Words by
Nikolaj Miller, LIFA Surveyors

"Billund Airport (BLL) in central Denmark is the second largest airport in the country, processing over 3 million travellers a year. Quite a few of the arriving tourists head to the original LEGOLAND resort which is situated nearby.

Similar to many airports, conveyor belts in the BLL departure terminal carry luggage down to the central baggage room for automated sorting before being loaded onto trolleys for the final few metres out to the waiting aircraft. With a ceiling nearly five metres high, the baggage room is a three-dimensional maze of ascending and descending conveyor belts, support structures, catwalks and HVAC piping.

A 3D model was needed to help determine if new conveyor belts could be threaded through the existing features for the expansion.

Early in the project planning stage, BLL wasn't sure how much detail they would need to proceed with the expansion design. We had worked extensively with the GeoSLAM ZEB REVO solution on multiple post-construction quality control jobs and were confident that the handheld device would provide an impressive level of detail in a short amount of time. In fact, it took less than 10 minutes.

After scanning the space, the data was imported into GeoSLAM Hub and the pointcloud was processed in just ten minutes as well.

❝ As long as it takes to capture the scan data, that's how long GeoSLAM Hub takes to process it. That is what is amazing about this technology❞

To further demonstrate the detail of the data collection, LIFA sent a 30m2 section of the point cloud to a subcontractor for feature extraction and modeling.

We had quite an amazing set of data, The 3D model included floors, walls, ceiling, conveyor belts, beams, cable trays, lights, railings, pipes, and structural features.

BLL officials were so impressed with the level of detail captured by the ZEB REVO, the information formed part of a more detailed model for a tender to upgrade and expand the belts and sorting for arriving baggage.