türkiye · first revenue in Cappadocia · deployable in the Gulf and across NATO

PRE-SEED \$250–500K

THE AIRCRAFT · HYBRID-ELECTRIC V1 (SEPT 2026)

- ▶ 62.0 m long · 15.5 m diameter · 7,786 m³ helium envelope · ≈8.2 t gross
- ▶ 16 passengers + 2 crew, or an ISR payload in the same gondola
- ▶ 3 × electric motors · 30 kW cruise · 50 km/h cruise, 90 km/h max
- ▶ Series hybrid: 38 kW generator · 10 kWh buffer battery (Velis Electro class, the only certified propulsion battery) · 8 h endurance on one fuel load
- ▶ Static heaviness 1.6%, inside the 3% ELA2 limit
- ▶ Size class of the Zeppelin NT (8,425 m³, 15–17 seats, certified 2001)
- ▶ Concept design complete; pre-certification. Earlier 73 m all-electric concept (CAD Rev.3, 2019) archived; hull to be redrawn at 62 m

TWO MISSIONS · ONE AIRFRAME

KUZGUN: persistent ISR and disaster response

Mid-altitude surveillance and communications relay that complements UAVs and satellites. Patent TR 2011 03453 B. Prior positive feedback from SSB, Türkiye's defence procurement agency. NATO's own fund (NIF) has already backed an airship, Kelluu, for exactly this role.

CAPPADOCIA: the launch market

769,814 balloon passengers (2024) · 367 licensed balloons · 156 slots/day · 223 flying days, all dawn-only, one hour. An airship flies all day, in more weather, at deluxe prices.

WHY NOW

- ▶ SHGM targets 3 → 7 Turkish type certificates by 2028 and has never certified a passenger airship. The first applicant shapes the regime.
- ▶ EASA SC-GAS Issue 01 (2022) is a ready certification basis; SHT-21 tracks EU law to Aug 2025.
- ▶ EASA is writing airship operating rules now (AsOP, Opinion Q3 2026).
- ▶ The category is fundable in the ISR frame: NATO's NIF backed Kelluu; the EU paid Hybrid Air Vehicles €2.5M to pursue certification.

CERTIFICATION PATH

- ▶ National type certificate from SHGM under SC-GAS via SHT-21 21.B.75. EASA validation not required, Türkiye is State of Design and Registry (ICAO Annex 8).
- ▶ ELA2: 3 of 4 criteria met; the 4th under review → relief from full DOA and from ≥150 h function & reliability flight test.
- ▶ Prototype and crew training under Permit to Fly (SHT-21 Subpart P).
- ▶ Propulsion: SC E-19 (hybrid in scope). Buffer battery via MOC-3 SC-VTOL at Velis-class scale; fuel system under conventional airship rules (Zeppelin NT, AS700 precedent).

CAPITAL LADDER · PROOF BEFORE PROGRAM CAPITAL

- ▶ Pre-seed \$250–500K, 12 months: demonstrator 40%, BOM re-quotes 15%, SHGM pre-application 12%.
- ▶ First institutional round \$8.75M → first revenue M26. 2 of 9 aircraft before revenue; 7 funded from operations.
- ▶ Kill criteria: no flying demonstrator by M12 · no SHGM path to revenue ops within ~36 months.
- ▶ Now: Qatar Open Innovation pilot · NATO DIANA (2027 call) · NIF introduction.

TEAM · STRUCTURE

M. Ali Kul, CEO, flight dynamics, Turkish Airlines
Mustafa Demir, CTO, 80+ sub-scale airships built, 20 flown, one aloft 365+ days, since 2012
M. Sinan Gencal, CFO, MRO & certification
Zeynep Memiş, AI, ML & surveillance systems
Yücel Demir (collaborator), Kuzgun founder, patent holder

Turkish entity holds TC, DOA and IP; partner entities hold operations (Gulf, NATO).
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