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# Traffic Light REPORT



The magazine for traffic technology



## EVERYONE COUNTS





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Dear Readers,

Traffic infrastructure and accessibility are topics that are currently more relevant than ever. Whether at trade fairs such as Intertraffic in Amsterdam or the Smart City Expo in Barcelona – it becomes clear everywhere: the future of mobility is becoming more digital, more connected, and more inclusive.

At RTB, we are working intensively to help shape this development. With LOC.id and TOPO.bike, we are advancing accessibility and sustainable mobility in cities around the world. In Hannover and other municipalities, valuable practical experience is being gathered, while internationally – from Vienna to Bogotá – our systems demonstrate how technology supports people and creates safety.

At the same time, we see a sector in motion: the planned investments in infrastructure and digitalization show that action is being taken now. The future emerges where innovation and social responsibility come together and that is exactly what we stand for.

I wish you an enjoyable read of this issue of the Traffic Light Report, featuring fascinating insights from research, practice, and international projects.

Yours,

Heiner Thöne

# HANNOVER GATHERS EXPERIENCE WITH LOC.ID 3

## LOC.id shows:

Accessibility doesn't end  
at a construction site –  
it begins right there.

In Hannover, further experience with LOC.id was gathered at a construction site on Bleekstraße, directly near the School for the Blind and Visually Impaired. The goal is to make these situations safer and more comfortable for people with visual impairments.

The system recognizes users via the LOC.id app. Construction sites bring progress but often also barriers. LOC.id is therefore directly integrated into temporary traffic lights or safety barriers. As flexible as construction sites are, so is the technology: acoustic signals guide pedestrians safely, provide information about temporary crossings and turn obstacles into safe temporary walkways.

The introduction was initiated and supported by the Association of the Blind and Visually Impaired of Lower Saxony. Together with the City of Hannover, RTB is gathering valuable real-world experience there.

The findings are also being evaluated within the FGSV working group "Accessibility in the Road Space" and will feed into future recommendations – especially for the use of technology at construction sites, crossings and traffic lights installations.

**Cities such as Berlin have already included LOC.id in their internal guidelines and are expanding the technology at signalized intersections across the city.**



(Source: Traffic Management, 2025, fgsv.de)





# TOPO.bike GOES INTERN

What began as a national solution is now gaining international attention: TOPO.bike has been presented in several European cities and is attracting great interest.

The system reliably detects cyclists using state-of-the-art radar technology and provides precise data for traffic planning and management. This creates an important foundation for integrating

cycling safely and efficiently into existing infrastructure.

A frequent request from cities and partners is to also reliably detect e-scooters in the future. Work is currently underway to adapt the existing technology so that it can record pedestrian, bicycle, and micromobility traffic alike.





Deployment of TOPO.bike in Vienna, Austria

TOPO.bike-App



# ATIONAL

TOPO.bike is already in use at various locations – for example in Vienna (Austria) in the busy city center with high pedestrian and bicycle traffic and in Bern (Switzerland), where the variety of cycling routes provides valuable comparative data.

In Germany the use of TOPO.bike is also expanding. Initial projects exist in North Rhine-Westphalia, Lower Saxony and Saxony-Anhalt.

Bicycle routes in urban area, parks, and along state roads are being monitored. In cities such as Hameln and Magdeburg, RTB is working closely with the respective state road and transport authorities.

In doing so, TOPO.bike addresses a key topic of urban mobility: it enables municipalities to record cycling and micromobility in a targeted manner and to design safer and more efficient infrastructure based on reliable data.

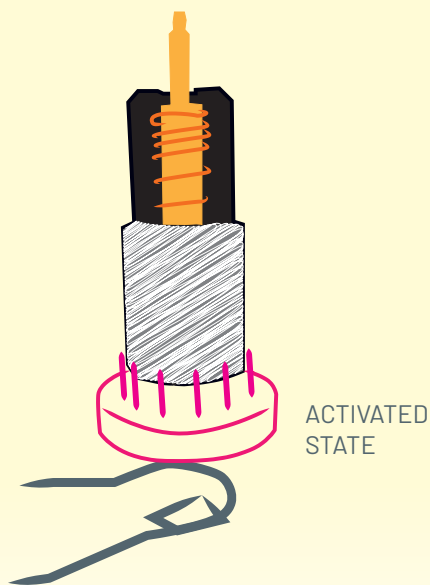
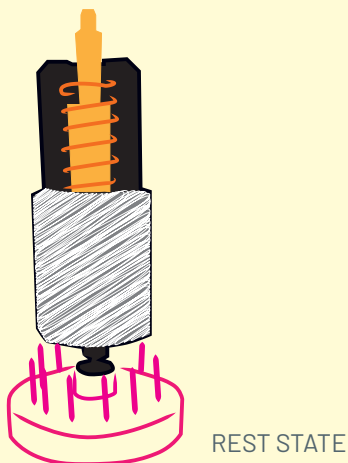


# THE IMPULS, THAT COUNTS!





Schematic representation  
of the solenoid in  
cross-section



## RELIABLE AND LOW-MAINTENANCE: TACTILE GREEN INDICATOR IN BUTTON

When is "green" truly green? For tactile signal actuators in push buttons that provide visually impaired persons with traffic signal phase information, the answer must be: only when it is safe to cross. Any unwanted vibration – for example, from traffic or pole movements – could turn orientation into uncertainty. RTB therefore relies on a mechanically decoupled design with a direct lifting magnet, in which the tactile signal is only triggered when the person consciously touches the button. External vibrations are thus effectively dampened.

To test operational safety, the Fraunhofer Institute for Mechatronic Design (IMD) conducted extensive laboratory testing. Vibrations up to 100 Hz were applied while laser sensors measured the responses. The key test criterion was whether the tactile indicator's vibration exceeded that of the surrounding housing under external disturbance.

The Fraunhofer IMD was able to prove that the signal transmitter integrated in the RTB traffic light button does not show any false triggering, even under external vibration. This confirms that the tactile green indicator from RTB is safe for the visually impaired, reliable and low-maintenance, and only delivers a pulse when it really matters.

Device for detecting the release signal on the keypad of a tactile signal transmitter in an RTB traffic light button.









# BLACK AND YELLOW IN BOGOTÁ

## COLUMBIA

What is the correct installation height? In Bogotá, it is 2,643 meters - that's 2,640 meters above sea level plus three meters for the pole. Technology at the highest level, in the truest sense of the word. Special circuit boards had to be developed for the systems installed there, which are adapted to the special, high-altitude conditions. RTB has been supplying technology to Colombia for over 20 years and was back on site again this year: during a delegation trip in September. Representatives took part in presentations and panel discussions, including a panel on Sustainable and Inclusive Mobility, and deepened cooperation with existing and new partners. A heartfelt "Gracias" to everyone involved in Bogotá for their interest and cooperation.



## ARE THEY ALL SOCCER FANS IN BOGOTÁ?

At first glance, the city's black and yellow traffic light poles are reminiscent of the club colors of Borussia Dortmund. But this has nothing to do with soccer - the color yellow stands for visibility and attention in road traffic. It ensures maximum visibility day and night and provides important visual orientation, especially for visually impaired people.



# THE FUTURE YOU CAN TOUCH SMART CITY EXPO WORLD CONGRESS

November 4–6, 2025



From November 4 to 6, 2025, Barcelona hosted the Smart City Expo World Congress, the world's leading trade fair for urban innovation. Under the motto "Empowering Cities, Empowering People," over 1,000 exhibitors from more than 120 countries presented their solutions for the city of tomorrow to approximately 27,000 visitors.

RTB was represented with its own booth for the first time this year and celebrated innovation sustainability and above all accessibility.

The presentation focused on LOC.id – a technology that rethinks accessibility in everyday life: from safe crossing in traffic to orientation in public spaces and buildings. Other topics such as public transport and micromobility were also a large part of the conversation.

The event showed once again that accessibility is not a niche topic, but a central component of modern urban development.

BRICH  
SIE  
DURCH



The exhibition booth was designed based on the book "Break Through the Barriers!". The images and situations depicted speak a universal language that everyone can relate to, no matter where they are. The book and the accompanying audio play are in German, but you are welcome to take a look and listen via the QR code.



70TH CONFERENCE OF  
DISABILITY OFFICIALS  
IN HAMBURG WITH A FOCUS ON

# DIGITAL ACCESSIBILITY



On November 5 and 6, 2025, the 70th Conference of Federal and State Commissioners for Persons with Disabilities took place in Hamburg. Under the main theme of "Digital Accessibility" representatives from politics, administration, research, and business came together to discuss current developments, challenges, and solutions. As part of the "Market of Opportunities" on the second day of the conference, numerous organizations and companies presented their innovations – including RTB.

Under the title "RTB – Intelligent Traffic Technology" we presented our digital solutions for barrier-free mobility for blind and visually impaired people. These include tactile and acoustic signal transmitters at traffic lights, apps, and assistance systems that enable safe orientation even in complex traffic situations. The event offered valuable insights into the current state of digital accessibility and showed how diverse the approaches are – from intelligent traffic systems to new technologies for public spaces. In addition to RTB other companies and institutions also presented their innovations and encouraged professional exchange.





# PREVIEW 2026

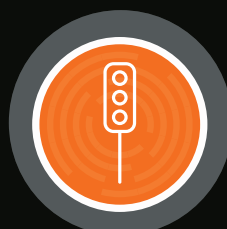
Intertraffic Amsterdam will open its doors from March 10 to 13, 2026 – and the entire traffic technology industry is eagerly awaiting the trade fair. With its new special fund for infrastructure and climate neutrality, the German government is launching an investment offensive: Around 500 billion euros are to be made available by 2035 to modernize transport networks, energy supply and digitization. The consensus in the industry is simple: something must be done.

The demand for modern, sustainable, and secure infrastructure is growing, and this is exactly where Intertraffic comes in. In Amsterdam, all

the key players will meet to present their ideas, solutions, and innovations – from intelligent traffic control and traffic lights, to parking space management, and barrier-free assistance systems.

RTB will also be exhibiting in Amsterdam again. Preparations are in full swing! New product developments will be presented at the trade fair stand – especially in the areas of parking, detection, and barrier-free mobility.

(Source: Federal Government–Special Fund for Infrastructure and Climate Neutrality)



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