

## RISK MODELLING FOR SMART TREE MANAGEMENT

### THE PROBLEM

Tree Risk Management is traditionally based on an established set of risk management methods, risk assessed by highly qualified arborists. The drawback is that inaccuracies could occur in the risk score if it is not analysed alongside data relating to the surrounding environment.



### THE APPROACH



KaarbonTech considered how it could best add value and bring additional benefits to the knowledge and skill of the arborists, when risk assessing their tree stock. This was a new development in the KaarboneTech software suite, working with leading arborists to establish what data would improve their calculations. It looked at all the established processes in use, to pull the data together into one model, for enhanced risk management. Bringing the data from all sources including TRAQ, THREATS, and combining that with geospatial intelligence, it was incorporated into one advanced matrix, to maximise the accuracy of the impact rating and enhance the knowledge of the risk factors. The arborists can carry out their usual risk assessment with data uploaded into the software, where geospatial features including location information, network hierarchy, road speeds and other highway assets are held. Councils are then able to score individual tree assets or grouped assets, to generate an interactive risk model on which they can accurately base future programmes or carry out emergency works if appropriate.

### THE RESULT

By bringing all data together into one risk model, Risk SMART enables councils to move from costly reactive to a more effective proactive management of their tree stock. Understanding the highway assets, its tree stock condition, the tree species combined with their location is the most efficient way in which to risk profile the entire asset, which is a huge step forward for risk management.

