

From Reports to Risk Windows

Explainable risk forecasting as a practical test case for AI-enabled aviation safety

Ashle Whittle

TECHNOLOGY

Ross Priday

AVIATION OPERATIONS

Tony Cortés

AVIATION SAFETY

Why...?



WHAT AVIGILANCE IS

A new layer in aviation safety

OUR OBJECTIVE

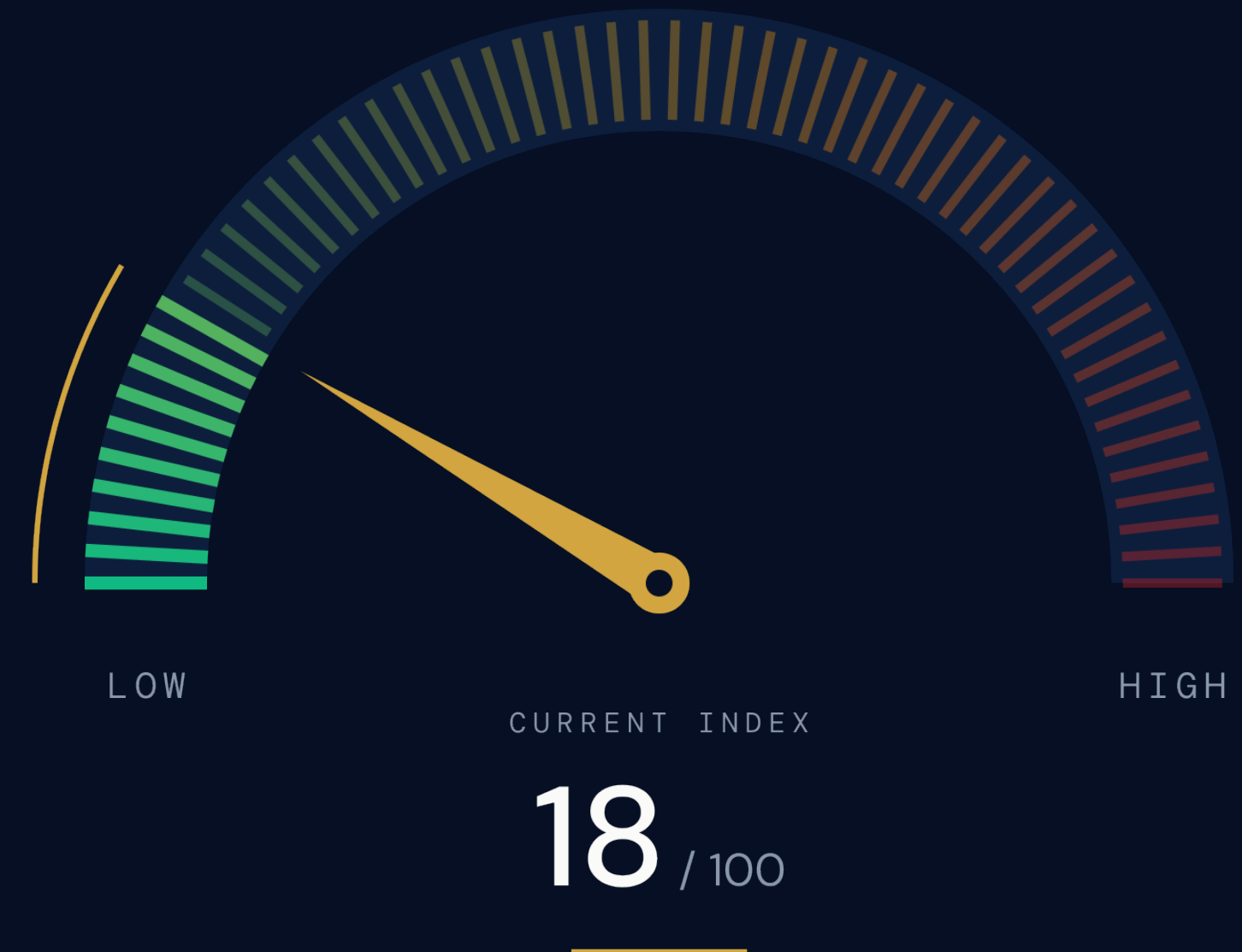
To exploit technology by understanding what the experts in the room really need — and to move the aviation safety needle in the right direction



THE PROMISE

See risk sooner, fly smarter.

Signals already scattered across weather, strike history, bird behavior, airport geography and operations — brought into one place and shown in context, before risk becomes an incident



OUR STORY

A year in Colombia

If you set out to design a system for birdstrike prevention, you could not ask for a better laboratory



FIELDWORK

Our journey of discovery

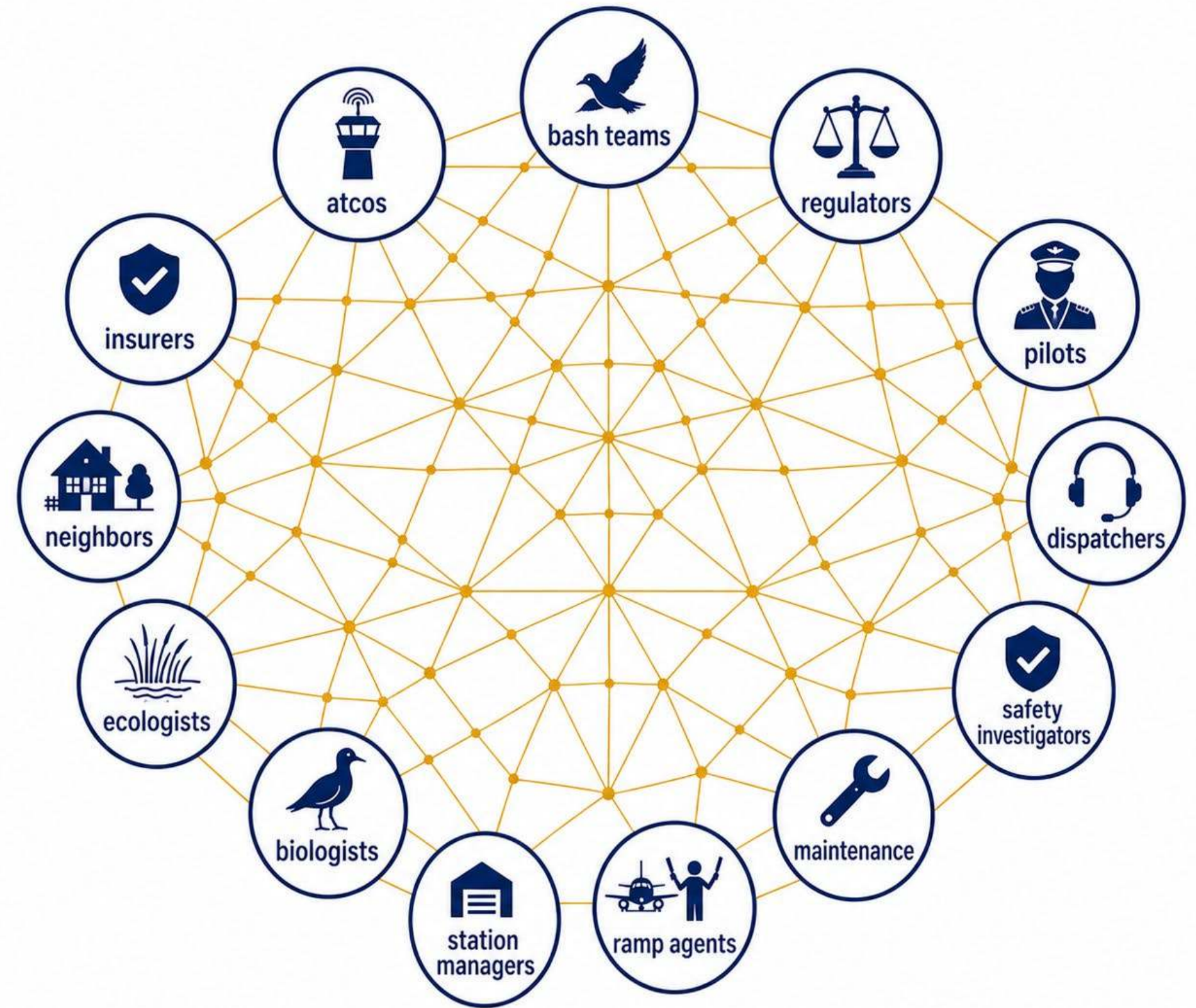
4 AIRPORTS · JUMPSEAT · LIVE ATC BIRD ALERTS



WHAT WE ASKED

We asked stakeholders the hard questions

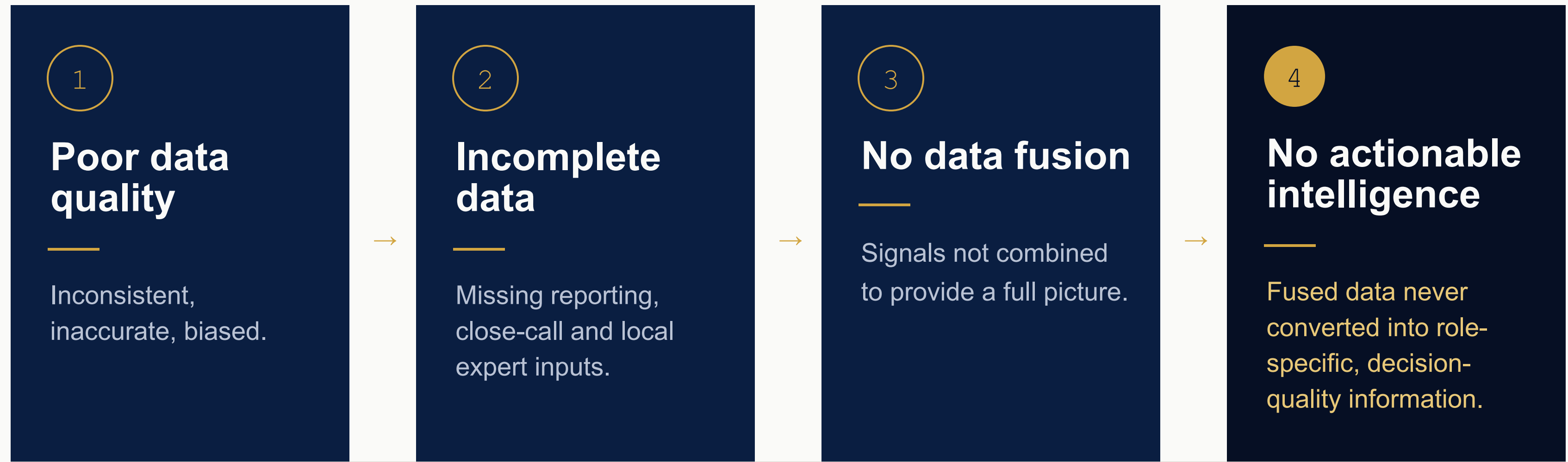
We put it to regulators, airline safety leads and airport wildlife officers — then built what they said they would actually trust



OUR CONCLUSION

Where are we off?

Four stumbling blocks — the same four that hold back many aspects of aviation safety.



WHAT IS MISSING

Like an orchestra without a conductor

Every instrument is already playing:

- air traffic flow
- pilot procedures
- species behaviors
- impact reports
- close call reports
- expert observations
- NOTAMs and alerts
- strategic and tactical trends
- weather and climate
- attractants (on and off airport)

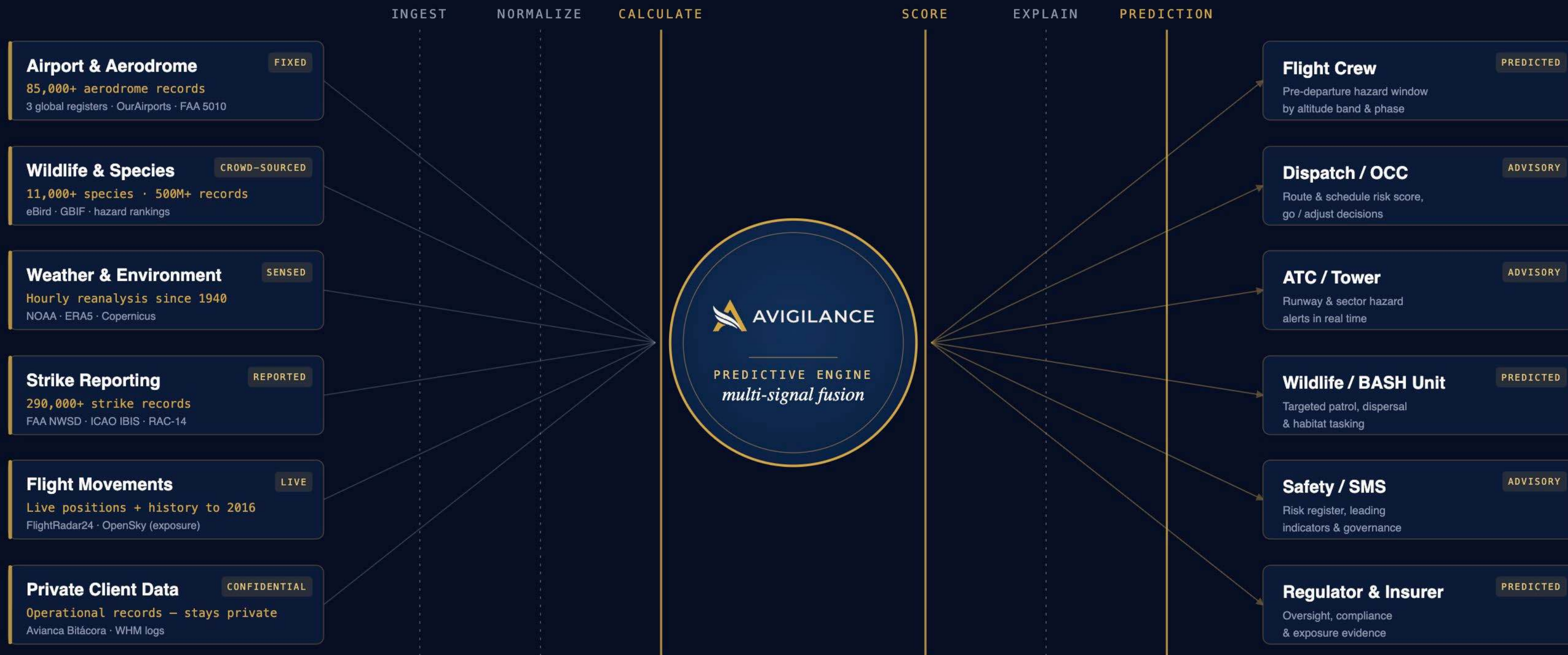
Nobody is reading the same score



DATA SOURCES

AVIGILANCE ALGORITHM

AVIATION DELIVERY ROLES



INPUTS FIXED · CROWD-SOURCED · REPORTED · SENSED · PRIVATE → CALCULATED · ALGORITHMIC → PREDICTED

AVIGILANCE · MANY SOURCES → ONE ALGORITHM → EVERY ROLE
EVIDENCE-FIRST · EXPLAINABLE · CONFIDENCE-SCORED



We are developing a conductor

AVIGILANCE · A FOUNDING PRINCIPLE



DEMONSTRATION · 03

Now, live.

CLOSING

Where next

The founding team, the advisers behind them, and
the part we need you to play



THE FOUNDING TEAM

Who we are

Four founders from the flight deck, the safety office, the research lab and the boardroom.



AVIATION SAFETY

Tony Cortés, Ph.D.

Co-founder. Safety science and flight operations.



TECHNOLOGY

Ashle Whittle

Co-founder & CTO. Platform, architecture and delivery.



HUMAN FACTORS

Ross Priday

Co-founder. Aviation operations and human factors.



COMMERCIAL

Simon "Si" Mahon

Co-founder. Growth, partnerships and legal.

WHO WE ARE

The advisory board

- James “Jim” Wylie

SENIOR ADVISER ·
AIRPORT & AIR TRAFFIC

Nancy Rocío Umbarila Pachón

COLOMBIAN AVIATION
WILDLIFE RISK

Diana “Lorena” López Medina

WILDLIFE BIOLOGY &
AIRFIELD OPS · COLOMBIA

Cerian Henshaw

AFRICAN WILDLIFE RISK
ADVISER

Niven “Niv” Phoenix

PILOT · HUMAN FACTORS
& FLIGHT OPS

Chris Davies

UNCREWED SYSTEMS HUMAN
PERFORMANCE

Stuart Markham

METEOROLOGY AND
FORECASTING
-
- THE MIX
- Biology, operations, safety, and forecasting —
technology built around their judgement
- ADVISERS & PARTNERS
- 15

WHERE WE GO FROM HERE

Next steps and collaboration

Collaborate with us



AI-enabled foresight. Human-led safety.

AN INVITATION

Tell us where the value is.



01

Where in your operation would a predicted risk window change a decision?

03

We want your input on the value you see — gaps, blind spots, variability, complexity.

02

What would make this genuinely useful to you — and what would get in the way?

04

Come and talk to us, or find us at **avigilance.com**.

Over to you



See risk sooner, fly smarter.

WEB

avigilance.com

CONTACT

contact@avigilance.com

EVENT

Cleveland · 4–6 August 2026