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Traffic Light REPORT

The magazine for traffic technology



LET'S GO TO
AMSTERDAM!





Dear readers,

It is now almost exactly two years since I joined RTB as Technical Director, responsible for the development, production, delivery and maintenance of all our products. After graduating from the Carl-Strehl-Schule of the Deutsche Blindenstudienanstalt and studying physics in Erlangen, my next stops were Hamburg, where I worked at DESY (Deutsches Elektronen Synchrotron) and CERN (Organisation Européenne pour la Recherche Nucléaire) in Geneva as part of my scientific career. At that time, I was already using artificial neural networks to detect particles invisible to the human eye (leptons, hadrons). Now I use this knowledge at RTB to detect vehicles with infrared, ultrasonic or radar to determine the occupancy of parking lots or to optimize passage counts with the NOSCO systems - and YES, this can also be done blindly.

I was also able to gain 15 years of experience in a leading international company in the field of medical technology. There, as at RTB, the focus was on the measurement and transmission of numerous, often vital, cardiological data. And this know-how is also currently helping me at RTB in the further development of our TOPO systems, which will be expanded in 2024 by TOPO.bike, so that cycling traffic can also provide up-to-date data for traffic planning and control in the future.

Visit us at INTERTRAFFIC in Amsterdam and experience for yourself what is possible with creative, innovative solutions in traffic technology.

We look forward to seeing you!

Kind regards

Dr. Thomas Krämer

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INTERTRAFFIC AMSTERDAM | Stand 01.219 | 16-19 April 2024

Are you looking forward to the 2024 trade fair season as much as we are? Wondering why? Trade fairs like INTERTRAFFIC in Amsterdam are always the starting point for something new, combined with a spirit of optimism and visions that drive us forward. We present and discover, and we cordially invite you to do the same.

In Amsterdam you will find the innovations that the international world of traffic technology has to offer.

Visit us at our stand in Hall 01, Stand 219, enjoy a touch of dolce vita and let us tackle the upcoming projects together in a pleasant atmosphere with curiosity and the necessary lightness of touch.

As a reliable partner, we will show you what's new in traffic lights, how you can save additional cabling while maintaining a high level of safety, what the parking of the future could look like and what real accessibility for blind and visually impaired people is about.

TOGETHER WE WILL
FIND THE RIGHT SOLUTION
FOR YOUR NEEDS! SEE YOU IN
AMSTERDAM!



EVERYTHING EXCEPT

Large intersections or, in particular, pedestrian crossings with traffic lights often require a variety of signals. The requirements are becoming increasingly complex, particularly with regard to digitalization and networking in the context of smart cities.

When retrofitting or installing new traffic light systems, a considerable amount of cable is often upcoming.

But now, with net.2, there is a state-of-the-art interface for the control unit that replaces costly and maintenance-intensive cable networks with digital traffic data. As a further development of net.1, net.2 uses a BLE (Bluetooth® Low Energy) mesh network for signal transmission. This allows the volume control of the acoustic volumes to be synchronized for all signaling devices of a crosswalk, which enables even more precise consideration of the ambient noise. Only safety-relevant signals, such as the walk signal, remain wired.

Paderborn athlete of the year:

Pusher of two-man bobsleigh

LAURYN SIEBERT

Extremely successful „COOL RUNNINGS“ in the ice channel

2022

- ▶ U23 World Championships Igls 1st place (with Diana Filipzski)
- ▶ European Cup Igls 1st place (with Maureen Zimmer)

2023

- ▶ Junior World Championships Winterberg 1st place (with Maureen Zimmer)
- ▶ World Championships St. Moritz 6th place (with Maureen Zimmer)

2024

- ▶ World Cup St. Moritz 2nd place (with Lisa Buckwitz)
- ▶ Junior World Championships St. Moritz 2nd place (with Diana Filipzski)

Lauryn Siebert has been a sports soldier with the German Armed Forces in Cologne since 2023 and is studying to become a teacher alongside her sporting career.

And Tamino Broer was also very proud to be able to do a few „speed“ laps in the home-made bobsleigh with the exceptional athlete from LC Paderborn e.V. and was happy to show her the products and the company in return.



CABLE SPAGHETTI

All net.2 modules are LOC.id-compatible, so that synchronization within a mast group also works here – a clear benefit for targeted orientation.

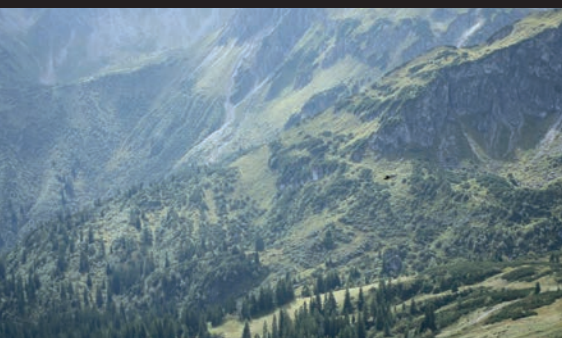
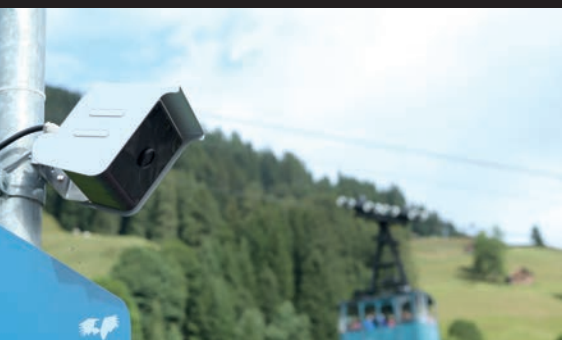
Important: Not all traffic light systems equipped with LOC.id are integrated via net.2, but all net.2 systems are LOC.id-compatible.

And for particularly simple and safe commissioning and maintenance of the push-buttons and acoustics used, the operating parameters can be configured via the associated

service app. Access is secured by means of certificate protection.

The first internationally successful net.2 application was the integration of push-buttons and acoustics at Hong Kong International Airport.

Now it's your turn: let's untangle your cable spaghetti together! At INTERTRAFFIC in Amsterdam, we will show you in detail how to do it.



RELAXED IN THE MOUNTAINS WITH NOSCO

It is simply an impressive backdrop, and not just in winter. Kleinwalsertal attracts countless visitors to the region every year. In summer, several hundred kilometers of hiking trails offer challenges for all abilities. In winter, the 2-country region of Oberstdorf/Kleinwalsertal is known above all for its perfect piste conditions, which winter sports enthusiasts can find on over 130 kilometers of pistes and in the seven ski areas. But winter hikers and cross-country skiers also get their money's worth. They can explore the winter landscape on the cross-country ski trails in the valley. The winter hiking trails on the mountains are also easy to reach by cable car. The region also offers numerous events. Ski tests, ski touring days or a ski touring race are just a few examples. World Cup events even take place in neighboring Oberstdorf. Traditionally, the Four Hills Tournament for ski jumpers begins on the Schattenbergschanze, but ski flyers are also at home on the Heini-Klopfer ski flying hill. With this variety, it is no wonder that Kleinwalsertal attracts numerous guests to the region in both summer and winter.

To keep an eye on the flow of traffic and the parking situation, those responsible on site rely on state-of-the-art technology from RTB. The NOSCO balancing parking system now reliably counts vehicles entering and leaving the parking lots against the breathtaking mountain backdrop. The NOSCO.hybridcamera merges the data from two sensors (3D camera and radar), which are recorded in the entry and exit areas of parking lots. The integrated NOSCO.engine signal processing unit determines the occupancy situation using a balancing counting method and transmits the data to the parking guidance server. From there, targeted intervention in traffic control can be made to avoid congestion.



Reliable data on parking space occupancy is particularly important in the high season, because nothing is more annoying than finding out after driving for miles along a mountain road that the parking space is occupied.

And so innovative technology from RTB ensures relaxation in the following parking lots - to the satisfaction of those responsible on site:

- ▶ Fellhornbahn parking lot with particular challenges due to slow-moving traffic and sometimes high through-traffic speeds; due to the entry and exit of shuttle buses; due to pedestrian flows and cyclists in summer.
- ▶ Parking lot P3 at the Kanzelwandbahn
- ▶ Parking lots P8 and P9 at the Walmendingerhornbahn with the challenge of a particularly wide entrance that must be reliably monitored.

So nothing stands in the way of a sporty or relaxed excursion into the breathtaking mountain world. With this in mind: „The mountain is calling!“





FAST, FASTER, PARKING!



A record-breaking speed was set during the construction of the largest parking garage in Mecklenburg-Vorpommern. The new parking garage at the STRELAPARK shopping center in Stralsund was built in just nine months.

In order to ensure continuous expansion and attractiveness, the parking situation for customers and employees on site must always be considered. As the previous 500 parking spaces had clearly reached their limits, the construction of a new multi-storey parking lot with significantly more parking space was proposed years ago. Once planning permission was granted, work began immediately. The result is impressive and unparalleled anywhere in the country. In just nine months, a state-of-the-art multi-storey parking lot with four floors and 1,360 parking spaces was built, where STRELAPARK customers can park free of charge. And the best thing is: RTB is part of it!



Together with our partner GOLDBECK, we were able to ensure that every vehicle can quickly and reliably find the next free parking space. We equipped the STRELAPARK parking garage with infrared parking space sensors, which indicate occupancy by means of a remote LED per parking space, visible from afar. This even applies to the lowest level with double storey height. On the outer facade of the parking garage, vehicles entering are informed of how many parking spaces are still available on each level. Dynamic RTB displays guide them unerringly through the individual levels.

In addition, the RTB software LOB0.control ensures that the barriers on the upper levels are opened and closed depending on occupancy. This highlight shows once again what a good partnership makes possible.

We would be happy to tackle your parking project as well and look forward to your challenges! And we wish STRELAPARK continued success.



Safe and climate-friendly GET ON YOUR BIKE!

More and more people in cities are discovering the climate-friendly alternative of transportation – the bicycle. Formerly used as a means of mass transportation, which also motivated the Gütersloh-based company Miele to deliver bicycles of the highest quality from 1924 to 1960, it is now regarded as a building block of the climate-friendly mobility transition we are striving for.

Strengthening today's trend towards sustainable mobility is the task of transport planning. Cycling must be integrated and considered beyond the individual specialist disciplines. Reliable data is the basis for this.

With the TOPO.bike detector, RTB will offer such a reliable data source in future. This is because this sensor not only distinguishes between pedestrians and cyclists, but is also able to reliably

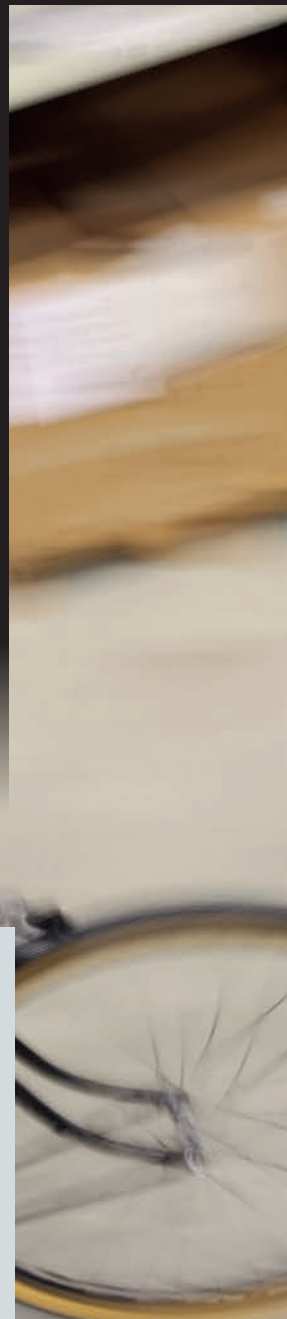
resolve groups of several cyclists. Even adverse weather conditions such as rain or snow cannot affect the high detection accuracy.

TOPO.bike is particularly suitable for cycle paths or mixed footpaths/cycle paths.

Like all TOPO systems, the recorded data can be evaluated and further processed via the familiar DD.web platform. In addition, the live data can be made available via an MQTT interface, for example to directly control a downstream traffic light system.

The first TOPO.bike systems are currently undergoing field tests, and series production is planned for the summer. TOPO.bike will then be a component of the optimized cycling infrastructure and ensure smooth, safe and emission-free cycling.

Lauryn didn't know! And you? Did you know that Miele was also a bicycle manufacturer? In the middle of the First World War, the decision was made to set up a bicycle factory in the neighboring town Bielefeld. But there were a few hurdles to overcome before production started in 1924, after milk centrifuges, butter churns and butter mixers. By 1960, around 1.2 million bicycles had been delivered, plus almost half a million motorcycles.



LOCid



COOL RUNNINGS!

ACCESS NO BARRIERS

Accessibility is and remains an important issue, especially when it comes to public facilities or local public transport. Unfortunately, the group of blind and visually impaired people is all too often forgotten or simply overlooked in planning.

LOC.id provides a remedy here. The network, which has formed around this Bluetooth®-based technology, has set itself the goal of making public spaces barrier-free. Construction sites are made audible, traffic lights are made louder, e-scooters sound, indoor navigation systems provide important information about local conditions, elevators speak and local public transport is supported by announcements. Users of the LOC.id app are informed directly by the vehicles (trains, buses) about the respective line, the direction of travel and the position of the doors, making it much easier to access public transport.

Another innovative application for LOC.id that is already in high demand is the „talking stone“ - LOC.id ROCK. Wherever acoustic information is required but no conspicuous devices can or should be installed, e.g. for reasons of monument protection, the perfect alternative is now available.

LOC.id ROCK can be easily integrated into the ground - paving stone out, „talking stone“ in - without any time-consuming and cost-intensive excavation work. This is because the power supply is also provided by a solar modul integrated into the floor, which has a non-slip surface that can be driven over. When a user with an active LOC.id app approaches, information about the location or possible obstacles is announced directly from the ground on the spot.

By the way: e-scooters are now also sounding in the cities of Sindelfingen, Böblingen, Herford and even Milan.

LET'S PUSH
ACCESSIBILITY
IN PUBLIC SPACES
TOGETHER.

FUNCTIONAL SAFETY – IT WORKS

SIL – Safety Integrity Level – is the magic word, but what does it actually mean? The term, also known as safety requirement level, comes from the field of functional safety and is used in the context of our acoustics and push buttons to prevent dangerous failures of acoustic and tactile walk signals, in accordance with safety integrity level 3 (SIL3).

SIL defines measures against systematic and accidental failures with the purpose of risk reduction.

Detailed explanations can be found in the technical article „Der Sicherheitsintegritätslevel (SIL) und seine Anwendung bei Straßenverkehrs-Signalanlagen“ (Straßenverkehrstechnik 8.21 / S.581-589) by Dipl.-Ing. Andreas Wortmann (TÜV Rheinland Inter Traffic GmbH).

OR YOU CAN MAKE AN APPOINTMENT DIRECTLY WITH OUR TRAFFIC LIGHT EXPERTS FOR INTERTRAFFIC IN AMSTERDAM!



EXHIBITIONS 2024

APRIL

INTERTRAFFIC
Amsterdam
16-19 April 2024

ITS AMERICA
Phoenix, Arizona
22-25 April 2024

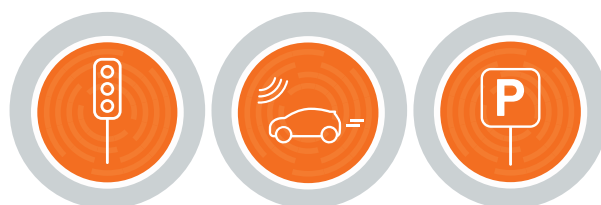
**BAU & BETRIEB VON
PH UND TIEFGARAGEN**
Stuttgart
25-26 April 2024

MAY

LOUIS BRAILLE FESTIVAL
Stuttgart
03-05 Mai 2024

IT-TRANS
Karlsruhe
14-16 Mai 2024

SIGHTCITY
Frankfurt
15-17 Mai 2024



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