

# CASE STUDY



## Enhanced Communications in New Laboratory

TES deployed a trunked radio system in an Intrinsically Safe site (requiring ATEX) at AstraZeneca. The system comprises multi channel radio system infrastructure and provides communications for, maintenance, security and safety control during emergency situations at its Macclesfield site.

During the recent expansion and redevelopment of the site, a new state of the art laboratory was built. However, the location and the materials used in the construction of the building meant that the signal strength from the existing radio system could not provide adequate signal inside the new building. Full Radio coverage within the building is a necessity for both daily operational use and especially important in the event of an emergency situation.

TES conducted an RF survey in order to investigate and determine the extent of the problems experienced within. From the results TES were able to recommend the most appropriate solution which would guarantee an improvement to the current radio coverage and enable radio calls to be processed inside the new laboratory.

TES' solution involved the supply and installation of a cell enhancer. The cell enhancer is a unit that is linked to the master radio system via the fibre network infrastructure. From the cell enhancer, a low loss RF cable was routed throughout the building to areas of poor coverage which had been identified as part of the site survey investigations. A discreet antenna was then presented from the RF cable at those locations. The cell enhancer and associated equipment provides adequate signal within the new laboratory and is designed without causing interference with the main radio system.

TES Project Managed the cell enhancer deployment, preparing method statements and risk assessments prior to carrying out the necessary works which enabled seamless installation of the cell enhancer, and minimised disruption to the general running of the business.

Following installation the radio coverage within the building is now at an improved operational level, providing clear communications throughout the whole of the site. AstraZeneca is able to utilise the radio equipment for its daily tasks and the on-site emergency team is confident that in the case of an emergency event, all personnel can retain full communications with one another.