

## LAND SURVEYING WITH 150 YEARS OF EXPERIENCE

VR Track Oy is Finland's biggest rail track constructor, with expertise covering all aspects of railway engineering, from design to project implementation. As both an engineering office and a construction company, VR Track Oy is one of the biggest operators in Finland, with around 2,000 expert personnel.

VR Track Oy's surveying services are part of the Consulting Business Unit, in which a total of around 200 employees are engaged. In surveying services, there are four regional support bases in Finland, and surveys have also been conducted in Sweden and Latvia.

VR Track Oy has a long history in track and land surveying. On the railways, surveying has been done since 1862, and some of VR Track Oy's current surveying staff have over 25 years' experience of track survey. In addition to railways, VR Track Oy also utilises its expertise in other fields. The company has a comprehensive and high quality stock of measurement instruments, which is continuously updated and supplemented.

## ON THE RIGHT TRACK WITH RELIABLE DATA TRANSFER

In its surveying work, VR Track Oy needs reliable data transfer equipment in sending GNSS correction data. Radio modems are the best option for this task, because in addition to functional reliability, data transfer is free. VR Track Oy has chosen SATEL as its supplier.

SATELLINE-3ASd Epic modems with 10 W transmission power are used in GNSS base stations. For example, in the Lielaiti-Kokemäki rail section improvement project, eight fixed base stations will send data continuously for the next three years. Working machines correspondingly trust in SATEL card modems. The typical correction data transfer distance,

namely the distance between base station and working machine, is around five kilometres.

SATEL radio modems offer a free and highly reliable data transfer channel between working machine and base station. Moreover, after installation, they are almost entirely maintenance-free. Compared with GPRS data transfer, UHF works always and everywhere. The system is familiar and 17 years' experience of it has been accumulated.

"It has been great to see all of the development work that SATEL has done on its equipment. As a result of this development work, the solutions

marketed by SATEL are extremely reliable," says VR Track Oy's Development Engineer, **Pasi Kråknäs**. About working with SATEL, he only has good things to say. "With a reliable and flexible partner, matters have been handled smoothly and the significance of long-term personal relationships with key SATEL employees cannot be over-emphasised," concludes Kråknäs.

### Applications in a nutshell

#### GNSS correction data transfer

- Working machines (e.g. ballast-clearing machine, railway wheel excavators, bulldozers, road graders)
- Land surveying instruments
- Reliable data transfer
- Long experience of cooperation



SATELLINE-3ASd Epic

Photos: Hanna Välimaa

