

# Spacety offers affordable solutions

New player in the space race enables scientists and amateur astronomers to conduct experiments

By JING SHUIYU

A new player in the space race plans to launch 20 satellites by the end of 2018.

Spacety Co will use most of them to supply data to research institutions and other business customers.

"Some will be involved in micro-gravity experiments," said Yang Feng, CEO of the company.

In the past, Chinese scientists found it difficult to conduct research in space. But now Spacety, which is based in Changsha, in Central China's Hunan province, offers a one-stop service at an affordable price to solve that problem.

"This is a business model that turns out to be viable," said Yang, although he did not disclose detailed financial figures about the project.

Still, his plan appears to be simple. Experiments will be carried out in space through Spacety satellites and the reams of data will be relayed back to clients on Earth.

Last November, the company launched its first small satellite, Ty-1.

Weighing 8 kilograms, it was able to upload four payloads for scientific research during its 12-month operational cycle.

Earlier this year, Spacety developed the DIDO-2 in partnership with an Israeli startup, SpacePharma.

It was China's first satellite



Technical staff work on a commercial satellite at Spacety Co, in Changsha, capital of Central China's Hunan province. Spacety aims to launch 20 satellites by the end of 2018. PHOTOS PROVIDED TO CHINA DAILY

involved in studying microgravity as in an orbiting spacecraft.

These "fully-booked" projects have already made a profit for the two-year-old company, Yang confirmed, without giving detailed financial numbers.

In the second half of this year, five

more satellites will blast off. They are also "fully booked".

"Each spacecraft will be assigned up to five tasks in accordance with the demands of clients," he added. "We have no space left."

In addition to research institutions, a growing number of com-

panies have also shown interest in "reserving a knowledge seat" on one of Spacety's satellites.

"Usually, it is Internet companies specializing in big data," Yang said. "Even those in the solar energy business have talked to me about the possibility of space flight," he added.

Next year, one highly anticipated launch will involve a time-share satellite carrying an optical telescope.

Clients will be able to rent the service by logging on to a Web portal, and view distant stars in distant galaxies.

"Our plan is to charge between 2,000 yuan (\$300) and 3,000 yuan per hour," Yang said.

Obviously, there is a market out there for space enthusiasts, as well as research scientists.

Xing Zhigang works in a commercial bank during the day in Beijing but gazes at the sky at night.

"These images will be much clearer than those captured by ground-based telescopes," Xing said. "They are often affected by light pollution and atmospheric disturbance."

But will targeting amateur astronomers such as Xing prove profitable for Spacety? Yang admitted this might take time from what, at first, will be a small consumer base.

Even so, the company has attracted investor attention.

Leading venture capital firms, such as Matrix Partners China, Northern Light Venture Capital and Cash Capital, have provided funding, although Yang declined to disclose detailed figures.

In the end, it will be down to enticing a clientele that has universal horizons. "We're open to all of them," Yang said.

## Bumpy start for commercial sector

In a crowded industry, smaller space startups struggle to compete against bigger global rivals

By JING SHUIYU

China's commercial space sector will eventually take off after a few bumpy launches, experts say.

One industry investor is confident the future is bright, but he admitted that many of the early startup businesses might not survive.

Huang He is a partner of Northern Lights Venture Capital, and the firm has already injected funding into Spacety Co. "Commercial space startups still have a long way to go to catch up with global competitors," he said.

"Quite a number of the early companies might not succeed," he added. "But they are exploring viable business models for others to follow."

As the country increases the number of commercial launches and cutting-edge technology takes over, the sector will enjoy sustainable growth.

But Huang made it clear that



Children find out what makes a satellite tick at space startup Commsat Technology Development Co in Beijing.

young Chinese entrepreneurs should start small and build up experience in the industry.

"Many startups put their focus on communication," he said. "But none of them has succeeded because it requires hundreds of microsatellites.

"Of course, that is far too expensive for them," he added. "At this early stage, they should set realistic goals and make sure they survive."

A key problem for commercial companies is the lack of launch sites. There are only a handful and they are owned by two large military conglomerates, China Aerospace Science and Technology Corp and China Aerospace Science & Industry Corp.

Commsat Technology Development Co, for instance, had to postpone its launch date for a research satellite until later this year, according to Peng Yuanyuan, the firm's co-founder and chief operating officer.

"The resource is scarce," said Yang Feng, CEO at Spacety. "So startups that can secure a launch spot enjoy a distinct advantage over others."

To solve the problem, aerospace company One Space aims to develop its first rocket, Xinshi 1, which is expected to blast off next year.

Still, there are other challenges ahead. Commercial satellite operators have to undergo a long process in accordance with China's Ministry of State Security and the United Nations' International Telecommunications Union for a designated signal frequency.

In 2015, the government rolled out favorable policies for commercial space sector companies, as well as encouraging scientific research.

"The country is also on track to open up the sector by streamlining and simplifying regulations," Peng of Commsat said.