

ESPI SPACE POLICY EXERCISE

Economic Security and Critical Infrastructure

The Unfolding Space Revolution

Start Up: SkyShield Systems



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1. Problem Statement

Traditional methods of monitoring and crisis management are often reactive.

Natural Disasters

Threaten economic stability

Cyber Attacks

Jeopardize critical infrastructure

Geopolitical Tensions

Disrupt essential services



2. Project outline

Solution: Space-Enabled Infrastructure Index (SEII)

An advanced, space-enabled solution that can provide comprehensive monitoring, contingency planning, and crisis management capabilities relying on a **space-based live mapping system using space data and autonomous machine learning.**

- 1 Early Warning System**
Provides real-time insights
- 2 Dynamic Contingency Planning**
Empowers governments to safeguard critical infrastructure
- 3 Multi-Layered View**
Enables real-time monitoring and surveillance

Targeted entities: **European Union, National Governments, Private Entities**

2. Project outline

Key Elements

1

Service Providers

Copernicus System; Cloud Computing Services, Machine Learning & AI, Cybersecurity Protocol

2

Investment

PPP, Government Grants, Venture Capital Funds

3

Communication

Through Stakeholders

4

Scalability

Capacity to adapt to an increased demand of our products and services based on tailored needs within the market

5

Commercialization and Potential Impacts

Annual Subscription Model (adjustable per client)

2. Project outline

KPI (Key Performance Indicators)

Full Operational
Deployment

Within 5 years

Coverage Accuracy

99% across the EU

Alert Issuance Timing

No more than 30 minutes

Algorithm Performance

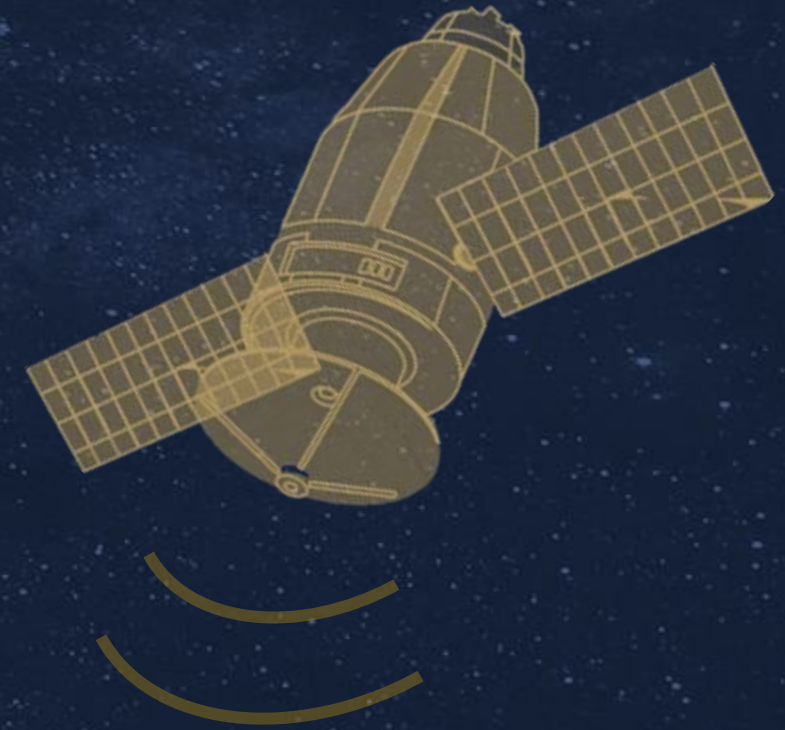
Minimum effectiveness of 90%

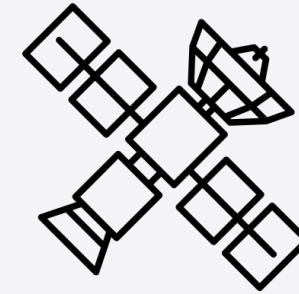
User satisfaction

98%

Financial Sustainability

Break Even Point 15 years





3. Required Capabilities

Space Capabilities: Earth observation, machine learning and IOT (Internet of Things) for live mapping.

Actors needed

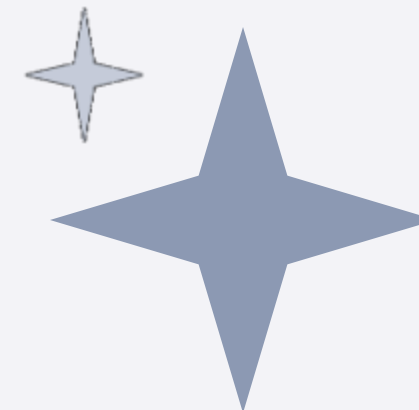
- Public Sector (EU Commission, ESA, EUSPA)
- Private Sector (Energy Providers, Satellite Data Providers)

Development Stage

Private company before commercialization, strong public sector support

Domain Integration

EU's security public-private ecosystem



4. Required Foundations

Financing part: Initial funding (sources of funds: EU, ESA, private capital),

Policy Measures: Data Sharing Regulations, Security Accreditation...

Training Skills: Satellite Operators, Security Experts, Data Scientists...

Public Awareness: Internet Campaigns, TV, Networking



Why Space Shield Solutions?

We are an **innovative** Startup because the freely usable Data of Copernicus is often just used to monitor, but not real time mapping.



Integrated Multi-Satellite Data Fusion

Provides frequent, precise updates



AI-Driven Predictive Monitoring

Predicts potential threats before they occur



IoT Integration

Monitors specific infrastructure points

1

Boosting Innovation

Pioneering the integration of space data with machine learning

2

Supporting European Strategic Autonomy

Providing homegrown, space-based solutions

3

Creating High-Value Jobs

Fostering a new generation of experts

Thank you for your attention