



ANANDA Impact Ventures



PRESS RELEASE

# A nanosatellite-based early warning system for wildfires: Wachstumsfonds Bayern invest in OroraTech

Landshut, Munich, Germany / Vienna, Austria, June 02, 2021 – The New Space start-up OroraTech has successfully completed a Series-A financing round of EUR 5.8 million. The Wachstumsfonds Bayern (Bavarian Growth Fund) managed by Bayern Kapital, the venture capital organization of the Free State of Bavaria, as well as Ananda Impact Ventures, Findus Venture, APEX Ventures and several experienced business angels invested in the company. OroraTech develops a global satellite-based early warning system for wildfires. Its technology is already used by governmental organizations and insurance companies as well as in the commercial forestry sector to reduce the ecological and economic impacts of wildfires. In recent years, wildfires have increased both in number and volume. In the US alone, fires have destroyed an area of more than 41,000 km<sup>2</sup> in 2020, and in the Mediterranean region more than 50,000 fires occurred in the same time period. Across the globe, fires release a total of around eight million tons of  $CO^2$  – more than the combined automotive traffic worldwide – and cause damages of around USD 24 billion each year.

OroraTech GmbH was founded in 2018 as a spin-off of the Technische Universität München (Technical University of Munich) and currently employs a staff of 40. The company develops a satellite-based service for early detection and monitoring of wildfires across the globe. Renowned organizations and institutions in Europe, Canada, Australia, Brazil and the USA were already able to expand their early warning capabilities in this area and adjust them to an increasing number of more devastating fires with OroraTech's "Wildfire System" (WFS). The processing of thermal infrared data necessary to achieve this is a market with high growth potential, which OroraTech is an active player in. In addition to the detection of wildfires, the company is already developing new applications for its technology, such as the monitoring of environmentally harmful gas flaring or comprehensive agricultural analyses for the agricultural sector.

# A New Space pioneer from Bavaria develops its own satellite system

To be able to warn of dangers across the globe even faster and create more precise analyses, OroraTech plans to place its own nanosatellites (around the size of a shoebox) in Earth orbit in the coming years. To this end, the innovative company has developed very small state-of-the-art infrared camera systems and equipped them with artificial intelligence (AI). The funds of the current financing round will be used to facilitate the launch of the first number of satellites. By 2026, more than 100 OroraTech nanosatellites are expected to be in Earth orbit to detect and report wildfires of an area of ten by ten meters or more within 30 minutes, and measure temperatures at high resolution and in hourly intervals worldwide. The 2-year development time and associated development costs of OroraTech satellites amount to a fraction of the necessary expenditure for conventional satellites.

"Observation towers, drones or airplanes are expensive monitoring measures and often not feasible, even for professional forest owners over a wide area. That is why institutions and forest owners







worldwide already rely on our service today", says **OroraTech CEO and co-founder Thomas Grübler**. "In order to cover even more regions in the future and to be able to give warning earlier, we aim to launch our own specialized satellite constellation into orbit. We are therefore delighted to have renowned investors on board to support us with capital and technological know-how in implementing our plans."

**Hubert Aiwanger, Bavaria's Minister of Economic Affairs**, says: "Space is a market of the future. There are already over 120 so-called New Space companies in Germany. Crucial to the success of such innovative young companies is the availability of venture capital to finance the necessary opportunities and growth steps. For many years, the Free State of Bavaria has been supporting its local tech start-ups during capital-intensive growth phases with the Wachstumsfonds Bayern. By supporting future-oriented companies such as OroraTech in scaling up their business models, we ensure the innovative strength and competitiveness of Bavaria as a business hub and create jobs for tomorrow today."

Launched in 2015, the Wachstumsfonds Bayern provides high-innovation, technology-oriented start-ups and SMEs (small and medium-sized enterprises) in Bavaria with equity capital for growth projects as a co-investment partner. It is partly financed by the LfA Förderbank Bayern and the European Investment Bank (EIB).

"As a result of climate change, the risk of wildfires is increasing all over the world. In 2019 alone, over 4.5 million fires larger than one square kilometer occurred worldwide. When the responsible authorities have access to precise thermal images from space and are therefore able to act in time, even in less densely populated areas, the damage to nature and people caused by fires can be significantly reduced. This global application potential of OroraTech's technology convinced us from the very beginning", says **Roman Huber, Managing Director at Bayern Kapital**.

"What excites us about OroraTech is its immediate impact on mitigating the impact of climate change. It protects our planet's natural carbon stores and reduces CO<sup>2</sup> emissions on a large scale. The strong, intrinsically motivated OroraTech team is a perfect fit for Ananda and our core belief that entrepreneurial solutions can drive positive social and environmental change", says **Florian Erber**, **Managing Partner at Ananda Impact Ventures**.

"We are very proud to support Thomas and his excellent team at OroraTech in becoming the world's leading platform for collecting space-based thermal infrared data", says **Christian Federspiel, CEO of Findus Venture**.

## About OroraTech:

OroraTech is a NewSpace start-up headquartered in Munich, Germany, providing a global satellite-based wildfire detection and monitoring service by processing data from various available satellite sources. In parallel, the company is developing its own nanosatellite constellation specialized in wildfire detection, with the first satellite launching at the end of 2021. Founded in 2018 by Thomas Grübler, Björn Stoffers, Florian Mauracher, and Rupert Amann as a spin-off from the Technical University of Munich (TUM), the company has grown to an international team of 44 employees. OroraTech has been supported by research grants from the Bavarian and German government, the European Space Agency and the European Commission, and graduated accelerator programs at Google, Samsung, Plug&Play, ESA BIC, and the German Accelerator Silicon Valley.

More about OroraTech: www.ororatech.com





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#### About Findus Venture:

Findus Venture GmbH is an Austria-based investor in New Space, AI, and Clean Mobility. Findus invests in deeptech companies with sustainable business models that are to be used for the benefit of mankind. Findus understands the core business model of these companies, in combination with the underlying technology and solutions. To stay up to date, Findus and its partners implement technology-intensive projects such as the ADLER-X satellite series. Findus is an investor of Spire Global and Hyperloop Transport Technologies HTT, among others.

### About Ananda Impact Ventures:

Ananda Impact Ventures manages EUR 80 million in three funds and is one of the leading impact venture capital funds with a European focus. Ananda invests in outstanding impact entrepreneurs creating solutions to pressing social and environmental challenges. The active portfolio comprises impact pioneers such as Auticon (IT consulting by people in the autism spectrum), IESO Digital Health (online psychotherapy) and Klim (regenerative agriculture).

More about Ananda Impact Ventures: www.ananda.vc

#### About APEX Ventures:

APEX Ventures is a Europe-based venture capital firm investing in deep-tech start-ups focusing on unique and defendable intellectual property and above-average market potential. APEX funds have completed numerous investments in Europe and the US, among others in the fields of AI for medical applications, quantum, and laser technologies, automation and robotics, computer vision, space technologies, as well as digital forensics. APEX Ventures closely supports the founding teams in their go-to-market approaches to help accelerate international growth. APEX Ventures closely works with academic institutions, entrepreneurship programs, and other international VC partners to identify talented teams and support their ideas at an early stage.

More about APEX Ventures: www.apex.ventures

#### About Bayern Kapital:

Bayern Kapital GmbH, based in Landshut, Germany, was founded as an initiative of the Bavarian government in 1995. It is a wholly-owned subsidiary of the Bavarian LfA Förderbank. As the venture capital organisation of the Free State of Bavaria, Bayern Kapital provides equity capital financing for the founders of young innovative technology companies in Bavaria. Presently, Bayern Kapital manages twelve investment funds with a total volume of around EUR 500 million. So far, it has invested roughly EUR 350 million in about 290 innovative technology companies in various sectors including life sciences, software & IT, medical technology, materials and new materials, nanotechnology and environmental technology. In this way, more than 8,000 long-term jobs in sustainable companies have been created in Bavaria.

More about Bayern Kapital: www.bayernkapital.de/en

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