



Antenna conduit

Antenna in a cable conduit – Network 41 pilots a world first for Swisscom

In order to keep up with the increasing demand for mobile services, it has become necessary to build mobile network base stations for full geographical coverage. Swisscom came up with a solution: the so-called «antenna in the cable conduit», a world first which the company patented and then piloted in collaboration with Network 41.

As the demand for mobile services increases, many base stations are reaching their limits. New ones are now required so as to be able to cope with the data load. Swisscom developed a pioneering innovation to solve this problem: antennas in the cable conduit (small cells in manholes) – base stations with a more limited range put positioned at numerous sites. The sites are selected so as to tap into existing infrastructures as quickly as possible. Swisscom connects the small cells to the existing telecommunications infrastructure in street cable ducts. The advantage of the solution is that is invisible since it disappears underground.

It took Swisscom one year to develop this world first: antennas with specific properties that make them suitable for use in cable conduits. The manhole covers also have to have certain material characteristics for the small cells to be able to function. Swisscom patented this solution of the antenna in the cable conduit and piloted it in collaboration with Network 41 in Zurich.

«What was particularly exciting about this project with Swisscom was that we got to work on an innovation that didn't exist anywhere else in the world in this form. What is more Network 41 was involved across the board – from project planning and underground construction to cable feed, splicing, installation, integration and construction supervision», says Cédric Brunner, project manager with Network 41.

Network 41 – one step ahead when it comes to global innovations, too!



Mobile network equipment for antenna conduits

Installing antenna conduits