

# Lufft Sensors Win Tender of the Estonian Road Administration (ERA)

## Challenge

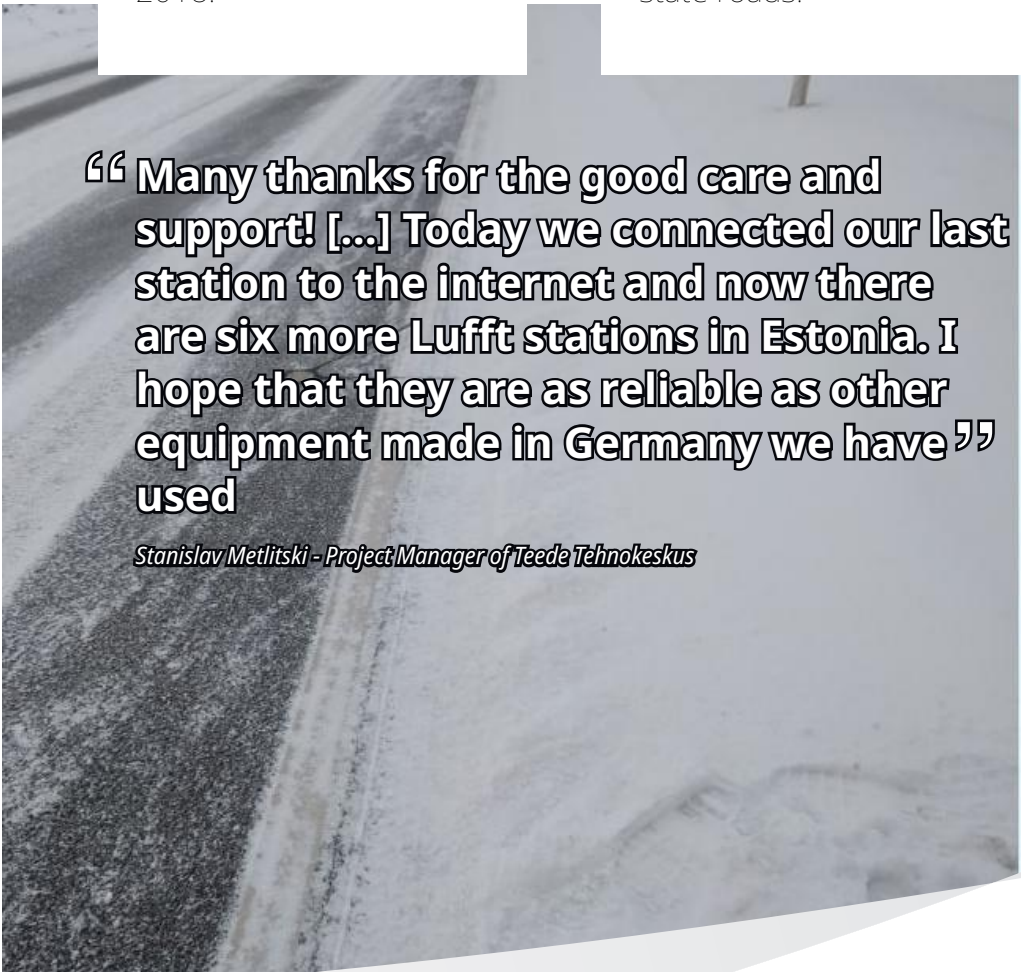
The RWIS on Estonian roads needed to be extended or renewed. Thus, the ERA issued a tender for new road weather monitoring solutions in beginning 2018.

## Solution

Six RWIS equipped with ISR31Pro ground probes, WS300 all-in-one weather sensors, VENTUS wind sensors, R2S precipitation sensors and VS2k visibility sensors along Estonian state roads.

## Benefits

The state-of-the-art Road Weather Information Systems from Lufft deliver all necessary parameters simultaneously, issue them remotely and reliably and run long-term maintenance-free.



**“ Many thanks for the good care and support! [...] Today we connected our last station to the internet and now there are six more Lufft stations in Estonia. I hope that they are as reliable as other equipment made in Germany we have used ”**

*Stanislav Metlitski - Project Manager of Teede Tehnokeskus*

# Technologies used



LUFFT WS300



## Smart Weather Sensor

All-in-one weather sensor system measuring temperature, relative humidity and air pressure.



LUFFT VENTUS



## Ultrasonic Wind Sensor

Maintenance-free and rugged wind sensor measuring wind strength and direction.



LUFFT VS2k



## 2km-Range Visibility Sensor

Saltwater-proof visibility sensor with range of 2km. Ideal for road weather uses on motorways or bridges.



LUFFT R2S



## Precipitation Sensor

Maintenance-free radar precipitation sensor detecting precipitation intensity and type.



LUFFT IRS31Pro

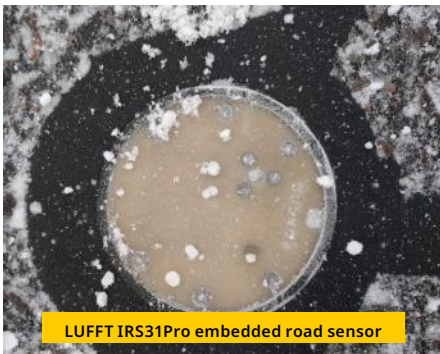


## Embedded Road Sensor

The passive sensor detects road surface temperature, water film heights, freezing point, ice amount and more.

# Case Study

The Estonian system integrator Teede Tehnokeskus equipped six road weather stations of the Estonian Road Administration (ERA) with new Lufft technology.



LUFFT IRS31Pro embedded road sensor



LUFFT road weather station in Estonia

## Road Weather: Lufft Sensors Win Tender in Estonia

### The Project

In a tender issued by the Estonian Road Administration (ERA), Lufft sensors were able to prevail against their competitors. The six new road weather stations were installed by Teede Tehnokeskus in November 2018. The special thing about it was that the whole construction work took only a couple of weeks.

The road weather stations are now located along Estonian state roads and were integrated into the existing road

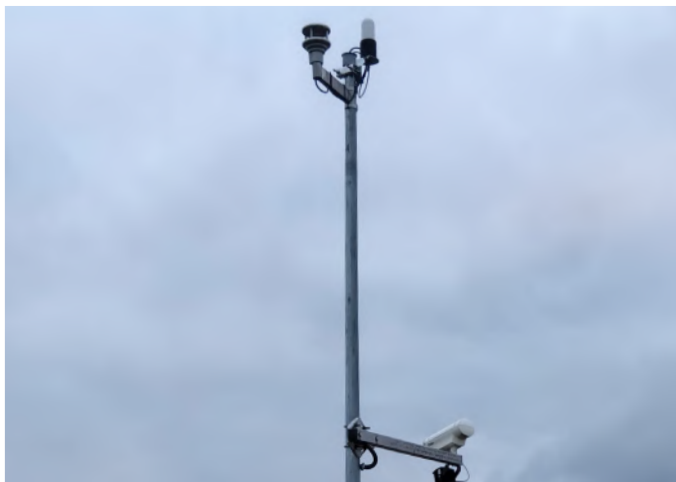
weather information system in accordance with the tender requirements. Some of the new stations are installed next to existing weather stations, others next to existing road weather cameras. From Lufft's side, six IRS31Pro passive road sensors, WS300 weather sensors, VENTUS wind sensors, R2S disdrometers and VS2k visibility sensors are in use. They are characterized above all by maintenance-free operation, high quality and easy integrability.

### The System Integrator

Teede Tehnokeskus offers engineering and consulting services in the field of road and traffic. They are a bridge between roads and technology. Teede Tehnokeskus creates solutions for collecting, analyzing and implementing road, traffic and weather-related data. Our department focuses on road meteorology as well as traffic monitoring and carries out related R&D projects.

### The Customer

The Estonian Road Administration (ERA) is a government agency operating in the administrative field of the Ministry of Economy and Communications. On the basis of and to the extent required by law, the ERA takes care of the Implementation of state policy and development programs, has management functions, takes over state supervision tasks and of the application of the State's enforcement powers in the fields of traffic management, road safety, public transport and environmental safety of vehicles.



### RWIS - Ambient Conditions

VENTUS, R2S and Camera

Ice detection systems are mainly used for winter service and provide information on wind strengths, wind directions, precipitation, barometric pressure, temperatures and relative humidity. On the picture you see the part measuring ambient weather conditions.



### RWIS - Road Conditions

IRS31Pro Road Sensor

On the road, the surface and below-ground conditions are measured by an embedded road weather sensor with up to two built-in depth-sensors.

### Installation Work

At Night

Often construction work takes place during the night hours to avoid traffic disturbances.

