

In-Orbit Maintenance

The Global Picture

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Market Potential



Is there a market for In-Orbit maintenance?

- Prospective customers
Communication Satelites Geo & LEO
- Orbital ATK entering the In-orbit servicing market
Deal signed with Intelsat
- Market pull or customer pull strategy based on the trends
Ex: SES to signup with Orbital ATK
- According to Space transportation report by FAA, over 900 satellites to be launched in the next 10 years which shows a huge market potential





Stakeholder analysis

For

Stakeholders from industrial and government backgrounds

CNES, Airbus Defense and Space, Aerospace Valley, JAXA, Satellite2 etc.

Against

Some are **for** In-Orbit maintenance:

- Doing the right redundancy choices
- Targeting specific need



Some are **against** In-Orbit maintenance due to:

- Democratization of space
- Miniaturization



Two mindsets

Sustainability versus **Profits**

What are the major challenges?

Technological barriers



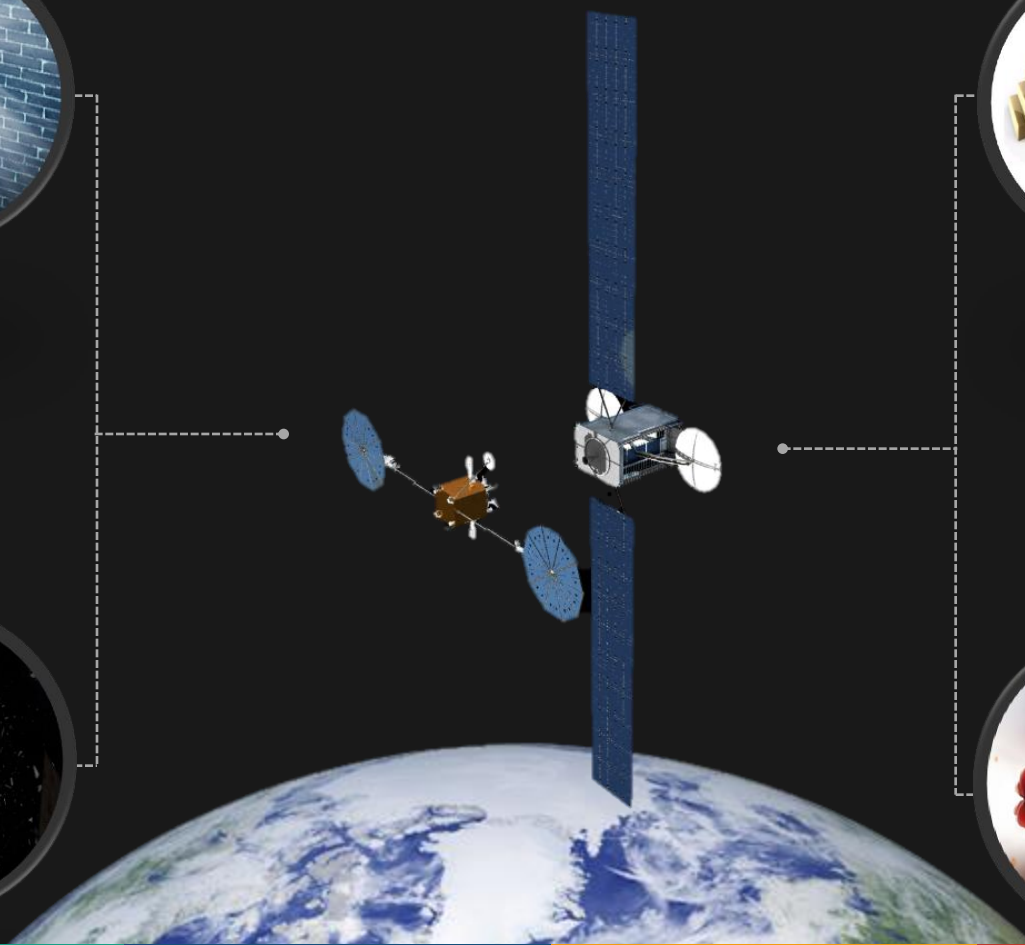
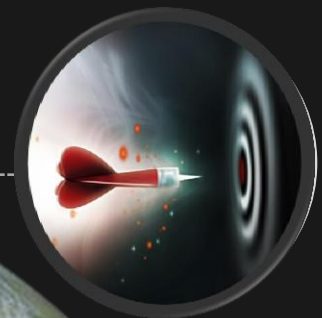
Economical factors



Space debris



Readiness Levels



Recommendations

01

Standardization

Technology
How satellites will be built?
Ex. Orbital ATK

02

Provision of value added service

Improving functionality of the equipment
Ex. Refurbishment of redundant technology

03

Creation of a secondhand market

Selling extended life satellites as second-hand
-Commercial sector
-Developing countries
Enabling more newcomers to participate

04

Evolution of regulation

Current debates: Space tax and licensing
Suggested area requiring attention: Involvement of commercial sector in legislation formulation

05

Space awareness

Sustainability
Reduction of space debris