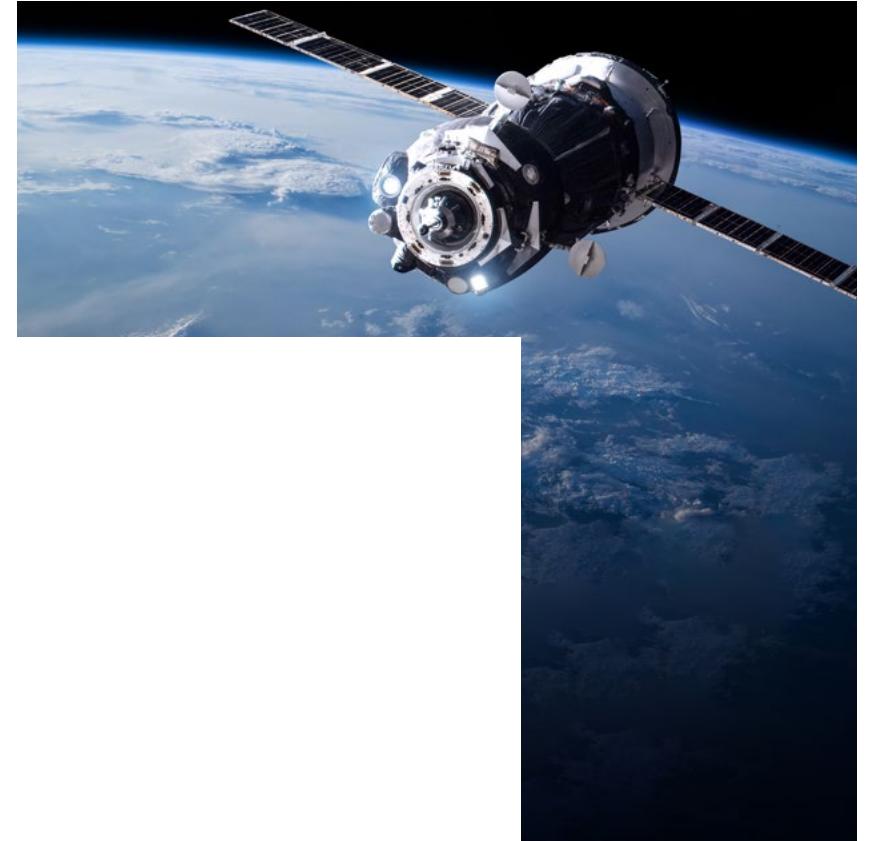


Space

The space market is growing rapidly, both with complex, mission-critical systems like Lunar Gateway, and with smart connections/Internet-everywhere programs like OneWeb. More and more, space data-enabled solutions are part of daily business. Location, weather forecasting and navigation system data are perfect examples, and used on almost every mobile device.

Read on for insights into the top trends and priorities of space industry executives, along with recommendations for key actions that will take advantage of developments like smart connections, agile approaches and space data-enabled solutions.



Focus on data can help solve critical challenges across the globe

While space industry top trends and priorities remained steady for the last 3 years, more executives mention analytics and big data as a top business priority year-over-year. This likely reflects the ever-growing opportunity to use space data to help governments and industries address key challenges such as climate change, environmental sustainability and the road to Net Zero.

The availability of more — and more accurate — data drives B2B market growth and even faster B2C market growth with the creation and use of space data-enabled solutions and services.

As the global space economy grows rapidly (estimated as high as \$2.7 trillion by 2050), space budgets overall are on the rise, and missions are increasingly global in nature.

At the same time, commercial Internet-everywhere satellite programs are being developed in parallel with security and privacy requirements. Cybersecurity and regulatory compliance increase in mentions as executives' top trends this year.

Each year, we meet with client executives from around the world to get their views on the trends affecting their organizations and industries. Through the CGI Voice of Our Clients, we analyze these findings to provide actionable insights by industry to benchmark best practices, including the attributes of digital leaders. This report summarizes the trends and priorities from our 2021 CGI Voice of Our Clients discussions with 22 space industry executives, along with recommendations for how to take advantage of developments like smart connections, agile approaches and space data-enabled solutions.

About the insights

In 2021, we met with 1,695 business and IT executives. This summary shares sample insights from 22 space-industry client executives.

Interview demographics

77% Business leaders	23% IT leaders
41% C-level	59% Ops-level

Over the past 6 years through the CGI Voice of Our Clients program, we've held 7,470 client discussions, collecting 1 million data points across the industries and geographies we serve. Our anonymized benchmarking data reflects insights from 5,500 client organizations located in countries representing 68% of the world's IT spend across all economic sectors.

Top trends and priorities

Top trends and priorities for space executives have remained consistent for the past three years, with cybersecurity, IT modernization, data, digitization and new delivery models of greatest concern.

Top trends

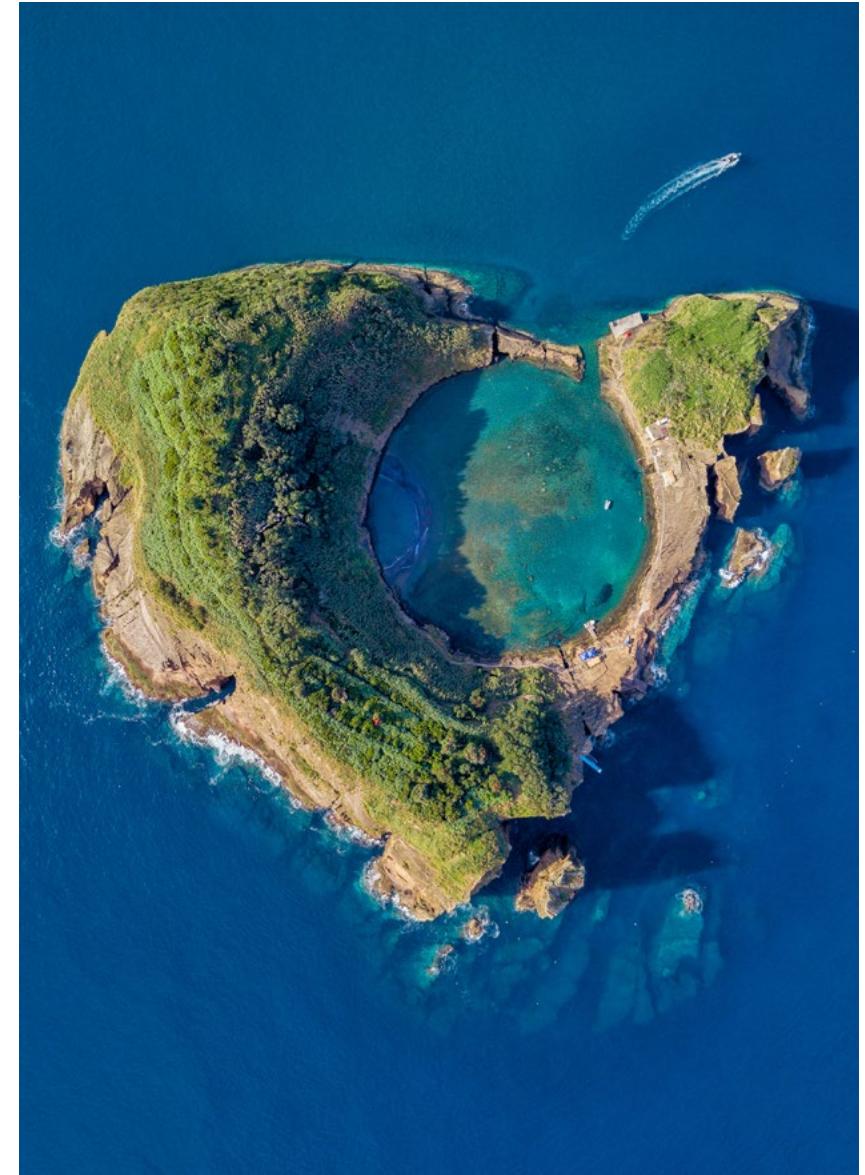
- 1 Protecting through cybersecurity
- 2 IT modernization and cloud solutions
- 3 Assuring regulatory compliance

Top business priorities

- 1 Data analytics and big data
- 2 Becoming digital organizations to meet customer expectations
- 3 Reducing or reprioritizing spend

Top IT priorities

- 1 IT modernization, data center consolidation, cloud
- 2 Embracing new IT delivery models (e.g. SaaS, PaaS, agile)
- 3 Protecting through cybersecurity



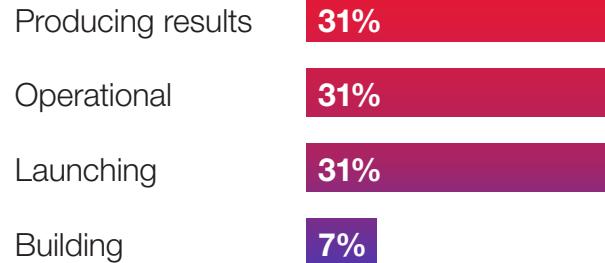
Top insights for space

In 2021, significantly more space executives say their organizations are producing results from digitization strategies. Data strengthens as a priority while cybersecurity and regulation rise in mentions as trends, along with IT modernization.

1 Results from digital strategies show significant rise.

More executives say their digital strategies are paying dividends. At 31%, up from 0% in 2020, this exceeds the 20% all-industry average by 11 percentage points.

Stage of digitization strategy implementation



2 Big data and analytics strengthen as the top business priority.

82% cite data analytics and big data as their top business priority once again. It rises in mentions 8 percentage points over 2020.

3 More executives emphasize cyber and regulatory trends.

While the top industry trends have remained the same for the last three years, rising in mentions are cybersecurity and regulatory compliance.



Top insights for space

4 Environmental sustainability is a core business concern.

Over half of space executives believe strongly that environmental sustainability is key to their organizations' ability to continue creating value in the future.

5 Modernization and cloud are new top IT priority.

In 2021, space executives' IT priorities focus on new delivery models, with IT modernization, data center consolidation and the cloud jumping 12 percentage points to top the IT priority list.

6 Application modernization and cloud migration plans continue.

A vast majority — 83% — say their organizations plan to modernize more than 20% of their applications portfolio in the next two years. 62% say they plan to migrate more than 20% of their applications to the cloud.



Digital leaders in space

Space industry executives indicate accelerated progress in producing results from digitization strategies, with 31% citing such results. Of these digital leaders, some common attributes emerge. The table compares responses to questions from the digital leaders to those from executives whose organizations are still building or launching digital strategies.

Common attributes of digital leaders	Executives producing results from digital strategies	Executives building or launching digital strategies
Are better at introducing applicable innovation	25%	20%
Feel strongly that environmental sustainability is core to creating value for customers	50%	40%
Are more sensitive to data privacy laws and regulations	75%	40%



6 recommendations for achieving your top priorities

1

Continue to help other markets solve sustainability challenges. Intensified use of space data for the environment aids governments and industries in addressing urgent problems, such as decarbonizing the planet. For example, Earth observation data helps detect, manage and predict floods, fires, vegetation and forestry growth, as well as oil spills and leaks. Industries like agriculture, banking, energy and utilities, insurance, maritime control and transportation are making space data usable, operational and integrated in the business. Leaders should continue to spur innovation in space-data enabled solutions.

- + Read white paper: [EO4SD Lab: How earth observation can support global sustainable development activities using cloud-based platforms](#)
- + Read blog: [Helping insurers monitor horticulture assets from space to reduce risks](#)
- + Read article: [Accelerating the roll-out of 5G with CGI CarnotSat](#)

Cases in point:

Delivering more precise climate measurements

Through a subcontract with Airbus, CGI supports the European Space Agency (ESA) to define the Payload Data Ground System for the TRUTHS satellite mission to deliver more precise climate measurements.

+ [Read more](#)

Combining AI and EO for wildfire mapping

CGI assists ESA with developing a new wildfire mapping service that combines recent advances in Earth observation, artificial intelligence and cloud computing to better understand the extent and impact of damage caused by wildfires throughout the world.

+ [Read more](#)

6 recommendations for achieving your top priorities

- 2 Seek greater standardization.** Governments and large companies such as Starlink operated by Space X and Amazon's Kuiper Systems are building their own unique, non-standard satellite systems. Multiple positioning systems such as GPS and Galileo and other space-enabled solutions are in development and in use. Government and commercial space organizations should pursue rigorous standardization requirements to accelerate results while reducing cost and risk.
- 3 Increase international cooperation.** Today's space market no longer is a one-company, or one-government, on-their-own approach. Organizations increasingly must work together with other companies and governments, as well as with expert partner and supplier ecosystems, to build the required capabilities and systems and enable critical collaboration.

Case in point:

Safer skies through Iris air traffic modernization

The Iris program delivers powerful benefits to European aviation by enabling high-bandwidth, cost-effective, satellite-based datalink communications. Its air traffic modernization program involves the ESA, Inmarsat, key industry partners, aircraft manufacturers and European Air Navigation Service Partners. CGI has been one of the main partners in the Iris program since its inception in 2014, and has led the safety systems design and key parts of the integration and IT security.

[+ Read more](#)

- 4 Make the most of rising program budgets.** Many governments are releasing increased funds for space programs. This is an opportunity for space executives to develop best practices for participating in the process to secure funding. This includes communicating with governmental delegates to quantify available budgets for each country, identifying the eligibility processes to secure funding, and responding to bid opportunities.
- 5 Accelerate IT modernization.** IT modernization continues to be a top trend for space executives. The digital maturity of the IT infrastructure within space organizations is not always as advanced as the digital maturity of the space industry itself. The ongoing systems and digital evolution requires moving from traditional apps to space-data apps. As commercial industries adopt more space solutions, the industry needs a modern IT capability to take advantage of technology advancements. Capitalizing on funds to drive modernization now can help to secure future funding based on outcomes achieved.
- 6 Employ the right cybersecurity expertise.** Space systems face unique security challenges. For example, they are subject to radio interference, hacking, spoofing, viruses, eavesdropping and physical attack. This year, executives cite cybersecurity as their top trend. As cyber threats grow along with digitization, space organizations require the right space security experts to both safeguard their people, services and assets and to embed security to instill the confidence people need to make the most of the digital world.

About CGI

Insights you can act on

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across 21 industry sectors in 400 locations worldwide, our 80,000 professionals provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

For a complete set of the CGI Voice of Our Clients industry insights, and to consult with one of our experts, please visit cgi.com/voice-of-our-clients or contact us at info@cgi.com.

