



TÉCNICO
LISBOA

Cosmometer

ELETROCAP - PITCH DECK

Meet the team



Rui Loureiro
Project management



Tomás Amado
Engineering



Sebastião Castelo Branco
Marketing & Design



Pedro Santorum
Planning

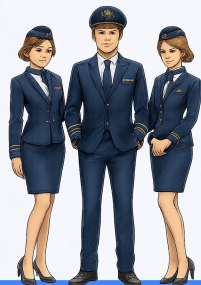


Júlio Demba
User experience & UI



Rodrigo Pedroso
Testing & Validation

PROBLEM



Problem

- Elevated cosmic radiation exposure in Pilots and Cabin crew
- Accumulates throughout careers
- Invisible in real time

Why it matters

- Potential health risks
- Growing regulatory attention
- No exposure awareness during flight

Current solutions

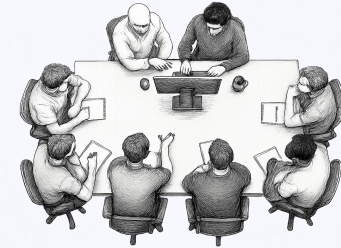
- **CARI-7A**
predictive models
- **SIEVERT / EPCARD**
post-flight estimates
- **LIULIN-3M**
costly & portable

What if flight crews could monitor radiation exposure as easily as checking altitude or speed?

WORKFLOW



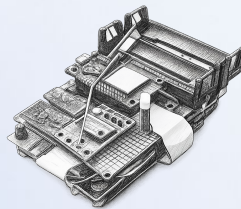
Portugália
Airlines



Electrocap talks inspired our concept and revealed real market needs.

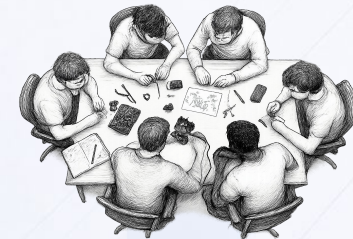
Secured Portugália as partner, validating interest in our solution.

With tutor guidance, defined objectives, architecture, and development roadmap.

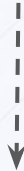


Successfully tested at CTN, confirming reliable radiation detection performance.

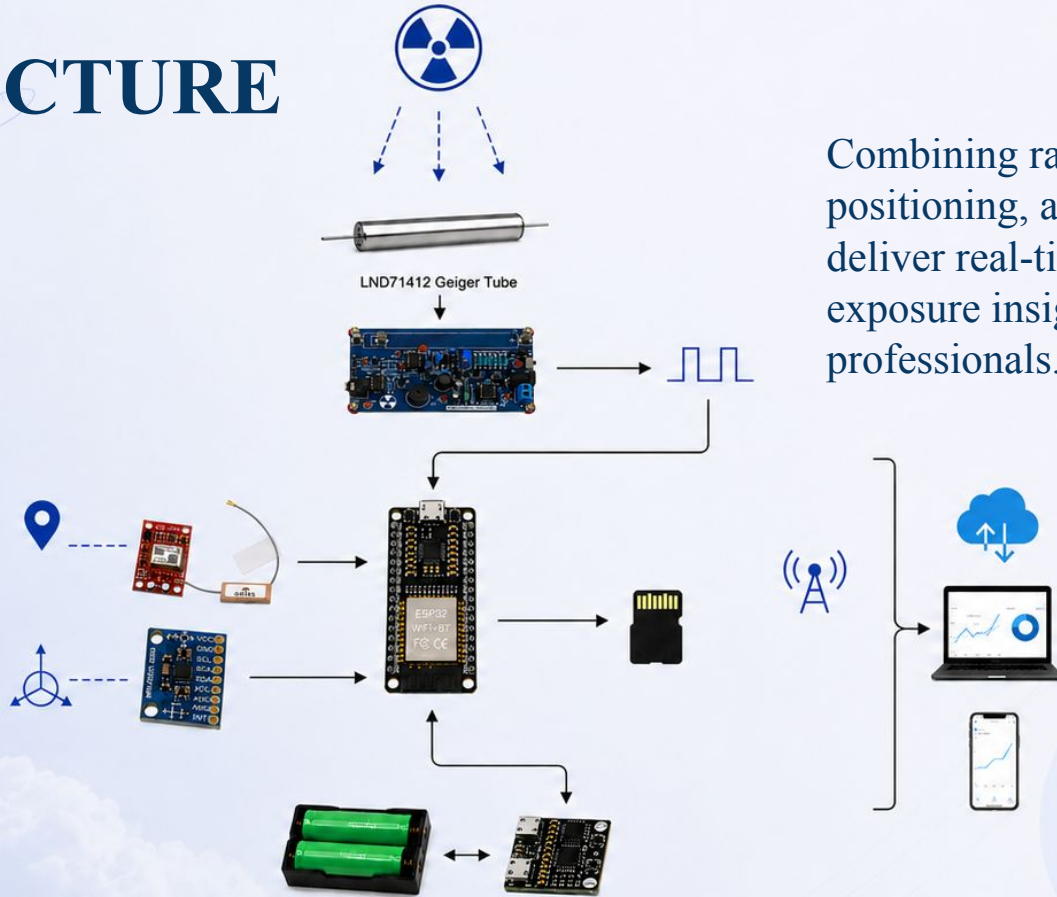
Built the first functional prototype and prepared validation tests.



Integrated hardware, software, and data systems into one platform.



ARCHITECTURE



Combining radiation detection, positioning, and motion tracking to deliver real-time, actionable exposure insights for aviation professionals.

COSTS



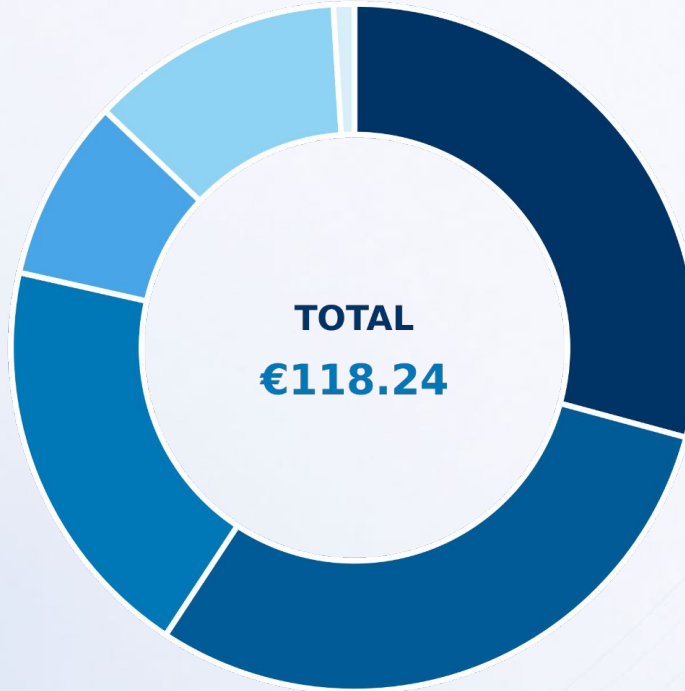
Processing
9%

Storage
12%

Structure &
Small Parts
1%

Radiation
Detection
29%

Position &
Motion
19%



Power
System
30%

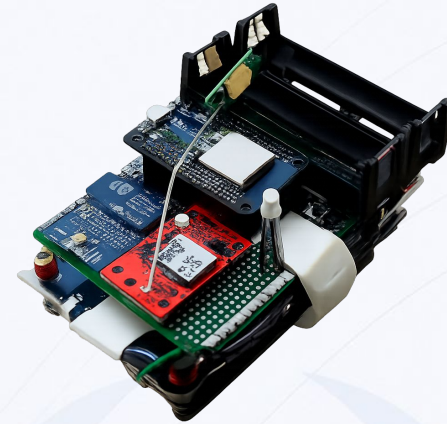
SOLUTION



CosmoMeter is a portable device that provides real-time radiation monitoring, flight data correlation, and exposure tracking, delivering accurate insights for aviation professionals



Our Box



Our Prototype

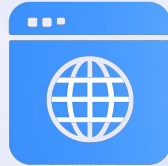
Current solutions estimate exposure. CosmoMeter measures it.



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MAKING INVISIBLE RADIATION VISIBLE



THANK YOU!