



Study of how DISCOVERER technologies can change different VLEO platforms' business model canvases

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Methodology¹

• Analyze 3 case studies: Planets², Sat4EO³, Satellogic⁴ Apply the DISCOVERER technologies to each VLEO platform

New BM CANVASes

New traits **Current traits**

VHR-LC / Constellation: PlanetScope constellation

- Develop a new value proposition and a new BM CANVAS
- Study the changes between both BM canvases



3 VLEO platforms

VHR-LC CONSTELLATION	VHR-HP	SAROptic
 passive sensor 	 passive sensor 	 active sensor
 GSD between 5 and 1m 	• GSD < 1 meter	 not affected by



VHR-HP: Sat4EO satellite



- improved revisit time
- improved collection capacity
- disaster meteorological management and conditions forest mapping infrastructure

DISCOVERER techs

	Strengths	Weaknesses
ABEP	 no heat ↓ launching costs ↑ environmentally friendly ↑ satellite lifetime 	 still developing limited range of action 1 energy consumption complex structure
Materials	 1 optical resolution ↓ payload ↓ cost if satellite loss 1 satellite lifetime 	 still developing 1 production time and costs 1 structure complexity
Aerodynamic Controls	 ↓ fuel consumption ↑ manoeuvrability uses aerodynamic drag ↑ satellite lifetime 	 still developing hard to standardise theoretical results differ

Conclusions

SAROptic: Aleph-1 constellation Satellogic



- First estimation of how the DISCOVERER technologies can improve the BM CANVASes of existing VLEO platforms / EO companies
- These technologies specially helped to reduced operational costs and improve satellite accuracy
- Many other BM CANVASes are possible

References

1. Alexander Osterwalder & Yves Pigneur, Business Model Generation

2. Planet Labs. https://www.planet.com/

3. Deimos Space (Elecnor Group), "Sat4EO." https://elecnor-deimos.com/ sat4eoce/

4. Satellogic. <u>https://satellogic.com/</u>









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