

GOD'S EYE



GEOCONNEXION SPOKE TO SENSEFLY MD **JEAN-THOMAS CELETTE** TO SEE WHAT CHANGES HE'S NOTICED IN THE UAV INDUSTRY IN 2019 – AND WHAT HE PREDICTS WILL HAPPEN IN 2020

What do you think have been the industry's key developments over the past year?

The industry is maturing. As users become more confident and comfortable using UAVs, we are seeing longer and more advanced missions carried out. This, in turn, has driven demand for products that can deliver a whole new set of mission types, particularly in the beyond visual line of sight (BVLOS) space. For example, we've seen entire cities mapped and other new use cases based on the oblique and thermal imagery we can provide.

Furthermore, the efficiency gains delivered by UAVs have been proven at a small scale. As a result, we are also seeing internal rollouts on a larger scale. Increasing numbers of large corporations are, for instance, adopting UAVs in-house, having seen how easily the technology can be integrated into their operations and the benefits it offers operators and their workflows.

Solar panel inspection is one industry that has experienced unprecedented growth using UAVs. It's an example of where it has been necessary to be agile in addressing a use case that was only partially addressed previously. Identifying and inspecting broken solar panels is essential for operators to maximise efficiency and output. By using thermal cameras, they can detect the excess heat emitted from malfunctioning panels. By providing an aerial perspective, UAVs are ideal to help them get the insights they need. We've observed specific benefits of fixed-wing UAV technology, in particular, on large-scale sites such as solar farms, thanks to the hardware's ability to offer the flight time and capabilities necessary to carry out inspections quickly and regularly.

Regulations across the UAV industry are rapidly changing and vary from country to country. How is senseFly navigating these changes?

Regulation is a very important consideration and we work to actively address this challenge to ensure our customers will be well positioned when any new policies come into effect.

An important aspect of our role as a UAV provider is also ensuring that our technology provides operators the insights they need to remain compliant throughout their operations. A number of our users use UAVs, for instance, to obtain topographic models of an area, which not only provides a picture of what a project will entail but also of any regulatory or logistical considerations that must be accounted for. This is particularly crucial in the case of large-scale projects, such as major construction projects, where there are often many elements that must be factored in before it can begin.

We also work with our customers and regulators internationally to achieve approvals

for more advanced surveying and mapping missions, such as BVLOS and operations over people. This is carried out on a customer or case-by-case basis, as required by different regulatory boards, or it can mean that our UAVs are generally approved for BVLOS missions at a national level, as is the case in Brazil.

Usually, this requires senseFly or a third-party to demonstrate that our technology is safe, even when failures happen. We've had great success in this department because our UAV is lightweight and safe to operate over people, which is essential for BVLOS operations. This has been done in Brazil, Canada and the US.

We also work with regulatory authorities, particularly in Switzerland, to fuel the progress on the technology side. For example, we are an active member of the U-SPACE program driven by the Swiss Federal Office of Civil Aviation. The purpose of the collaboration is to integrate UAVs in a universal airspace management system, in order to significantly increase safety for our geospatial customers both in the air and



Beyond visual line of sight flights are becoming increasingly important

on the ground. This prototype system has been used successfully on multiple occasions already.

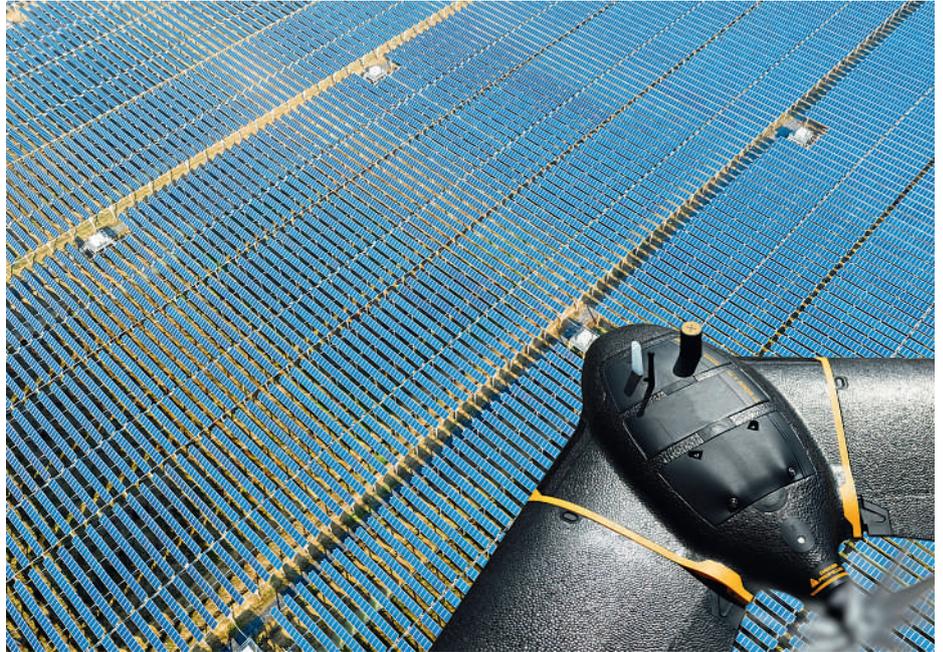
To increase adoption and streamline surveying and mapping operations, however, more homogenous regulations between countries are needed, particularly when it comes to BVLOS missions. This will be integral to ensuring that a solid, robust legislative framework can be put in place to accelerate industry growth and further support commercial UAV operators to optimize their processes.

What challenges and opportunities do you expect to see in 2020?

Every nascent industry goes through different phases of consolidation and growth, and the UAV industry is no different. In a market that is reaching maturity, we are inevitably seeing changes. Some companies will go from strength to strength, establishing themselves as long-term figures, while others may not survive the changing conditions.

There will, of course, be implications of this for UAV manufacturers, but as an industry we must also remain mindful of the impact this may have on UAV operators – the customers that rely on providers like us to support their day-to-day operations and livelihoods.

New challenges, however, also create new opportunities, and by embracing the change, companies can adapt, evolve and stay ahead in the new market landscape. It presents the ideal opportunity for the providers to really look at their products and



Solar farm mapping is an area well suited to UAVs

make sure they reflect what users want.

I'm immensely proud that senseFly's commitment to remaining agile has enabled us to do just that. While our eBee UAV platform upholds our position as the global fixed-wing leader, we're also exploring innovative use cases and new ways that we can support our customers through strategic partnerships with leading software providers. We know from our users that these collaborations are integral to helping to deliver an integrated,

end-to-end solution, and we will continue to drive positive change in our business to meet their unique and diverse surveying and mapping needs as the industry evolves.

It is clear that the only constant is change and we should not be concerned by this. I'm confident that we are only at the beginning of the journey towards greater professional UAV adoption and understanding the benefits that UAV technology can offer in commercial applications.

The advertisement features a background image of a person in a high-visibility vest holding a black Manfrotto tripod with a camera attached. The text is overlaid on the left side of the image.


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