

NEWSPACE MARKET · COMPANY PROFILE



Vyoma GmbH

Germany · founded 2020 · vyoma.space

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as of 20 August 2026



Vyoma GmbH

Vyoma GmbH is a Munich-based space technology company that builds cloud-native software and space-based sensor infrastructure to enable safe, scalable, and commercially viable satellite operations. Founded in 2020, the company addresses two of the most pressing challenges in modern space: the safe management of satellites in increasingly congested orbits, and the need for sovereign, independent space domain awareness capabilities for government and defence customers. Vyoma's commercial product portfolio consists of a Software-as-a-Service operations platform that integrates flight dynamics, mission planning, and satellite safety into a unified subscription offering. The platform's AI-driven collision avoidance engine continuously screens customer satellites against Vyoma's independent orbital catalogue — which covers both catalogued and uncatalogued debris — and generates optimal, constraint-aware avoidance manoeuvres on demand. The operations stack is available as a cloud subscription or deployable on-premise for data-sovereign customers. On the security side, Vyoma is developing the Flamingo constellation — a series of optical surveillance satellites in Sun-synchronous orbit designed to provide on-demand and scheduled Space Situational Awareness (SSA) observations for government and defence customers. Flamingo-1 launched on 11 January 2026 and is operational; the full 12-satellite constellation is planned by 2029. The constellation underpins Vyoma's Space Surveillance & Tracking Data Service and a turnkey SDA solution that allows national governments to establish independent space surveillance capabilities without building the entire technology stack from scratch. Vyoma applies a security-by-design philosophy across all products, with multi-location backup capa

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SERVICES

Services

Automated Mission Control Vyoma offers affordable, data-driven and automated mission control to manage space assets efficiently, allowing engineers to focus on customers.	Full Satellite Operations Suite A comprehensive suite for fully automated and scalable satellite operations, including flight dynamics, mission planning, control, and telemetry storage.
Smart Mission Planning Optimally plan science and duty cycles considering power, memory, ground passes, and other constraints to maximize payload duty cycle.	Space Surveillance & Tracking Service Access proprietary SST data and schedule surveillance or dedicated tracking campaigns using Vyoma's global ground and space-based sensor network.
Trajectory Planning and Optimization Estimate and plan trajectories for optimal and safe passage, including orbit and attitude determination, collision avoidance, and manoeuvre planning.	

Product catalogue



VYOMA GMBH

Flamingo

Flamingo is Vyoma's constellation of space surveillance and tracking (SST) satellites that image the star background and space objects to build an independent orbital catalogue.

Constellation size	12 satellites (full constellation)
Revisit time (full constellation)	below 1 hour for all LEO targets
Flight heritage	Flamingo-1 launched and operational, providing follow-up capabilities and observations of
Data output	Astrometric reduction, associated targets across images, unassociated Tracking Data Messag
Processing methods	Parallel classical and machine-learning based methods, including on-the-edge (onboard) pro

price on request



VYOMA GMBH

Flamingo Satellite Constellation

The Flamingo satellite constellation, owned and operated by Vyoma, provides Space Surveillance & Tracking (SST) data for Space Safety and Space Intelligence services, enabling

Status	AIT (Assembly, Integration and Testing)
Launch	Q4 2026
Orbit	SSO 10:30 AM
Payload	Optical camera for SSA
Class	Microsatellite
Lifetime	5 years
Propulsion	Electric

price on request



VYOMA GMBH

Flight Dynamics Service

Cloud or on-premise SaaS for orbit determination, propagation, manoeuvre planning, and collision avoidance with built-in satellite safety from day one.

Delivery model	Cloud-based or on-premise SaaS
Orbit prediction horizon	7–14 days (ODMs with mean state and covariance)
Core functions	Orbit determination, propagation, manoeuvre planning, pass prediction, event detection
Output formats	Orbit Data Messages (ODMs), Tracking Data Messages (TDMs)
Collision avoidance	Built-in standard feature
Deployment	Cloud or on-premise for data-sovereignty requirements

price on request



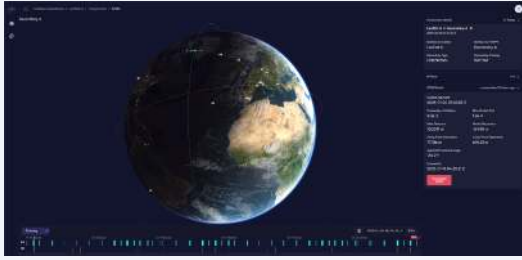
VYOMA GMBH

Satellite Operations Service

End-to-end automated satellite operations SaaS integrating flight dynamics, mission planning, mission control, and telemetry storage to scale from one satellite to full constellations

Delivery model	Cloud-based or on-premise SaaS
Included modules	Flight dynamics, mission planning, mission control, telemetry storage
Automation level	Full automation with configurable human oversight modes
Scalability	Single satellite to large constellations
Security	Security-by-design, multi-location backup
Deployment	Cloud or on-premise for sovereign/regulated environments

price on request



VYOMA GMBH

Satellite Safety Service

Cloud-based space traffic management SaaS delivering collision warnings, avoidance manoeuvre recommendations, and trajectory screening for satellite operators.

Delivery model	Cloud-based SaaS subscription
Tiers	Monitor (free), Plan, Save
Conjunction screening	Against full catalogue including uncatalogued debris
Orbit prediction horizon	7–14 days
CAM constraints supported	Propulsion type, delta-v budget, eclipses, regional anomalies
Output formats	Conjunction Data Messages (CDMs), manoeuvre files
Scalability	Single satellite to large constellations

price on request



VYOMA GMBH

Space Domain Awareness Turnkey Solution

Sovereign on-premise SDA package enabling governments to independently operate space surveillance sensors, catalogue space objects, and conduct analytics with full data control.

Delivery model	On-premise turnkey (space and ground segment)
Space segment	Access to Flamingo SSA satellite constellation
Ground segment	Sensor tasking, scheduling, payload data processing
Data sovereignty	Full on-premise hosting, no third-party cloud dependency
Astrometric processing	ML + classical methods, sub-pixel accuracy, TDM generation
Security	Security-by-design, risk-based engineering, multi-location backup
Scalability	Modular, incrementally expandable by orbital regime

price on request



VYOMA GMBH

Space Surveillance & Tracking Service

Data-as-a-service providing on-demand and scheduled SST observations via a globally distributed ground and Flamingo space-based sensor network for government and defence customers.

Delivery model	Data-as-a-Service subscription
Sensor network	Distributed ground-based sensors + Flamingo space- based optical constellation
Flamingo-1 status	Operational (launched 11 January 2026, SS0 dusk-dawn)
Flamingo-2 planned launch	Q1 2027
Full constellation	12 satellites planned (Flamingos 3–12 in 2028–2029)
LEO revisit time (full constellation)	Below 60 minutes
Payload accuracy	Sub-pixel astrometric reduction via time-series methods

price on request

Contact Vyoma GmbH

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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