Case Study

UK Civil Aviation Authority

Innovation Case Study

# Volocopter

Whizzing around cities in electric powered vertical take-off aircraft may sound like something from a sci-fi film but German company Volocopter is intent on making it a reality and one that could be available pretty soon. As one of the first companies to join the UK Civil Aviation Authority's innovation sandbox it is ideally placed to explain how this new way of working with a regulator delivers benefits. The CAA's Sandbox was established with resources made available from the Department of Business Energy and Industrial Strategy's Regulators' Pioneer Fund.

We spoke with Fabien Nestmann, Volocopter's VP Global Public Affairs, and firstly asked him what they aim to achieve. "In many metropolitan areas we simply cannot add more roads, bridges, stations etc. – they are at capacity. But developments in technology offer whole new modes of transport. In our case it means that quiet electrical flying inside urban areas is now a possible solution. With our Volocopter air taxis, we want to add a new dimension of getting to your destination in a safe, direct and quiet way."

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Full document details: UKCAA CAP1949 2020

> Ultimately I find the CAA extremely helpful, extremely on board and extremely proactive.

This desire is backed up with real progress. The company's third generation aircraft is currently being finalised and at the same time progressing through safety certification with the European Union Aviation Safety Agency (EASA), using the new Electric Vertical Take Off and Landing (EVTOL) regulations. "We estimate it will take approximately two years from now to achieve certification. At the same time we're exploring which markets will be the first for us to launch, so once the aircraft is certified we are ready to open a commercial route. London is obviously an exciting proposition and why we engaged in the UK with the CAA and others," added Fabien.

## Regulatory challenges

As the company looks at more test flying and certification, we asked Fabien what particular issues this brought. "Like any new type of aircraft or service there are challenges. In the sense that most existing rules cannot be applied directly to what we will offer. So, the challenge is to find sensible, safe regulations. Not just for the aircraft but also landing sites and infrastructure. We can lean on some existing rules, build on existing logic and develop new compliance. We've found regulators are very interested, forthcoming, pragmatic and cooperative about facilitating this new technology. They also see the benefit, as long as we can show it's safe and supported by the majority of the population.

"It's about engaging early and in an open and constructive way."

## Working in the CAA sandbox

As one of the first companies in the UK CAA innovation sandbox we asked Fabien how Volocopter got involved. "London is a very interesting market for us, so we got in contact last year. We found the UK's innovation work and sandbox set up very interesting. It is encouraging to have an open national authority that constructively challenges proposals and aims to develop a regulatory framework together that provides a safe new form of transport, in the spirit of making things happen. This cooperative, joint working approach is how the CAA is playing the role of both negotiator and innovator."

## Constructive regulation

So, as Volocopter moves towards more demonstration flights how will this way of working help? "Our initial contact was important to get an introduction to the local stakeholders and understand possible concerns. Working towards commercial air taxis together with the regulator, such as the CAA for London for example makes a lot of sense. It means we can all work in one direction, achieving highest possible safety on the way of introducing a new form of urban mobility."

Lastly, we asked Fabien if there were examples of working with the CAA that were better than expected, or cases where we can improve. "My experience of working with UK CAA has been great. Response times have been quick and inputs were clearly tailored to this new kind of mobility, which signifies an enabling attitude, which is key. As long as there is clear understanding that safety has the highest priority, we are working towards the same goal.

"Engaging in open dialog and finding a common ground has proven to be the most fruitful approach to innovation that needs new regulation. In our experience the CAA has taken exactly this approach with electric aircraft and we believe it is the best way to get electrical urban air taxis off the ground for people to use commercially as soon as possible."

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