BloomOS

Dependable plant care, closed loop.

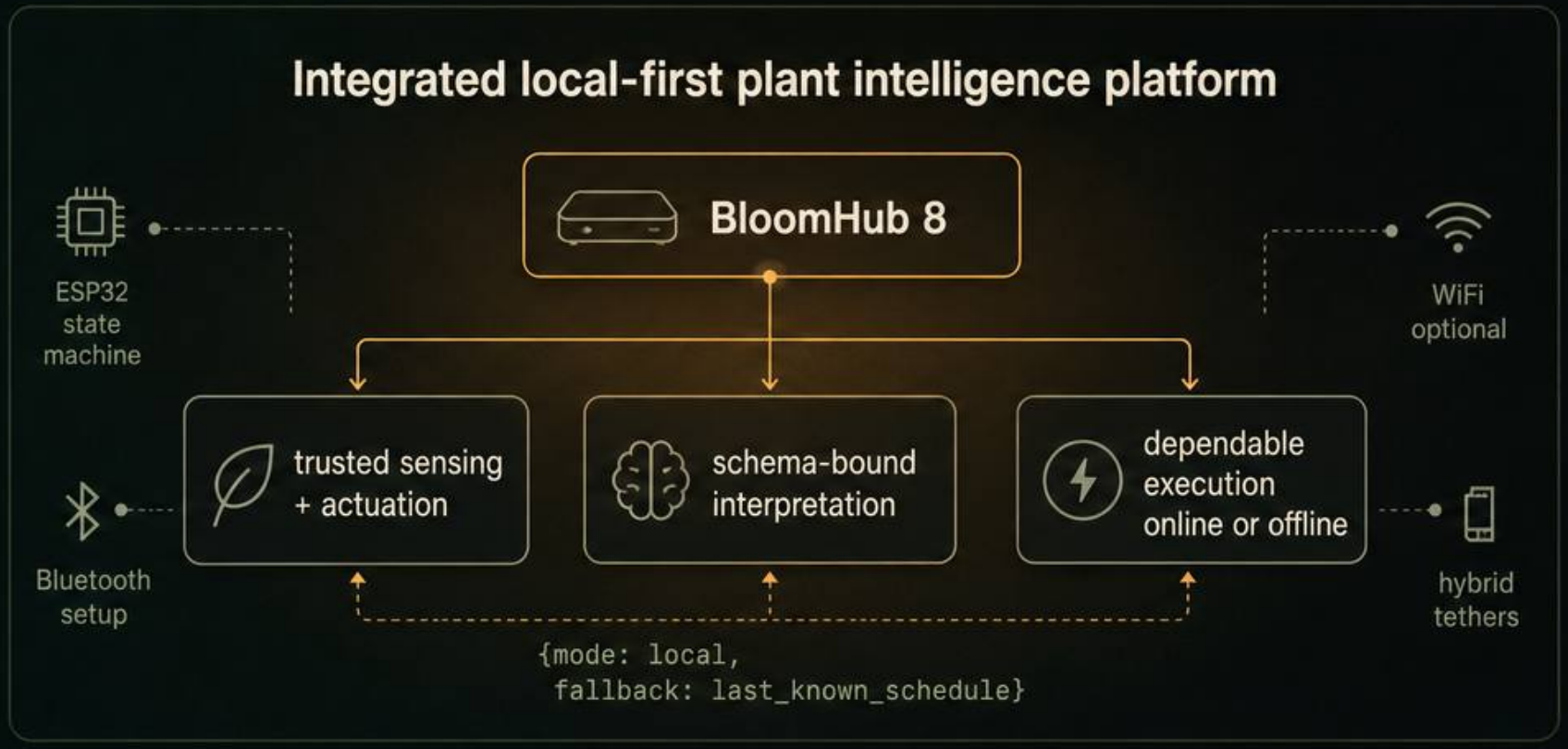
Reframing the category

From ornamental plant tech to dependable home biology infrastructure

WHAT PLANT TECH USUALLY IS

- app-first advice
- single-metric sensors
- cloud-dependent accessories

WHAT BLOOMOS IS



- wall-powered
- connects up to 8 plants
- local control
- PAW nutrition option

The problem is not interest. It is failure after enthusiasm.

SOURCE PROBLEM

Indoor plant ownership is expanding quickly, but the early excitement often collapses into a predictable care failure cycle. Plants wilt, routines break, and the category loses users after the honeymoon phase.

Consumers care about design, wellness, and greener homes, yet most still lack the tools, time, and usable data required for resilient plant care. The result is inconsistent outcomes in a category that still behaves like guesswork.

ISSUE 01

Advice is non-executable

ISSUE 02

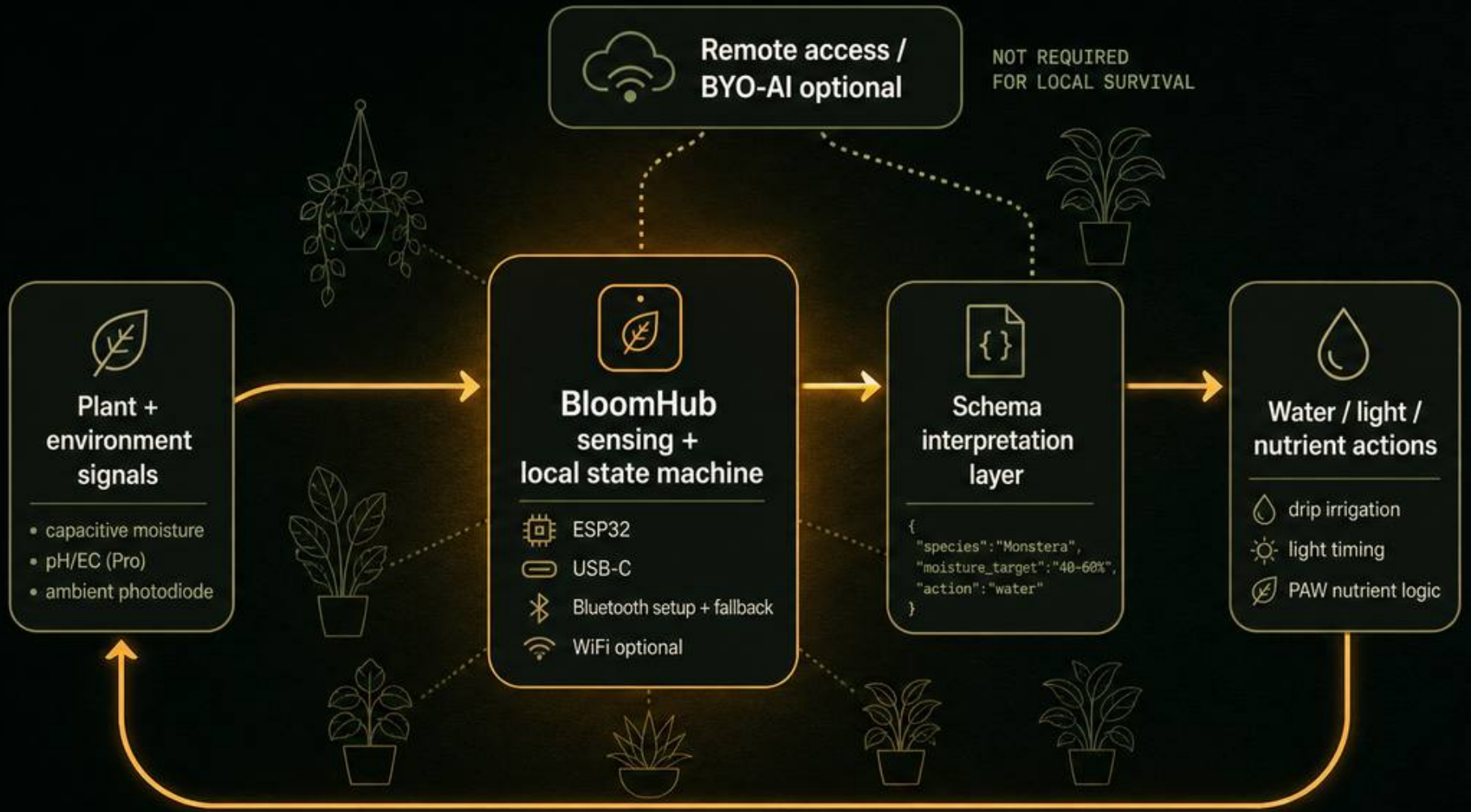
Battery sensors are scattered architecture

ISSUE 03

Cloud dependence is fragile for living systems

Local-first closed-loop architecture

Dependable plant care requires sensing, interpretation, and action to survive without the cloud.



BloomOS is an integrated local-first plant intelligence and nutrition ecosystem for the modern home. Wall-powered control, trusted sensing, and schema-bound interpretation create a dependable closed loop for care both locally and remotely.

- 100% local watering logic
- last known optimized schedules persist if internet fails
- data-driven care and automated optimization

SYSTEM OVERVIEW

BloomHub 8 architecture

Conceptual hub mockup for local-first sensing, control, and care delivery

CONCEPTUAL MOCKUP

LOCAL-FIRST CONTROL

- Wall-powered central station
- Connects up to eight plants
- Deterministic state machine
- Moisture decay curves
- Light schedules
- Watering logic 100% local

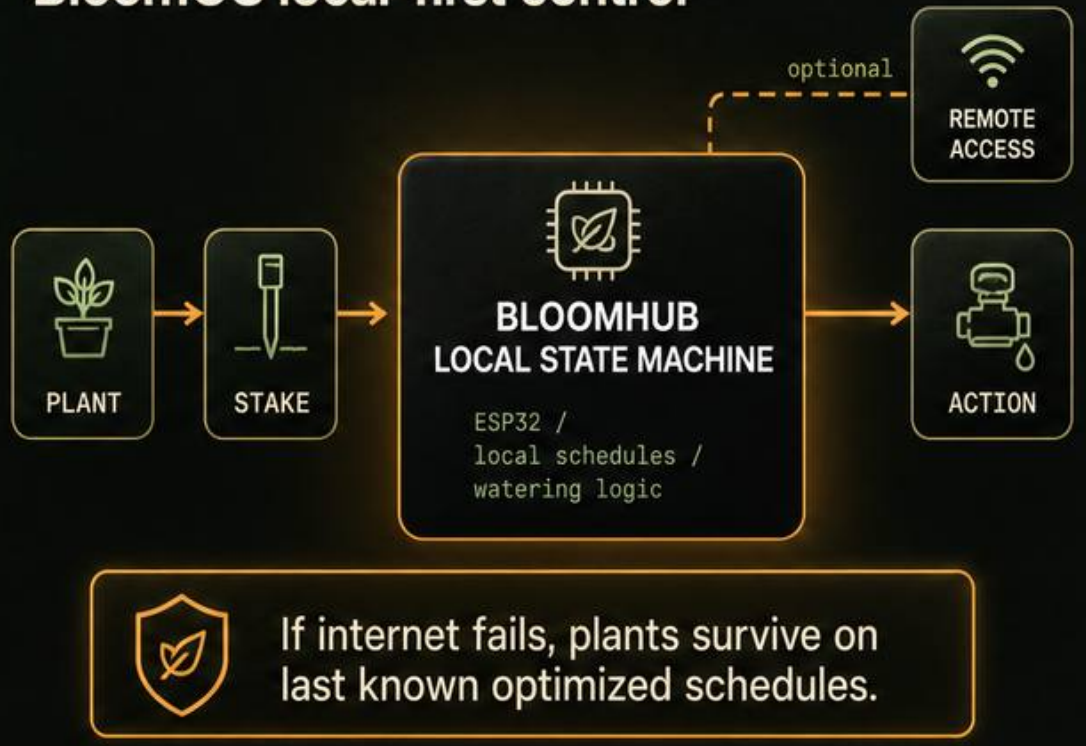
```
{ mode: local, ports: 8 }
```

Local-first control is the reliability boundary

Dependable plant care cannot fail when the network does.

Cloud-first accessory model

BloomOS local-first control



reliability

privacy and data sovereignty

long-term utility

Hybrid tether + intelligent stake

Unified sensing and delivery at the plant edge.

WHY THIS MATTERS

A unified tether replaces messy, battery-dependent wireless sensors with a single dependable plant endpoint for both telemetry and care delivery.

```
bloomos://endpoint.schema.json
{
  "type": "hybrid_endpoint",
  "tether": {
    "water": "silicone_tube",
    "signal": "3wire_ribbon"
  },
  "sensors": [
    "moisture_capacitive",
    "ph_ec_conductive",
    "ambient_photodiode"
  ],
  "actuator": [
    "drip_irrigation_nozzle"
  ]
}
```

LEGACY APPROACH

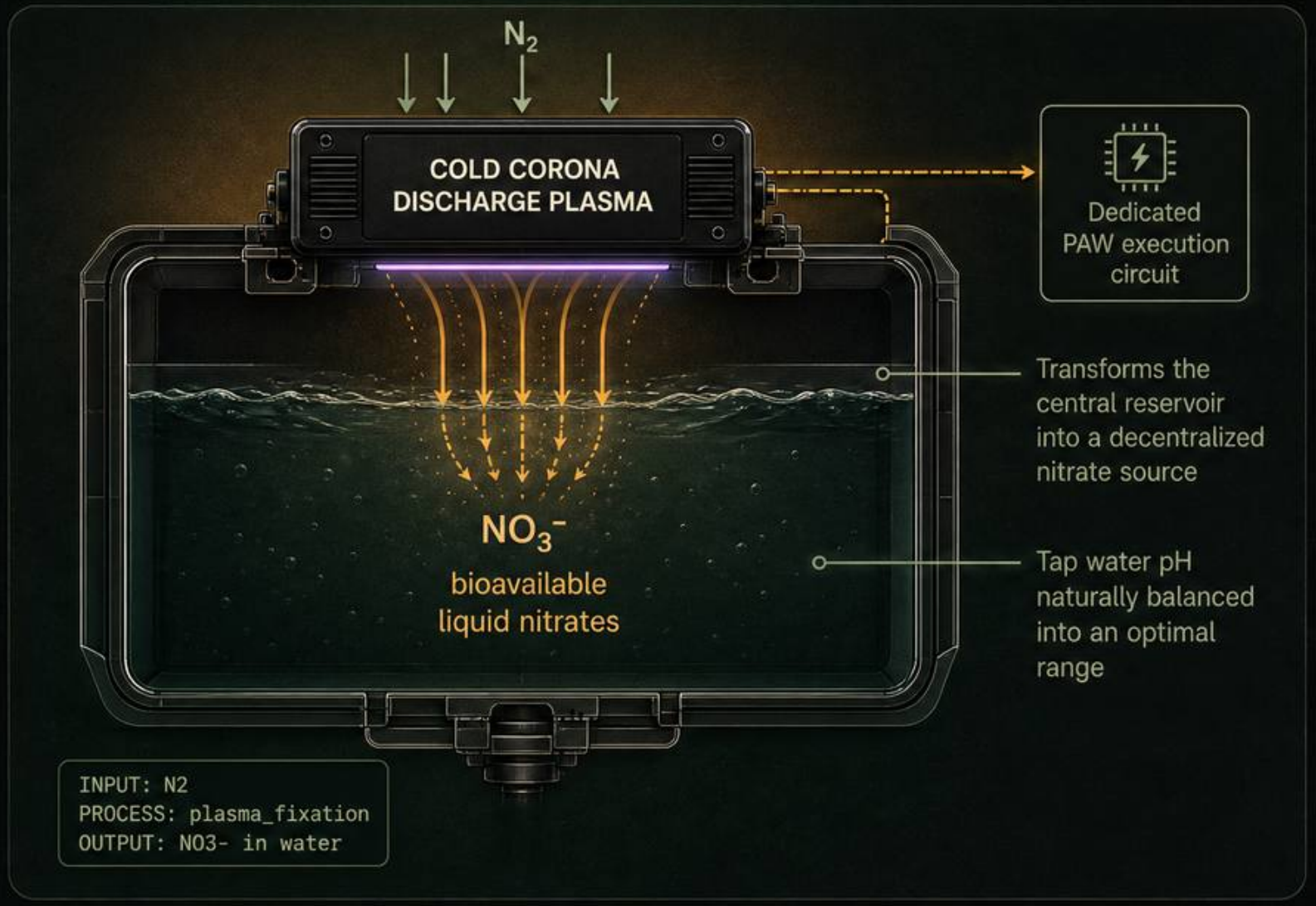
- SEPARATE SENSOR
- SEPARATE WATERING TOOL
- BATTERY MAINTENANCE

BLOOMOS ENDPOINT

SINGLE UNIFIED SENSING-AND-DELIVERY ENDPOINT

PAW as a local nutrient engine

Conceptual mechanism inside the BloomHub Pro reservoir



BENEFIT 01

On-demand nutrient generation

Transforms the central reservoir into a decentralized nitrate source.

BENEFIT 02

Sustainable decentralized nitrate source

Provides bioavailable liquid nitrates inside the reservoir.

BENEFIT 03

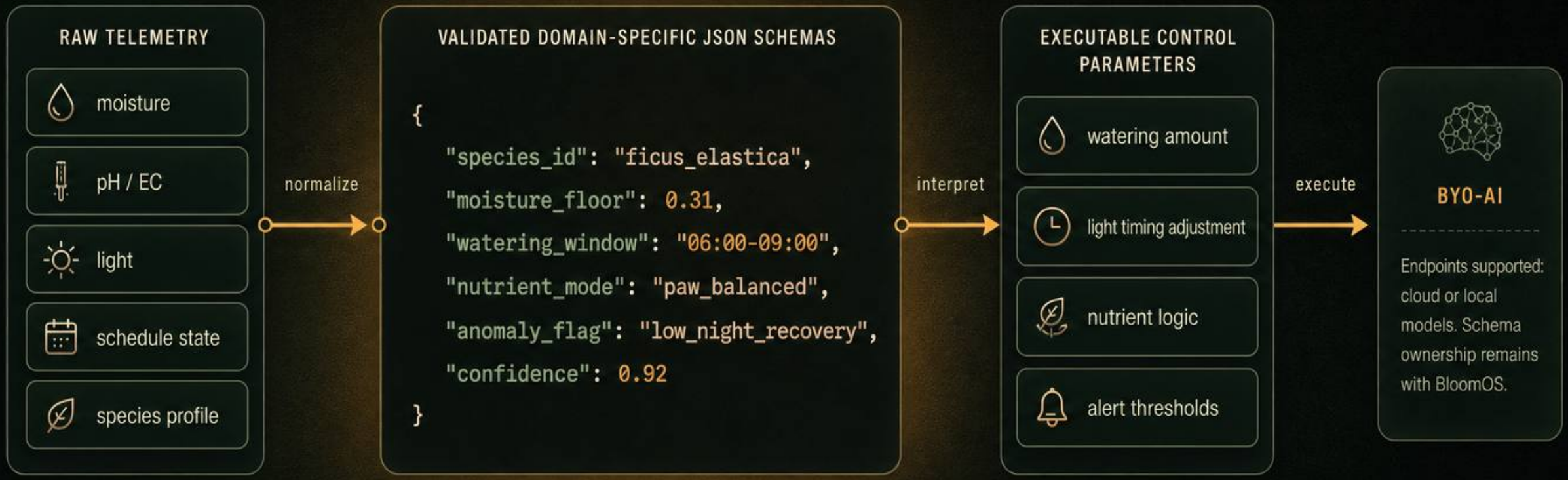
Managed by dedicated PAW execution circuit

Ensures precise, reliable PAW operation inside the reservoir.

Conceptual mechanism diagram shown for product explanation; not presented as lab evidence.

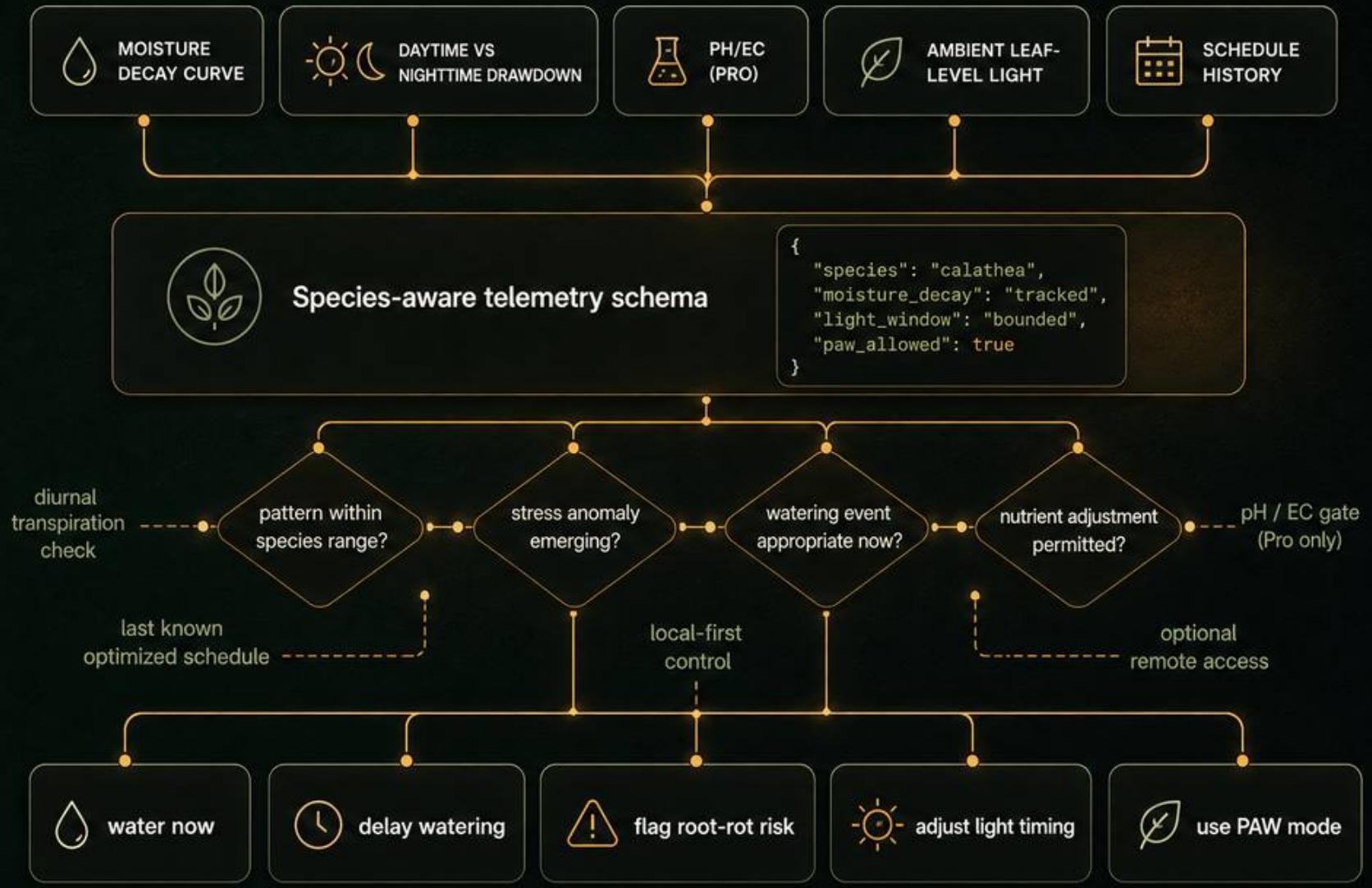
The schema moat sits between data and action

Generic models can answer; BloomOS schemas can execute.



The schema moat is executable control

Validated domain-specific schemas convert telemetry into bounded actions



Why this compounds

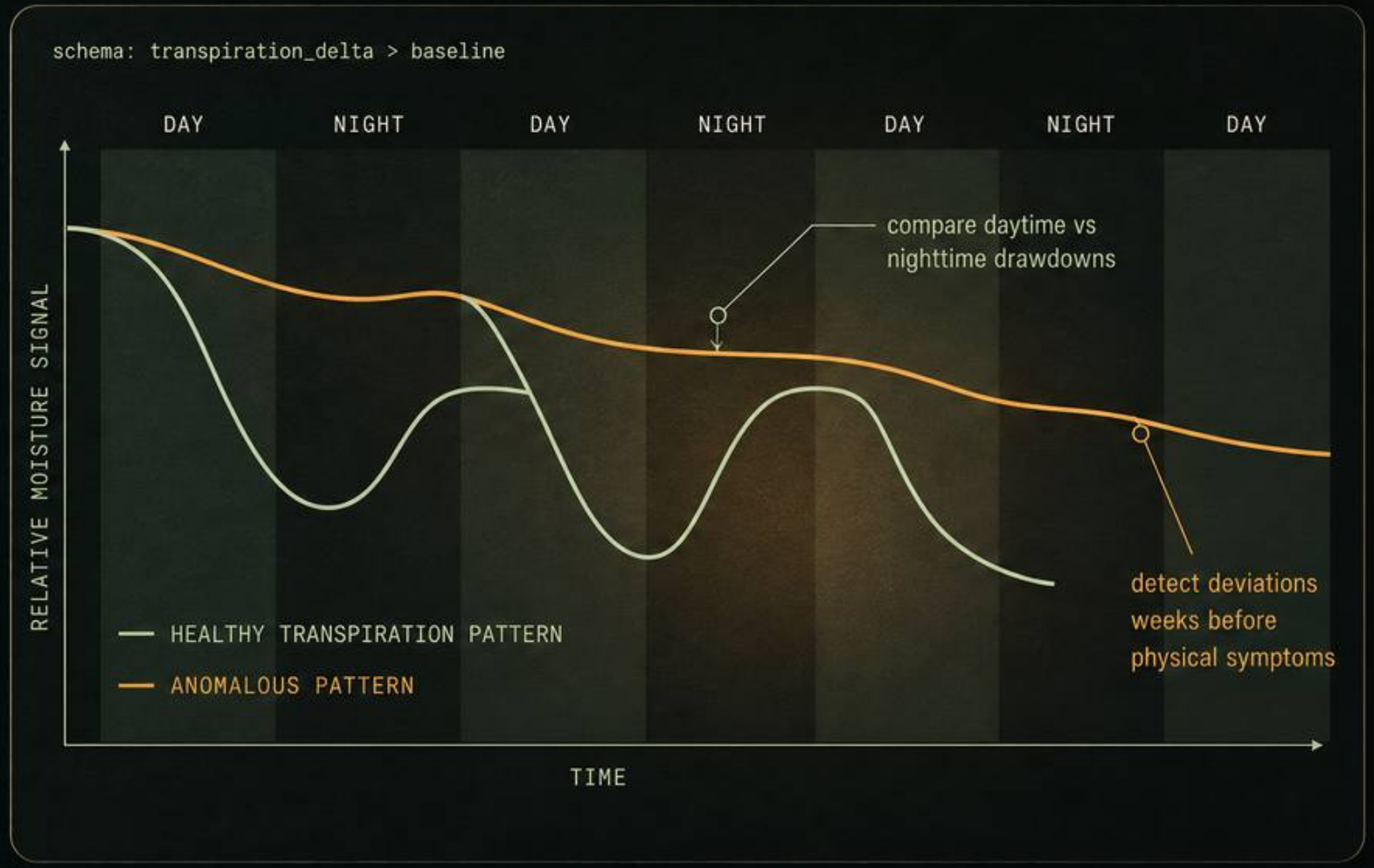
- Generic prompts produce generic answers
- BloomOS schemas map multi-variable telemetry into precise executable control parameters
- Outputs are tailored to species metabolic profiles
- BYO-AI keeps the control layer distinct from any single model provider

Control posture

- Deterministic local logic first
- Cloud optional for remote access
- Action boundaries remain explicit

Soil Moisture Decay Dynamics

Early stress detection from diurnal transpiration patterns



root rot risk

abnormal overnight moisture retention signals pathogen pressure at the root zone.

nutrient lockout

atypical uptake profile relative to species baseline indicates imbalance.

stress anomaly

multi-signal divergence detected; prompt bounded control review.

Conceptual visualization of Soil Moisture Decay Dynamics from source pitch; not a reported experimental chart.

MARKET WEDGE

Two entry points, one platform

Different buyer motivations, shared architecture and control logic.

Initial wedge: Aspirational Gardener

- urban professionals 25–45
- design + wellness orientation
- wants thriving plants without constant manual care

Representative mockup

Strategic extension: Self-sufficiency / off-grid

- local utility without cloud dependency
- privacy and data sovereignty
- resilient indoor growing support

Representative mockup

Same architecture, different purchase motivations.

COMMERCIAL MODEL

Proposed pricing structure

PROPOSED

Hardware-first local control, optional software layer, modular expansion.

HARDWARE

BloomHub 8 Standard

$299 one-time

- hub
- reservoir
- local control
- up to 8 plant support

BloomHub 8 Pro

$449 one-time

- all Standard features
- PAW nutrition layer
- pH/EC capable stakes

SOFTWARE

BloomOS+

$8 /month or $79/year

- remote dashboards
- advanced schema packs
- historical analytics
- BYO-AI orchestration tools

```
{mode:"local+remote",
  schema:"species_pack"}
```

ACCESSORY | Additional intelligent stakes, 4-pack

$59

Hardware remains fully functional locally without subscription.

Pilot results and seed execution path

Source-backed pilot metrics paired with near-term productization priorities

PILOT RESULT

100 beta testers

PILOT RESULT

92% reduction in plant mortality

PILOT RESULT

up to 2x accelerated growth rates in PAW-enabled cohort

Metrics presented from the pilot described in the pitch source.

Seed-stage productization roadmap

{stage:"seed",system:"BloomOS"}

STEP 01

Manufacture BloomHub 8 Standard and PAW Editions

hardware readiness

STEP 02

Finalize specialized plant schema library

control logic hardening

STEP 03

Prepare direct-to-consumer launch

go-to-market prep

STEP 04

Q4 launch target

launch window

OPERATIONAL CHECKLIST

- ✓ tooling
- ✓ BOM discipline
- ✓ QA
- ✓ fulfillment planning

CATEGORY COMPARISON

The category breaks when living systems depend on weak links.

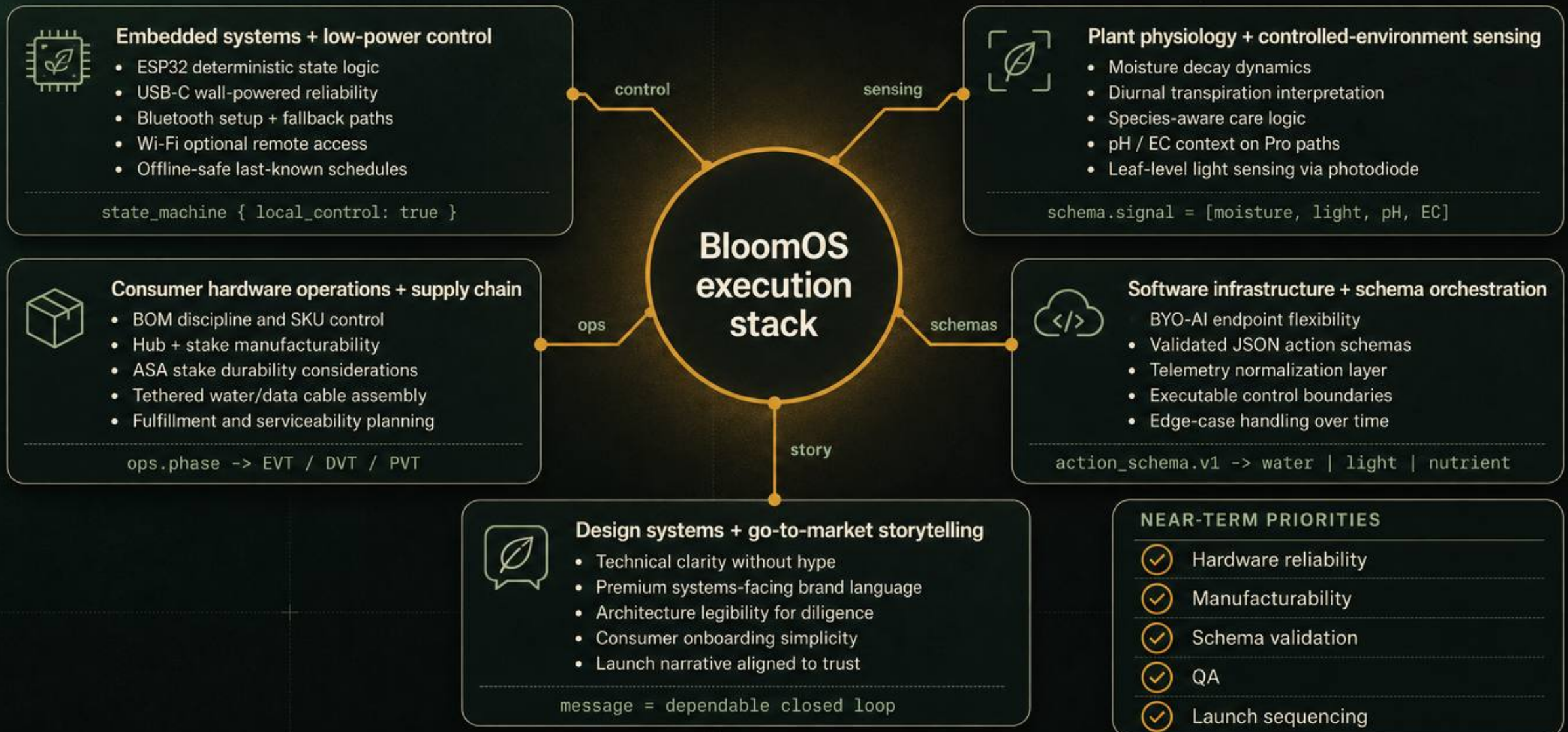
	App-first plant care	Single-metric sensor products	Cloud-dependent smart accessories	BloomOS
reliability offline	—	◯	—	✓
integrated sensing + actuation	—	◯	◯	✓
species-aware interpretation	◯	—	◯	✓
nutrition optimization	—	—	—	✓
battery maintenance burden	—	✓	◯	—
privacy / data sovereignty	◯	◯	—	✓
path to software defensibility	—	—	◯	✓

- **Local-first control** preserves care routines when internet access fails
- **Hybrid tether architecture** combines sensing and drip delivery in one loop
- **Schema-bound outputs** create species-aware, executable control logic

```
{"species":"monstera",
  "action":"water",
  "trigger":"decay_curve"}
```

Capability map for execution

WHAT THE COMPANY MUST BE GOOD AT TO WIN



NEAR-TERM PRIORITIES

- Hardware reliability
- Manufacturability
- Schema validation
- QA
- Launch sequencing

Raising $1.5M Seed

Build the dependable closed loop for intelligent plant care.

USE OF PROCEEDS

SCHEMA PROOF FRAGMENT

```
{
  "species_id": "monstera_deliciosa",
  "phase": "vegetative",
  "sensors": ["moisture", "ec", "light", "temp", "paw"],
  "actuators": ["irrigate", "dose", "ventilate", "light"],
  "ruleset_id": "md_v1.4.2",
  "checksum": "8f3c2a7b9d6e4f1a"
}
```

local-first reliability

local execution survives connectivity loss.

PAW differentiation

plasma-activated water adds an integrated nutrition layer.

schema moat compounds over time

validated species-aware schemas convert telemetry into control logic.

Invest in the backbone for modern biophilic living.