

## OroraTech Accelerates Deployment of Its Multipurpose Thermal Satellite Constellation

MUNICH, GERMANY, September 29, 2022 /EINPresswire.com/ -- OroraTech, a NewSpace intelligence startup providing services to improve climate resilience, has completed a significant review in its European Space Agency (ESA) InCubed Programme. This major milestone will help to deliver the CubeSat FOREST-3, making it a stepping stone towards building and launching a multipurpose nanosatellite constellation for a 12-hour revisit by 2024 and a 30-min revisit by 2026.

"Europe has experienced one of its worst wildfire seasons in 2022, which, scientists confirm, is a result of climate



The first satellite, FOREST-1, was launched in early 2022 with a plan to build up a constellation of 100 nanosatellites by 2026. The satellites are equipped with novel thermal-infrared cameras that speed up wildfire detection and monitoring notifications

change caused by human activity. This is not a local phenomenon - we are entering a negative global feedback loop between enhanced CO2 emissions and wildfire intensity, and we need to act urgently," says Martin Langer, OroraTech CTO.



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"Our current goal is to digitize all firefighting to provide the most accurate data as a basis for decision-making for the response organizations. ESA InCubed Programme lays the foundations for the further success of our satellites, which are essential to close current data gaps, and paves the way for scaling up in-house satellite production. The input from the ESA experts is crucial to achieving that," says Langer.

"FOREST-3 addresses the wildfire ever-growing challenge

by embarking cutting-edge Earth observation (EO) technologies. The mission is an excellent illustration of CubeSat democratization which, combined with technology miniaturization, enables the deployment of a cost-effective and scalable constellation to provide life and asset-

saving early warnings to relevant stakeholders. By expanding its data product to further applications, OroraTech will undoubtfully remain a major player in the global EO industry. Through ESA InCubed Programme, ESA has been eagerly supporting OroraTech with world-class technical expertise. We look forward to working together on the upcoming FOREST-3 implementation phases, "says Nori Ait-Mohammed, ESA Technical Officer.

FOREST-3 will monitor three channels in the Thermal Infrared (TIR) spectrum and have an additional optical imaging instrument and an onboard graphics card. This will allow not only onorbit fire detection but also stacking multiple images on the satellite. The technology will be used in the future across other industries such as agriculture, urban heat and insurance.

"I am very pleased with our ability to succeed in tight deadlines. We have completed the first phase of ESA InCubed Programme with the PDR ("preliminary design review") in less than eight months and will have the satellite in space within two years after kick-off. ESA InCubed Programme focuses on building a successful product for the marketplace, so speed, agility and adaptability are crucial to success. The same elements are vital in successfully building satellites. Our growing customer base across six continents and their feedback help us build a better product and satellites in the future, " concludes Langer.

"We have been working with OroraTech for more than a year to enhance our wildfire management plan," says Mathieu Payette, Air Operations Coordinator from SOPFEU, Societe De Protection Des Forets Contre Le Feu, a fire management service in Canada.

"Thanks to our collaboration, we have increased our potential for early detection of new wildfires. The current Earth observation market challenge is the lack of data in the afternoons when most wildfires start. Therefore, I am pleased to learn that OroraTech is receiving ESA support to advance with their satellite constellation that will provide such valuable data for the "afternoon gap," says Mathieu Payette.

OroraTech is supported by InCubed, a program of, and funded by, ESA, the European Space Agency.

## About InCubed

InCubed stands for 'Investing in Industrial Innovation' and is a co-funding program run by the ESA  $\Phi$ -lab. InCubed focuses on developing innovative and commercially viable products and services that exploit the value of Earth observation (EO) imagery and datasets. The program has a very wide scope and can be used to co-fund anything from building satellites to ground applications and everything in between, or to develop new EO business models.

## About OroraTech

OroraTech is a NewSpace intelligence startup providing services to improve climate resilience. Their leading Wildfire Detection and Monitoring Service is used by clients all over the globe, protecting more than 170 million hectares of forest. The service is complemented by OroraTech's

own nanosatellite fleet. The first satellite, FOREST-1, was launched in early 2022, and the plan is to build up a constellation of 100 nanosatellites by 2026. The satellites are equipped with novel thermal-infrared cameras that speed up wildfire detection and monitoring notifications from hours to minutes. The company was founded in 2018 by Thomas Grübler, Björn Stoffers, Florian Mauracher, and Rupert Amann with a shared vision to use NewSpace intelligence for a sustainable earth, employing 75 people worldwide.

## **ENDS**

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