

# Europe faces up to new space challenges

November 27 2019, by Juliette Collen

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Europe must build on its successes, such as Ariane 5 rocket, seen here lifting off from the European Space Center in French Guiana, as it faces mounting challenges from the US, China and private sector disruptors such as Elon Musk's Space X

European ministers met Wednesday in Spain aiming to defend its top space ranking against challenges from the United States and China, and

increasingly from industry disruptors such as Elon Musk's Space X.

Ministers of the 22 European Space Agency (ESA) member states gathered in Seville to discuss a request for 14.3 billion euros in funding, some four billion euros more than in the previous 3-year budget.

The European Union has already agreed to provide 16 billion euros and now the crucial question is what to spend it on.

"There is a desire to do more, to have a more ambitious scientific programme and to develop our infrastructure to match our ambitions," ESA spokesman Philippe Willekens told AFP last week.

In a fast changing environment, "Europe must pay attention to remain the leader in those sectors it already is and to continue to conquer new markets," Willekens added.

In recent years, Europe has established itself as a major [space](#) player, with its very heavy Ariane 6 rocket launcher the latest off the production line and the Galileo GPS system operational.

But this position is now "threatened," the Institut Montaigne think-tank in Paris says, as global competition increases, led by the United States and China who have poured massive amounts of money into the industry, both civilian and military.

"Europe does not have the structural advantages of the Americans and Chinese because it does not have a single, shared objective," said Isabelle Sourbes-Verger of France's National Centre for Scientific Research (CNRS).

"Europe has the same problem it has always had—what justifies spending more on space?"

## **'New Space' challenge**

Europe must answer these questions just as new players such as Space X and a host of others, mostly American, have begun to emerge, shaking up the industry.

This "New Space" evolution has seen Musk for example develop reusable launchers for dramatically smaller yet more powerful satellites, many designed for the "connected world" of driverless cars and countless other aspects of everyday life on earth.

Some experts fear that Europe is simply not competitive enough to get into these new markets, never mind holding on to what it already has.

Ariane 6 is a particular cause for concern, with French state audit officials recently describing its economic model as "presenting some risks" given ferocious competition from Space X which in 2017 took Arianespace's global satellite launch crown.

Space X has forced down costs sharply, developing a reusable rocket which the Europeans thought initially to be impossible, the officials said.

Worse still, Europe "at this stage has only developed the building blocks which will allow, in due time, to acquire" this re-usable technology, the auditors said in a report.

Arianespace head Stephane Israel insists that Ariane 6 is "just the beginning" and the rocket programme "opens a cycle of innovations which will have to be accelerated."

At the same time, Ariane 6, whose first flight is scheduled for next year, will not be competitive in the long-run unless there is a high rate of launches, which will depend in turn on "numerous institutional orders,"

he said.

US government orders account for some 80 percent of Space X's scheduled work, he recalled.

Israel noted in this context recent supportive comments by French President Emmanuel Macron and German Chancellor Angela Merkel that Europe should favour European launch options.

Sourbes-Verger at CNRS cautioned that "space is not a commercial industry like any other—making money with a launcher is ambitious."

Europe should therefore continue to focus on "original projects and on developing its strong points," such as in scientific space efforts, she added.

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