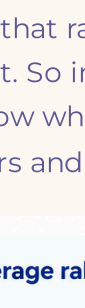


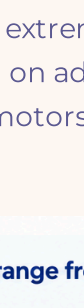
Wialon-powered system helps make international rally events safer and easier to manage

4rally is an international rally management company headquartered in Vilnius, Lithuania — the same city where [Curtam](#), the developer of [Wialon](#), is based. The company performs a wide range of services for rally events worldwide:

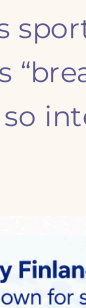
- **Safety monitoring:** providing and installing dedicated safety tracking equipment in competing and support vehicles, monitoring their location and status in real time, and helping organizers respond quickly to incidents and emergencies.
- **Race control:** monitoring and supervising the event from pre-race activities through to the competitive stages.
- **Timing and results:** managing timekeeping and results, from participant entries and start orders to live results, classifications, and long-term performance records.
- **Rally documentation:** preparing essential event documentation, including road books, safety plans, route cards, reconnaissance cards, rally guides, maps, and other required materials.



13+
years
of operation



20+
countries
worldwide



130+
rally events
supported



9,300+
incidents
resolved

Behind 4rally's impressive portfolio of race management operations is its own Safety Tracking System (STS), a custom-developed tracking solution designed specifically for rally events.

In 2024, 4rally rebuilt STS with Wialon at its core. Wialon gave 4rally the reliability required for live rally operations, backed by a 99.5% uptime commitment in the SLA — [with actual uptime being even higher \(99.984% over 2025\)](#). Our fleet digitalization solution was also a perfect fit for the technical requirements of the FIA (Fédération Internationale de l'Automobile) [Rally safety guidelines](#).

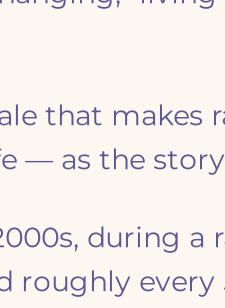
Challenge

Saying that rally racing is an extremely dangerous sport is a bit like saying the Sun is very hot. So instead of piling on adjectives such as “breathtaking” or “mind-blowing,” let’s show what makes this motorsport discipline so intense with a few simple numbers and comparisons.

Average rally speeds usually range from
90-120
km/h



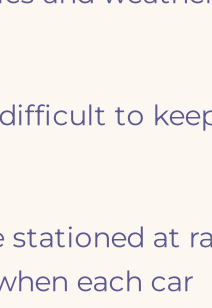
Sharp U-turns and hairpins may bring the cars down to much lower speeds.



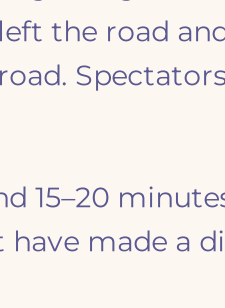
Rally Finland, for example, is known for some of the highest average speeds, often exceeding
120
km/h



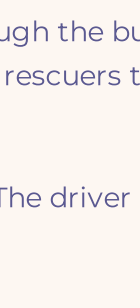
But on the straighter sections, they can accelerate all the way to
200
km/h



Now let's do some simple maths:
at 200 km/h, a rally car travels about
56 metres every second.



That's more than half a football pitch in a single second.



While the numbers are already impressive on their own, the rally environment makes all of this even less forgiving. The FIA itself describes rally stages as running through a constantly changing, “living” environment, with unexpected obstacles and weather conditions.

The same scale that makes rallying so remarkable can also make it difficult to keep everyone safe — as the story below clearly shows.

In the early 2000s, during a rally in Lithuania, safety relied on people stationed at radio points placed roughly every 5 kilometers. Their job was to confirm when each car passed. During the race, a car failed to reach the next radio point. It had effectively disappeared somewhere between 2 checkpoints.

The rescue team knew something had gone wrong, but they could not immediately determine where. The car had left the road and crashed through the bushes, leaving no obvious trace visible from the road. Spectators later pointed rescuers toward the crash site.

By the time help arrived, around 15–20 minutes had passed. The driver could not be saved. A faster response might have made a difference.

This is where a rally management system becomes critical: it should help detect incidents immediately, identify where they happened, and support a fast response. And it has to work reliably even in remote areas, where mobile coverage may be weak or inconsistent. Additionally, the software needs to be flexible in terms of hardware compatibility, as rally conditions may require additional hardware customization. With strong capabilities across all these areas, Wialon gave 4rally the perfect tools to enhance its Safety Tracking System with greater reliability and resilience.

Solution

Software

Wialon plays a key role in how 4rally's Safety Tracking System works, providing the tracking capabilities that give race control real-time visibility into crew locations and activity across the course.

Wialon brings all incoming tracking information together in one place and processes it fast enough to ensure emergency messages reach race control in around 1 second. Geofences, tracks, and reports make it easier to monitor the course and investigate what happened, while Wialon's hardware-agnostic approach allows 4rally to use specially modified trackers built for demanding rally conditions. Underpinning it all is Wialon's exceptional reliability — essential for a system that needs to keep running without even the slightest interruptions throughout the race, especially when a critical situation occurs.

On the front end, the **main STS interface** turns Wialon data into a clear real-time overview of the event. Organizers can see each vehicle's position, speed, direction, ignition status, stops, zone alerts, and distress messages. The system also helps monitor whether crews follow the rules during the race and recce, while the event's safety plan can be presented directly on the map, including the locations of safety marshals and other resources.



To see STS in action, let's consider a realistic rally scenario.

A real-life scenario on the rally stage

1

Car A exits a sharp hairpin onto a straight section and accelerates hard.



2

At high speed, a wild animal suddenly runs onto the road.



3

The driver reacts quickly and avoids it, but the maneuver sends the car into a spin.



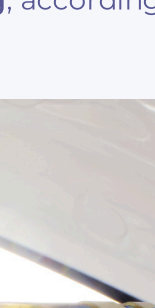
4

The car ends up on its side, blocking most of the road.



5

The crew is unharmed, but car B will be starting shortly after them, and the road ahead is now blocked.



How do you want the crew of car B before they reach the accident site?

How STS and Wialon help keep crews safe

Emergency messages from the crew reach race control in **around 5 seconds**, helping to warn the next car in time.

1

Crew reports an incident

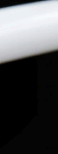
The crew of car A sends an emergency message depending on the situation.



2

Data is transmitted via Wialon

The message and location are sent to Wialon and processed instantly.



3

Incident appears in STS

The incident is shown in the STS main interface almost instantly, with the exact location.



4

Race control alerts the next crew

Organizers can quickly notify car B, helping them slow down or take alternative action.



Messages for different situations

Crews can send the right message depending on what's happening.



SOS

Serious situation, medical help needed



ROAD BLOCKED

The road is not passable



OK

Crew is safe, no assistance needed



FIRE

Vehicle is on fire

Alongside the main interface, 4rally's solution offers a **public interface** for teams, media, and spectators. It provides an online view of the rally route, competitor positions, stage control areas, split points, and vehicle speeds. Users can also select their favorite crews and follow their progress on the map.

Hardware

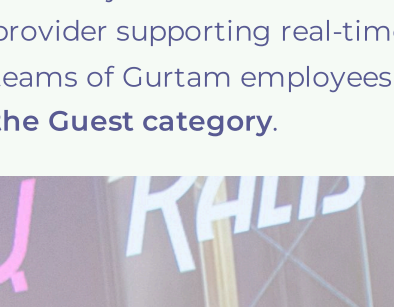
The trackers used by 4rally are designed specifically for an environment where ordinary hardware would have a difficult day.

The units are autonomous and tamper-proof, so crews cannot accidentally or intentionally switch them off or disconnect their antennas. High-sensitivity internal satellite and data radio modules mean external antennas are generally unnecessary — an important advantage if a car rolls over or leaves the road.

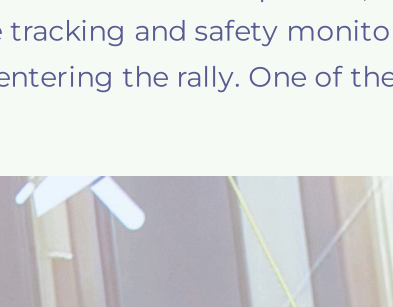


Each tracker supports several satellite positioning systems, as well as automatic anti-jamming for up to 8 signals. If mobile coverage disappears, the unit can store more than **13 hours of tracking data** and upload it once the connection is restored.

A main internal battery provides up to **4 days of operation**, backed by a second battery providing another 4 hours. The trackers can also be connected to a vehicle's 12V supply and are robust enough to withstand a direct load of **up to 5,000 kg**, according to laboratory tests.



Wialon



4rally

Because the units are autonomous, they are not limited to competing cars. Organizers can also place them in ambulances, fire brigade vehicles, radio cars, safety vehicles, helicopters, and other assets involved in running the rally.

Results

With Wialon at its core, 4rally's STS gives organizers a reliable way to see what is happening across the course in real time, quickly identify incidents, and coordinate a response.

Real impact during the 2026 season at various European rally events

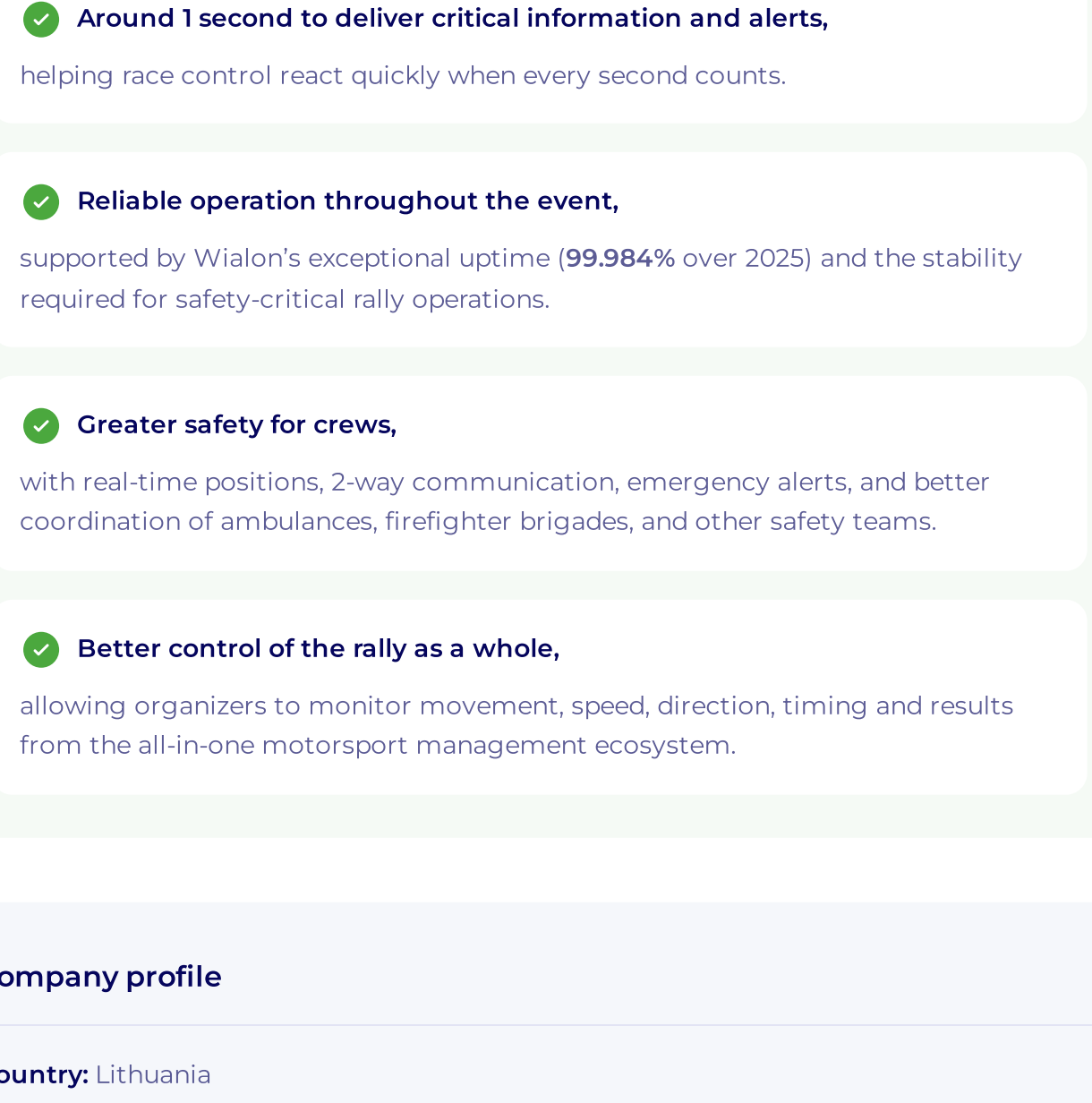
SOS incidents processed
28

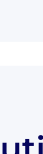
Average response time
<1 minute

Average medical crew arrival time
<3 minutes

4rally makes rallying safer not only at top-level competitions, but also at large amateur events.

A good example is the [Women's Rally in Lithuania](#), where 180 teams took part in 2025. Curtam joined the event in 3 roles: as an official partner, a telematics partner and provider supporting real-time tracking and safety monitoring, and a participant, with 5 teams of Curtam employees entering the rally. One of them, **Gasolina Queens**, won the **Guest category**.





Around 1 second to deliver critical information and alerts,

helping race control react quickly when every second counts.



Reliable operation throughout the event,

supported by Wialon's exceptional uptime (**99.984%** over 2025) and the stability required for safety-critical rally operations.



Greater safety for crews,

with real-time positions, 2-way communication, emergency alerts, and better coordination of ambulances, firefighter brigades, and other safety teams.



Better control of the rally as a whole,

allowing organizers to monitor movement, speed, direction, timing and results from the all-in-one motorsport management ecosystem.

Company profile

Country: Lithuania

Industry: People management & safety

Website: [4rally.eu](#)

Solutions





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