

Press Release

Pioneering an agile space environment, French start-up company Exotrail has attracted a further investment of \$4.1m (€3.5m) to fast track its development towards becoming the global leader in the small satellite propulsion market.

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Paris, 6 September 2018. Exotrail, a start-up company developing their proprietary electric thruster technology for small satellites as well as plug-in software for the operation of satellites equipped with propulsion has raised \$4.1m (€3.5m) in investment.

360 Capital Partners, through its Fonds Robolution, led a \$2.9m (€2.5m) financing round accompanied by Irdi Soridec Gestion via the IRIDnov 2 Fund, Bpifrance via Amorcege Ambition Angel (F3A) Fund and various business angels. SATT Paris-Saclay also participated by the addition of capital through an authorized conversion of claims process. The Fundraising operation was completed through a public financing offer that brought the total investment for this round to \$4.1m (€3.5m).

This specific equity investment subscription is the highest ever achieved by an electric space propulsion start-up in Europe and, to date, makes Exotrail the highest New Space fundraising operation in France.

Established in 2015 by four associates: Jean-Luc Maria, Paul Lascombes, David Henri and Nicolas Heitz and based in greater Paris and Toulouse, Exotrail is well positioned in the very promising micro satellite market by offering propulsion solutions, software and operational management. The company is developing two proprietary propulsion systems, namely, ExoMG-*nano* for satellites of between 10-20kg, and ExoMG-*micro* for satellites up to 100kg.

*“Launching a mini satellite without propulsion is tantamount to throwing a stone into space”, explains Exotrail CEO and co-founder David Henri. “With on-orbit propulsion our clients can optimise their orbit launch, and therefore reduce costs. They can choose a required orbit, thereby maximising their performances. They can prolong the satellite’s lifetime, avoid collisions and re-enter the atmosphere at the end of their missions without generating space pollution. Propulsion intervenes at every stage of a satellite’s life – it’s the core of having an **agile space** capability!”*

The aims of this further capital raising operation are manifold. Firstly, to demonstrate Exotrail’s prototype thruster in space and secondly, to finalise Exotrail’s product & service offerings. The extra capital raised will also enable Exotrail to deliver the first functional propulsion systems to the founding

clients (integrators and operators of constellations of small satellites) who have already committed their interest for Exotrails propulsion systems.

In addition, the design of software tools to operate and optimise space missions, currently under development, will be accelerated. The financing will also enable the team to expand from six people in June 2018 to more than 16 at the end of the calendar year. Most of these new appointments have already be finalized and the company is continuing to recruit.

“Our reliable and efficient Hall Effect technology is already used on most of large satellites. Thanks to many protected innovations we have miniaturised the system by a factor of 100 to adapt it to small satellites”, says Jean-Luc Maria, Technical director and co-founder of Exotrail. This technology particularly enables thrusts three to six times more powerful than any other competing technologies - giving Exotrail a key competitive advantage. *“Our clients are not prepared to wait a year or more after the launch to attain their operational orbit”,* said David Henri. *“Thanks to our technology and greater thrust, we are able to achieve these manoeuvres for our clients in a matter of months, or even weeks while our competitors take five times longer. **Our agile technology thus enables our clients to generate income faster** in a context in which a satellite’s lifespan is only a matter of years and thus time lost to maneuvering as opposed to operating has a critical effect on a satellites profitability”.*

The miniature satellite market, or New Space, is growing fast. While fewer than 30 satellites of under 500kg were launched in 2010, more than 300 were launched in 2017, exceeding the most optimistic forecasts. Analysts thus expect a world market of more than \$30 billion in the next ten years. These constellations of small satellites are used to deliver earth observation and various telecommunications services for numerous markets: Internet of Things (IoT), agriculture, defence or Internet connectivity.

“We thank our investors for their confidence”, said David Henri. *“In the space of 18 months we have passed from proof of concept to a fully integrated and optimised prototype for the market with many expressions of interest from our prospective clients. In the next 18 months our team will be tripled in order to attain our ambitious aims: the demonstration of our thruster in orbit, the first commercial versions of our propulsion and operational products and the first deliveries.*

“We are investing in a team that is developing unique solutions in a high growth market”, said Alexandre Mordacq of 360 Capital Partners, one of the main VCs in Paris investing in innovative technological companies in Europe. *“Exotrail is our second New Space investment. We are beginning to get to know this market well. It is a very fast growing sector. We were impressed by what the Exotrail team has achieved over the last 18 months. The Exotrail solution provides unique competitive advantages and the medium/long term vision of its leaders has won us over”.*



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Irdi Soridec Gestion via its IRDIInov 2 Fund located in the Occitanie and Nouvelle-Aquitaine regions and Bpifrance, in the Future Investment Programme (PIA) via the Amorçage Ambition Angel (F3A) Fund completed the investment table. SATT Paris-Saclay also entered the capital raising following an acceleration programme that commenced in 2016. In addition, Michele Franci, Maud Thuaudet, Armand Thiberge, Yohann Leroy et Laurent Grimaldi, business angels particularly experienced in the space and business sector participated in raising capital. Announcements of further financing arrangements are expected in the coming months.

About Exotrail

Exotrail has a vision of a new space economy aimed at improving and strengthening the quality of human life. Our future depends on “agile space”, a concept of agility in the way we design, produce and sell our products - “agility” to improve the services provided by small satellite constellations by providing access to new orbits, and “agility” to launch a new world of services in orbit to revolutionise telecommunications, observation of the Earth, science and space exploration.

Our flagship product is a solution for miniaturised propulsion of small satellites. By using Hall Effect technology we are in a position to provide a considerably higher thrust than that of competitive products whilst maintaining high-energy efficiency.

For more information on **Exotrail**: <https://exotrail.com> – Twitter @ExotrailSpace

For more information on **360 Capital Partners**: <http://www.360capitalpartners.com/>

For more information on **Irdi Soridec Gestion**: <https://www.irdisoridec.fr/>

For more information on **BPIfrance**: <https://www.bpifrance.fr/>

For more information on **SATT Paris-Saclay**: <https://www.satt-paris-saclay.fr/>