





Business Models and Opportunities in the Earth Observation Market

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DOMINO-E supporting market needs

DOMINO-E aligns with the evolving trends in the EO and small satellite sector, ensuring that its multi-mission federation layer remains relevant and valuable to both institutional and commercial users.

Increased Operational Needs:

DOMINO-E aligns with this need by enabling multi-mission coordination, ensuring timely image acquisition and delivery

Demand for Cost-Effective and Scalable EO Solutions:

DOMINO-E's multi-mission federation layer addresses this by offering seamless integration and optimization across multiple EO assets.

Shift from Raw Data to High-Level Data-Driven Services:

DOMINO-E's focus on automated planning, scheduling, and Al-driven processing supports this transformation.

Democratization of EO Data:

DOMINO-E facilitates efficient data access and processing through its federated system, helping overcome technical and resource barriers.

Growing B2B Market & SME Involvement:

DOMINO-E aims to engage SMEs by allowing them to develop services for the federation layer, increasing competitiveness and fostering innovation.

Market Challenges: Standardization, Competition, and Regulatory Issues:

DOMINO-E's approach to interface standardization and compliance positions it well to tackle these barriers.







Insights from the DOMINO-E Project

DOMINO-E:

as a federated, Standardized, modular EO architecture

GOAL:

Enhancing collaboration & lowering market entry barriers for SMEs Focus on business models, certification & commercialization strategies

The Impact of DOMINO Architecture on EO Collaboration and SME Entry:

Unlocking opportunities through modular, federated Earth Observation

DOMINO Market:

End-users (institutional and government market)
System Integrators and SME (industry)





Benefits of federated and shared Infrastructure for EO Efficiency

- Cloud-based EO processing reduces duplication
- > Lower costs for governments, agencies, and SMEs
- > Use Case: Multi-stakeholder flood monitoring coordination



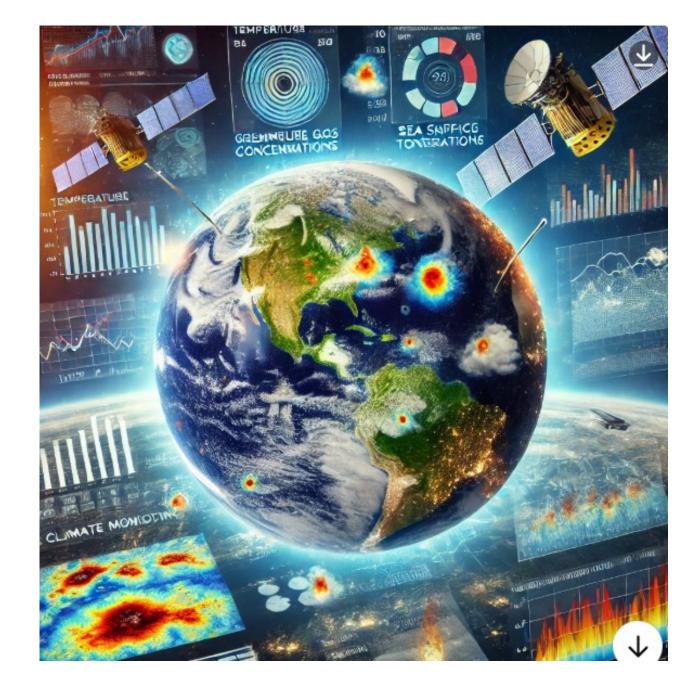




The Role of federated in EO Interoperability

- DOMINO Architecture standardization at EU level contributes to reusability and profitability for all European stakeholders.
- > Ensuring seamless EO data access across missions
- Standardization enables cross-sector & international collaboration
- Federated ground segments streamline multi-mission coordination
- > Enables resource pooling
- > Integrating Copernicus, ESA & commercial platforms

> Use Case: Climate monitoring agencies benefiting from automated EO insights







Benefits of Certification and Compliance for Market Adoption

- DOMINO Certification ('Stamp') for pre-approved EO services
- Certified DOMINOEs ensure system compatibility
- Certification increases investor confidence
- > Certified services can be exported to global clients
- Simplifies procurement & boosts local EO development: Creates a trusted marketplace for modular EO solutions

> Use Case: DOMINO-certified flood detection tool for National Agency







Challenges







Challenges for Commercialization & Market Adoption

- > Legacy EO systems create resistance to federated models
- Regulatory challenges limit EO data-sharing & interoperability
- > Resistance from legacy systems & large EO firms
- Need for harmonized standards & phased integration
- > Regulatory & security concerns with cross-border data sharing







SME Challenges: Managing Competition with Established EO Players

- Need for Standardization: The absence of common technical standards for EO data sharing and integration
- > Competition with Established Players: differentiation crucial.
- > SMEs face challenges competing with large EO firms
- > Differentiation through high-value Al-driven services
- > Specialization in Al-based EO analysis, modeling & predictive analytics
- Regulatory & Security Barriers limit EO data-sharing & interoperability
- ➤ **Technical Challenges**: Complexity of Data Handling integrate multiple EO missions from different sources, which increases data volume and interoperability issues.





Business Model Evolutionfor SMEs







From Data to Intelligence

Transition from raw data to analytics-as-a-service:

Shift from raw EO data sales to Al-powered decision support

Subscription-based EO analytics services replacing image sales & real-time insights

Marketplace for Al tools, analytics, and EO processing modules

> Use Case: Precision farming service from SMEs using Al-driven EO monitoring









Lowering Barriers for SMEs in the EO Market with DOMINO-E

- SMEs can now enter EO without proprietary infrastructure
- Pay-per-use & subscription models provide costeffective EO access and shared services

> Use Case: Deforestation monitoring service from SMEs using Al-driven EO monitoring









New Revenue Streams for SMEs & Industry Integrators

- ▶ B2B & B2G sales models expand SME opportunities
- SMEs can develop modular Al analytics for EO marketplace



System integrators benefit from modular ground segments

B2G: EU Environmental Agency: Pollution monitoring via Al-driven tasking

Government:

Al tools for urban growth, climate analytics, maritime monitoring

Real-time agriculture analytics Maritime Surveillance

B2B to system integrators: Ground Segment Modules: Advanced Data Processing Services; Data Integrity and traceability service.





Conclusion and Next Steps







Conclusion

- > DOMINO-E transforms EO through collaboration & modularity
- > DOMINO-E reshapes EO commercialization & SME accessibility
- > SMEs gain access and innovate more
- > SMEs reduce costs & scale with modular EO solutions



Next Steps

- > Boosts public-private EO collaboration
- > Standardization is key to unlocking global EO potential: Expanding standardization & regulatory compliance
- > Use of EU support mechanisms (e.g. Horizon Booster)









