



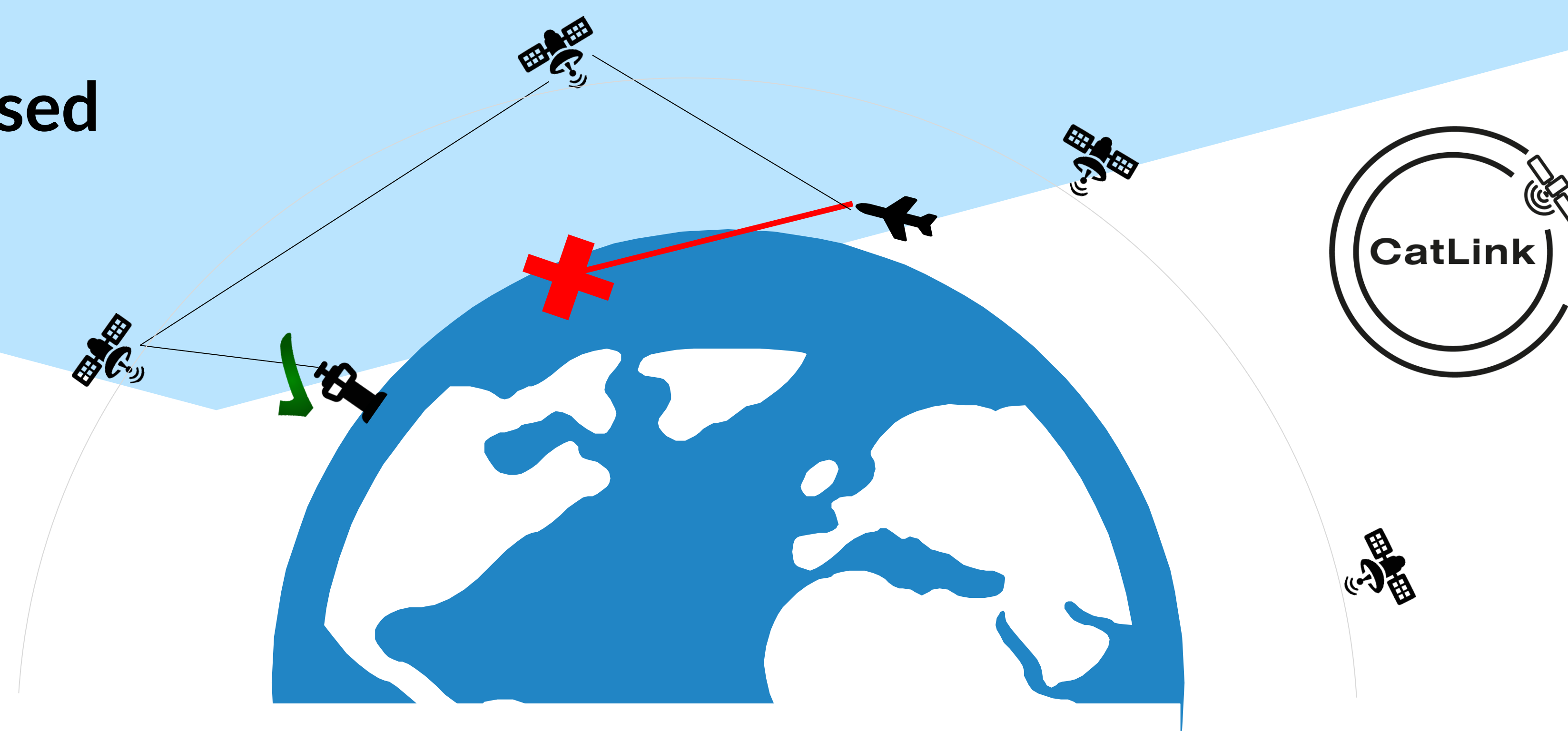
# NextGen Aircraft Communication

## Space-based ADS-B for enhanced airplane tracking business plan

CatLink is a new company that aims to provide surveillance and broadcast to aircraft through a Low Earth Orbit satellite constellation equipped with ADS-B subsystems. What is the business plan of this company? Is it feasible? Welcome to the next generation surveillance solution.

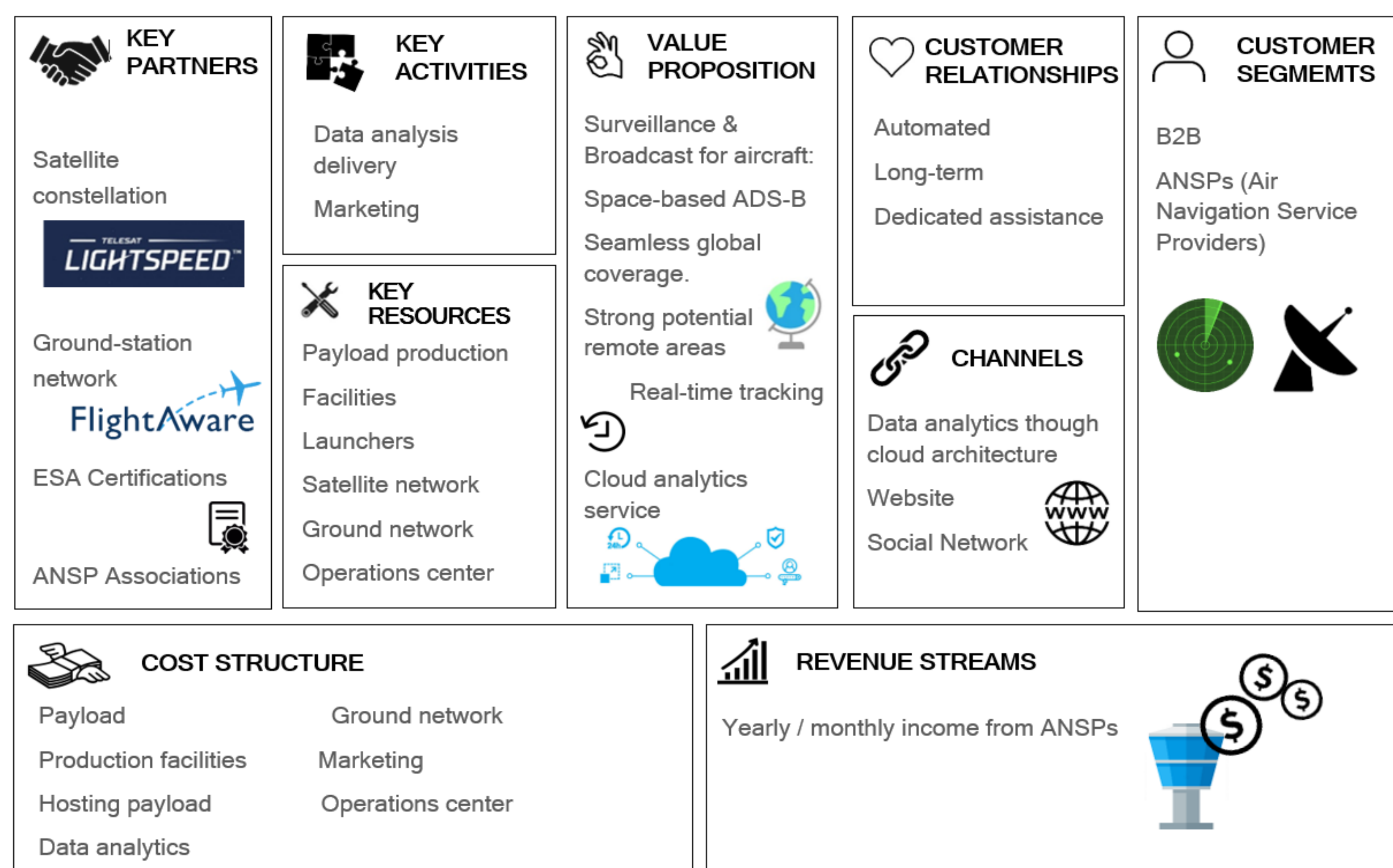
### What are the benefits of the space-based ADS-B technology<sup>[1]</sup>?

- Seamless global coverage
- Real-time information
- Improved safety
- Improved rescue operations
- Efficient airspace management
- Flight time and cost reduction



Aircraft links to the Earth are sometimes not possible due to **Line-of-Sight** limitation. Therefore, innovative business model<sup>[2]</sup> should rely on the **space-based infrastructure**. The latter is built after the situation analysis, marketing and human resources plan.

### Results & Analysis



- 14.3M metric tons**  
estimated savings of greenhouse gases from 2030 to 2040
- <2 seconds**  
latency in the surveillance process from airplane to ground station
- 2 solid partnerships**  
Telesat - Lightspeed and FlightAware to make the system robust
- 80,3 % ROI**  
that translates to \$ 150,6M in 7 years in a neutral scenario
- 4 goals fulfilled**  
from the UNSDG concerning economic growth, innovation and sustainability
- 1 threatening risk**  
that puts CatLink on the line in terms of emergence of new companies

### Conclusions



Cloud analytics service is the key of the **value proposition** in order to get new potential clients, specially in remote areas.

The three hypothetical financial scenarios show a **payback time of 10 years maximum**. An investment in CatLink may be worth it mid-term.

Developing activities that are currently on third parties, such as the satellites launching, would **increase the decision-making power** of CatLink.

### References

[1] Aireon. [Online]. McLean, VA, USA, 2020. [Search: 16th March 2021]. Available at: <https://aireon.com/>

[2] Strategyzer. [Online]. Zurich, Switzerland [Search: 10th June 2021]. Available at: <https://www.strategyzer.com/canvas/business-model-canvas>