



In the Netherlands

# A top-flight team!

The AMEC SPIE Nederland Telecom Special Services department is a partner of Vodafone, KPN, T-Mobile, Orange and Telfort. It receives framework contracts from all five operators to install network antennas. These can be installed either on specially erected pylons or on existing buildings. At present, a team from the department is completing a job for KPN\* in Holtum, as part of a turnkey operation called "Flex Force 1". This mainly consists of acquiring the location, engineering, pylon construction, network connections and coverage tests. With Edwin Christianen as our guide, we accompanied the team as it prepared and positioned antennas and cabled into the mast and positioning the telecom equipment in the building.

\* KPN is a telephony and data transmission operator in the Netherlands. It is the Dutch telecom market leader and is also active in Germany and Belgium.



ON THE LEFT, EDWIN CHRISTIANEN (PROJECT MANAGER) AND TONNIE POTHOVEN (SITE MANAGER) CONSULTING THE INSTALLATION DRAWINGS.



THE CONNECTION CABLES MUST BE THEY ARE HOISTED TO THE TOP OF DE VOOGT (TECHNICIAN) INSERTS THE END OF ONE OF THE CABLES. OF CABLES WILL BE NEEDED FOR INSTALLED ON THE PYLON.



TONNIE IN THE FOREGROUND, ROB DE FEY (TELECOM TECHNICIAN, RIGHT) AND EELCO, ARE READYING THE ANTENNA FOR INSTALLATION. THEY COVER THE ENDS OF THE ANTENNA CONSTRUCTION. THIS AVOIDS NOISE PROBLEMS SUCH AS WIND IN THE TUBES. SIX ANTENNAS WILL BE FITTED TO THE TOP OF THIS PYLON. (3x GSM AND 3x UMTS)



TONNIE AND ROB HOIST THE ANTENNA TO THE TOP OF THE PYLON, WHERE IT WILL BE COLLECTED BY JOHNNY AND DANNY AND MOUNTED ACCORDING TO THE SPECIFICATIONS IN ORDER TO ENSURE THE BEST NETWORK COVERAGE.



PREPARED BEFORE THE PYLON. EELCO CONNECTOR INTO A TOTAL OF 80 M EACH ANTENNA



DANNY PAP (TECHNICIAN) CLIMBS TO THE TOP OF THE PYLON TAKING WITH HIM A ROPE. A PULLEY WILL BE INSTALLED IN THE TOP OF THE MAST SO THAT THE ANTENNAS AND ALL THE EQUIPMENT NEEDED FOR CONNECTION CAN BE HOISTED UP.



ANOTHER FULLY-EQUIPPED TECHNICIAN, JOHNNY HONDIJK, FOLLOWS DANIEL'S CLIMB TO THE TOP OF THE PYLON SOME 37.5 METRES ABOVE THE GROUND.



AFTER SUPERVISING THE OPERATION, TONNIE VERIFIES ROUGHLY THE ORIENTATION OF THE ANTENNA WITH RESPECT TO THE GEOGRAPHICAL COORDINATES CALCULATED DURING THE PRELIMINARY STUDIES. THE ORIENTATION OF THE ANTENNAS WILL BE TUNED WITH A GPS SYSTEM.



IN THE TELECOM BUILDING, ROB AND EELCO INSTALL THE RACK IN WHICH THE HARDWARE COMPONENTS ARE TO BE FITTED.



ROB INSTALLS AN ANTENNA CONNECTION RACK IN THE CABINET.

