TELEMATICS JOURNAL

In focus

A world where every movement is connected

IoT insights

Mesh – the next step in indoor asset tracking

Picture this

Fresh factories: step inside!

Dear reader,

Leading the market instead of following it – it's the idea that you will find echoing throughout the pages of the latest Telematics Journal edition in many forms and expressions. 'In Focus' features an extensive interview with Darius Mališauskas, CEO of Teltonika's telematics division, who sheds light on both, his personal career path to lead the company and the long-term vision Teltonika is undertaking to serve our clients to best effect.

Being in the forefront of the market means innovating and bringing new ways to do things smarter. Wirepas Mesh technology overcomes the limitations of traditional indoor tracking by creating an efficient self-organising network of devices – for more details head straight to 'IoT Insights' on page 16.

Next, we take an 'In-Depth Look' at Teltonika's office in Australia where our highly motivated local team proves that building trust is a definite key factor of success. Meanwhile, a quick tour 'Around the Globe' will leave you with plenty of ideas and inspiration for you next projects.

Last but not least, we present Teltonika's developments beyond the telematics realm, and they include the opening of four modern factories in Vilnius, Lithuania as well as entering the rapidly growing market of home security and car alarm systems.

As Peter Drucker once said, "The best way to predict the future is to create it", and we could not agree more – so let's do it together.
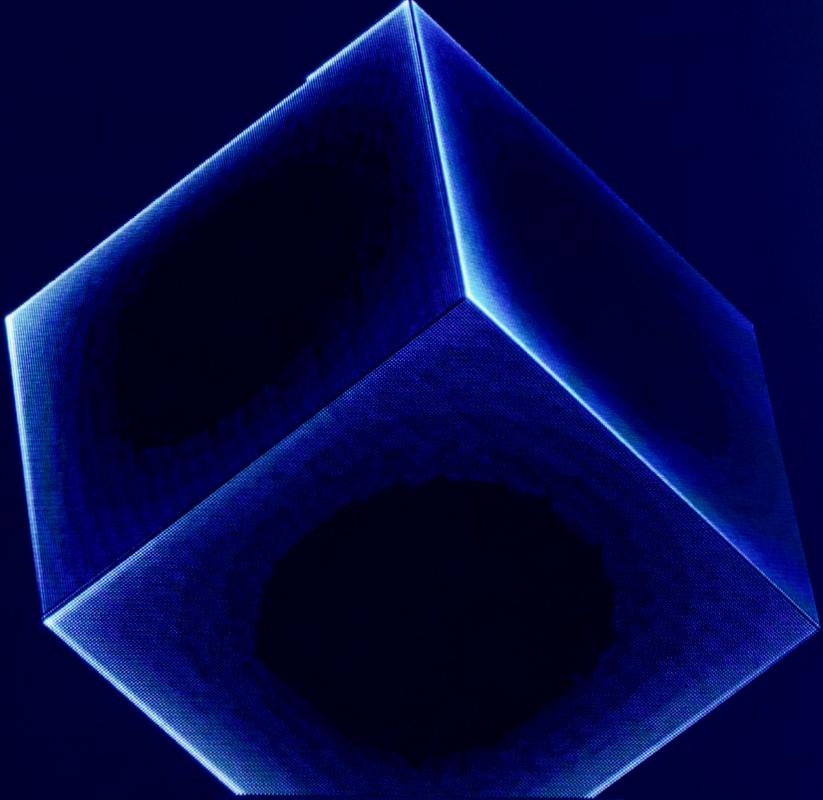
Happy reading!

Aleksandr Krupovič,
Head of Operational marketing department,
Teltonika Telematics

TABLE OF CONTENTS

A WORLD WHERE EVERY MOVEMENT IS
CONNECTED

A new chapter began for Teltonika's telematics division when Darius Mališauskas stepped into the CEO role, following his previous position as the head of R&D. In this interview, he reflects on his career journey within the company, shares how an engineering background shapes his leadership approach, and outlines how Teltonika's telematics division is going to grow in a rapidly evolving market through innovation and long-term partnerships.

Could you tell us about the main steps in your career path before becoming CEO of Teltonika's telematics division?

I joined the company after completing Teltonika's IoT Academy and started my career as an electronics engineer. In the early years, my work focused on designing and developing hardware for several key devices in our portfolio, including EYE Sensors, ECAN01 adapters, other fleet management devices, and antennas. This hands-on experience provided a strong understanding of product development and the practical challenges behind the process.

Over time, my role evolved into leadership positions, first as a team lead and later as head of the Hardware design department. The move into the head of R&D role broadened my perspective and allowed closer alignment between technology decisions and long-term business goals. Later, an unexpected conversation became a turning point. I was invited to discuss the future of the company and was asked a seemingly simple question: Do I have a vision where the company should go? I did, and that was one of the things that led to the invitation to take on the CEO role.

Throughout my career, I never felt fully prepared, however accepting challenges

> Accepting challenges was a natural step as I felt the company's support

Darius Mališauskas, CEO, Teltonika Telematics

was a natural step as I felt the company's support. Leadership, in my view, is less about waiting to feel ready and more about taking responsibility and growing into the role together with the whole team.

Having a strong background in R&D, how does this experience help you in your current role?

It helps immensely. If I had come from outside the organisation, it would have taken a long time to understand the internal landscape. I know the projects, understand what questions need to be raised, and at the same time, have a realistic sense of effort, time, and resources it takes to get the job done from an engineering perspective.

R&D experience allows me to set the right expectations both internally and externally. I understand what creates value for clients and what sometimes exists mainly for internal convenience. That perspective helps us focus on what truly drives business growth.

Interestingly, coming from an engineering background, I now spend less time in deep R&D discussions and much more learning from sales and other departments.

What are the main values that guide you as a leader?

Empowerment is key for me. I want people to feel trusted, capable of making decisions, and confident in their contribution. This applies at all levels, but especially to higher management. They need to be the ones who empower others, while middle management is where effective delegation is more essential.

When people understand goals, feel responsible, and have the authority to act, culture becomes stronger than any process. Moreover, alignment around shared goals creates clarity and momentum. People are talented, but we often do not utilise their talents well, thus,

R&D experience allows me to set the right expectations both internally and externally
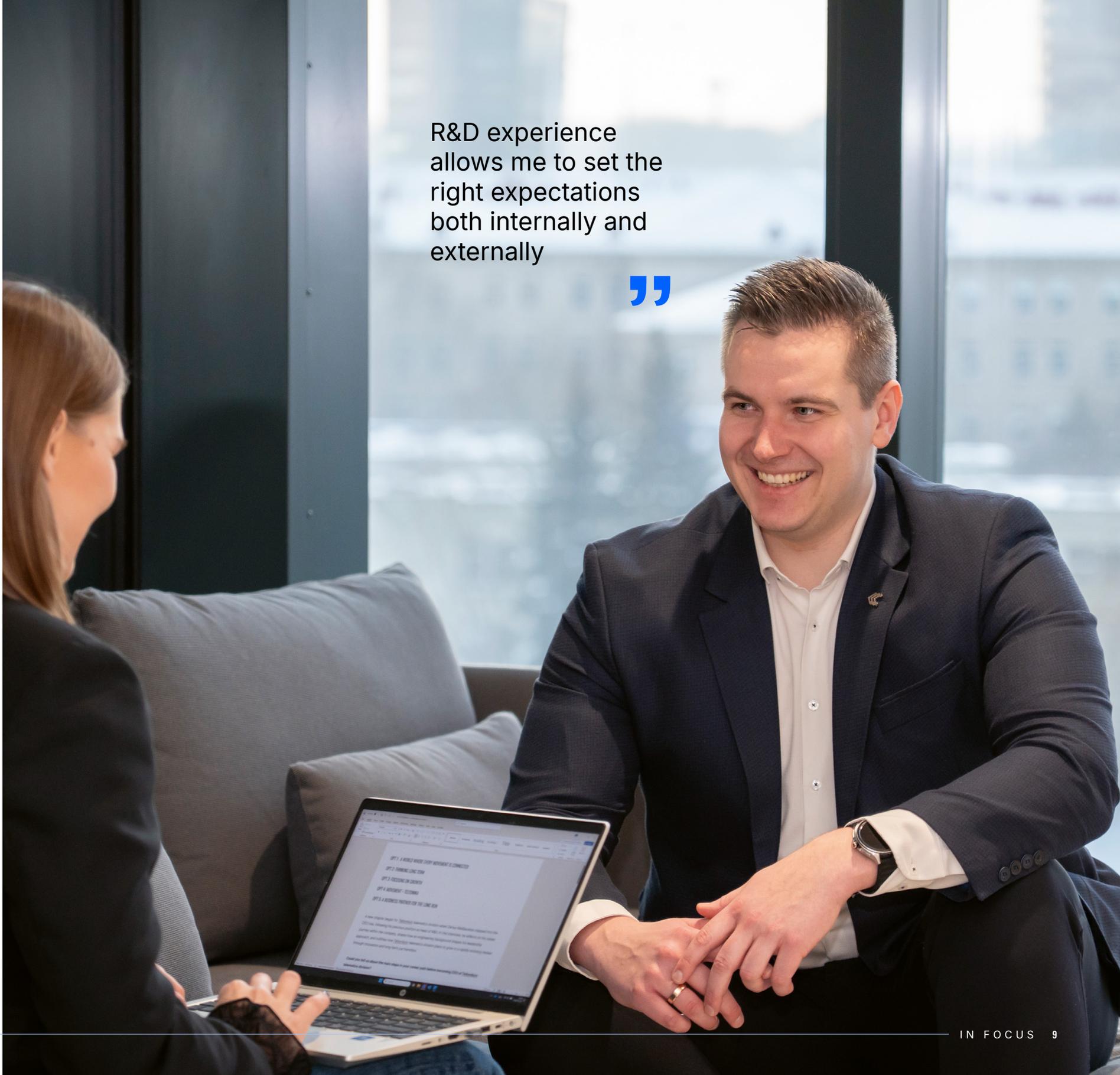
the goal of leadership is to find the internal genius in every person and challenge it to do great things. I believe freedom to make decisions and feel confident in your role is not just a leadership principle – it is the foundation of sustainable company culture.

What were your priorities when you took on this role in the summer of 2025?

One of my first observations was that we need to invest more in our long-term project pipeline and establish a dedicated innovation incubator that works full-time on future value creation for clients. This required a shift in mindset from short-term execution to lasting growth, looking at what we will deliver tomorrow, not only what we ship today.

How do you see Teltonika's telematics division evolving over the next three years?

Our ambition is to lead the market, not follow it, through continuous investment in new niches. At the same time, we will keep creating valuable solutions for clients, even if that requires higher internal investment. Innovation, new functionality, and stronger platforms can drive faster growth than process optimisation alone. All of this will be guided by a strong values-based approach,

applied alongside competencies.

What is your long-term vision for the company, looking 10–15 years ahead?

The vision is to build a global data infrastructure for movement. In simple terms: movement data equals Teltonika Telematics. Everything that moves generates data, and we want to be the centre of that ecosystem.

What are the main trends shaping the global telematics market?

The market is clearly splitting. One segment is moving towards low-cost, standardised tracking that creates a limited business impact. The other is shifting towards professional solutions using CAN, OBD, sensors, beacons, indoor tracking, Mesh technology, and e-mobility.

It is clear that telematics is no longer only about vehicle tracking, as businesses increasingly seek solutions that combine different types of movement data to optimise their operations. Video telematics is another major trend, particularly in Europe and the United States, with cameras and tracking technologies increasingly integrated into single devices.

At the Telematics Summit

What role will artificial intelligence play in future telematics solutions?

It already plays an important role in video solutions by enabling advanced image processing, driver monitoring, and road condition detection to support safety improvements. In traditional hardware products, AI adoption will be more focused on cost efficiency and data processing in the cloud, instead of the device, including big data analysis and, in some cases, sharing insights with public institutions, for example, to help improve road quality.

How does sustainability fit into your approach to telematics?

Sustainability is built into both our operations and solutions. We recycle plastics, rework defective units, reuse water, and design products with efficiency in mind.

Teltonika's solutions enable more efficient fleet management, eco-driving, and monitoring parameters such as tyre pressure. In that sense, our business is

inherently sustainability-driven – data helps clients operate more efficiently and responsibly.

To conclude, what key message would you like to share with Teltonika's clients and business partners?

Partnership is one of our core values. Teltonika is here for the long run and focuses on long-term cooperation rather than short-lived projects, helping businesses grow globally. Building trust with our partners is key and will always outweigh short-term gains. That is why we are opening offices around the world – to stay close to our business partners.

2025 SUMMITS & WORKSHOPS

An average satisfaction score of **9/10** – a result that speaks louder than words!
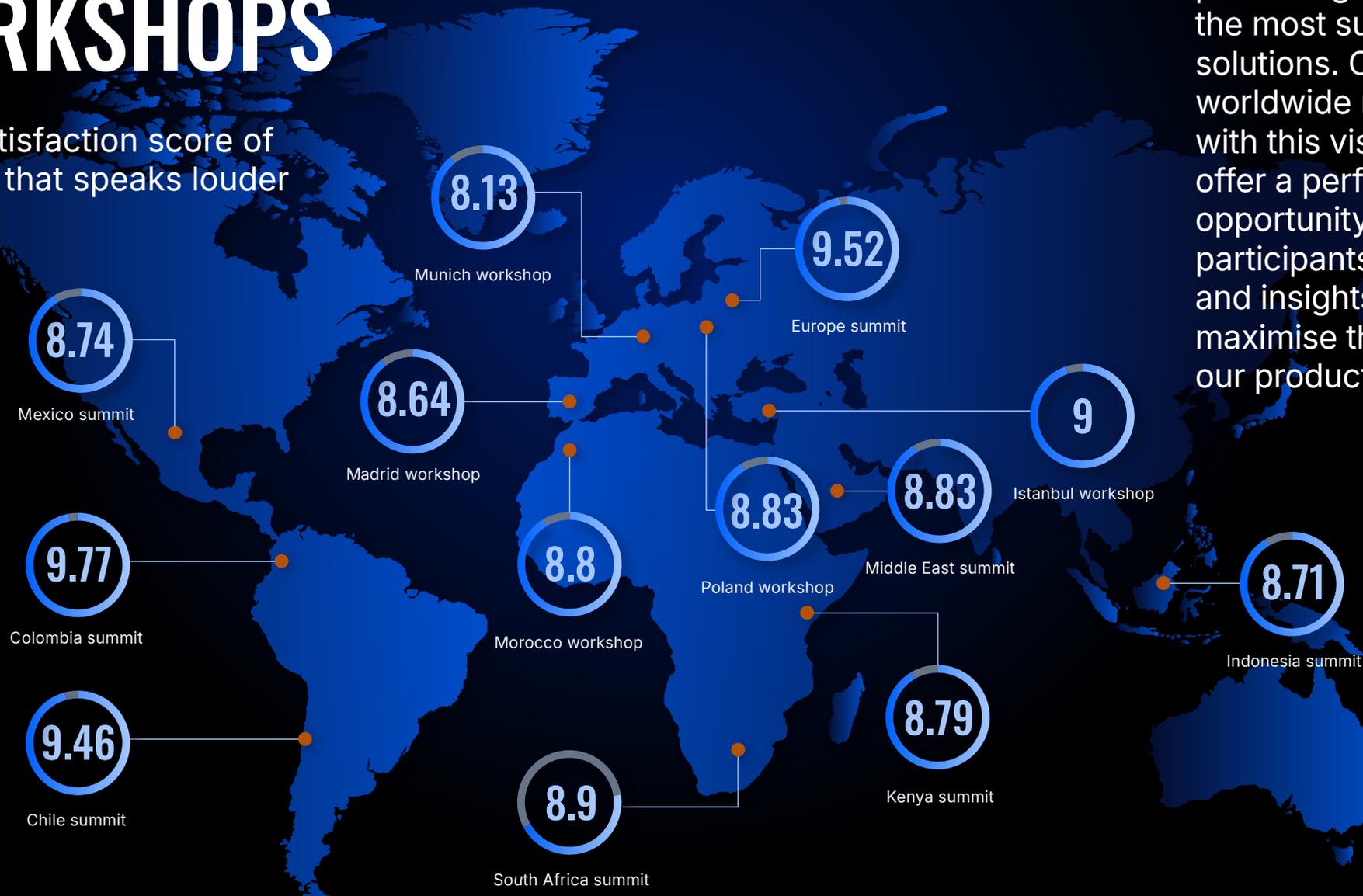
We aim to stay close and help our business partners grow by offering the most suitable solutions. Our events worldwide naturally align with this vision, as they offer a perfect opportunity to equip participants with the tools and insights on how to maximise the benefits of our products.

8.13 Munich workshop

9.52 Europe summit

8.74 Mexico summit

8.64 Madrid workshop

9 Istanbul workshop

8.83 Poland workshop

8.83 Middle East summit

8.8 Morocco workshop

9.77 Colombia summit

8.71 Indonesia summit

9.46 Chile summit

8.79 Kenya summit

8.9 South Africa summit

LATEST USE CASES

Enhancing stolen vehicle recovery with dead reckoning technology
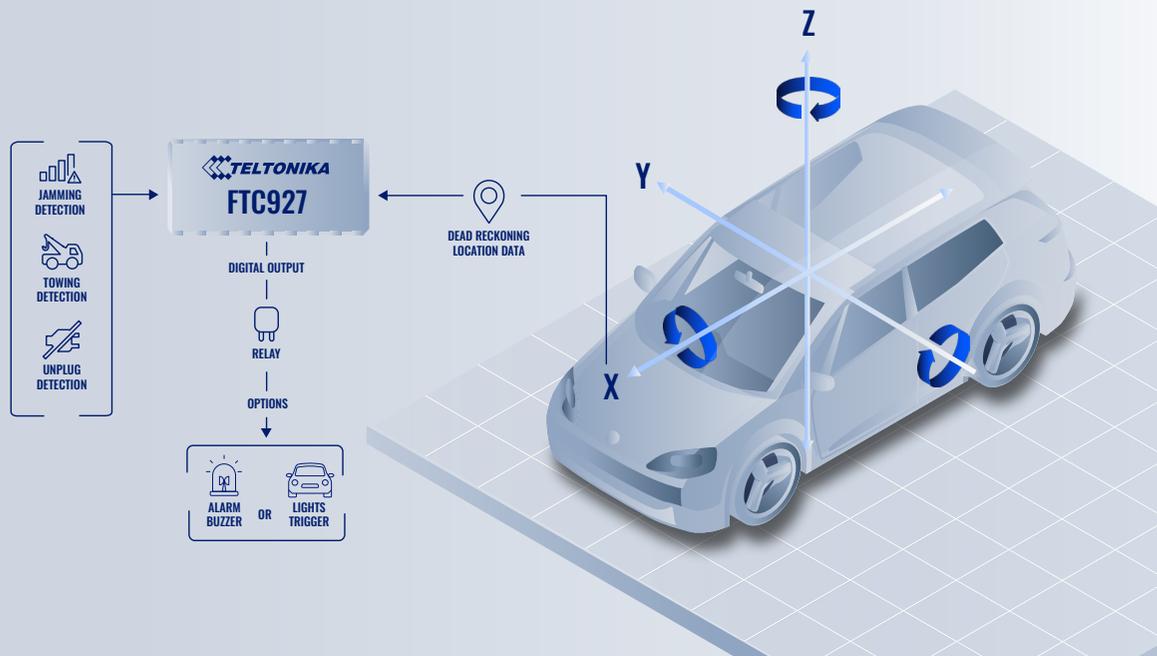
Reliable stolen vehicle recovery
Even if a GNSS jammer is used, approximate tracking data remains available, helping determine the vehicle's direction and location
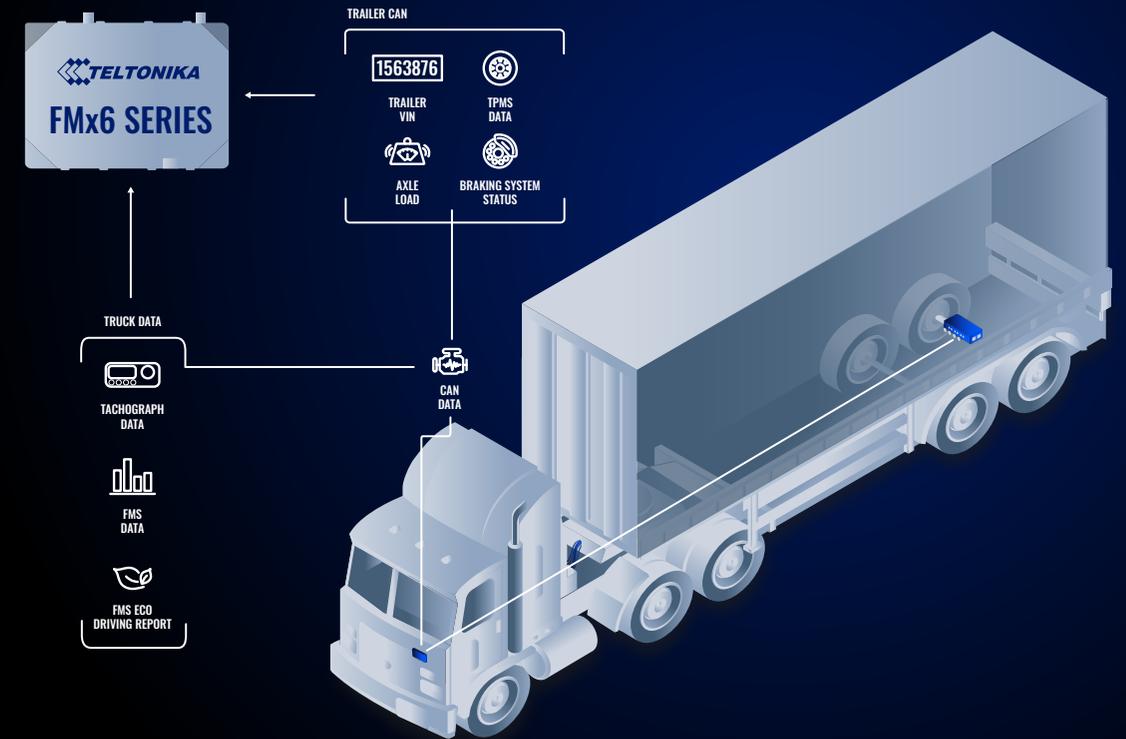
Flexible pinout
Additional scenarios, such as alarms, hidden buzzers, or unusual light patterns, help slow down the theft process

Anti-theft features
Thanks to jamming, unplugging, and towing detection, vehicle owners are immediately notified about possible theft and can take timely action

JAMMING DETECTION

TOWING DETECTION

UNPLUG DETECTION

TELTONIKA FTC927

DIGITAL OUTPUT

RELAY

OPTIONS

ALARM BUZZER OR LIGHTS TRIGGER

DEAD RECKONING LOCATION DATA

Z

Y

X

Trailer tracking and EBS data reading for heavy fleet logistics

TRAILER CAN

1563876

TRAILER VIN

TPMS DATA

AXLE LOAD

BRAKING SYSTEM STATUS

TELTONIKA FMx6 SERIES

TRUCK DATA

TACHOGRAPH DATA

FMS DATA

FMS ECO DRIVING REPORT

CAN DATA

Reliable trailer identification
Read VIN and always know which trailer is attached, eliminating incorrect assignments, delays, and mix-ups at loading docks

Accurate trailer EBS and TPMS data
Track brake condition and tyre pressure to detect potential issues early and prevent emergency repairs

Live trailer weight monitoring
Monitor real-time trailer axle load and trailer weight to quickly identify fraud and improve routing based on toll costs

MESH – THE NEXT STEP IN INDOOR ASSET TRACKING

Indoor asset tracking has always been a challenge. Warehouses, factories, hospitals, and logistics hubs are complex environments filled with concrete walls, metal structures, and multiple floors. As a result, tracking systems lose accuracy, struggle with interference, rely on single points of failure, and require heavy infrastructure that is costly to install and maintain.

I n case of traditional wireless technologies, remote updates are limited, scalability becomes difficult, and inventory data is often unreliable precisely where visibility matters most. Meanwhile, Mesh connectivity overcomes indoor limitations by creating an efficient self-organising network of devices.

The typical use

Bluetooth® has become a widely adopted technology for tracking assets that transmit short-range signals to be picked up by nearby scanners and forwarded to a cloud.

This model works well for scenarios where assets move between locations rather than remain inside one facility. It provides clear

insights at key points, such as when equipment enters or leaves a warehouse, arrives at a site, or moves between zones. For many businesses, this level of visibility is both practical and cost-effective.

When needs grow more complex

As tracking requirements evolve, so do expectations. Businesses want to locate assets inside large buildings, across multiple rooms or floors, and to see thousands of items at the same time.

At this scale, Bluetooth®-based systems face practical limitations. Each scanner can process only a limited number of devices

simultaneously. Expanding coverage by adding more scanners may work for a small number of zones but becomes difficult and expensive in large facilities. Installation effort increases, additional connectivity is required, and infrastructure costs begin to outweigh the benefits.

This makes traditional Bluetooth® tracking best suited for low-density environments and zone-level visibility, rather than indoor tracking.

Taking it further

At Teltonika, asset tracking has so far been addressed through BLE EYE Beacons, BLE EYE Sensors, and asset trackers based on
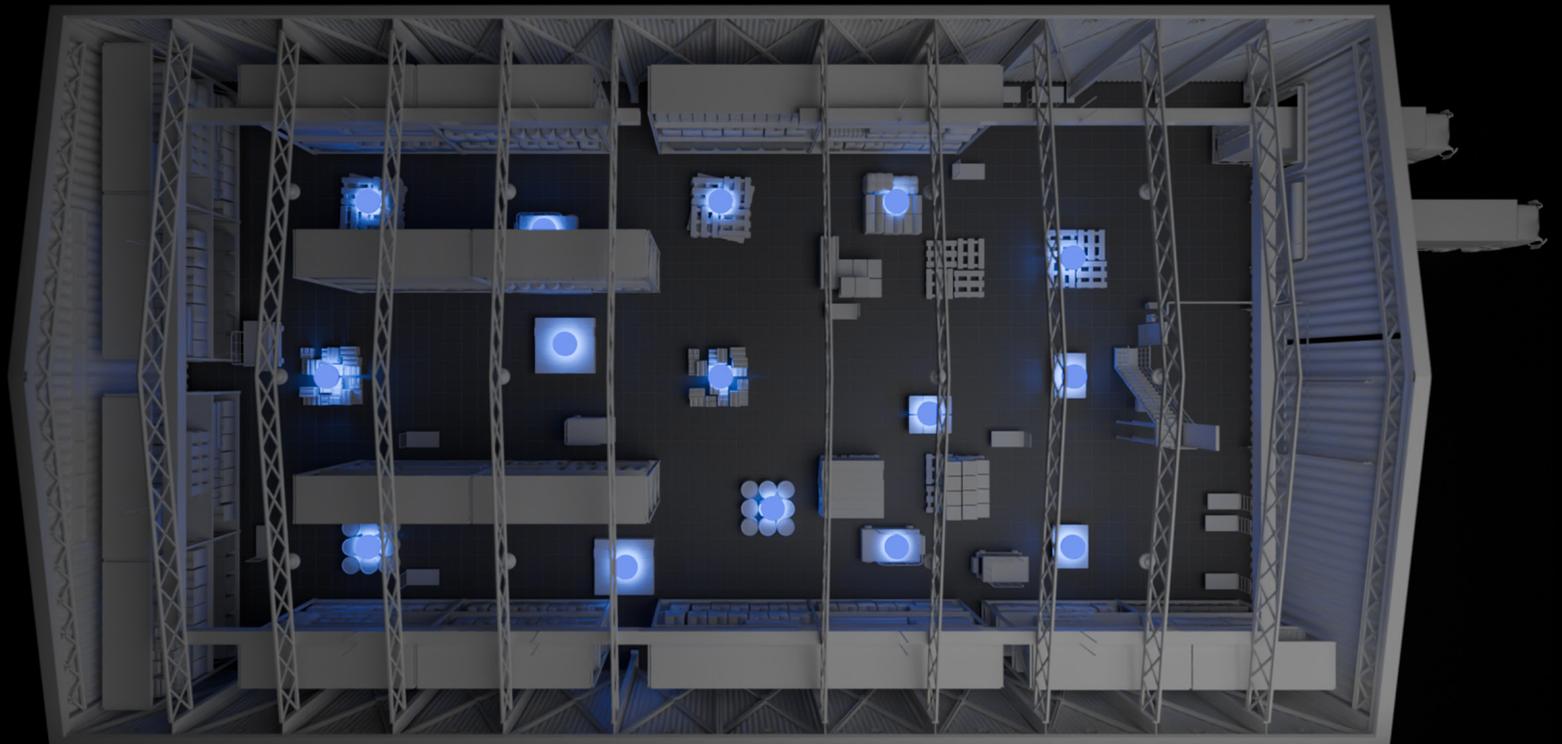
Bluetooth® technology, supporting a wide range of use cases both indoors and outdoors. As tracking systems evolve and indoor environments become more complex, Wirepas Mesh is a natural next step. With this technology, Teltonika is extending its capabilities towards connected indoor environments.

Mesh approaches the problem differently. Instead of relying on direct communication with individual scanners, devices form a self-organising network that routes data through nearby anchors.

There is no single control point. If one device goes offline or a path becomes blocked, the network automatically finds an alternative route. When new devices are added, the system adapts without manual reconfiguration. This makes Mesh stable, flexible, and well-suited for complex indoor layouts.
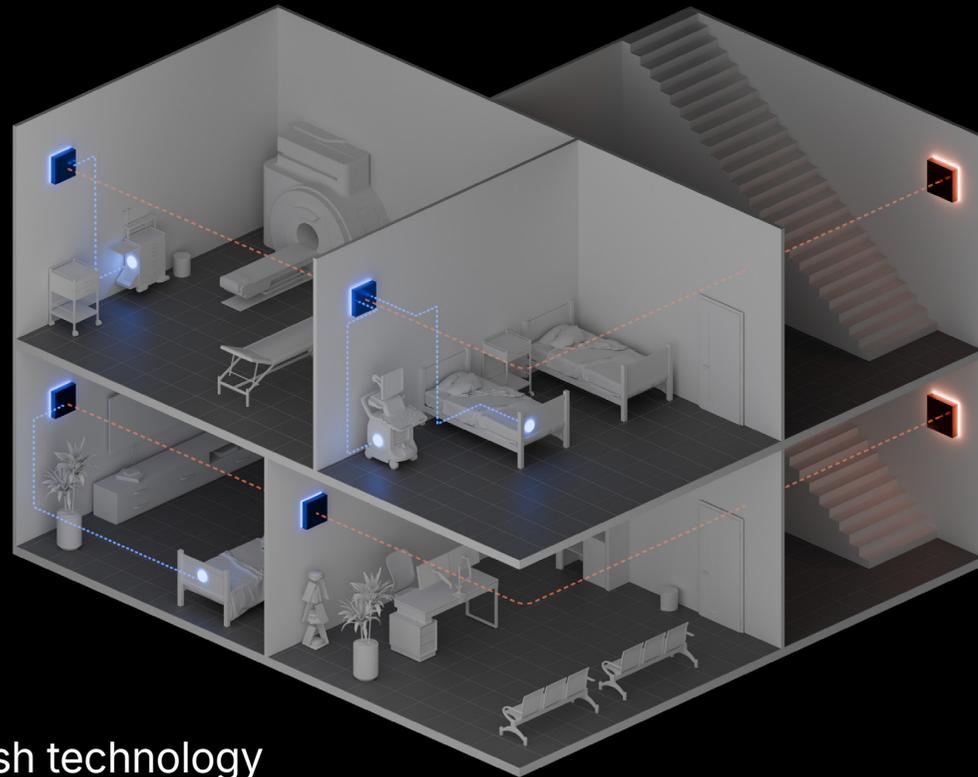
Mesh technology is stable, flexible, and well-suited for complex indoor layouts "

How a Mesh-based system works

A Mesh-based indoor tracking system typically consists of three key elements: gateways, anchors, and Mesh tags. Mesh tags connect to the network as soon as they are activated. They collect essential data such as identification, temperature, or motion, depending on the use case. No complex pairing or manual configuration is required.

Anchors receive data from nearby tags and communicate with each other, passing information across the network. Being battery-powered and SIM-free, they are easy to install and reposition, even in challenging locations.

Gateways serve as the link to the cloud. They gather information from the anchors and forward it to user platforms, where data becomes available for monitoring, analysis, and operational decision-making.

In this connected system, data moves reliably across rooms, floors, and zones, reaching the cloud without depending on fixed communication paths.

Built for scale and dense environments

Mesh connectivity scales naturally. Hundreds or thousands of tags and anchors can be added over time and the network balances communication automatically. This allows businesses to start with a limited deployment and expand without redesigning the infrastructure.

It also performs well in high-density environments. Devices coordinate communication to reduce interference, keeping the network stable even when many sensors operate close to each other.

From limited visibility to connected buildings

Limited indoor visibility has real everyday challenges. Studies show that more than one-third of nurses spend at least one hour per shift searching for equipment needed for patient care (Trimedika, 2022). Similar challenges appear in warehouses and production facilities, where time is often lost locating assets instead of using them.

Mesh connectivity helps address these issues by reducing infrastructure complexity, improving reliability, and enabling continuous indoor visibility across large and complex spaces. By allowing devices to communicate with each other and adapt to their surroundings, Mesh turns buildings into connected environments rather than isolated zones. For businesses that rely on accurate indoor asset tracking, Mesh offers a practical and scalable way to move beyond the limitations of traditional indoor tracking.

Gintarė Naraškevičiūtė, Operational marketing coordinator

BUILDING TRUST FIRST

When Teltonika entered the Australian and New Zealand market in 2019, it did so without a local office, without a team on the ground, and with minimal brand recognition.

The market was largely unfamiliar with Lithuanian manufacturing, so credibility could not be assumed – it had to be earned. Building trust, one relationship at a time, became the foundation of the company's growth in the region. Local sales manager Cherise Atip shares how our presence evolved and what defines the Australian telematics market today.

What changed once Teltonika established a local presence?

The early work was led by five sales professionals based in Lithuania who focused almost entirely on trust and relationships. That first year was about persistence, consistency, and proving reliability. While the numbers were modest, our first regional sales gave us confidence that the approach was working and that there was genuine long-term potential in the market.

The turning point came in mid-2020 when

Teltonika appointed its first locally based employee. That local representation made an immediate difference. Supported closely by the Lithuanian sales team, we saw sales double in 2020 and then double again in 2021.

By early 2023, Teltonika was well recognised in the Australian telematics market, with a local team of ten people representing the brand. That said, 2023 was not without its challenges that tested the resilience of the region.

How has the market evolved since then?

In 2024, several factors aligned in our favour. The national 3G shutdown created a strong device replacement cycle, while local marketing initiatives and a strengthened salesforce helped rebuild momentum.

Even though the wider slowdown of the Australian economy affected our results in 2025, morale within the team has remained high. There is a clear focus on execution, converting opportunity into growth, and

> One of our strongest differentiators is local presence
>
> **Cherise Atip,**
> Sales manager

Beyond that, there is a growing demand for real-time data and broader IoT integration. Companies are looking at engine diagnostics, tyre pressure, battery health, cargo condition monitoring, and vehicle-to-infrastructure communication. Advanced analytics and AI-driven insights are also becoming increasingly important, particularly for identifying unsafe driving patterns, fuel inefficiencies, and route bottlenecks.

What makes Teltonika stand out in such a competitive market?

One of our strongest differentiators is local presence. Having a team on the ground that understands Australian business culture builds trust and enables much closer collaboration with partners. That said, the market also places strong value on Teltonika's European manufacturing heritage. It is seen as a mark of quality and reliability and remains a meaningful differentiator in customer conversations.

Our device portfolio is another key strength. It is broad, scalable, and flexible, supporting everything from light vehicles to complex heavy fleet deployments. The hardware itself is built to European manufacturing standards, which translates well to Australia's harsh operating environments, particularly in sectors such as mining and agriculture.

Moreover, we place strong emphasis on fit-for-purpose solutions. From compact devices like FMC880 to advanced CAN-reading trackers such as FMC150 and FMC650, we support a wide range of operational needs. Our asset tracking

portfolio is being refreshed and will improve our end-to-end offering.

Certification also plays a major role, for example, FMC650 is TCA-certified under the Australian National Telematics Framework, significantly reducing approval effort for partners and accelerating time-to-market.

Finally, platform flexibility and scalability are important as well. FOTA WEB solution enables remote firmware and configuration management across large deployments, reducing operational overhead. Teltonika remains software-agnostic, supporting partners who prefer multi-vendor hardware ecosystems.

positioning the business for a strong growth in 2026.

Today, we have a well-structured, close-knit, and highly motivated team that is deeply committed to its partners and confident in the long-term outlook for the region.

What are the main telematics trends shaping the Australian market today?

Vehicle safety is a major priority. We are seeing rapid adoption of AI-powered video telematics, including dashcams that support driver coaching, fatigue and distraction detection, and evidentiary footage for insurance and claims.

Compliance is another key driver,

especially for heavy vehicle fleets. Demand is increasing for NHVR- and IAP-style telematics, on-board mass solutions, and audit-ready reporting. The upcoming Heavy Vehicle National Law Amendment Bill (HVNL), expected mid-year pending parliamentary approval, will further increase the need for configurable dashboards and transparent compliance reporting.

Electrification is also accelerating. EVs and mixed ICE–EV fleets are becoming standard, and customers expect telematics solutions that capture EV-specific data such as energy consumption and charging behaviour, while still providing unified reporting across all vehicle types.

> Having a team on the ground that understands Australian business culture builds trust and enables much closer collaboration with partners **"**

Teltonika team in Australia

> **We are a team that is proud of what it has built so far – and very focused on what comes next "**

Which devices and use cases stand out in Australia today?

Our FMC130 is a strong performer. It is used with RFID readers to ensure only authorised personnel can access vehicles, with panic buttons and buzzers to enhance fleet safety, and for car-sharing operations in combination with CAN-CONTROL to enable remote vehicle locking and unlocking.

FMC003 and FMM003 models are also popular. These devices are widely used for discreet monitoring, including government and agency deployments. Moreover, they are well-suited to remote and rural asset tracking where low power consumption is critical. FMx003 trackers support both rapid deployment and scalable fleet expansion.

Finally, how would you describe the culture of the Australian office?

It is a genuinely inclusive and collaborative environment. Trust, respect, and shared accountability define how the team works together. From day one, the environment has been welcoming and supportive, creating a workplace where people feel valued and motivated.

We are a team that is proud of what it has built so far – and very focused on what comes next.

AROUND
THE GLOBE

Telematics has no borders as we travel across continents – from protecting road users in the UK and improving air quality in the Middle East to supporting environmental monitoring in Italy's waterways. Each story reflects a unique local challenge, met with innovation, expertise, and shared ambition to set new data-led standards with telematics.

FLEET EFFICIENCY STARTS WITH VISIBILITY

To stay competitive in the large-scale logistics and manufacturing sector, companies must constantly look for ways to boost performance. One of Teltonika's clients, SmartLift, is using our trackers to help forklift fleet managers with cost control and productivity by improving vehicle visibility and operational efficiency.

The company provides a unified platform that simplifies logistics and enhances transparency with real-time data while supporting scalable deployment across multiple regions. SmartLift trusts FMx130 and FMx230 trackers as they are quick to integrate and offer valuable ready-to-use functions, such as operator identification and access control. Moreover, these devices are compatible with external sensors and have water- and dust-resistant casings, which ensure reliable performance in demanding industrial environments.

Here is an example that shows how timely data protects both assets and personnel. At one South American facility, the solution detected a

forklift being improperly used for an extended period during a night shift without direct supervision. The vehicle also remained idle for an extended time, which triggered an automatic alert. Thanks to our device, fleet managers could immediately know about irregular usage patterns and proactively shut down the machine, preventing potential damage, reducing fuel consumption, and avoiding safety risks.

Real-time vehicle visibility, centralised control, and automated alerts help optimise resources and reduce costs – all crucial for businesses aiming to grow. Additionally, scalable systems adapt to new challenges as businesses expand. Teltonika's FMx130 and FMx230 trackers provide exactly that – and much more.

Fatima Dugarte,
Head of sales

BREATHING EASY WITH FMC130

Every breath counts – especially in an era when increasing CO_2 levels have become a global problem. From city buses to shuttle cars, enclosed spaces are often silent witnesses to rising carbon dioxide levels that affect both passengers and drivers. What if technology could see the invisible – and act before it becomes a problem?

Government in Saudi Arabia faced challenges regarding passenger safety and comfort due to the elevated CO_2 levels. In response, our client – a local telematics system integrator – offered a solution to monitor CO_2 levels in real time.

This was achieved by connecting Teltonika's FMC130 tracker via a 1-Wire interface to a third-party CO_2 sensor, making it possible to send data directly to the server. The integration ensured – which is particularly relevant for fleet-based passenger services – that ventilation systems could respond promptly to elevated CO_2 concentrations.

One specific case illustrates the advantages of this solution. On a busy route with high

passenger turnover and limited ventilation, CO_2 sensor data revealed increased carbon dioxide levels, which correlated with reduced driver alertness and passenger comfort. Based on these findings, our client implemented automatic alerts for the ventilation system to increase air circulation when CO_2 levels rose. This not only improved air quality but also optimised vehicle climate control energy usage and enhanced driver performance and safety.

With real-time CO_2 monitoring available, telematics service providers gain new project opportunities, while fleet operators ensure safer journeys for their customers.

Bassel Arzouni,
Sales manager

FMC130

LTE/GNSS Terminal
Power supply: 10 – 30 V 2 A Max
Internal Li-ion battery 3.7 V, 170 mAh
Model: FMC130-MCI80

UAB Teltonika Telematics
Teltoniku st. 98-1,
LT-08105, Vilnius, Lithuania
www.teltonika-gps.com
Made in Lithuania
ANATEL: 20500-23-16220

INPUT 6
IGNITION (DIN 1)
DIN 2-N/AIN 1
DIN 3/AIN 2
DOUT 3
+10...30 V DC

INPUT 5
1-WIRE DATA
1-WIRE POWER
DOUT 2
DOUT 1
GND

MOUNT THIS SIDE UP

Navigate LED
Status LED

IMPROVING E-MOTORBIKE MANAGEMENT IN WEST AFRICA

In many cities across Nigeria, Ghana, and Cameroon, access to affordable and reliable transportation remains a significant barrier to economic growth. Privately organised informal transport operators, forming the backbone of urban mobility, deal with limited financing options, unreliable vehicles, and a lack of technological tools to manage operations efficiently. To fight these challenges, one of Teltonika's local clients uses telematics devices, digital tools, and financial services to make vehicle ownership more accessible and support mobility entrepreneurs in West Africa.

Teltonika's TFT100 model with a CAN interface is used to track electric motorbikes and their batteries. Two trackers are used at the same time. One of them is connected to the bike's electronic control unit (ECU) to monitor its operational status, track location, and protect against misuse or theft. The second one is linked to the battery management system (BMS), providing real-time information on battery health, performance, and location. Together, these devices help schedule maintenance before issues arise, keep motorbikes running smoothly, safeguard valuable equipment, and provide clear insights for operations.

The company tested many products on the market, but only Teltonika could ensure full compatibility across the entire telematics system. TFT100 trackers support a wide range of electric vehicles and batteries, and allow manual CAN data reading, giving access to essential information even when manufacturer protocols differ. They also offer the flexibility to reverse engineer and provide the required data to any server or even to multiple ones if needed. In addition, high-voltage support ensures safe and accurate data reading from both bikes and batteries, which is crucial for electric mobility operations across different brands and markets.

Mindaugas Šiburkis,
Chief of sales group

Previously, fleet managers in the region faced challenges such as limited access to OEM CAN data, difficulties integrating information into their own platforms, and the risk of losing crucial operational insights. With Teltonika's TFT100, they gained direct access to comprehensive EV bike and battery data, enabling seamless integration with fleet management platforms. This reduces dependency on OEM channels, improves data reliability, and lowers maintenance costs, making electric transport more efficient and affordable.

As the TFT100 model operates on GSM networks, with the upcoming 2G/3G sunset, we recommend transitioning to FTC305 4G LTE Cat 1 tracker. This upgrade will ensure uninterrupted service, support compliance in markets where 4G is required, and prepare the solution for long-term scalability and connectivity.

FTC305

Fits any e-mobility use case

Learn more

KEEPING TRACK OF LOANER CARS

Managing loaner fleets comes with its share of challenges for car dealerships: vehicles must be available, fuelled or charged, and maintained, while their location and usage remain under control. Without proper oversight, there is a risk of lost revenue and extra manual work if cars get lost, malfunctions go unreported, or mileage limits are exceeded.

Kimoby, Teltonika's client in North America, addresses these challenges through its SaaS ('software as a service') platform, using our FMM00A trackers. The system provides real-time location updates, geofencing, and historical tracking to resolve disputes over traffic offences.

Also, it monitors fuel or charge levels and mileage, ensuring that vehicles are ready for customers and allowing dealerships to apply fair charges for excessive usage. Meanwhile, automatic alerts for disconnection or malfunctions enable timely intervention and reduce administrative effort.

As a result, company managers have full control of their fleets, while always keeping vehicles ready for customers. Loaner fleets become a source of revenue rather than a cost centre. For example, a Vancouver dealership lost contact with a customer who had taken a loaner vehicle. Using FMM00A tracker, they located the car in the province of Ontario, Canada, and recovered it quickly, avoiding potential loss.

The main reasons to choose Teltonika were a wide range of supported vehicles across different years and models, comprehensive yet simple data reporting, and the accessibility of our technical team. Accordingly, guesswork has been successfully replaced with data-driven decisions on maintenance, fuel, and vehicle retirement.

Rolandas Šukšta,
Regional IoT sales specialist

CAN DATA FOR TRANSPARENCY AND EFFICIENCY IN HEAVY VEHICLE RENTAL

It is no surprise that managing a large fleet of trucks and heavy machinery comes with many challenges. For example, even a small error in mileage or fuel tracking can lead to billing disputes, unexpected maintenance costs, or operational inefficiencies. Thus, for a large heavy vehicle rental provider in Brazil ensuring precise and reliable vehicle data across a diverse fleet is of the utmost importance.

The company partnered with Scope, a systems integrator specialising in telematics and fleet management solutions. They used Teltonika's FMC150 tracker, a powerful device that is capable of reading CAN bus data and providing GPS-based location tracking. The aim was to transform raw vehicle data into actionable insights for accurate billing, maintenance planning, and operational oversight.

The rental company's fleet includes multiple vehicle models with varying electronic systems, making standardisation difficult. Previously, mileage and fuel consumption were often estimated or manually recorded, leading to inconsistencies and inefficiencies. With FMC150, it became possible to receive odometer readings and fuel data directly from the CAN bus,

ensuring precise and verifiable information for each vehicle. GPS tracking further validated routes and distances, improving transparency and accountability with clients.

Implementing this solution required addressing the technical challenge of various CAN bus protocols across vehicle models. Scope's engineers, supported by Teltonika's documentation and technical guidance, identified the correct data points through reverse engineering and trained installation teams for consistent deployment. This process standardised data collection and eliminated previous inconsistencies.

The measurable results were immediate: accurate mileage and fuel tracking allowed fair and transparent billing; maintenance schedules could be based on real usage, reducing downtime and preventing unnecessary repairs; and operational efficiency was improved while fraud risk was minimised.

Julio Lanza,
Sales manager

OPTIMISING EVERY MILE

Running a fleet in a vast territory of Kyrgyzstan is not an easy task, as vehicles travel through mountain roads, busy city streets, or long intercity routes. The unique terrain affects public transport, taxi services, and logistics providers, especially in areas where mobile signals are weak. Moreover, it is difficult for companies to know how their drivers behave, and with high fuel costs and often unpredictable routes, it is a serious challenge. To help, GPSTech, a local fleet management solution provider, combines Teltonika GPS devices with its fleet management software to provide businesses with real-time tracking, route control, fuel monitoring and clear information to manage their fleets.

The solution is based on Teltonika's FMB920, FMB120, and FMC125 devices, which provide accurate data on location, speed, ignition, fuel levels, and power supply. They support 2G or 4G LTE Cat 1 connectivity options and allow remote configuration and firmware updates, while excellent technical support and detailed documentation greatly simplify tracker integration and maintenance.

GPSTech installs, configures, and maintains GPS tracking devices, while also offering software to provide live information on vehicle locations, routes, mileage, and fuel use. In addition, instant alerts are available for events such as speeding, unauthorised stops, or power disconnection. All data is stored securely on GPSTech servers, making it possible to view it on maps, analyse for patterns, and integrate with clients' CRM or Enterprise Resource Planning (ERP) systems.

Semyon Kim,
Sales manager

Our business partner works with a wide range of clients in the area, including taxi companies, logistics providers, corporate fleets, and municipal transport authorities. For instance, one public bus operator discovered route deviations and long idle times. With the help of telematics, they improved driver performance, reduced fuel use by 15%, and made schedules 20% more punctual.

Teltonika devices give local fleet managers the clarity they need to make better daily decisions, helping them reduce unnecessary costs, maintain control across complex routes, and keep fleet operations running reliably in demanding conditions.

More to that, FTx92 and FTx96 series, Teltonika's new FT platform devices, expand these capabilities even further. Fleets can remain fully manageable even when GPS signals are lost, thanks to the dead reckoning functionality available in FTx927 devices. For tracking in harsh environments, FT platform offers IP69K-rated casing that ensures the ultimate protection against dust and water.

FTx92 & FTx96 SERIES

Built on legacy, designed for the future

Learn more

TURNING VEHICLE DATA INTO ACTION

intelligence platform, our business partner in Italy transforms raw vehicle data into practical insights.

As a result, transport and logistics companies, municipal fleets, and service operators can monitor car health, predict maintenance needs, and examine in detail how vehicles are used during their daily tasks. Thanks to predictive maintenance, end clients reduce unplanned downtime and repair costs. They also gain real-time visibility of their fleet, making route planning and resource use more efficient.

Saverio Lavenuta,
Sales team leader

The solution relies on Teltonika's FMC150, FMC003, and FMC880 devices, which capture key telemetry, including GPS position, speed, engine parameters, sensor inputs, etc. The data is securely sent to the cloud, where it is processed, stored, and displayed in a web dashboard. Fleet managers can view live performance metrics while the AI engine performs predictive diagnostics in the background.

The FMC150 device's compatibility with OBD-II and CAN interfaces, including J1939 and J1708 protocols, ensures accurate vehicle diagnostics. Meanwhile, compact FMC003 and FMC880 trackers allow flexible installation in mixed fleets.

During a pilot project with a municipal waste collection fleet, the system detected an oil pump fault early by correlating pressure,

W hen a truck breaks down unexpectedly, it doesn't just stop moving – it means lost time, money, and productivity. Sudden failures, high maintenance costs, and too much vehicle data that's hard to use are serious issues that many transport and logistics companies struggle with.

When it comes to large volumes of information, the real challenge is to understand it and make use of it. By combining IoT connectivity with artificial intelligence in their end-to-end fleet

torque, and RPM data. The alert prevented engine failure, saving approximately €6,000 in repairs and avoiding several days of downtime.

By integrating Teltonika's reliable hardware with advanced cloud and AI analytics, our business partner provides a data-driven approach to fleet management, helping operators act before problems occur.

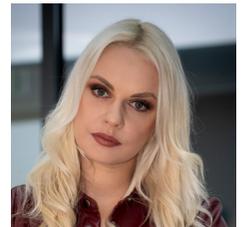# A TRACKER IN A BOTTLE: HOW VENICE IS FIGHTING PLASTIC IN ITS CANALS?

V enice's world-famous canals are a symbol of beauty and heritage, yet while enjoying a peaceful gondola ride, one might notice something far less pleasant – plastic litter. To help protect these waterways, NAUTA Scientific's JunkTrack project uses Teltonika's TAT100 and TAT140 models to understand where the plastic bottles and other litter thrown into the water are going, and collect them with targeted efforts.

NAUTA Scientific is an Italian consultancy focused on environmental impact assessments and research. It supports public organisations, universities, and research groups across Europe on funded projects and environmental studies. JunkTrack is its integrated system to monitor, track, and analyse floating litter in water.

The canal-saving solution consists of almost 200 Teltonika asset trackers sealed in 500 ml

bottles and covering the entire Venice Lagoon area. Each device is registered at deployment with a dedicated app and monitored through a geographic information system (GIS) toolset. Long battery life, internal memory, and remote configuration of TAT devices ensure continuous data collection, giving authorities a clear view of litter hotspots. This allows efficient targeted clean-up efforts instead of random patrols.

Ieva Bartninkienė,
Sales manager

One bottle and one GPS tracker at a time, the area's waters are protected to preserve cultural heritage and its surrounding nature for future generations.
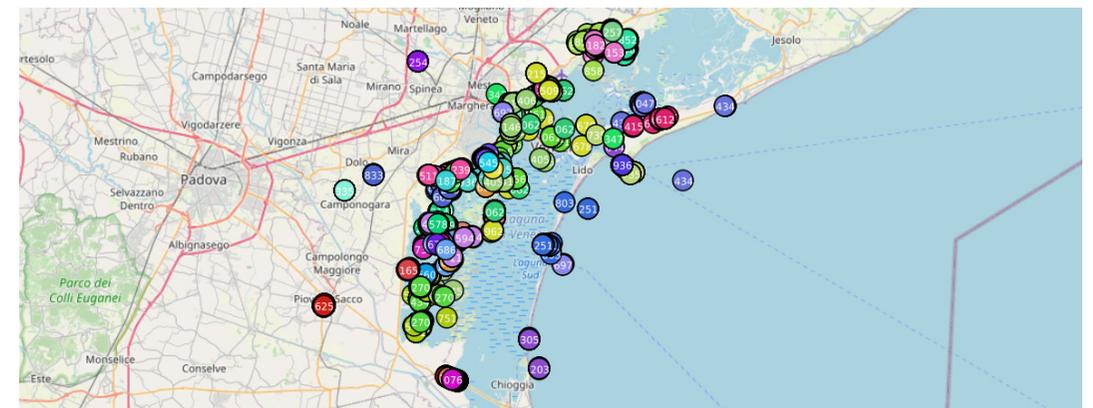
TELEMATICS FACE TO FACE

Teltonika's clients in Spain and Portugal encounter a wide range of challenges from different perspectives. Firstly, we see market-related difficulties: competition is fierce in the number of players and products. Secondly, price sensitivity remains a key factor in both markets too. Altogether, these elements create a demanding environment.

To support our clients in addressing these challenges and stay closely connected, in 2025 we hosted Telematics Workshop in Madrid. The agenda was carefully designed to engage a broad audience – from those interested in business insights and market perspectives to participants focused on

technical applications and practical use cases.

The event brought together our existing and potential clients, with each presentation capturing interest for different reasons. FMC650 device, in particular, stood out for its relevance to new EU regulations and the growing demand for FMS and remote tachograph solutions. FMx150 trackers attracted those focused on fuel efficiency and fleet management.

Guillermo Vazquez,
Chief of sales group

Meanwhile, FTC305 model resonated with clients exploring electric and micro-mobility markets, and the Mesh technology session sparked curiosity by addressing current limitations in indoor tracking.

Teltonika events are not just about showcasing products – we build relationships, share knowledge, and show commitment to our clients' success. The event feedback was overwhelmingly positive, with attendees especially valuing the immersive format and the opportunity to exchange insights with our experts.

We build relationships, share knowledge, and show commitment to our clients' success 🙺

RESHAPING VEHICLE RISK MANAGEMENT IN JAPAN

Japan's vehicle leasing sector is changing quickly as financial institutions look for secure and efficient ways to serve drivers. With competition rising and margins tightening, leasing companies increasingly rely on IoT partners to improve risk management and support customers who may otherwise struggle to obtain credit. This shift has created strong demand for remote control solutions that allow safe and reliable ignition management.

Our business partner, a system integrator and service provider, supports Japan's car-leasing firms by helping to enhance operational safety and reduce financial exposure. The solution's key element is Teltonika's advanced GPS tracker with an integrated CAN data processor, chosen for its multiple digital inputs, digital outputs, and certification for the Japanese market.

Let's take a look how it works in more detail. The device's digital output is connected to an external relay installed in the leased vehicle. When necessary, the leasing company can send a remote command to activate the relay, preventing the engine from being started. The tracker's location data and optional digital input for accurate ignition detection further strengthen the reliability of this system.

For end users, the benefits are evident immediately. Customers with weaker credit histories gain access to vehicles they might otherwise be denied, while financial institutions get a secure mechanism to ensure payment compliance. The solution has already helped clients immobilise vehicles in a number of instances when payments were not maintained.

Many Japanese leasing companies once developed their own hardware, but growing competition and the need for reliable performance have increased interest in partnerships that help companies grow without taking on unnecessary financial pressure. By continually investing in Japan, Teltonika has proven to local clients its dedication to the market and earned their trust.

Koji Okabe,
Head of sales group
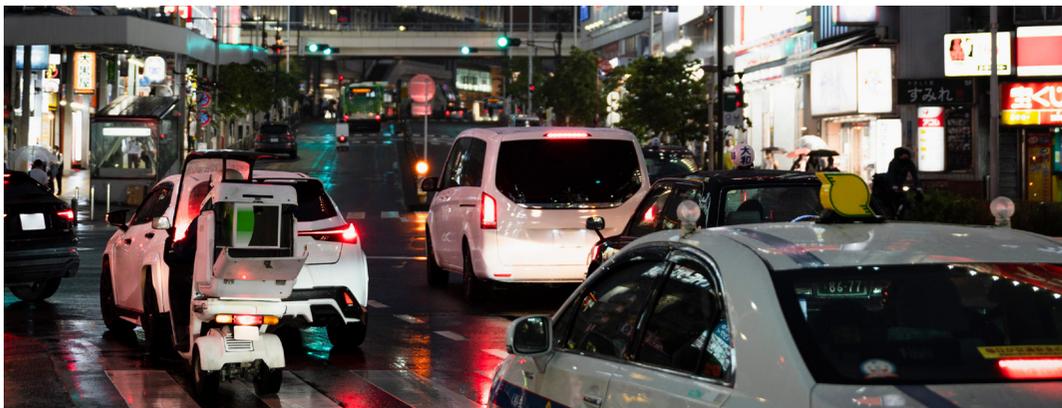
BEYOND BASIC TRACKING

Many fleet operators in Türkiye still rely on basic GPS tracking, which shows vehicle location but provides limited insight into its performance, security, and operational efficiency. As fleets grow – especially in the public sector – the need for deeper vehicle data and more advanced control becomes critical.

To address this demand, our partner – one of the country's largest mobile fleet management and tracking system providers – delivers comprehensive IoT-based solutions for commercial and government customers in Türkiye and Germany.

A state-affiliated rental organisation managing 15,000 vehicles turned to our partner to improve fleet visibility, data security, and control across diverse electric and gas-powered vehicles of multiple brands.

The main challenge was to collect reliable CAN data across different vehicle models, especially locally manufactured electric cars that were not designed for easy CAN integration. The project also required advanced geozones, custom firmware, secure data handling, and installation that would not affect vehicle warranties.

Teltonika's FMC150 device was selected for its reliable CAN data collection, advanced monitoring capabilities, and strong data security. ECAN02 adapters protected vehicle wiring, while Teltonika's team gathered extensive vehicle parameters through reverse engineering, delivering firmware perfectly suited to the end user.

As a result, the fleet gained access to key parameters such as fuel usage, battery status, driver behaviour, and route tracking. Secure data management through our solution FOTA WEB, battery-protecting sleep modes, and advanced geozones improved operational control and customer satisfaction, highlighting Teltonika's reliability for large-scale, security-focused fleet projects.

Arda Kaytan,
Sales manager

STOPPING 'PARASITIC' KILOMETRES

Fuel consumption and empty miles are among the largest operating costs for transport companies, with unjustified route changes or inefficient driving quickly increasing expenses. While route-planning tools are widely used, they often provide limited visibility into whether assigned trips are actually followed and where exactly unnecessary mileage occurs. As a result, operations teams may know where a truck is, but not why costs are higher than expected – or what actions will reliably reduce them.

To respond to these challenges, LocTracker, Teltonika's business partner in Lithuania, provides a fleet management and route-

optimisation platform that helps transport companies monitor, control, and continuously improve their operations. The solution combines vehicle tracking devices, in-cab equipment, and an intuitive online platform that shows how vehicles and drivers actually move on the road. LocTracker delivers advanced route optimisation with exact route delivery to the driver's tablet, ensuring the driver receives the same route that was planned by the dispatcher. This way, the platform

Edgaras Krasnoložskis
Sales manager

enables full route execution control and real-time visibility into route adherence, driver behaviour, and deviations that lead to unnecessary mileage, delays, and increased costs.

A mid-size international transport company operating 120 trucks across Europe implemented LocTracker to improve fleet oversight. Before that, fuel costs and mileage were consistently higher than planned, but it was difficult to identify where losses were occurring. Drivers often chose familiar or convenient routes, creating extra ('parasitic') kilometres, and refuelling practices were not standardised.

GPS tracking was used primarily for location visibility rather than efficiency monitoring or driver performance management. Without clear insights, the operations team lacked a structured process to review deviations or coach drivers effectively.

To strengthen fleet coordination, Teltonika tracking devices were deployed in trucks and trailers. FMC650, our PROFESSIONAL category model, was chosen as the main tracker for its reliability and ability to access onboard vehicle data.

Thanks to this project, the company got a clear view of its daily operations. Dispatchers planned routes in the platform, while trackers provided real-time data on vehicle location, trips, journey execution, and fuel usage. The team could compare planned versus actual routes, quantify additional kilometres, flag fuel usage that fell outside company rules,

and generate weekly reports identifying the routes and drivers contributing most to inefficiencies.

As a result, the operations team made faster, higher-confidence decisions and delivered more effective driver coaching. Within weeks, the main sources of inefficiency were addressed, leading to more consistent fleet performance and stronger control over operating costs.

> The operations team made faster, higher-confidence decisions and delivered more effective driver coaching

SMARTER SIGNAGE FOR ROADWORK SAFETY

Signage plays a crucial role in temporary traffic management, and compliance rules require signs to remain correctly positioned at all times. Previously, the only way to ensure this was through continuous on-site checks, which easily turned into increased carbon emissions due to unnecessary fuel consumption, while wasting time and still leaving room for error.

With roadwork and infrastructure companies being under constant pressure for getting potential fines due to misplaced or fallen signs, Ramudden Global, Teltonika's client in the UK, provides much needed support by delivering digital services and monitoring technology for temporary infrastructure. It includes roads, rail, utilities, and event environments.

Ramudden Global developed a compact monitoring unit, which attaches directly to road signs. The device incorporates Teltonika's TAT140 hardware, integrated into a durable casing with an extended battery system. It continuously

tracks the sign's position and condition. If a sign falls or is moved, an alert is sent to the platform, allowing the operations team to intervene quickly without manual inspections.

Selected for precise motion detection and accurate location tracking, Teltonika's TAT140 model ensures that companies maintain full visibility of temporary signage throughout the project lifecycle.

The solution delivers substantial environmental and operational advantages, while also reducing unnecessary travel, preventing fines, and helping protect road users. This way, digital monitoring is becoming a key to more sustainable and safer practices in temporary infrastructure management.

Pavel Charitonovič
Sales manager

BUILT TO LAST

High-capacity battery ensures long-term tracking, while wire-free installation and an IP68-rated casing guarantee reliable operation in harsh environments

Learn more

TELTONIKA EXPANDS INTO SECURITY SYSTEMS

Teltonika has acquired a well-established company manufacturing home security and car alarm systems, previously known as SecoLink. Now operating as Teltonika Security Systems, its long-standing engineering expertise is united with the technological and organisational strengths of the Teltonika Group.

"This team has accumulated significant experience in security systems over more than twenty years. We see this as expertise that can be integrated into the wider Teltonika ecosystem. It will allow us to move faster towards our ambitious plans and avoid certain lengthy processes that often arise when developing new business niches. We hope that in the coming years we will be able to integrate and grow more than one new company," says Marius Derenčius, president of the Teltonika Group.

The security systems market is one of the fastest-growing technology sectors, closely linked to IoT, connectivity, and data transmission solutions. Car alarm products significantly expand Teltonika's portfolio by introducing new vehicle protection

solutions – an area where clients have expressed demand. At the moment, Teltonika Security Systems offers three vehicle security products, covering both protection against unauthorised engine start and advanced alarm systems. These solutions feature CAN and LIN integration, shock and tilt sensors, and remote monitoring capabilities. The ambition forward is to build a strong position in an underdeveloped market and offer trusted, easily deployable solutions that fit naturally into everyday life.

"Our focus is on creating value-added products that will remain reliable in the long term. We aim to shape new standards in security solutions by integrating products within the Internet of Things environment," says Viačeslav Jaroševič, head of Teltonika Security Systems, who previously led the development of our offices in Asia.

At the moment, the company is preparing an updated application for customers, designed to deliver features that are highly relevant in the market. Once it is launched, users will be able to manage home and vehicle security systems directly from their smartphone, along with other Teltonika products dedicated to home use.

Learn more

FRESH FACTORIES:
STEP INSIDE

In 2025, Teltonika has opened four modern factories in Vilnius, Lithuania as part of a €320 million investment.

Gitanas Nausėda, President of Lithuania (centre), at the opening ceremony

With new plants – for printed circuit boards, plastics and mechanical components, electronics assembly, and electronic components – launched, the first stage of the High-Tech Hill industrial park project is now complete.

Capacity

30M

devices per year

The company group's production capacity has increased from 10 million to 30 million electronic devices per year, and once the technology park is fully complete by 2030, up to 100 million devices will be produced annually.

Teltonika is moving forward and fully ready to support your growing needs in IoT – let's build the future together!

Our goal is to keep competencies and people in Europe and Lithuania who can create such technologies.

Arvydas Paukštys, founder of Teltonika IoT Group