

Orbital Risk and Investment Confidence: Why Space Debris Matters to Investors

WEBINAR SUMMARY

13 May 2026

Background

The Centre for Space Futures (CSF) and the Saudi Communications, Space & Technology Commission (CST) partnered to organize an interactive webinar examining how space debris and orbital congestion may affect investor confidence in the space economy.

The session was designed to open a practical dialogue with investors to understand investment assessments, including market viability, asset resilience, long-term returns, insurance exposure, regulatory uncertainty, and the conditions required to make orbital sustainability a more investable domain.

The webinar followed an interactive format, combining expert framing, Mentimeter-based polling, and open discussion. *Mentimeter results should be treated as indicative inputs from the participating investor group rather than statistically representative findings.*

The Context

Space is becoming an increasingly integral layer of the global economy. With the space economy projected to grow significantly over the next decade, terrestrial sectors are becoming more dependent on satellite-enabled services. Such services include connectivity, positioning, Earth Observation, timing, climate monitoring, financial services, logistics, and critical infrastructure management.

Against this backdrop, space debris is no longer only a technical or operational concern. It is becoming a strategic and investment risk. Orbital congestion can affect operational continuity, asset lifetime, insurance exposure, replacement costs, service reliability, and confidence in long-term returns.

The webinar follows the [Clear Orbit, Secure Future: A Call to Action on Space Debris](#) report co-authored by CSF and the World Economic Forum (WEF). The report presents evidence-based illustrations of the cost of inaction. A key takeaway is that the projected losses relating to orbital risks range from **\$25.8 billion to \$42.3 billion by 2035**, with non-trackable debris representing a major cost driver. Beyond being solely a sustainability issue, these findings frame space debris as a financial exposure risk that investors,

insurers, operators, and governments increasingly need to understand and price.

The webinar discussion was structured around three investment-oriented pillars:

- I. **Risk: How do orbital risks weigh into investor decisions?** Examine how investors consider orbital congestion and debris-related exposure in relation to due diligence, asset protection, service continuity, insurance cost, and long-term returns.
- II. **Opportunity: Where can risk create investable markets?** Explore whether growing awareness of orbital risk can translate into demand for new products, services, and business models. Areas discussed included orbital-risk intelligence, space situational awareness, collision avoidance, risk modelling, active debris removal, post-mission disposal, on-orbit servicing, life extension, insurance analytics, and compliance services.
- III. **Confidence: What conditions would make orbital sustainability more investable?** Identify the enabling conditions investors may need before committing more capital to orbital sustainability solutions. The discussion considered the role of clearer standards, better risk data, proven technology, regulatory incentives, public procurement, business performance, and stronger coordination across public and private actors.

Investor Sentiment: Orbital Risk as Investment Risk

Participants broadly recognized long-term operational reliability as material to investment decisions. In the opening Mentimeter poll, no respondent selected “no influence” or “limited influence” when asked whether operational reliability affects willingness to invest in the space economy. This result reflects a growing consensus on the financial exposures due to space debris. Responses were distributed across moderate to strong influence and critical investment factor, suggesting that reliability is already part of the investor confidence equation.

When asked ‘which debris-related concerns most affect investment confidence?’, ‘**regulatory and liability uncertainty**’ and the ‘**long-term sustainability of orbital environments**’ were the leading concerns. These were

followed by satellite or infrastructure damage/loss and difficulty assessing long-term financial exposure. This indicates that investors are concerned about immediate technical risks, as well as the absence of clear frameworks for understanding future exposure.

Most respondents indicated that the growing visibility of debris risks makes them more optimistic because of emerging solutions and markets. This is an important finding: while increased awareness of orbital risk may raise caution, it can also help investors identify new market opportunities.

From Risk to Opportunity

The discussion highlighted three areas where orbital risk may translate into investable opportunity.

First, **orbital-risk intelligence is becoming an investable capability**. Reliable data is the first condition for pricing risk. Space situational awareness, space surveillance and tracking, conjunction assessment, predictive analytics, and operator dashboards can help reduce uncertainty for operators, insurers, and investors.

Second, **mitigation and avoidance technologies can reduce future losses**. Collision-avoidance tools, automated maneuver planning, end-of-life compliance systems, and mission-risk management software can help protect asset value, reduce operational disruption, and improve confidence in long-term returns.

Third, **orbital sustainability services are emerging as potential markets**. Active debris removal, post-mission disposal, on-orbit servicing, life-extension services, insurance analytics, and compliance support may become increasingly relevant as operators, governments, insurers, regulators, defense users, and large constellations seek safer and more sustainable orbital operations.

Participants affirm the framing of risk as opportunity. When asked whether orbital sustainability challenges offer investable market opportunities, the majority selected either moderate or significant investment opportunities, while no respondent selected “I do not believe so” or “limited opportunities”.

Conditions for Greater Investment Confidence

Participants were asked what would most strengthen confidence in investing in the space economy. The highest-ranked factor was **clearer international standards and governance**, followed by **greater government support and coordination**, and **better risk transparency and data**. More mature debris mitigation capabilities, proven commercial demand, and stronger insurance mechanisms were also identified as relevant, though ranked lower.

As for debris-related solutions, the strongest investment drivers identified were **proven technology** and **regulatory clarity**. Market viability was also mentioned, while anchor customers, scalability, and low market barriers received

limited to no responses. These findings reveal investor reluctance towards an early-stage market, with technology validation and policy clarity being seen as prerequisites before broader commercial scaling.

Regarding orbital sustainability more broadly, participants ranked **regulatory incentives** as the leading confidence-building mechanism, followed by **business performance**, **international coordination**, and **orbital transparency**. Grants and awards were viewed as useful but less central to improved market structures, revenue visibility, and regulatory confidence.

The word-cloud exercise reinforced the findings. The most prominent hesitation factors were **uncertainty**, **lack of understanding**, **lack of shared data**, and **geopolitics**. Other concerns included a lack of standards, unclear regulations, capital intensity, long investment timelines, and barriers to testing.

Key Takeaways

The webinar highlighted that orbital risk is becoming increasingly relevant to investment confidence in the space economy. Participants recognized that debris-related risks can affect asset resilience, operational continuity, insurability, financial exposure, and long-term market reliability.

At the same time, the discussion showed that risk visibility can also support opportunity formation. Greater understanding of debris risk may help create demand for data, analytics, mitigation tools, avoidance technologies, servicing, disposal, insurance analytics, and compliance-related services.

However, the investability of these markets will depend on stronger enabling conditions. Investors need clearer standards, better shared data, more transparent risk models, regulatory clarity, proven technologies, and stronger public-private coordination. The discussion also indicated that orbital sustainability is still perceived as an emerging field where confidence-building measures can accelerate capital deployment.

Overall, the webinar suggested that **the path from orbital risk to investment readiness requires three parallel actions**:

- I. Pricing the risk
- II. Strengthening market confidence
- III. Enabling investable solutions

Implications for Future Action

The discussion confirmed the need to directly connect space sustainability with investment logic. Space debris should be framed as a technical or environmental challenge, as well as a factor shaping market resilience, insurance models, regulatory exposure, and capital allocation. The subsequent implications differ across actors:

- **Public institutions:** supporting clearer governance signals, regulatory incentives, public procurement pathways, and shared risk-transparency mechanisms.
- **Private investors:** integrating orbital risk into due diligence and identifying where risk-reduction capabilities may become commercial opportunities.
- **Industrial actors:** demonstrating performance, customer traction, and scalable solutions that can translate sustainability requirements into bankable markets.

Next Steps

- Synthesize webinar insights into a consolidated outlook.
- Conduct targeted follow-on consultations to validate priorities and actions reported from the webinar.
- Identify priority areas where CSF can support dialogue between public institutions, investors, and industry to strengthen the investability of orbital sustainability solutions.
- Consider additional regional or sector-specific sessions to test how investment perceptions differ across investor profiles, geographies, and market segments.
- Conduct similar webinars in additional regional and institutional contexts.

Participating Organization

The webinar convened 15+ international participants from **Canada, France, India, Ireland, Italy, Malaysia, Malta, Morocco, Switzerland, Saudi Arabia**, and the **United States**, representing government, industry, academia, and international organizations.

Participating entities included **CSF** as the hosting organization, **CST** as the partner institution, **WEF, Secure World Foundation, McGill Institute of Air and Space Law**, the **Saudi Space Agency, Malaysian Ministry of Science, Technology, and Innovation, Ubotica, LifeCycle Consulting, SIBILLU**, the **University of Delhi**, the **American University in the Emirates**, and others.

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