



3D city models help to deliver safer drones

3D city models will play a crucial part in designing and monitoring future Unmanned Aerial Vehicles (UAVs) air-traffic. As drone technologies are advancing at a fast pace, safety in the cityscape remains a prime concern. AccuCities have been the supplier of choice to SafeZone, an innovative project to improve urban flight safety and effectiveness of drones, developed by Zenotech and their partners Flare Bright.

Safely navigating UAVs in built-up environments in a world-first project

SafeZone will deliver a new live data service, that will provide real-time information about aerodynamic hazards in cityscapes. The results of this project will allow UAVs to adapt their route as they fly through wind changes improving safety and public confidence in drone flight in urban areas.

The project partners are Zenotech, which specialises in high performance computing and aerodynamic simulations and Flare Bright, the developers of a revolutionary fully autonomous nano drone, Snapshot.



Accurate and detailed 3D city models for SafeZone

The team needed highly accurate 3D models of specific sites and buildings in the UK. After researching numerous sources of this kind of data, including open source, AccuCities was chosen as the preferred supplier.

David Standingford, Director and Co-founder of Zenotech told us:

“We were impressed with AccuCities overall. What stood out for us was the level of detail in their models, and their user-friendly web interface makes it easy to specify areas of interest. We’ve been working with the technical team at AccuCities to refine a data exchange process to make it easier to input their models into our high fidelity zCFD aerodynamic simulation software.”

“The need for highly accurate 3D models of as-built environment is paramount for SafeZone.”, continues David. “We are using Flare Bright’s drone to test winds at numerous points near buildings and industrial sites at 1-metre resolution, which will validate our computational fluid dynamic models to estimate wind speed. The detailed models AccuCities provided are perfect for this purpose.”

SafeZone is a Future Flight Challenge project, part of the Industrial Strategy Challenge Fund, delivered by UK Research and Innovation.

