

# Innovation Funding for Mobile Phone Mapping Project



Bluesky, UK, has secured funding from the UK government's innovation agency, Innovate UK, to investigate the potential of mobile phones for capturing accurate 3D spatial information. Designed to reduce the costs of monitoring and managing essential infrastructure, such as overhead electricity cables, and mitigate the effects of potentially damaging vegetation, the Bluesky-led study will assess the feasibility of extracting 3D measurements from standard smartphone video footage.

Working in partnership with ADAS, an environmental consultancy, the co-funded project will utilise experience gained through previous data capture and management projects with electricity Distribution Network Operator (DNO) companies in the UK and overseas.

## Vegetation Data for Maintenance

The initial application of this innovative use of mainstream technology would be the accurate measurement of vegetation encroachment in the field for maintenance purposes, according to Rachel Tidmarsh, managing director of Bluesky. More cost effective data capture, upload, analysis and dissemination can significantly increase an operator's potential return on investment, releasing essential funds for network upgrades and improvements. We will also look to explore other applications of the solution in sectors such as forensics, insurance and emergency response."

DNO companies currently spend millions monitoring and maintaining clearance between trees and power lines, with the market potential in Europe alone estimated at GBP10 million per annum. By utilising readily available mobile phone technology, Bluesky hopes to reduce this spend by operators of overhead networks, both power and telecoms, across the world, and provide managers with an easy to use and update, efficient audit trail.

The software and specially developed photogrammetric algorithms will facilitate to compute depth values for individual pixels within overlapping images taken from video to create dense 3D point clouds of an object or scene. By exploiting its substantial expertise in aerial surveying and production of derived datasets, Bluesky plans to apply these techniques to mobile phone video footage. The final Bluesky solution will include data processing and hosting, offered on an annual subscription or on a project basis.