CASE STUDY

ESA-ESRIN AND DATWYLER CELEBRATE **“SILVER WEDDING ANNIVERSARY”**

For 25 years the passive cabling infrastructure of ESRIN, the European Space Research Institute, has been based on the Swiss manufacturer’s system solutions.

The European Space Research Institute (ESRIN) in Italy is one of the European Space Organisation’s (ESA) eight worldwide institutes. It was established in 1966 and is based in Frascati, where ESRIN employs over 400 staff.

Since 2004 ESRIN has been operating as ESA European head office for earth observation missions. The Institute’s main task is to gather, store and distribute to the ESA partners satellite data on climatic and environmental change. ESRIN also oversees the “Vega” launcher program and deals with the IT applications and associated infrastructures of the space organisation.

Dependable data traffic

The building complex in Frascati houses not only the ESA IT department but also two data centres: one for earth observation, the other for the agency’s business activities.

The Institute had high requirements even 25 years ago, when ESRIN was faced with designing and building the two data centres: A passive cabling infrastructure was needed with which to support reliable and uninterruptible data traffic.

“When we had to decide on a solution for constructing the initial infrastructure of the two data centres, we carried out a market survey. We wanted a single, dependable European supplier who understood our requirements and could cover them fully. Many years ago that was the birth of our partnership with Datwyler,” says Roberto Franciosi, Head of Facility Management at ESA-ESRIN.

Over time the original requirements have multiplied – up to today’s challenging task of guaranteeing the management of large amounts of data which continue to grow exponentially in response to technological progress.

Solutions from Datwyler

Even today the cabling in both data centres and the IT infrastructure in the whole building complex is based on Datwyler technology. The usable floor space in the data centre is 400 square metres, one quarter of which is reserved for the racks, of which there are approximately 90. All the components in the passive infrastructure – cables, connectors, patch cables and patch panels in copper and optic fibre technology – come from the Swiss manufacturer.

Years ago ESA-ESRIN had already standardised the use of 10-gigabit compatible cabling comprising Category 7 and 7_A cables as well as Category 6_A and 7_A connectors for all the installations. It is almost impossible to quantify

the amounts of product supplied by Datwyler over such a long period. Including extensions, refurbishments and maintenance, certainly many thousands of links have been installed.

Quality and future viability

ESA-ESRIN was always only interested in cutting-edge ultra-high-performance technologies. "For our structured cabling we have all along opted for solutions which meet both our current and future requirements," explained Roberto Franciosi. "In all conscience we can say that investment in Datwyler solutions has definitely always proved future-proof." In fact systems which were installed

in the Frascati institute in the early 1990s are still in use today.

Franciosi also wants to continue the good relationship after the "silver wedding anniversary": "The huge amounts of information produced every day by the satellites, and the development projects we are working on, will soon make ESA into one of the world's top 10 data producers. Technological progress ensures that the passive infrastructure will continue to gain value in future. We must be prepared to manage and distribute our data in the best possible way. That is why we will continue to maintain our partnership with Datwyler." *(March 2018)*

