

SECTOR PACKAGE · LUNAR INFRASTRUCTURE

Factories and bases on the Moon, governed and provable

Control, human approval and verifiable evidence for the remote and autonomous operation of surface infrastructure: bases, factories, power and systems no one can go and touch.

The permanent lunar base is no longer science fiction: **it is a program under way, with a multi-billion budget, defined phases and surface habitats and factories in design** — and its entire operation will be remote or autonomous: robots that build, plants that produce, systems that decide on their own through fourteen-day nights. A valid credential was never so little control. *Who authorizes each order to a system no one can touch, and what evidence remains 384,000 kilometers away?*

WHAT VELANTIA BRINGS TO THIS SEGMENT

AUTONOMY — governs the systems that operate on their own — robotic builders, production plants, power and support: **capabilities, limits, conditions and human approval** defined from Earth.

GATE — decides each critical order to surface infrastructure: **allow, condition, route to approval or block**, based on policy, context and the operating window.

SENTINEL — observes surface operations, **detects anomalies** and attributes each action to its author: agency, contractor, international partner or autonomous system.

EVIDENCE — preserves a **verifiable history** of every order, maneuver and incident: for the agency, the program partners and anomaly investigation.

WHAT YOU CAN DO WITH IT

- ▶ **Govern extreme autonomy:** latency and lunar nights impose systems that decide on their own — within explicit policies, not within hope.
- ▶ **Multi-actor by design:** agencies, contractors and international partners operating the same infrastructure under defined permissions and an integrity-protected record.
- ▶ **Human approval where it is irreversible:** power, life support, maneuvers — the sensitive stops until approved from mission control.
- ▶ **Evidence as the only truth:** with no eyewitnesses, the verifiable history of each action is the only way to know what happened.

The surface operates on its own — every order with permission, context and a provable history.

DEPLOYMENT

Governance of surface operations is exercised where the decision lives today: the ground segment. **SOVEREIGN 700** for mission control centers and **INDUSTRIAL 500R** for stations and deployed environments (both in pre-order), governed from **VELANTIA ONE**. The governance layer is software and accompanies the program wherever the program goes. It integrates with existing mission-control software **without replacing it**.

WHY NOW

The permanent lunar base program already has leadership, budget and a timeline, and **the surface factories and cities are being designed now**. Governance of critical action cannot be a later patch: whoever builds it into the design will define the standard for decades. European technology, conceived for the infrastructure that does not yet exist.

Next step: an initial meeting and a demonstration.

Complete flow on a scoped remote or autonomous operations case: order → policy → approval or block → evidence. A scoped