

NRGscapes LAB

Five years inside the orb phenomenon

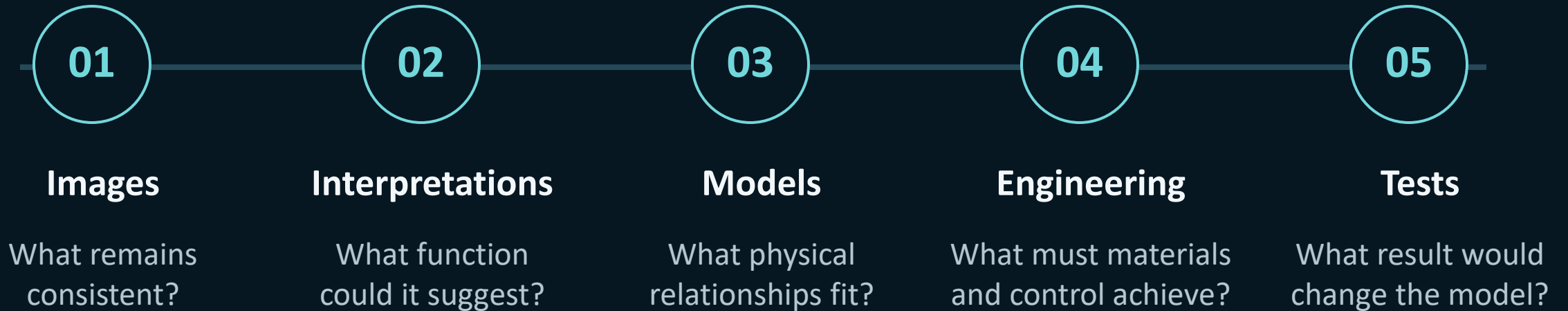
Recorded light. Physical questions.
Engineering concepts and the next test.

Dr Andrew D Morgan
Founder, NRGscapes LAB



Five years, one evolving investigation

A recurring pattern changes the next question



Published findings and their limits feed back into the investigation

The light that starts the question

PERTH

15 May 2025 · visible spectrum



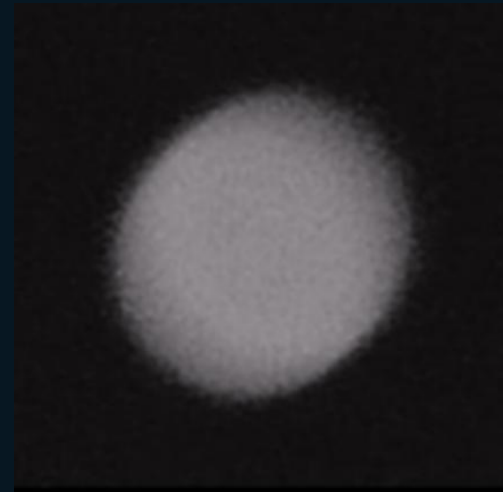
Source crop



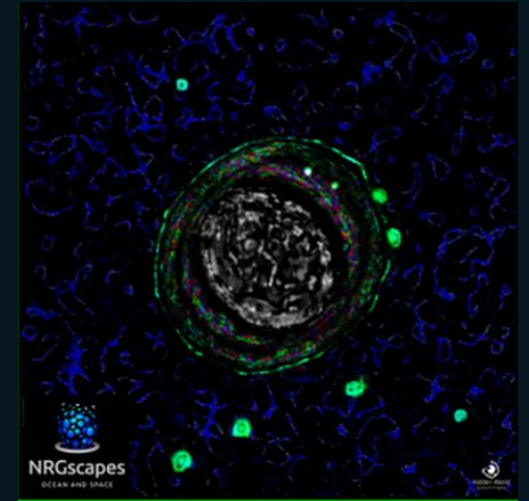
Processed view

KARIJINI / PILBARA

10 June 2023 · infrared source



Source crop



Processed view

Separate cases, different acquisition conditions, a shared analytical question

A pattern has to survive the sequence

≈990

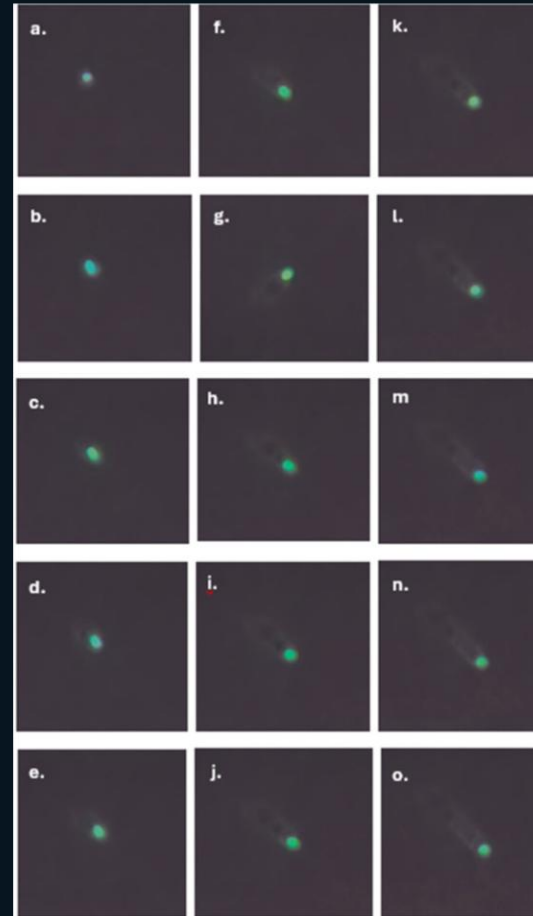
frames available

15 selected frames

Extracted and processed views
retain the same time order.

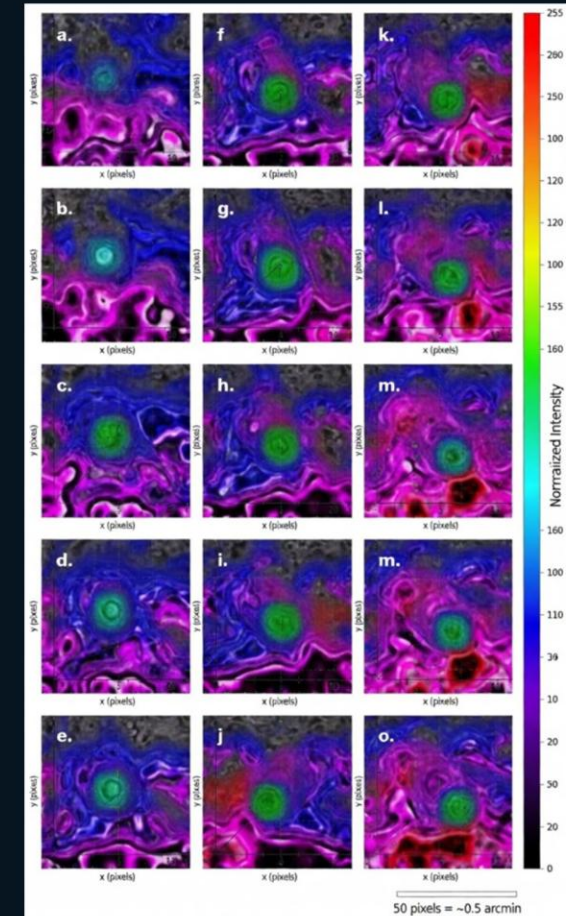
Can the feature be followed
as position and intensity change?

EXTRACTED SEQUENCE



Published Perth Figure 4 [P4]

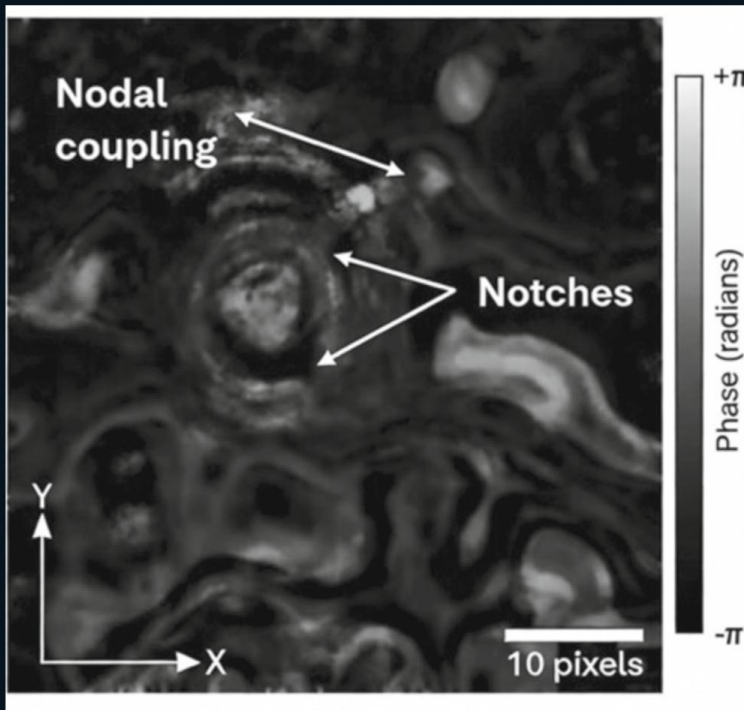
PROCESSED SEQUENCE



Published Perth Figure 7 [P4]

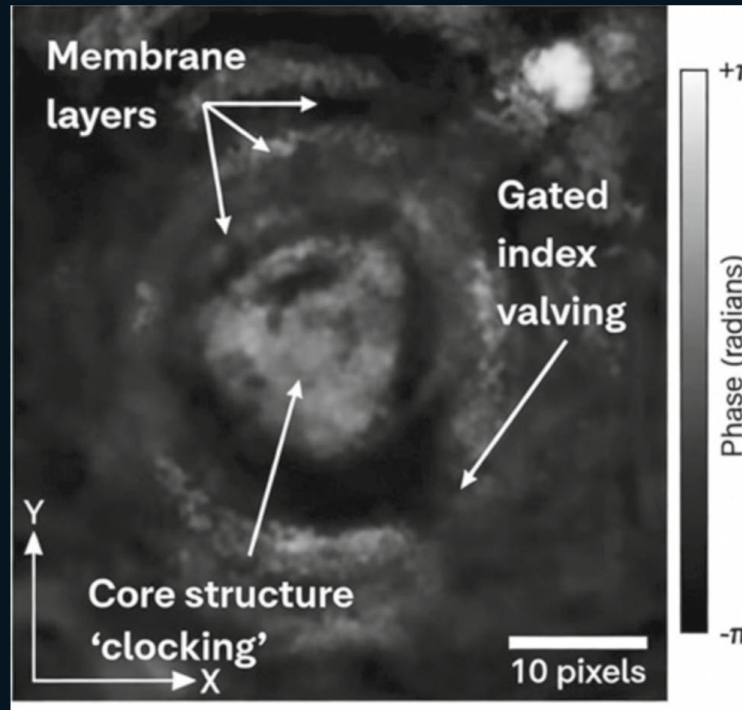
Perth: the step into physical interpretation

RINGED / NODAL INTERPRETATION



Original labels and scales [P4 Figure 6]

MEMBRANE / CORE INTERPRETATION



Original labels and scales [P4 Figure 6]

Boundary

Apparent layers and gates

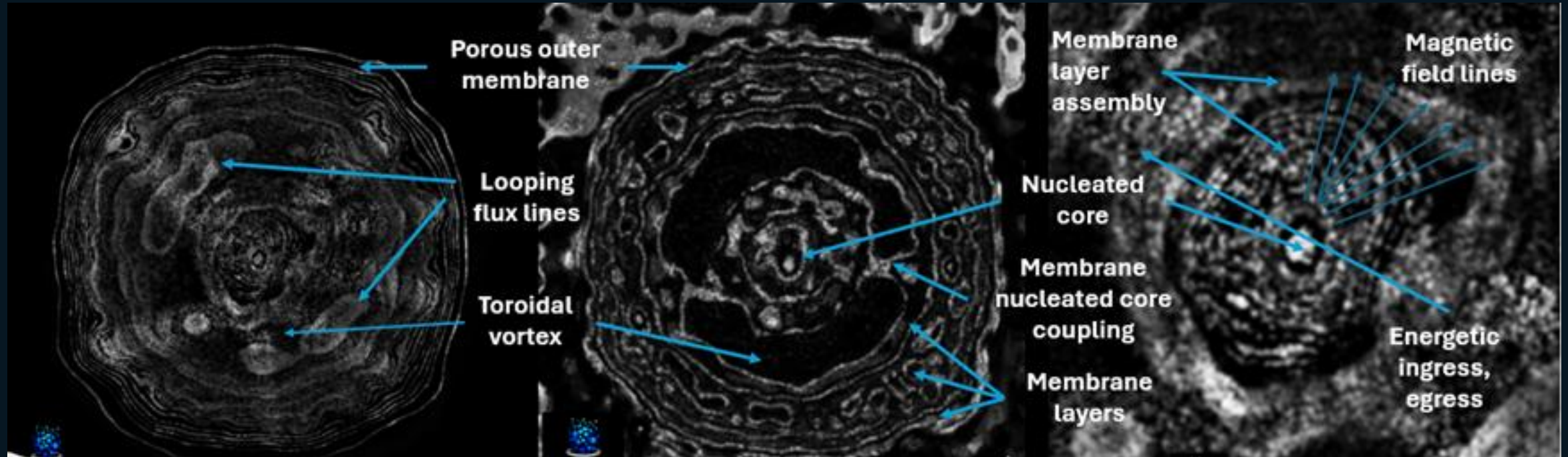
Centre

Proposed clocking or coordination

Coupling

Possible relationships between regions

Pilbara: a separate stacked-frame interpretation

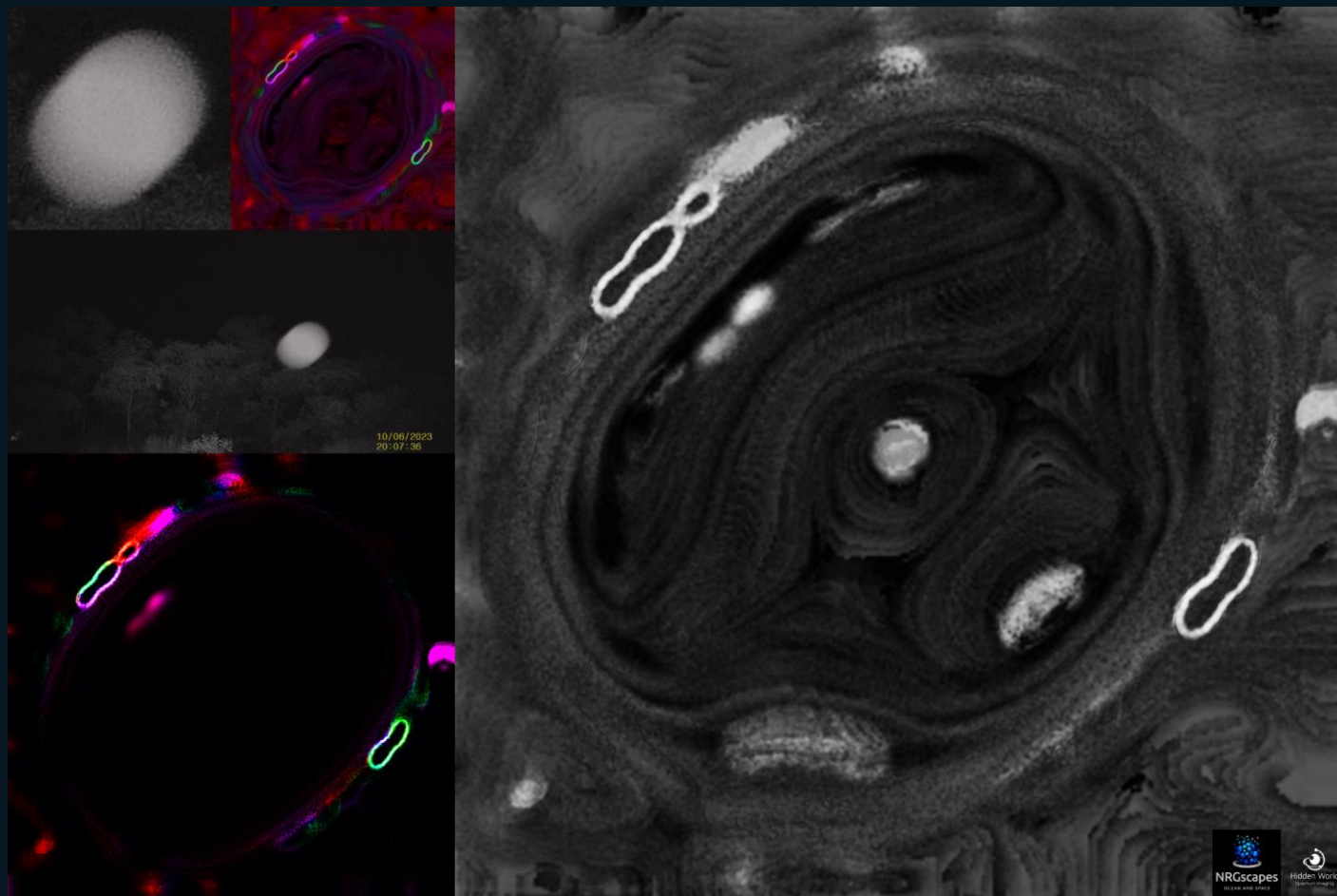


Membrane

Circulation

Exchange

Karijini: keeping the reconstruction tied to its source



Scene and crop

The recording anchors the comparison

Fixed processing

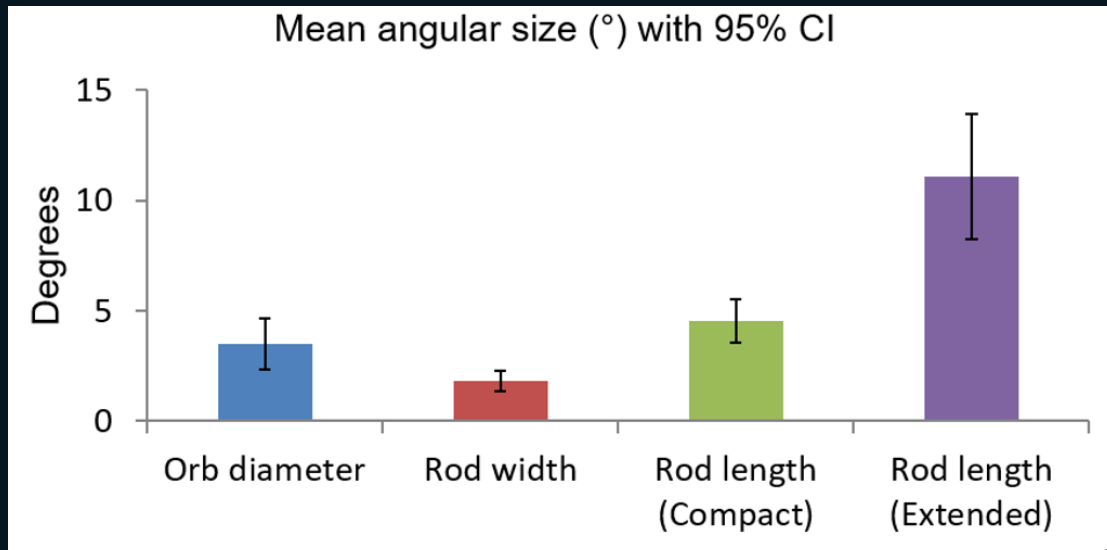
Track contours and intensity regions

Narrower claims

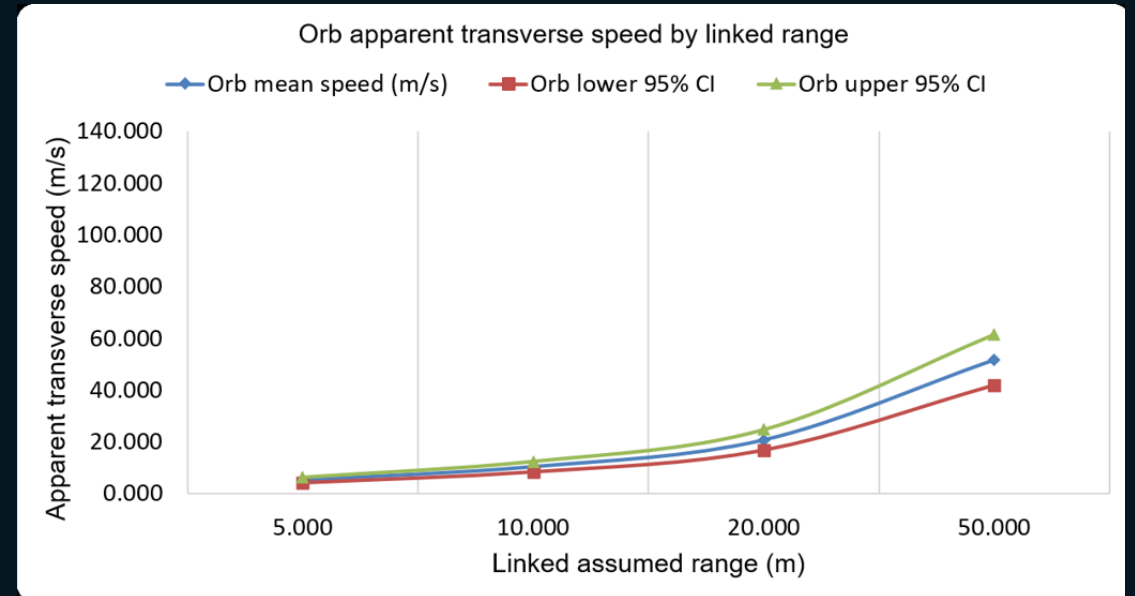
Repeatable image-plane morphology

Range changes the physical answer

Angular morphology



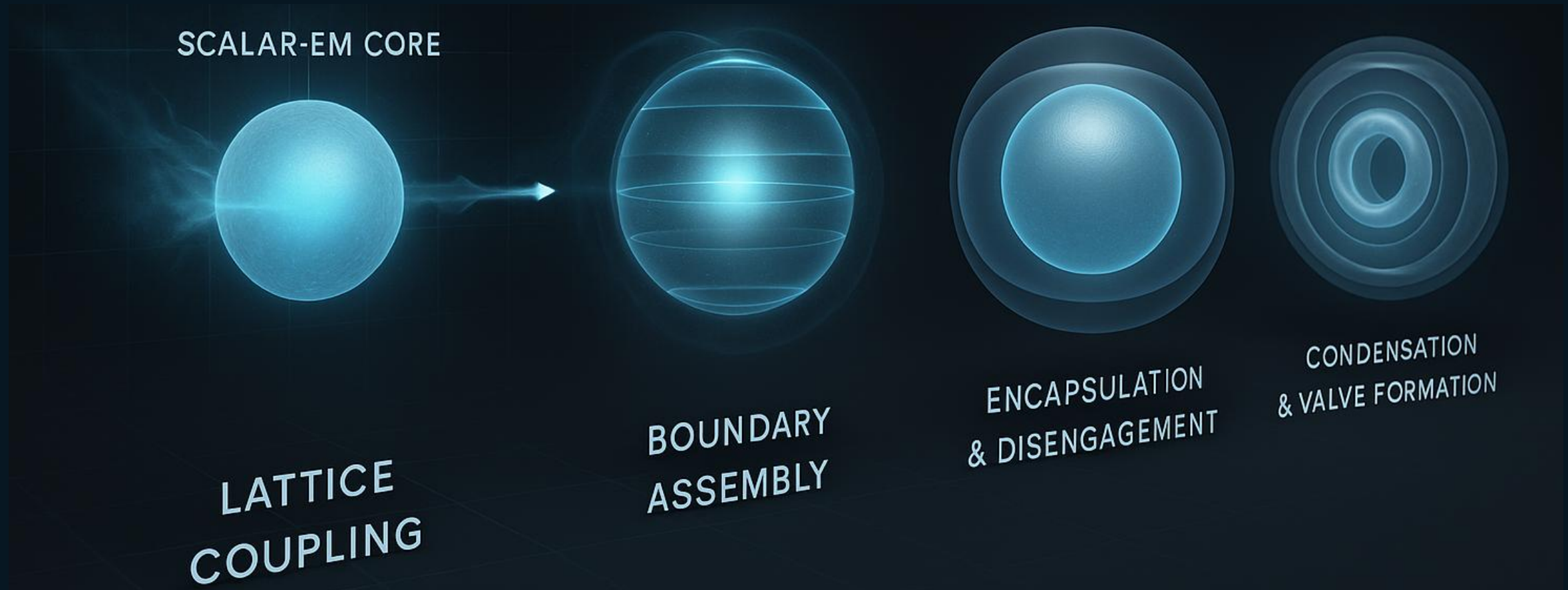
Apparent motion envelopes



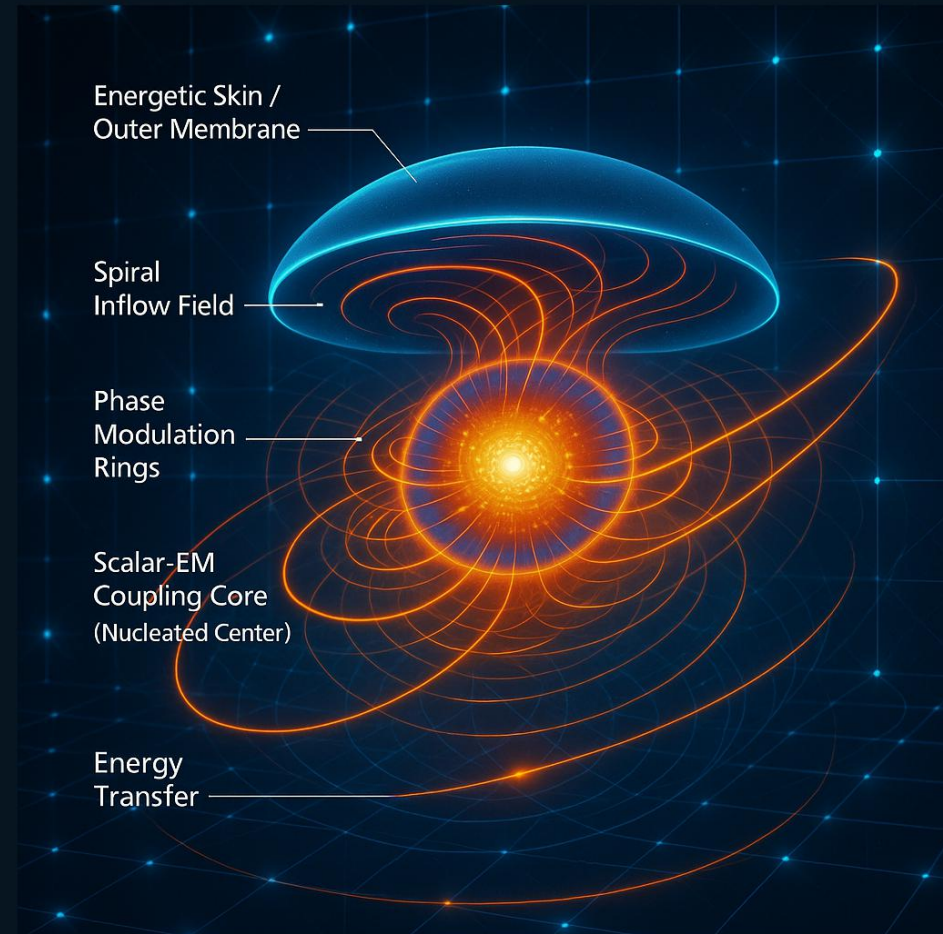
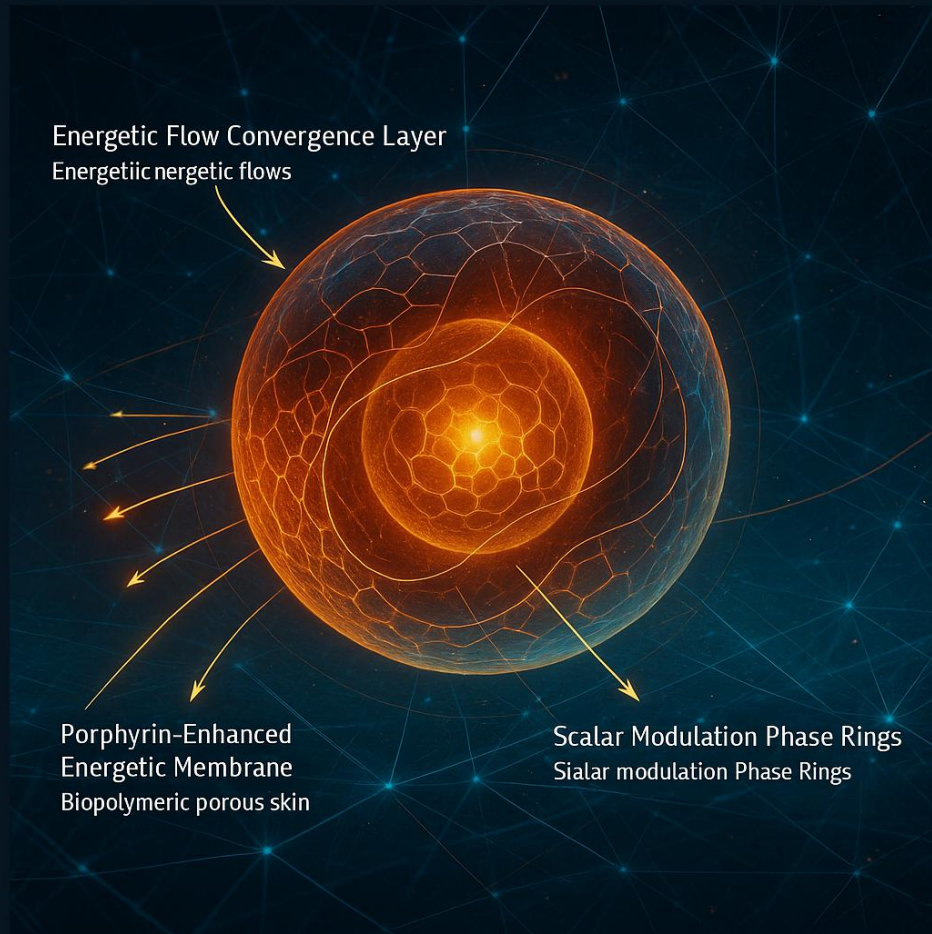
41 exemplars: 20 compact orb-like forms and 21 elongated forms

Angular dimensions come from images. Physical size and speed depend on range.

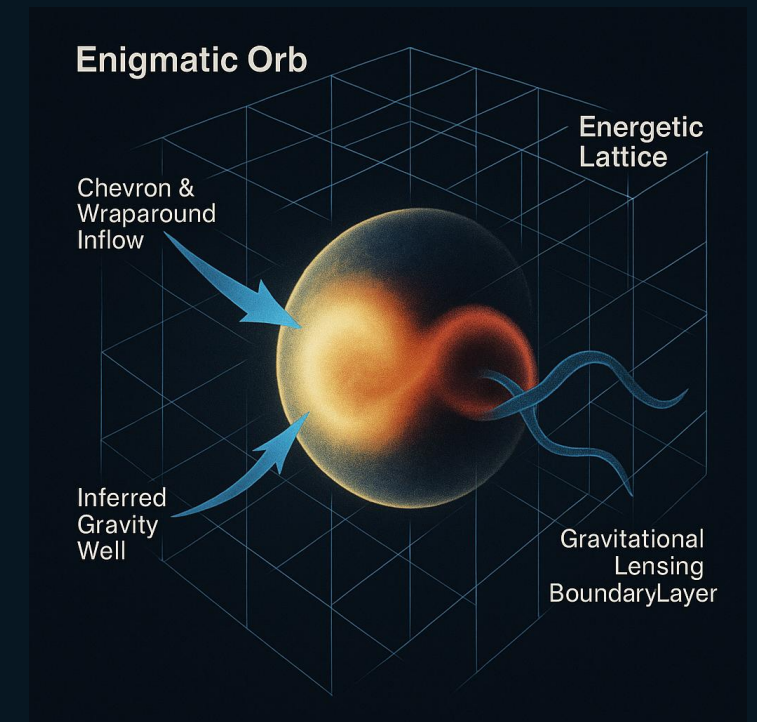
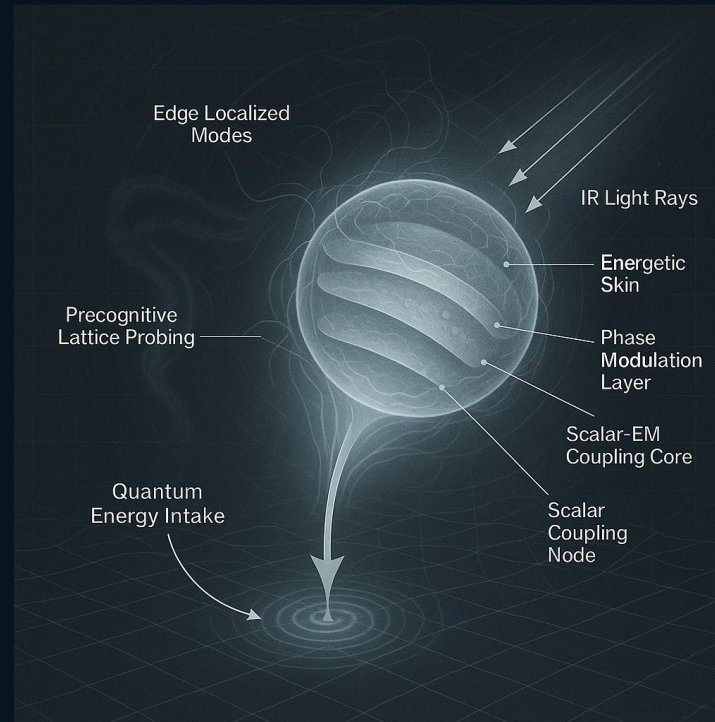
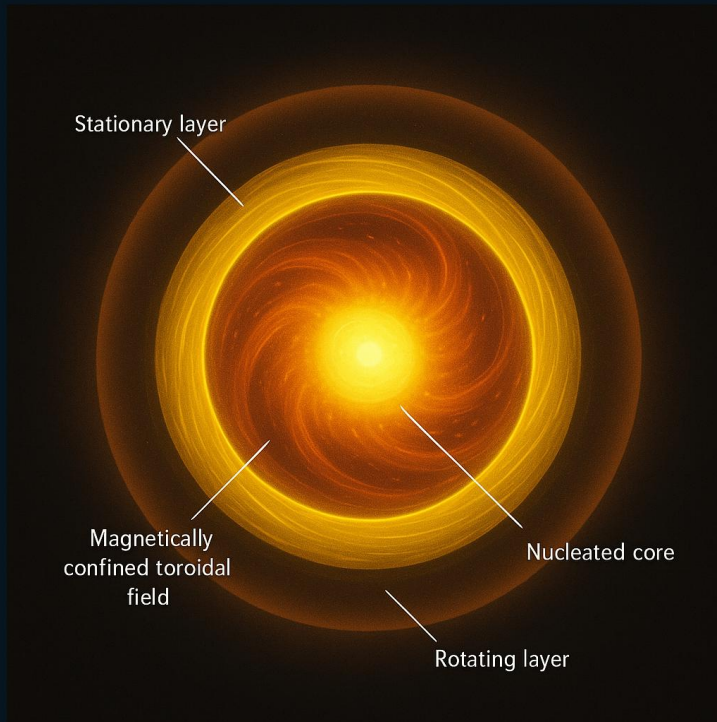
A model makes the spatial question visible



Membranes, cores and circulation



Several mechanisms remain in the research space



Electromagnetism and plasma

Flow, dielectric and electro-optical response

Scalar and gravitomagnetic hypotheses

Biology suggests a functional boundary



A membrane can maintain differences and regulate local exchange

- 1 Physical hull
- 2 Adaptive membrane
- 3 Distributed gating layer
- 4 Graded impedance region
- 5 Plasma / field sheath
- 6 Environment

Porphyrin-based composites are proposed test materials. Conductivity, impedance and durability become measurable questions.

Energy and timing meet at boundary control

Source options

Storage and electromagnetic / inductive supply

Regulated backbone

Energy domain

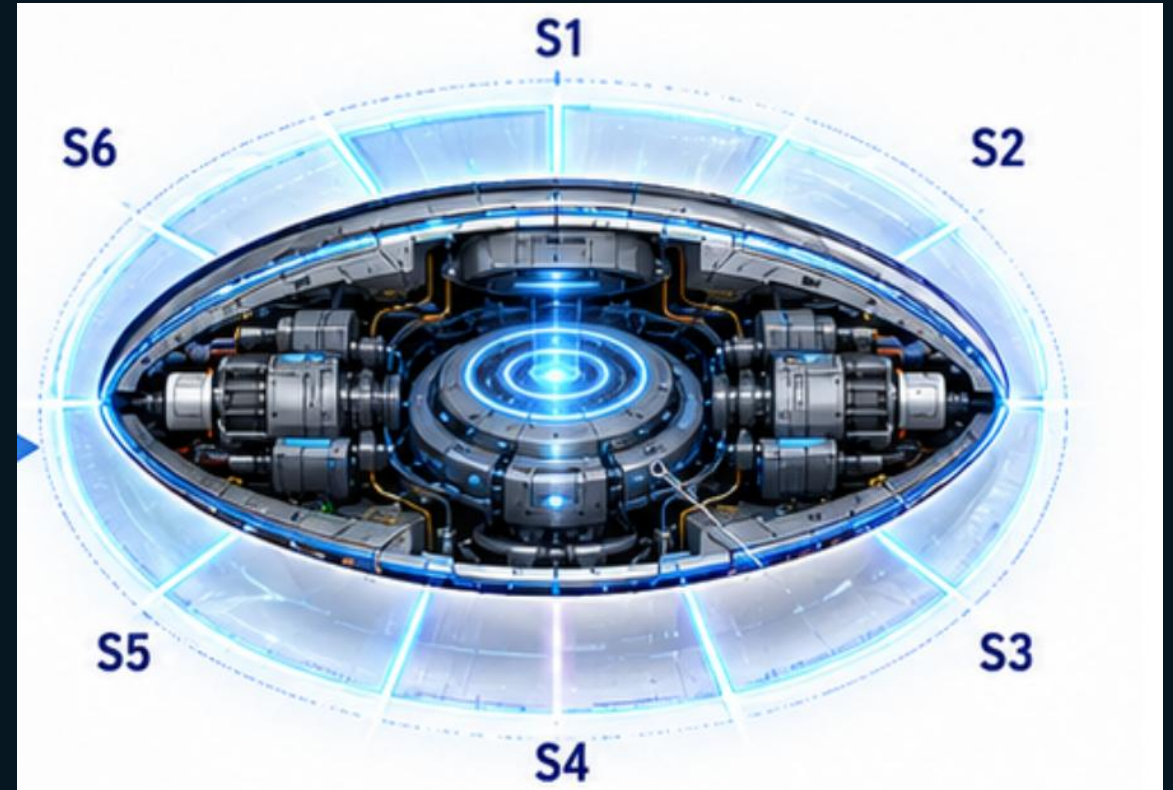
Stable supply
and distribution

Phase domain

Timing and
sector coordination

Boundary-control module

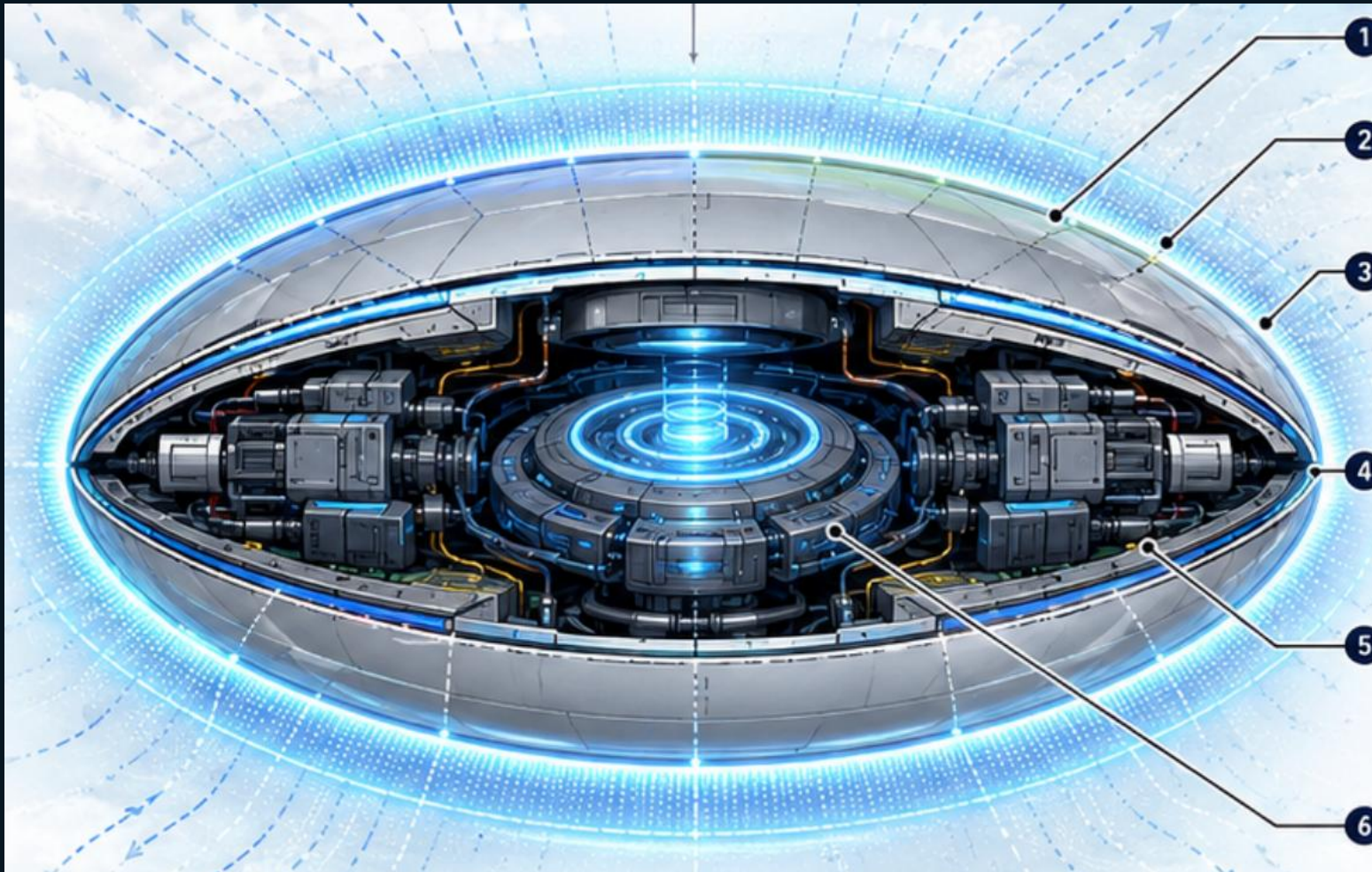
Measured-state feedback guides commands



S1–S6 identify spatial sectors

Clockwise from the top. All six share the architecture.

The craft is the engine



- 1 Physical hull
- 2 Adaptive membrane
- 3 Controlled plasma sheath
- 4 Sectorised boundary
- 5 Power and phase core
- 6 Boundary gradient zone

Energy and phase coordinate the proposed boundary.

Mobility horizons across different environments

Non-Newtonian translation between coordinates across space and time

Electromagnetic potentials, resonance and
boundary control remain in the research space.

Water

Atmosphere

Low Earth orbit

Solar system

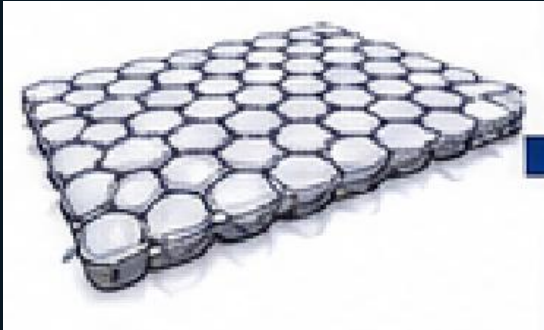
Interstellar

Each environment changes the materials, sheath stability and control requirements

The first experiments begin with materials

01

Material
coupons



Electrical response

02

Active
membrane panels



Local gating and gradients

03

Resonant /
plasma rigs



Resonance and phase
behaviour

04

Boundary
chamber



Distributed boundary
stability

A repeatable material response is the first useful result

Demonstrators have to earn their next stage

05

**Integrated
subscale**



Independent system
response

06

**Tethered
demonstrator**



Control and failure
behaviour

07

**Free-flight
demonstrator**



Repeatable measured
motion

08

**Trans-medium
demonstrator**



Control through changing
media

Evidence gates: repeatability, independent measurements and energy accounting

Better observations need more than one sensor

Optical sequence

Time order, intensity and morphology

Spectral / thermal

Calibrated radiometric context



Geometry

Range, viewing angle and motion

Radio / RF and EM

Synchronised field measurements

Controls must address saturation, heating, vibration and electrostatic effects

The papers return the argument to evidence

Observation

P1 Repeating signatures

P3 Quantitative and thematic mapping

Physical context

P2 Resonant mobility literature review

T1–T3 Technical architectures

Diagnostics

P4 Perth image workflow

P5 Pilbara method replication

Separate reported-experience strand

P6 Longitudinal experienter analysis

M3 Unpublished extension

What would move the investigation forward?

- | | | |
|----|----------------------------|--|
| 01 | Source persistence | A feature survives frame changes and controlled processing |
| 02 | Material response | A boundary sample shows repeatable electrical behaviour |
| 03 | Coordinated control | Distributed sectors maintain a measurable commanded state |
| 04 | Independent effect | Force or displacement survives controls and accounting |

Five years inside the orb phenomenon

Which measurement would change the explanation?

Explore the full illustrated feature and research portfolio

nrgscapes.com/research-portfolio-map/



Published research: signatures and physical context

P1

Boundary-layer Dynamics and Field Interactions in Unidentified Aerial Phenomena: A Scientific Perspective on Repeating Signatures

Morgan AD and Leeah S (2025). JSRR 31(11), 232–240.

P2

Boundary-layer Signatures and Resonant Mobility in UAP: A Multidisciplinary Literature Review

Morgan AD (2025). JSRR 31(11), 328–347.

P3

Mapping Boundary-layer Features in Unidentified Anomalous Phenomena (UAP): A Quantitative and Thematic Approach to Observational Signatures and Theoretical Models

Morgan AD (2025). JSRR 31(11), 403–420.

Published research: diagnostics and experience

P4

Field-Coupled Propulsion Diagnostics from Energetic Flow Imaging: Structural Analysis and Resonant Dynamics

Morgan AD, Boyd ME and Leeah S (2026). *Advances in Astronautics* 9, 373–387.

P5

Replication of a Three-Phase Imaging Workflow on an Ambiguous Pilbara Luminous Aerial Event: Screening, Image-Plane Diagnostics, and the Evidentiary Value of Opportunistic Video

Morgan AD, Boyd ME and Leeah S (2026). *JSRR* 32(8), 1040–1055.

P6

Structured Patterns in Anomalous Experience: A Longitudinal Developmental Analysis of a UAP Experienter Dataset

Morgan A (2026). *Limina* 3(1), 69–85.

Source images, reports and research status

Visual record

Perth published plates (P4)
Pilbara labelled stack (A1)
Karijini scene / analysis collage (A2)
Geometry displays (S1, M2)

Exploratory model assets

Formation, membranes, cores and layered coupling concepts (S5–S10)

Technical reports

T1 Field-Coupled Boundary-Layer Mobility
Technical Foundations Across Physics,
Chemistry, Biology and Engineering
January 2026, 54 pages

T2 Engineering a Field-Coupled Mobility System
2026, 25 pages

T3 Boundary-Coupled Mobility Systems
A Technical Architecture for Field-Mediated
Craft Design · January 2026, 105 pages