The Clément Ader, was opened on the 2 October 2014, it is the first building of what will constitute the Montaudran Aerospace campus. Covering an area of 13 000m² and built in 21 months with funding from 41.5M Euros, the building includes laboratories and technical platforms for research and experimentation.

The building houses research facilities for The University of Toulouse, Frances Centre National d’Etudes Spatiales (CNES) the government agency responsible for shaping and implementing France’s space policy in Europe and Meteo France, the meteorological centre for France.

The Requirement

After receiving a large government grant to expand its research capabilities the university embarked on a quest to find a suitable installer to manage the networking infrastructure installation part of the project.

Sourcing a Partner

INEO Toulouse MPLr a major player in electrical engineering, information and communications systems and related services were the installer chosen for the job. INEO offers its private and public customers global solutions from design and production up to maintenance. With 14,800 employees and 300 facilities in France INEO is involved in projects requiring strong expertise in the field of electrical engineering.

INEO decided to go with the Excel structured cabling solution. Excel structured cabling products constitute an end to end solution where performance and ease of installation are prerequisites. With an emphasis on compatibility and standards compliance ‘from cable to cabinet’, reliability and product availability, Excel is the complete trusted solution.

INEO worked closely with EICSO Distribution Company which is a specialist distributor that has been in business since 1948 and has a strong presence in the South West region of France. With an experienced team they offer the right technical support backed up with a large stock holding to meet market demands. EICSO has been an Excel Distribution Partner (EDP) for over 5 years.

The Right Product

Excel was chosen for a number of reasons including the fact that the products are standards-compliant with third party independent verification from test houses such as Delta and 3P. The system offers flexibility, from Category 3 through to Category 7A copper cabling and optical systems from conventional multimode OM1 to OM4 and Singlenode OS2, to pre-terminated high density MTP and highly flexible blown fibre systems, Environ Racks and Intelligent Power Distribution Units.

An EMEA wide partner programme, 25 year warranty, pre and post sales technical support, 15-year plus product development programme, third party verification as standard on all key solutions add to the brands reputation and reliability.
Design and Installation

The structured cabling chosen for the project was Excel Category 7A screened S/FTP cable. This cable is designed and manufactured to meet and exceed ISO, CENELEC and TIA standards. This delivers Class FA link and channel performance supporting all applications detailed and proposed within the standards. The cable is also ETL verified.

The installation took place across three floors. Excel Environ CR racks were located in the main comms room situated on the ground floor and 16 smaller comms rooms situated throughout the three floors.

The Environ CR standard Comms Rack is available in 600mm and 800mm wide. The Espace Clément Ader project utilised the 800mm wide range which is suitable for data, security, audio visual and telecommunication equipment. Environ CR racks come with a whole host of features which include 19” profiles marked with U height position, removable side panels and high density vertical cable management. The high density cable management was a key feature for the project, with its ability to accommodate large volumes of cables and the extra depth for the patching between the racks.

Excel OM3 and OS2 fibre was installed, this internal/external grade tight buffered fibre is colour coded and packed in water resistant rodent protected strength members with the outer sheath being both flame retardant and low smoke zero halogen, so giving the client total peace of mind.

The use of fibre gave some significant benefits in completing the job. The fibre was deployed to link the racks together, negating any issues with runs that would have been over length for a traditional copper link. Fibre optics allow for large amounts of bandwidth to be transmitted, so it was the ideal choice for the backbone when linking the racks together.

Fibre provides an extremely reliable backbone for data transmission back to the core, whilst also being immune to lots of interference, therefore with the cabling running close and next to other services within the building, such as elevator motors in risers, there are no issues with the data transfer.

The installation had some strict deadlines in place to ensure the job was completed on time. INEO worked closely with EICSO, who were able to provide the required support and products from stock quickly and were able to align with deadlines and delivery schedules imposed, with the minimum amount of fuss.

The Result

The new Clement Ader is a state of the art building providing its 3 occupants with premises which encompass a future proofed infrastructure system which offers the potential for growth as and when required to do so.