



By: *Tomorrow's Affairs Staff*

Virgin Orbit's bankruptcy - a financial victim of technology ahead of its time



Richard Branson's Virgin Orbit has exited the race for launching satellites into space for now. Branson was one of the leaders, along with similar wealthy entrepreneurs.

The company filed for bankruptcy in the US, because it faced intractable problems with the financing of its enthusiastic satellite launch programme, based on unique technology.

While we have taken great efforts to address "our financial position and secure additional financing, we ultimately must do what is best for the business", said Virgin Orbit's chief executive, Dan Hart.

Virgin Orbit's problems with investors and funding have been the result of its not-so-positive record when it comes to technological perfection, accompanied by costs that were not competitive.

As of 2020, Virgin Orbit has performed a total of six satellite launches, four of which were successful.

The last one was fatal for the company's plans. Last January, a launch was attempted in Cornwall, UK, but the mission was cancelled due to engine overheating.

It was supposed to be Virgin Orbit's first mission from the UK, for which it had high expectations and the support of the national space programme.

An innovation that predicted success

Branson's Virgin Orbit programme uses an innovative way to launch satellites, by

launching a cargo rocket from a modified Boeing 747 instead from the ground, which has been used by previous programmes including private competitors.

Virgin Orbit's innovation heralded success, as this method of launching satellites allows missions from anywhere in the world.

Before the fiasco in Cornwall, the company used an airport in the US Mojave Desert for the launch, and there were plans to use an airport in Australia as well.

This model proved to be unreliable, and at the same time inefficient compared with its competitors, which made the project too expensive and too risky for investors.

Earlier financial projections were extremely ambitious, so in 2021 the company expected to reach USD 2.1 billion in revenue in the next five years.

From today's perspective and after a relatively small number of launches, and particularly due to one-third of unsuccessful missions, such financial plans were certainly not realistic.

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mission costs 20 million USD, while at Elon Musk's SpaceX it costs "only" 3 million USD.

That is one of the reasons why SpaceX has recorded 61 launches in the past year, far more than Virgin Orbit's four in two years.

Too big a bite for cautious investors

However, Virgin Orbit's bankruptcy should by no means be recognised as the final departure of this project from the scene.

There is a perception that his innovation is still too big a bite for cautious investors, who, at the same time, have cheaper and safer options with competitors.

It may turn out that Virgin Orbit was ahead of its time as a concept and from a technological point of view, to which a cautious market could not have responded. The history of business is full of such examples.

The concept of launching rockets from an aircraft, rather than vertically, from the ground, has great comparative advantages, and they lie at the very heart of this project.

Using Virgin Orbit's LauncherOne rocket attached to the wing of a Boeing 747, makes it possible to launch a satellite into orbit from anywhere in the world, not just from special space rocket launch facilities.

Also, it can be done anytime, regardless of weather conditions, and in any orbit.

Frontier industry

"We think the technology is the best in the world. It's a matter of them raising the money. I think they'll come out of it much better and much stronger", John Wagner, chairman of the Wagner Corporation, told the Australian ABC. Virgin Orbit has had an agreement with Wagner Corporation since last September to use its Wellcamp airport in Queensland for its space programme.

A missing business advantage that Virgin Orbit counted on was the interest of government

space programmes, particularly intelligence, although there is still a chance due to the specific technology it offers.

"It's expensive", Jim Cantrell, CEO of Orbital Space, one of the companies participating in the market and planning to launch the first rocket next year, told the Guardian.

Due to Virgin Orbit's bankruptcy, he believes that other space companies will also be under great pressure.

"It's a frontier industry ... kind of like the automotive industry in the 1910s. There are going to be a lot of players who come and go", said Cantrell.