



### 1. THE PROBLEM WE ATTACK

RFisense builds deployable RF systems for environments where conventional sensing fails. Our entry market is counter-UAS, where low-cost drones have become an asymmetric threat against airports, critical infrastructure, and frontline units. Today's sensors all fail in the relevant conditions:

- Cameras fail in fog, darkness, and cluttered backgrounds.
- Acoustics collapse in urban noise.
- Passive RF is defeated by autonomous, pre-programmed or fibre-optic drones.
- Military radars are too large, too expensive, and too power-hungry to distribute across the assets that need protecting.

### 2. FLAGSHIP PRODUCT: RF-SENTINEL

RF-Sentinel is RFisense's portable, autonomous, multi-sensor C-UAS platform that detects, classifies, and neutralises small drones with non-kinetic effectors. It is the product we are commercialising first and the focus of our go-to-market today.

- **Active radar:** Portable X-band radar with real-time micro-Doppler processing. Field-validated in live NATO STO exercises.
- **Passive RF sensor:** autonomous spectrum scanning of RC and video-link bands.
- **AI classification:** feature-level fusion of both sensors, trained on real field data.
- **Non-kinetic response:** directional RC/GNSS jamming and a drone-mounted microwave effector for safe close-range neutralisation.

### 3. CUSTOMERS & GO-TO-MARKET

RFisense is a dual-use B2B and B2G company. RF-Sentinel addresses two customer tiers:

- **Civilian (volume):** airports, energy and utilities, prisons, event security, critical-infrastructure operators under NIS2/CER compliance.
- **Defence (strategic):** NATO armed forces, Ministries of Defence, force-protection units, interceptor-drone integrators.

Entry wedge: portable, site-level deployments starting in Portugal and expanding into the broader European market. RFisense's defensible moat is full-stack RF capability developed in-house, from antenna and front-end up to AI classification.

### 4. MARKET

**TAM:** Global C-UAS market USD 6.64 B (2025) → USD 20.31 B (2030), CAGR 25.1% [MarketsandMarkets].

**SAM:** European anti-drone segment USD 1.24 B (2025) → USD 4.16 B (2030), CAGR 27.5% [MarketsandMarkets].

**SOM (5y):** 20–40 M€ cumulative revenue across Portugal and key European markets, representing a low single-digit share of the addressable European portable segment.

Growth is structural: ReArm Europe, EDF/EUDIS envelopes, NATO capability targets, and EU directives (NIS2, CER) on critical-infrastructure resilience.

### 5. BUSINESS MODEL & ROADMAP

- **Hardware sales:** ~40 k€ per civilian unit; ~120 k€ per military unit. Roughly one order of magnitude below prime-built portable radars.
- **Recurring SW/support:** 15–20% of hardware value per year (AI updates, new drone signatures, SLAs).
- **Non-dilutive R&D:** European and national grant instruments for dual-use defence innovation (EDF, EUDIS, EIC, NATO DIANA, Portugal 2030).

**Funding sequence:** Step 1 — grants to validate technology and run pilots. Step 2 — 400 k€ pre-seed round to commercialise RF-Sentinel. Series A anchored by defence and CI traction. Long-term, the same RF stack powers a second product line (battery-free passive RF sensing) for industrial IoT and space — expanding RFisense's TAM beyond C-UAS.

### 6. COMPETITION & ADVANTAGE

We sit between legacy primes (Thales, Hensoldt, RTX — expensive, heavy, slow) and passive-RF specialists (DroneShield, Dedrone — defeated by silent drones).

- **One platform, two physics:** active radar + passive RF + AI fusion.
- **Low cost:** designed silicon-up for distributed, site-level deployments.
- **Field-proven:** NATO STO exercises; EUDIS Defence Hackathon 2026 winner.
- **Vertically integrated:** RFisense designs the full RF stack in-house, from antenna and front-end to embedded processing and AI classifier. This is the deep-tech moat behind RF-Sentinel and every future product.

### 7. RFISENSE TEAM

**Daniel Escadas** — Co-founder. RF design, radar, and AI systems. Researcher at Instituto de Telecomunicações. URSI Best Research Project 2025, APDC National Award for Master's Dissertation, and ANACOM distinction. Leads RF-Sentinel's radar signal chain, classifier, and system architecture.

**Gonçalo Martins** — Co-founder. RF hardware, antennas, PCB design, embedded systems, and WPT. PhD student at Universidade de Aveiro. Fraunhofer Master Thesis Award. Leads the physical platform and the passive chipless RF sensing product line.

RFisense is built by two founders and an advisory board, covering the full vertical stack, embedded in one of Portugal's densest RF research ecosystems (IT / DETI / UA). Track record in under six months: EUDIS Defence Hackathon Winner, NATO STO Hackathon Winner, Empreende+ 2026 (UA) Winner, plus direct operational input from Ukrainian end-users on FPV-threat doctrine.