Testing the skyscrapers

Summary

Radio planning and modelling has taken on a new role in saving money for architects and developers. Consumer demand for wireless broadband and good quality television reception is a factor in the siting of tall buildings; internet users and viewers of terrestrial and satellite TV channels are likely to protest if a new construction diminishes the quality of their services - and councils are legally obliged to take those views into consideration when deciding whether to grant planning permission. To avoid time-consuming rejected planning applications and expensive appeals, architects and developers are increasingly using radio planning and modelling to assess and address the potential impact of their project. Knowing what effect the building would have gives its constructors the opportunity to modify plans; and if plans do not need to be changed, radio modelling gives developers the evidence they need to reassure councillors and likely opponents to the scheme that problems will be minimal or negligible.

Challenge

The developers of a tall building in a European capital city wanted to know the potential impact of the building on broadcast services while the building's design was still fluid.

Strategy

ATDI's radio network planning tools can predict the specific radio shadow – that is, the area of degraded or lost reception - of a building and assess its impact. So, a 3D environmental model of the affected area using terrain, buildings and vegetation data was used. Once computed, these results defined the radio shadow which was then presented as an overlay on a topographic map and aerial photograph; this gave a clear visual representation of any impact. ATDI's work identified that the new building did have an effect on radiocommunications, although that effect was limited to broadcast and public cellular services. This information was invaluable to developers finalising the building's design.

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ATDI: saving developers time and money

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