

Artificial Intelligence for monitoring, predicting, and optimizing complex systems

GMV PitIA® transforms operational data into actionable insights to monitor, predict, and optimize complex systems using machine learning and explainable artificial intelligence.

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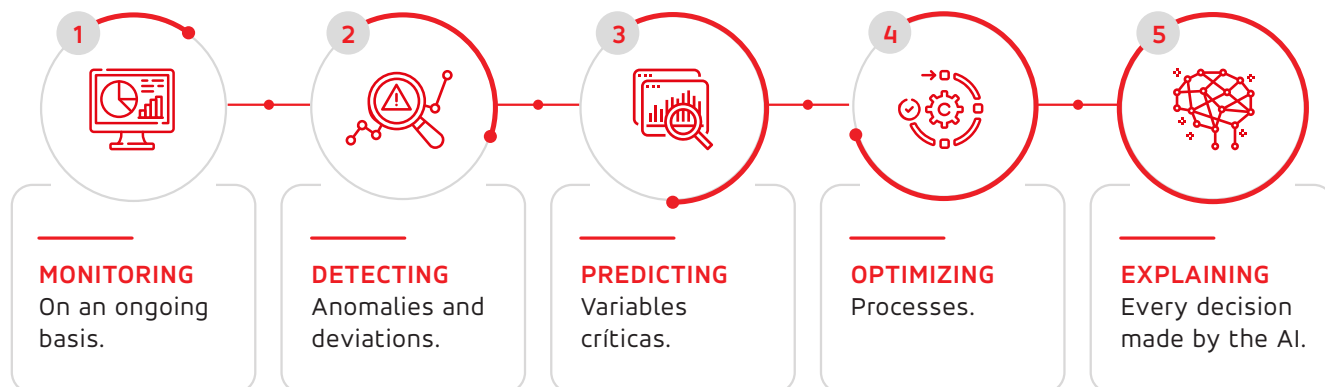
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A PLATFORM DESIGNED FOR CRITICAL OPERATIONS

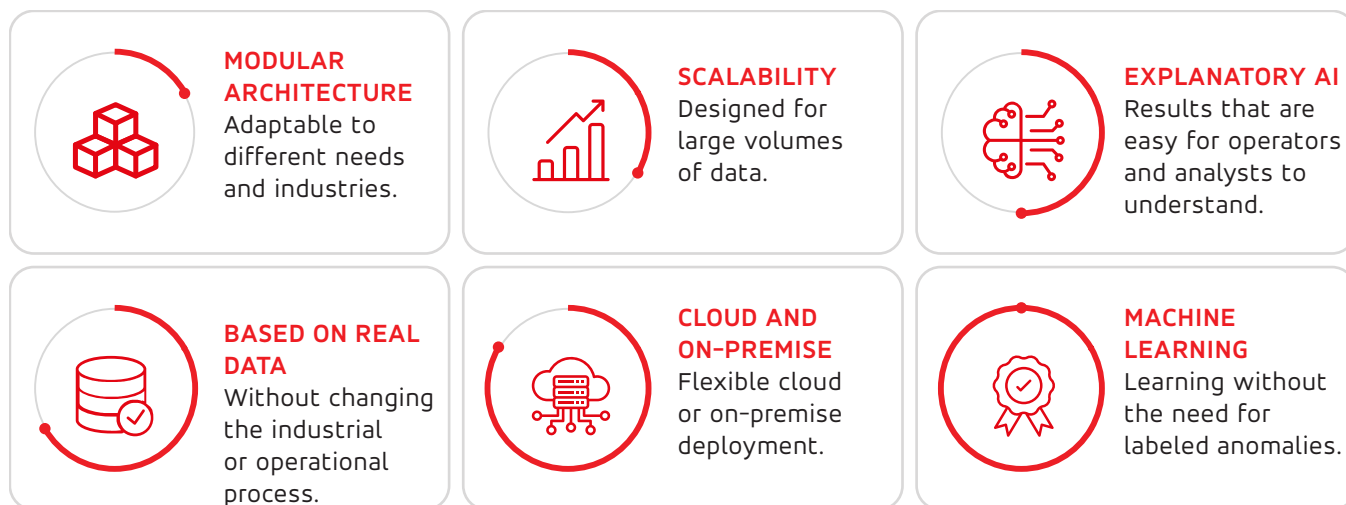
GMV PitIA® uses historical and operational data to automatically learn the normal behavior of each system and identify deviations before they become a problem, with no need for large sets of labeled failure data.

From data to **smart decisions**



EXPLAINABLE AI: Understand why the AI makes each decision and act confidently.

Why **GMV PitIA®**?



GMV PitIA® combines cutting-edge AI, flexibility, and operational intelligence to transform data into **decisions that make an impact.**



AI FOR SAFER AND MORE EFFICIENT SPACE OPERATIONS

Monitoring thousands of telemetry parameters in real time is one of the main challenges of space operations.

GMV PitIA® uses artificial intelligence to learn the normal behavior of space systems, automatically detect anomalies, and help operators understand their cause before they affect the mission.

Its ability to process large volumes of telemetry data and provide explainable alerts makes PitIA a true asset for satellite control centers.



SUCCESS STORY

Intelligent anomaly detection in satellite telemetry

Validated using the ESA Anomaly Detection Benchmark, **PitIA** has proven its strong ability to detect anomalies while reducing false alarms and facilitating operators' work.

BENEFITS

- Detection without the need for labeled anomalies.
- Automatic explanation of the origin of each anomaly.
- Simultaneous management of thousands of variables.
- Ready for continuous operation.
- Regular model updates.
- Greater confidence in operations with explainable AI.



Turn space telemetry into operational intelligence

Algorithm	Model Performance	Scalability	Usability	Reliability & Robutness
PitIA	●	●	●	●
PCC	●	●	●	●
HBOS	●	●	●	●
iForest	●	●	●	●
Window iForest	●	●	●	●
KNN	●	●	●	●
Global STD3	●	●	●	●
Global STD5	●	●	●	●
Telemanom ESA	●	●	●	●
Telemanom ESA Pruned	●	●	●	●