

# Success Story



## Rail Contact SK30R: exploring new possibilities

**THALES NEW RAIL CONTACT FOR GROOVED RAIL WILL BE APPLIED FOR DANHAI LIGHT RAIL TRANSIT (LRT), TAIPEI, TAIWAN**

As a frontrunner in cutting-edge urban transportation technology, Thales has already delivered numerous metro projects in the Asian region, for example in Malaysia, Hong Kong, Singapore, Thailand and China. The recently awarded first LRT project in Taiwan represents a further key milestone for Thales, both extending its footprint in Asia and also introducing Thales' new solution with its Rail Contact Sk30R for grooved rail.

In the first half of 2017, Thales was awarded a contract for the design and manufacture of the signalling and communications system as well as the Operational Control Centre (OCC) for the Danhai LRT project. The Danhai LRT is Taiwan's second Tramway line and for Thales one of the first Tramway projects in Asia Pacific.

In undertaking this project, the New Taipei City government is preparing its public transportation infrastructure in anticipation of expected population growth. As of today, the government has further plans to build over 4 other similar lines in the next 4 to 7 years. Danhai, a popular township in close proximity to Taipei, has been created recently and its population is expected to grow to 340,000 by 2041.

The Danhai project is the first project to employ a local Taiwanese solution to which Thales Italy contributes its global expertise and knowledge of critical rail system solutions. In regard to the project's train detection system, the usage of track circuits was not possible due to environmental conditions. In order to fulfil the customer's requirements, to find a

solution for the rail type and under a close cooperation between Thales Italy and Thales Germany, a new Rail Contact was developed and approved in a record time of less than 9 months. Furthermore, a special protection box was developed by Thales Taiwan. This protection box protects the rail contact from the traffic without perturbing the detection principle of the Thales Axles Counter System.



Protection box

As proof for the strong partnership and the confidence in the Thales solution, both forged during the Danhai project, local industrial giant China Steel Corporation (CSC) awarded Thales the implementation of the signalling system for the extension of the Light Rail Transit in Kaohsiung (the second largest city in Taiwan with almost 2.8 million inhabitants). This new project includes the delivery of the interlocking system, traffic light priority systems, Automatic Vehicle Localisation System (AVLS) and - of course - Thales Az LM Axle Counter System with the new Detection Point Sk30R. It has a modified receiver part in order to keep the same working principle with a grooved rail, while the emitter part stays unchanged.



### THALES: MAIN PROVIDER FOR AXLE COUNTERS IN TAIWAN

With more than 7000 Detection Points installed since 2000 on the TRA network (Taiwan Rail Administration), Thales is the most important Axle Counter provider for Taiwan's main line network, while TRA is one of the largest Thales Axle Counter customers in the world.

The latest award of the South Link project strengthens this position.

Initially applied as a secondary system overlaying track circuits, Thales Axle Counters are today used as the primary train detection system due to their outstanding performance. The Az Lm System is mainly used in larger applications like stations while Az LS is used for block sections and level crossings.