



Data collection from the stratosphere

Start-up Aratos HAPS BV settles at Gate2

On May 1st, 2020, Aratos HAPS signed the lease contract with Gate2. From Rijen, The Netherlands, the company is working on a high-tech platform that will enable data collection from the stratosphere. CEO Peter Tjia; “The end-user is central to this process. We need support and access to an innovative ecosystem for this. That is an important reason why we choose this location. The presence of, for example, the Royal Netherlands Air Force and Daedalus Aviation Group provides a great deal of knowledge. We also actively seek cooperation with other parties in the region.”

Collecting data about what is happening on our globe is not new. Think of GPS satellite data that you use in your car to drive from A to B. Or drones that collect images for digital surface or terrain models and aircraft used for aerial surveillance.

Satellites are in the mesosphere. Passenger planes and drones fly in the troposphere. High-Altitude Platform Station systems (HAPS) focuses on the layer in between; the stratosphere. What is the advantage of that?

Peter: “Flying in the stratosphere makes real-time data collection over larger surfaces accessible to many more parties than is currently the case. It is less expensive. You should see it like this. You need a rocket to launch satellites. And you don’t just take them down. In the troposphere, where passenger aircraft are located, for example, it is relatively busy. And there is a lot of air resistance, so staying in the air just costs a lot of energy. That makes monitoring or surveillance from that air layer difficult for a longer period of time. By flying in the stratosphere you eliminate those disadvantages. It takes much

less energy to fly there, and you can get there fairly easily. At the moment, this layer of air is not really used yet. And we see a good business case in this. We really believe this can have an impact worldwide. That is why we are taking on the further development of this.”

Aratos HAPS is a subsidiary of the Greek Aratos Group. How did you end up at Gate2?

Peter: “The plan for the High-Altitude Platform Station systems (HAPS) originated in Greece. The Netherlands proved to be better suited for the further development of this idea. I know from experience that in this type of innovation you need a collaboration between the public and private sector. And support, so that you know that what you develop will actually be embraced. A lot is happening in the area of aerospace in the Central Brabant region. Think of the Air Force, but also of a company like Daedalus Aviation Group. This is also where the [Air Mobility Training Center](#) of the Ministry of Defense is located. Via the Brabant Development Agency (BOM) I came into contact with Midpoint Brabant and program manager Pierre van Kleef. This is the perfect place for us because of the knowledge available from other companies on campus. You walk in faster together if you work from the same building. And we emphatically seek local cooperation with both public and private parties from the region.”

The space that Aratos HAPS rents has yet to be furnished. What will happen here in the near future?

Dick van Druten is Managing Director at Kylla. The investment branch of the company Kylla Capital Partners BV, is a shareholder of Aratos HAPS. Dick explains: “Together with Paul van Kempen, Director of aerospace and high-tech specialist KEC BV, we make a feasibility scan. That is the starting point for further development: a ground station, software, an object that goes up into the air and sensors. And which data is most interesting? We do this research together with the customer. So, we don’t come up with something beautiful, and then nobody wants it. The wishes of customers guide this process. For example, we are already working with the city of Paris for heat monitoring. Ultimately, we want to become an industrial leader: a driver of innovation in this area. Initially, our space on Gate2 will be intended as a meeting point and project office, but in the long run we will also be building here. In 12 to 18 months, we should be ready to take to the skies for a maiden flight”

Aratos Group was established in Greece in 2003. The company has companies worldwide. They have also been active in the Netherlands since 2017. Peter Tjia is CEO of the five Dutch companies, including ARATOS HAPS BV. These companies specialize in smart IT solutions – such as downstream processing and blockchain – focused on, among other things, home security, medical applications and government data. Kylla Corporate Transactions was established in Amsterdam in 2002. The company mediates between entrepreneurs and investors worldwide. In addition, Kylla finances projects from its investment branch, such as Aratos HAPS.