

# Press Release

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## **Voith engineers to develop new low-floor tram for Taiwan**

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- **Voith Engineering Services wins order for “Green Mountain Line” in New Taipei City**
- **First trams scheduled to come into service in 2018**

The Taiwan Rolling Stock Company (TRSC) has engaged Voith Engineering Services to develop a tram for the Danhai New Township in New Taipei City (Taiwan).

With a population of around 3.9 million, New Taipei City is Taiwan’s biggest city. It was formally established in 2010 through the amalgamation of all towns and municipalities of the Taipei district. Danhai is a newly created township located between the coast and the mountains. Until now it has been especially popular with tourists as a destination for weekend getaways. But now Danhai is growing rapidly and its current population of around 16,000 could grow to 340,000 by 2041. The challenge now for the public transport companies is to provide a reliable transport system for this growing number of people in the years to come.

Over an 8 km route, the “Green Mountain Line” tram will connect the center of New Taipei City with the mountains on the outskirts of Danhai. Later, a “Blue Ocean Line” is set to also connect the coast with the city center. The entire infrastructure to do this has to be established, meaning rails, bridges and depot facilities have to be built, media and energy provision ensured and vehicles supplied. The entire project will be headed by China Steel Corporation, Taiwan’s largest steel manufacturer, while the Taiwan Rolling Stock Company (TRSC) is responsible for providing the rail vehicles.

The 34.5 m long trams are to have a five-section low-floor design and must be capable of travelling in both directions. They should also be standard gauge and capable of travelling through larger intersections and track sections without overhead wires, so they have to be equipped with

additional energy storage. TRSC has engaged the experts from Voith Engineering Services to develop these vehicles.

The Chemnitz Competence Center for Rail Vehicle Development has already developed a number of rail vehicles for the European and Asian markets in recent years. "It was important to us to have an experienced and reliable partner like Voith Engineering Services to support us," says Michael Chung, Vice President, TRSC. For this project the engineering specialists will take over the entire development of the vehicle, from concept and design through the prototyping phase to subsequent commissioning, including analyses of reliability, maintainability and safety. In addition, they will provide support with production planning and factory planning, will design fixtures for welding assemblies and integrate system components.

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The project also provides for TRSC engineers to be involved in the development process and for its employees to subsequently receive training from Voith. Voith will supervise production of the prototype vehicle and the starting phase of volume production and will provide support with approval and commissioning (with acceptance inspection by a government body). "We are delighted that TRSC has confidence in our expertise and experience and that we have been able to win yet another major project to develop a tram," says Frank Salzwedel, Executive Vice President Rail at Voith Engineering Services. The first prototype is scheduled for completion by the end of 2016, with volume production envisaged for 2017. The first trams should run on the "Green Mountain Line" in 2018.

### **About Voith Engineering Services:**

Voith Engineering Services is an engineering partner for customers in the fields of rail, automotive, and aerospace. Depending on the customer's needs, the company serves the entire product creation process, from design and prototype construction to series development and on to production planning and control. It sets trends in lightweight construction using innovative materials and in product optimization. The engineering service provider is one of the market leaders in the development of rail vehicles. Voith Engineering Services is a division of Voith Industrial Services.

### **About Voith:**

Voith sets standards in the energy, oil & gas, paper, resources, and transport & automotive markets. Founded in 1867, today Voith is one of the largest family-owned companies in Europe, with over 39,000 employees, 5.3 billion euros in sales, and locations in over 50 countries around the world.

**About TRSC:**

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Since privatized from Machinery Plant of Tang Eng Company in 2002, TRSC has experienced to design and manufacture electric multiple unit, diesel multiple unit, passenger coach, diesel locomotive, light rail vehicle and freight wagon. By working with major Japanese Rolling Stock manufacturers, TRSC improves their manufacturing process, quality and delivery time and their products are widely used by rail operators in Taiwan. TRSC integrates capability of design, parts forming, assembly, interior, brake, water supply, electric system, and testing, who possesses the first comprehensive stainless steel vehicle production line in Taiwan.

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