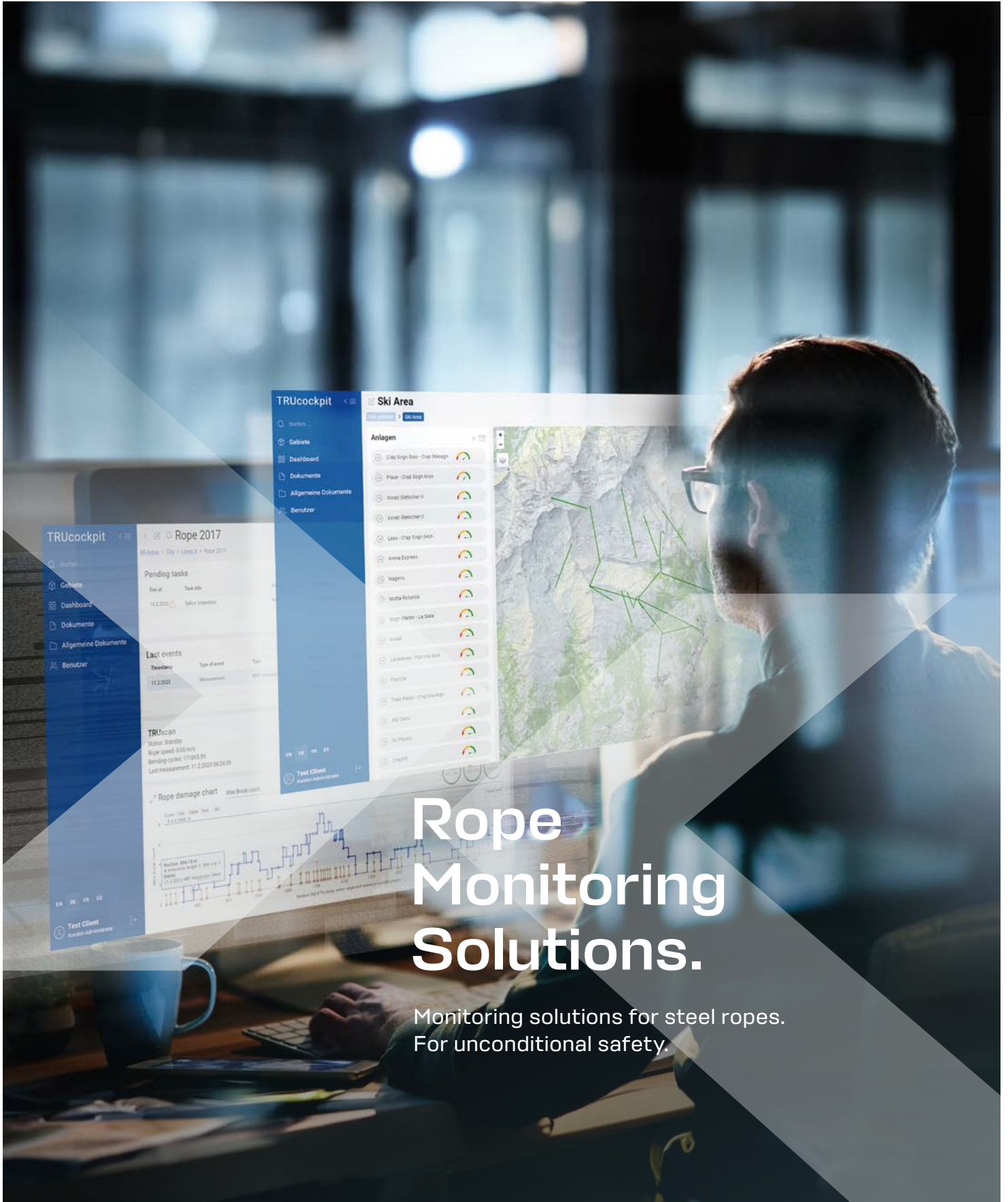




Next level monitoring solutions



# Rope Monitoring Solutions.

Monitoring solutions for steel ropes.  
For unconditional safety.

# The next level of monitoring solutions for steel ropes

## TRUcockpit

- Clear visualisation on the dashboard
- Automatic messages about the condition of the rope
- Immediate notification in the event of damage
- Simple documentation through data upload
- Time savings thanks to centralised management of rope documents

## TRUscan fix

- Continuous monitoring of the condition of cable car ropes
- Best possible safety
- Minimisation of operational interruptions
- Easy to use without specific expertise
- Adaptable to different operating environments

The TRUX logo is centered in a white circle. It consists of the letters 'TRU' in a bold, black, sans-serif font, followed by a stylized 'X' symbol. The 'X' is formed by two blue diagonal lines that meet at a point, creating a sense of motion or a cross-section.

**TRUX**

## TRUscan NG mobile

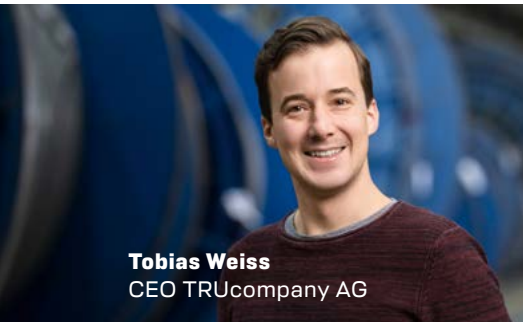
- Mobile solution for a large number of cable railways
- Flexible for monitoring multiple installations
- Simple inspection of the rope condition
- Optimisation of service life and maintenance
- Simple operation via WLAN-enabled devices

## TRUpin

- Real-time monitoring of rope systems
- Efficient force measurement
- Flexible data management
- Broad range of application in rope structures
- Preventive maintenance recommendations

# TRUX: Your partner for steel rope monitoring solutions

TRUcompany AG, a joint venture between Fatzer AG and the Geoterra Group, combines expertise and decades of know-how in ropeway and cable construction ropes as well as monitoring solutions. With TRUX, we offer our customers hardware, software and various supplementary services. TRUX's services ensure the continuous measurement and monitoring of systems and installations as well as supporting the needs-based visualisation of the results. Our monitoring solutions have it all. Our customers benefit from maximum safety and reduce their maintenance costs at the same time, says Tobias Weiss, CEO of TRUcompany AG.



«Our rope monitoring solutions have it all. Our customers benefit from maximum safety and reduce their maintenance costs at the same time.»

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# Monitoring solutions

Our services, your profit.

Safety is an omnipresent issue when using steel ropes: Whether for cable railways or stadium roofs, glass façades or bridges. Professional monitoring is key to guaranteeing maximum safety at all times. And this opens up a whole range of additional benefits.

## Evaluation of readings within minutes

Depending on the sensor technology, the results are made available either in real time or within minutes on the dashboard.

## Safety

If damage occurs anywhere on the ropes, it is detected at once thanks to our monitoring solutions. This allows significant risks to be recognised at an early stage.

## Predictability and low maintenance costs

Will maintenance be needed soon? Do you need to plan for more elaborate maintenance of the ropes? Thanks to effective rope monitoring, you will know the answer to all these questions at an early stage, schedule work into a suitable maintenance window and minimise downtimes. Benefit from low maintenance costs and low service life costs for your ropes.

TRUscan is the star on urban cable railways.



© Leitner

# TRUX sensors

## Contemporary solutions for monitoring the condition of ropes.

In order to guarantee you the highest possible level of safety, we use different sensors depending on the area of application. This means you benefit from optimum condition monitoring of the ropes used: this applies to cable railways as well as glass façades, bridges and other applications.

### TRUpin

With TRUpin you can continuously monitor rope structures. TRUpin measures the rope force and thus helps to recognise load differences at an early stage.

### TRUscan

With TRUscan, you can ensure permanent safety in the operation of cable railways, measure the use of the ropes and optimise their maintenance.

### Supplementary sensors

There are virtually no limits to the variety of sensors available today. Our new platform makes it possible to control a wide range of sensors and read out all the relevant sensor data relating to the rope.



TRUpin - continuous measurement and monitoring of rope forces.





# Condition monitoring of cable railway ropes.



# TRUscan fix

Our solution for cable railway rope monitoring.

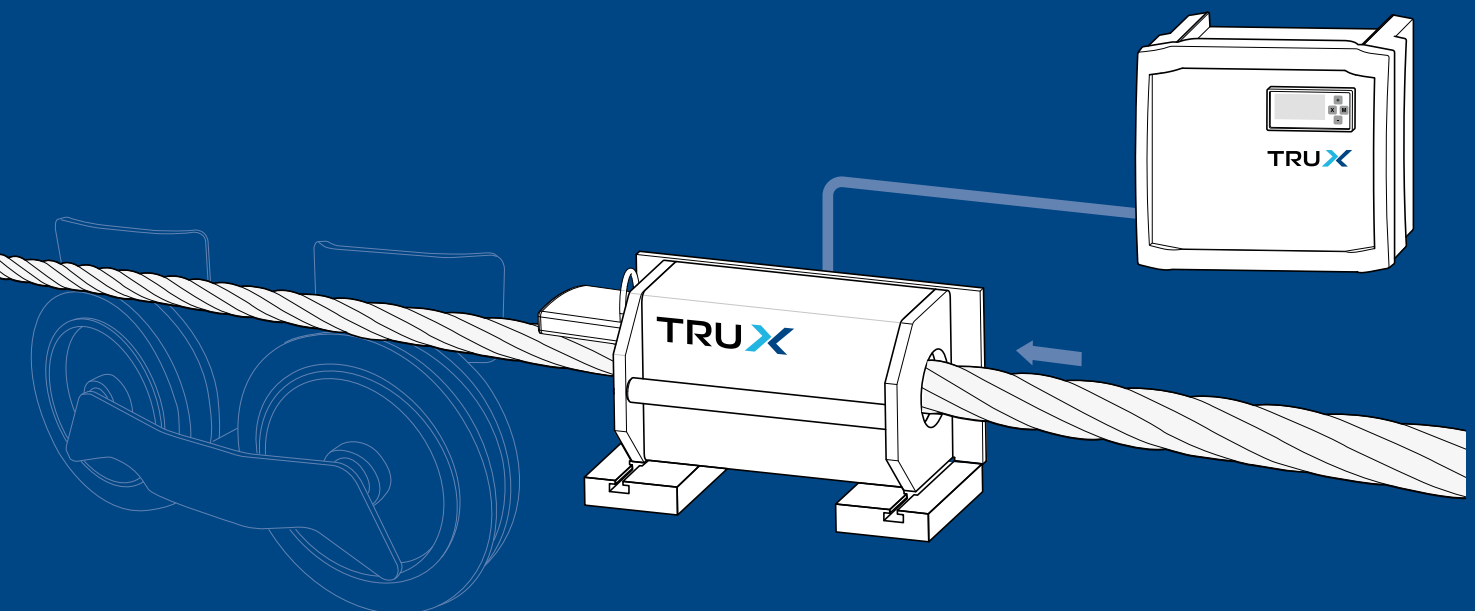
In cable railways, the reliability of the rope determines the safety and availability of the entire system. With TRUscan, you can monitor the condition of the conveyor ropes by magnetic induction and take action if necessary. You benefit from greater safety, can plan maintenance and servicing work more effectively and reduce costs.

## The TRUscan system

We are working intensively in the field of condition monitoring for cable railway ropes to ensure that they remain reliable in operation for many years. TRUscan offers many advantages, especially for urban cable railways, tourist feeder systems and mountain railways with an increased risk of weathering.

## How you benefit from TRUscan fix

With TRUscan fix, you achieve the best possible safety in combination with maximum availability of your cable railway. You are always up to date on the condition of the ropes and thus can avoid operational interruptions. No specific expertise is required for use. The evaluation software runs on our Cloud server and therefore does not require any locally installed software components.





# TRUscan NG mobile

**Flexible condition monitoring for cable railway ropes.**

If you manage a large number of cable railways and want to utilise the full potential of the ropes, then TRUscan NG mobile is the right solution for you. In contrast to the permanently installed TRUscan system, which was developed especially for urban and other high-performance installations, this device can be used for the flexible monitoring of multiple systems.

This makes it easy for you to check the current condition of your ropes at regular intervals or after an incident and initiate measures if necessary. Optimised service life, less downtime, optimised maintenance and fewer surprises. Take the next step towards maximising the performance and service life of your cable railways with TRUscan NG mobile.

## **Simple operation**

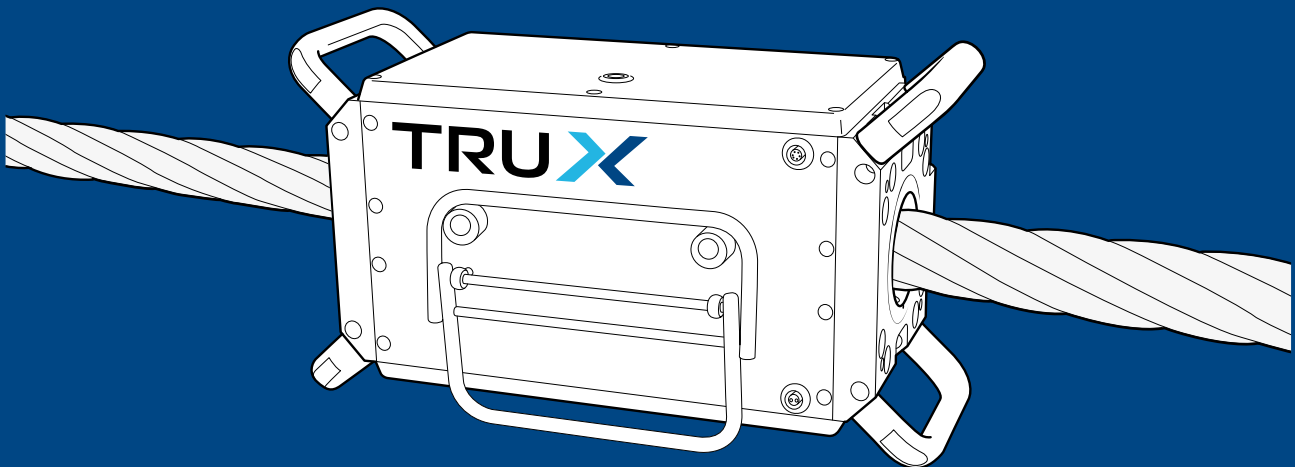
The new generation of TRUscan devices can be easily operated with a WLAN-enabled end device.

## **Live view**

With the live view, anomalies can be identified during the scan and inspected immediately afterwards.

## **Integrated speed measurement**

Thanks to the integrated Hall sensors, the measuring speed can also be determined even without a measuring wheel. In combination with a measuring wheel, the lay length can also be determined.



# TRUscan – the network

Software for professional condition monitoring.

TRUscan makes it easier to assess the condition of cable railway ropes. Thanks to the Cloud-based software, you can trigger measurements manually or automatically during cable railway operation. If anomalies are detected during the evaluation, you will be informed immediately. TRUscan also allows you to create both automated and standard-compliant reports.

### Measurement flexibility – even 365 days a year

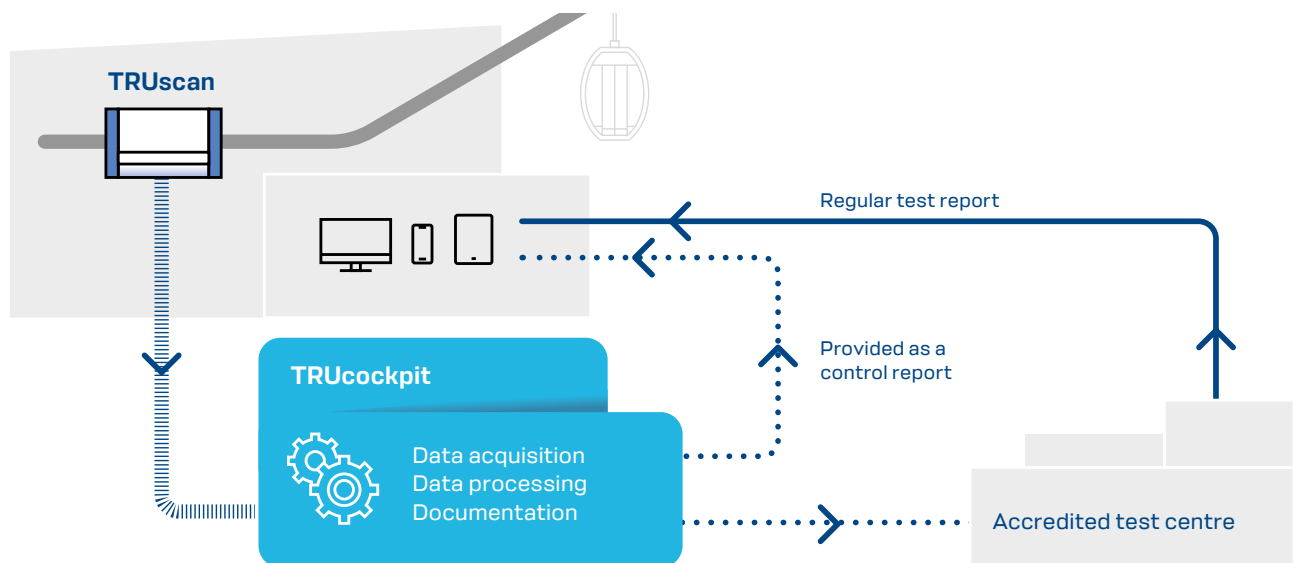
With TRUscan, measurements can be triggered manually on the device itself or remotely using a computer or mobile device via our platform. Measurement intervals can also be freely selected, e.g. depending on the age of your rope. You can access the data remotely via the user-friendly TRUcockpit.com platform. Once the measurement is complete, the collected data is analysed and evaluated centrally and made available to you as a report on the platform.

### Automatic reports

Automated reports can be generated automatically with TRUscan. A few minutes after the measurement is completed, the data will be analysed and summarised in a clear report. You are informed immediately of any anomalies so that safe operation of your cable railway can be guaranteed.

### Regular reports

TRUscan can also be used to generate the regular magnetic induction tests of the rope required by EN 12927:2019. The reports are analysed and edited by an independent accredited body. The splice inspection, which is part of the regular inspection, is carried out on site by a Level 1 inspector.





«TRUscan has proved itself to be an important tool for planning the technical management of the system. By monitoring the condition of the rope, we can estimate the speed at which wire breaks are likely to develop. The operations team can then safely plan the replacement of the conveyor rope in advance.»

**Pedro Galvão**

Technical manager of the Funchal cable railway  
Cable railway expert and rope inspector



Osthafen Bridge, Frankfurt, Germany



Condition monitoring  
of rope systems.

# TRUpin

Rope force monitoring for rope structures.

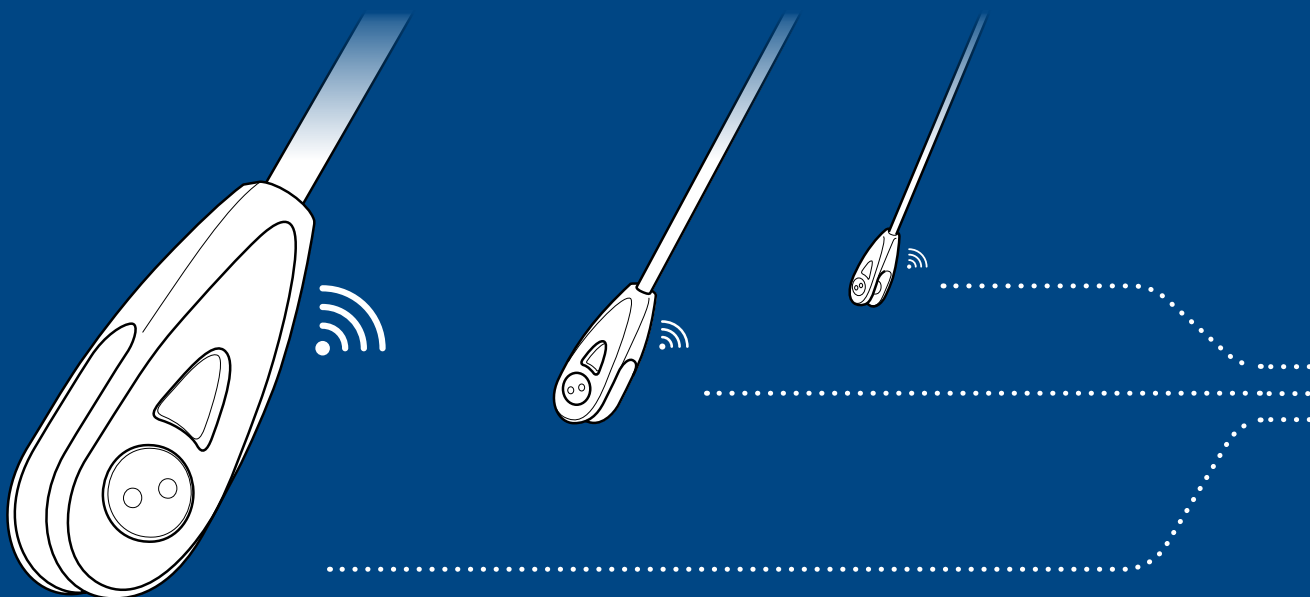
Ropes in all conceivable applications can be continuously monitored with the TRUpin system. This means that changes in the rope forces can be recognised immediately and maintenance measures can be planned depending on the actual loads.



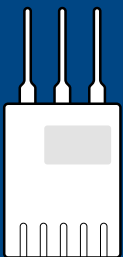
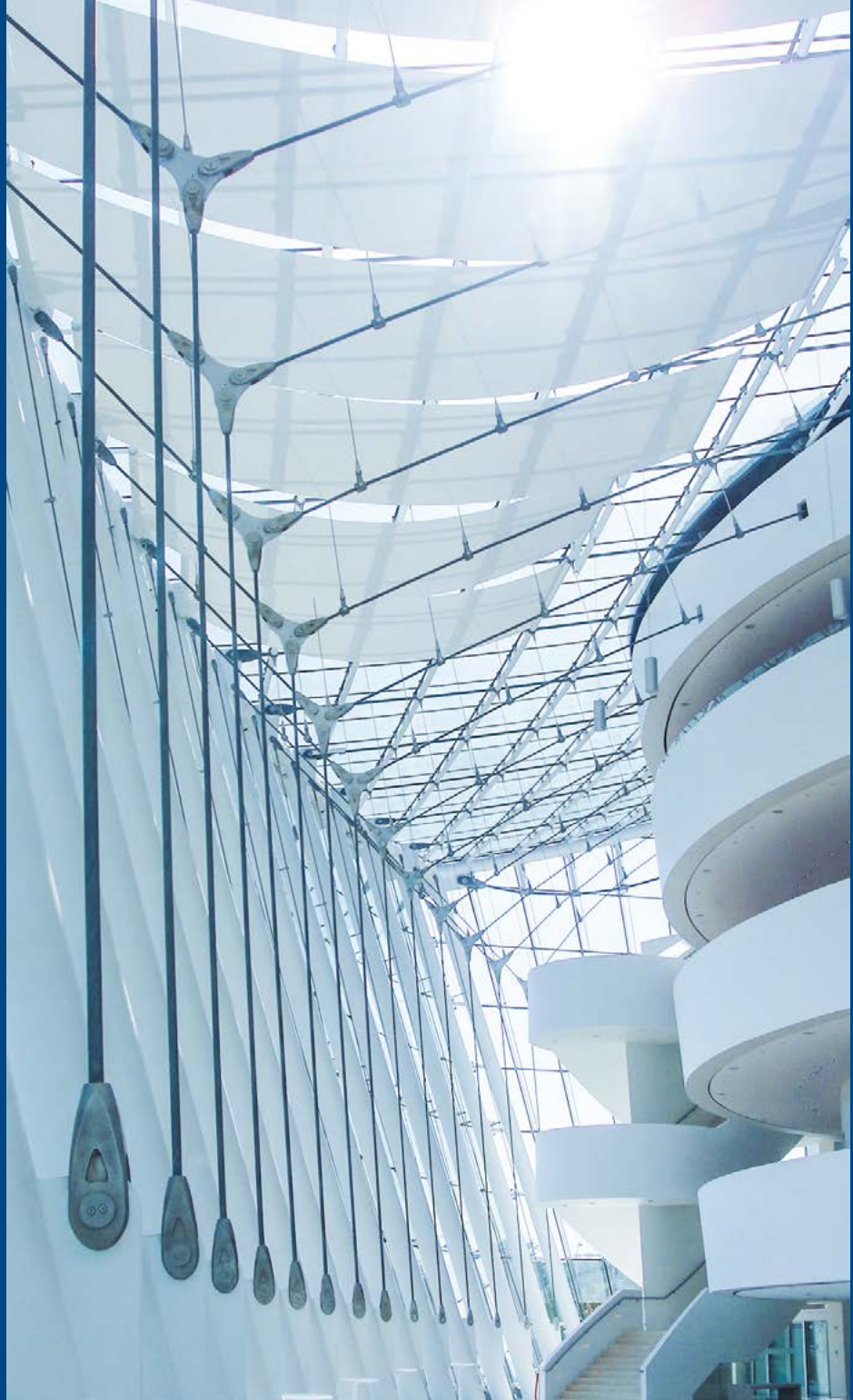
The innovative TRUpin force measuring pin combines the function of a force-transmitting pin with that of a measuring device for the rope forces that occur.

The measured values can be read manually with a measuring device, connected to a measuring station with permanent cabling, stored on a USB stick or transmitted directly via mobile radio.

The possible applications range from monitoring rope forces during installation (which can be speeded up as a result) to the permanent monitoring of rope forces over decades.



Condition monitoring is also an important aid for various tasks in rope structures.



TRUcockpit



A person wearing a headset is working at a computer workstation. The workstation features multiple monitors. The background monitor shows a world map with several blue dots. The foreground monitors display technical data, including a satellite-style image of a terrain and a line graph. The person is wearing a dark grey sweater and a black watch on their left wrist. The overall scene is dimly lit, with the primary light source being the computer monitors.

## Central platform for condition monitoring

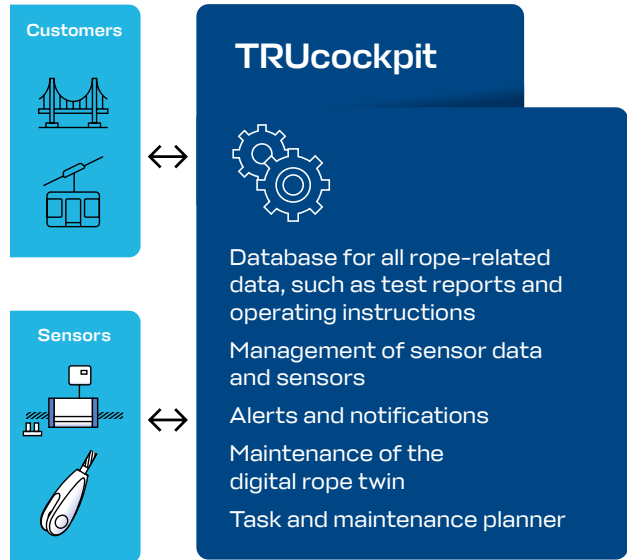


# TRUcockpit

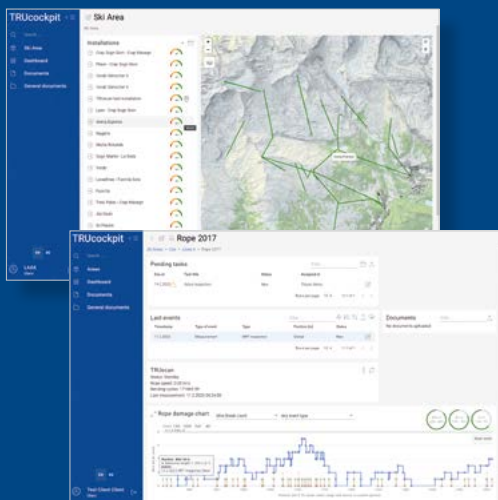
The solution for the efficient, digital management of steel ropes.

Discover TRUcockpit, the central platform of TRUX. It forms the centrepiece of sensor technology and data management.

TRUcockpit was developed as a scalable and widely deployable platform for the comprehensive management and monitoring of ropes. Building on our extensive expertise in steel ropes, TRUcockpit is capable of recording and analysing the condition of ropes and documenting it on a digital twin.



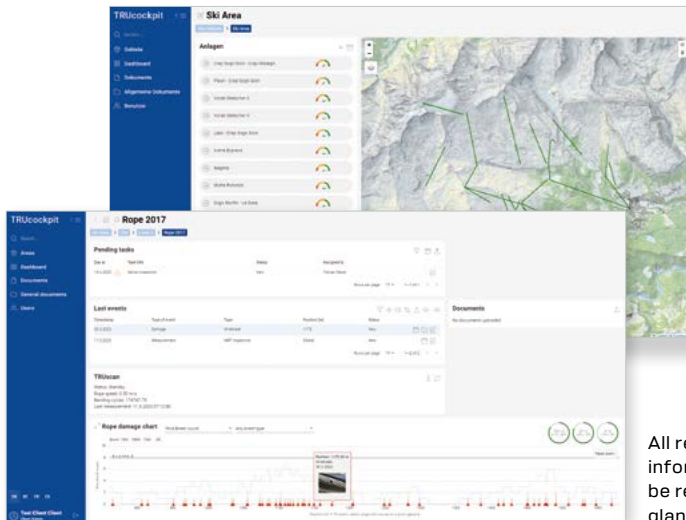
## TRUcockpit



TRUscan report



Regular test reports



All relevant rope information can be recognised at a glance in TRUcockpit.

## Your potential benefits

- You can see the documented condition of the ropes on the dashboard at a glance.
- TRUscan identifies and reports the condition of the ropes via TRUcockpit
- If sensor technology is installed, you are automatically notified and alerted if any damage is detected
- All other information can be easily documented just by uploading the data
- We support you with documentation and thus with the fulfilment of your duty of due care
- You save time, as your rope documents are managed centrally in one place
- The maintenance planner can be used in TRUcockpit and via interfaces in other tools as well
- You can also manage international cable railway networks, for example if you are an operator of urban cable railway systems

The TRUcockpit platform takes centre stage when monitoring the condition of steel wire ropes. Digital rope twins can be automatically or manually enhanced in TRUcockpit and thus offer comprehensive condition monitoring. In combination with other TRUX services, regular rope inspections can be realised in selected countries at low cost. Choose TRUcockpit now for reliable and effective monitoring of your ropes.

## Current TRUcockpit versions

### TRUcockpit light

- Access to the technical documentation of FATZER ropes
- View rope attestations and certificates
- TRUscan reports are made available on the platform

Included with every FATZER rope.

### TRUcockpit

- Functions of TRUcockpit light included
- Dashboard with map view
- Maintain digital rope twins and manage and document events
- Importing rope test data
- TRUscan dashboard (if present)
- Task and maintenance manager
- Alerting and notification tool when limit values are exceeded
- Interfaces to other systems
- User management

We would be happy to configure a personalised offer for you.

# Monitoring solutions made to measure

Are you already using other solutions for monitoring your cable car or rope structure, but would still like to benefit from ours? This can easily be arranged. We are happy to offer specific, customised solutions tailored to your requirements.

## **TRUX lets sensors communicate**

We have been dealing with safety and monitoring issues relating to cable railways and rope structures for decades. As a result, we know the commonly used systems inside out and can also use them in combination with TRUscan, TRUpin or other sensors. If you have any special requirements in this regard, we will be happy to look into them.

## **Complete solutions for your measurement requirements**

The goal of TRUX is to provide customised solutions with the greatest possible added value. Together with external partners, we also offer you customised solutions for monitoring. We cater to your measurement requirements from A to Z, and customise the system accordingly.



You have access to your sensor data at any time, wherever you may be.



# TRU X

Next level monitoring solutions

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[trucompany.com](https://www.trucompany.com)

A joint venture of Fatzer AG  
and the Geoterra Group AG.

**BRUGG**  
Fatzer 

 **GEOTERRA**  
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