

GRASP Global enters the New Space industry

GRASP SAS raised 2M€ in investments for monitoring air pollution from space.

GRASP SAS and AirPhoton Inc. USA merged into a one-stop shop to offer a complete line of software and hardware services for Earth observations.

The company is preparing delivery of its first space payload to Spire Global for integration onto a 6U cubesat with launch planned for the first quarter of 2023.

The 2023 launch is the vanguard of a constellation with payloads designed and manufactured at GRASP Global for detailed quantitative Earth observations.

Lille, France, September 21st, 2022, GRASP SAS (Generalized Retrieval of Atmosphere and Surface Properties - Société par actions simplifiée, <https://www.grasp-sas.com/>) GRASP SAS a developer of satellite software and AirPhoton USA a space technology and instrument company have merged to form GRASP Global. The complementary talent, skills and resources of the two organizations will allow the new company to swiftly develop into a significant player in the New Space sector. GRASP Global will pursue innovative technology and analytics for Earth and space. The company seeks to provide products and services to international space agencies, commercial space services, and public sector agencies.

GRASP Global intends to be at the forefront of creating products for the study of air pollution and climate change. The World Health Organization's 2021 Global Air Quality Guidelines cites global studies that point to poor air quality as "responsible for hundreds of millions of years of healthy life lost" and further that "almost all efforts to improve air quality can enhance climate change mitigation." Therefore, our immediate focus will be to develop an advanced air quality product to forecast hazardous air pollution events and quantify past exposure. This will be accomplished by the launch of a constellation of GRASP Global advanced cubesats, integration of our data with other

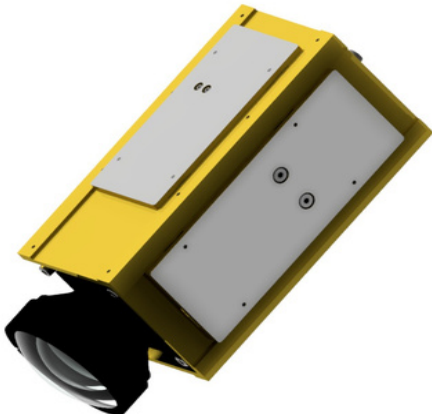
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publicly available satellite data, climate models, and ground data using the GRASP SAS suite of analytical tools.



At left is a drawing of the GAPMAP00 cubesat satellite payload which will be launched in the first quarter of 2023 on the Adler 2 Mission. This is the first of a planned constellation of 10 instruments. Each GAPMAP will collect 100 times more data over each scene than traditional instruments already in space

The transaction (Pre-Series-A) that makes the pursuit of New Space sector opportunities includes investments (2M€) from Findus Ventures (<https://findus-venture.com/>) and a strategic agreement with Cloudflight (<https://www.cloudflight.io/>, shareholder of GRASP). This has allowed GRASP SAS to acquire Airphoton Inc. (<https://www.airphoton.com/>), (also doing business as GRASP-US) to offer a complete line of products and services from GRASP Global for the booming New Space sector. GRASP is also supported by CNES, the French space agency as part of their “Plan de Relance” program.

The investment from Findus Ventures also provides funding to build and launch the first of a constellation of 10 GRASP-AirPhoton Multi Angle Polarimeters (GAPMAP cubesats). GAPMAP-0 will be launched by Spire Global in Quarter 1 2023 as part of the ADLER-2 mission. “The instrument is the first-of-its-kind commercial space instrument to be deployed for the characterization of particulate air pollution in cities and communities. Each GAPMAP will provide a wealth of information about the Earth’s surface, clouds, and especially atmospheric aerosols”, Dr. Oleg Dubovik, co-founder of GRASP SAS and Science consultant says. “The GRASP software makes it possible to use the satellite measurements to determine whether particles are likely produced by industry or swept in from natural sources such as wildfire smoke or desert dust. The software service supports industry in their efforts to become cleaner and greener “. Dr. David Fuertes, GRASP Global CEO continues. “Traditional past instruments launched by the international space agencies may cost 5 to 40 times as much as one GAPMAP payload and each GAPMAP can make about 100 times more measurements over each scene”, CTO Prof. Vanderlei Martins, adds “The information that can be derived is of high interest for the monitoring of air pollution and the environment, as well as, for improving and correcting the data from the remote imagery of other New Space sector instruments.”

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GRASP enjoys more than a decade of experience in developing hardware and software for space applications and has worked with the largest international space agencies. For example, the company has been engaged in development of the operational algorithms for generating surface and aerosol products for Sentinel-4, 3MI and CO2M future ESA and EUMETSAT missions. GRASP's new subsidiary, Airphoton Inc. designs and manufactures scientific instruments for Air Quality, recently moving towards satellite payloads and mission support based on their team members participation in the HARP cubesat mission and building HARP-2 for the NASA PACE mission.

The unified GRASP and AirPhoton team gives the company a broad and deep foundation which will be used to strengthen prior activities, expand into additional areas in the New Space sector and create diverse B2B opportunities. GRASP Global is planning for the future which will see the integration of satellite and ground-based data and development of satellite ready ground instruments. Specifically, GRASP-US intends to increase their position in the market of ground-based in-situ instruments by empowering them with GRASP algorithms and to enter the new market of manufacturing as well as data management of satellite payloads. GRASP Global facilities in the U.S. include new clean and dark rooms, thermal vacuum chambers, calibration equipment and satellite payload assembly lines. These new improved facilities have been installed for GAPMAP-0 activities and in preparation for the development of tens of GAPMAP units per year as well as other payloads for third parties or new GRASP missions. The GRASP software team looks forward to exploring the Earth Science market and to developing a full chain of processing data from a fleet of commercial GAPMAPs.

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ABOUT FINDUS VENTURE GMBH

Findus Venture GmbH is an Austria-based investor in New Space, Mobility and Quantum companies. Findus invests in sustainable technology to be used exclusively for the benefit of humankind. Findus understands the business model of the companies it invests in, as well as the underlying technology and products. In order to stay up to date, Findus implements technology-intensive projects with its partners such as: ADLER-X. Findus has investments in Spire Global, OroraTech and Hyperloop Transport Technologies – HTT, among others.

ABOUT CLOUDFLIGHT

Cloudflight is one of the leading full-service providers for industrial digital transformation in Europe. Around 1000 visionary IT strategists, consultants, data scientists, cloud specialists, and excellent software architects help enterprises to take their digitalization to the next level. Cloudflight's expertise includes artificial intelligence, cloud applications and operations, embedded software development, human-machine interface design, cognitive systems as well as global e-commerce solutions for B2B and B2C customers. Cloudflight delivers scalable, flexible custom software, to be implemented quickly and seamlessly by qualified IT specialists. Customers benefit from a fast return on investment, a future-proof technology stack and a significant gain in operational efficiency. More information on www.cloudflight.io.

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