

## GOODYEAR TYRE MONITORING SOLUTIONS FOR COMMERCIAL VEHICLES

Goodyear provides a full suite of data-based tyre monitoring solutions for commercial vehicles, featuring advanced telematics and patented predictive analytics technology, able to provide commercial fleets with precise, real-time monitoring of tyres.

### **Main benefits of Goodyear tyre monitoring solutions for commercial vehicles**

- Increased uptime: up to 90% fewer tyre related issues<sup>1</sup>
- Important time savings and increased rate of on-time deliveries: manual tyre inspection of 50 vehicles takes on average 20 hours<sup>2</sup>
- More efficiently and proactively planned maintenance
- Optimized vehicle and tyre performance
- Enhanced fuel efficiency: underinflation by just 1 bar costs EUR 900 extra in fuel every year for each vehicle<sup>3</sup>
- Reduced CO<sub>2</sub> emissions: underinflated tyres<sup>4</sup> have a higher rolling resistance -> with a 10% tyre rolling resistance decrease (all axles), a 100-truck fleet will lower its emissions by 4%<sup>5</sup>
- Increased tyre mileage and tyre service life: underinflation by 20% results in a 30% reduction in tyre life<sup>6</sup>.
- Better retreadability
- Enhanced safety
- Improved fleet management

### **Goodyear's tyre monitoring portfolio for commercial vehicles**

- **Goodyear DrivePoint** – for trucks, trailers, coaches and buses
- **Goodyear Drive-Over-Reader** – for trucks, trailers coaches and buses
- **Goodyear TPMS** (Tyre Pressure Monitoring System) – for trucks, trailers, coaches and buses
- **Goodyear TPMS Heavy Duty** – for off-the-road vehicles

Goodyear's tyre monitoring solutions are an integral part of Goodyear Total Mobility, a one stop tyre and fleet management value proposition for transportation and logistics companies across Europe. Providing full tyre monitoring and management insights from mounting the right tyres per type of operations, planning proactive maintenance and retreading, the end-to-end offer supports fleets to further reduce their total cost of ownership by increasing efficiency and optimizing the performance of their vehicle park.

### **Goodyear DrivePoint**

Goodyear DrivePoint is a TPMS solution that allows easy monitoring of the tyre pressure of commercial vehicles including trucks, trailers, buses and coaches. Designed as a connected yard-based drive-through tyre inspection system, the solution allows:



- automated and dynamic tyre pressure measurement
- instant display of the tyre health via mobile and web applications allowing proactive monitoring of fleets
- inspection of large quantities of vehicles, suited for vehicles returning frequently to the fleet yard
- easy installation due to wireless and battery-powered technology

<sup>1</sup> Comparison of 50 fleets and after installation of Goodyear TPMS in 2019, based on internal field tests

<sup>2</sup> Fleet input by Omega Pilzno-Poland: <https://www.drivereults.eu/en/1-hour-the-time-to-taken-to-check-the-tyres-of-50-vehicles>

<sup>3</sup> 150.000 km/year, 35L/100km average fuel consumption; 1 bar underinflation = 5 % increased rolling resistance = 1, 5% higher fuel consumption; Diesel costs 1,15 EUR/L

<sup>4</sup> ETRMA cited market surveys showing that heavy-duty vehicles drive 40 to 65 % of their distance of their distance travelled on underinflated tyres and 10-25 percent on tyres underinflated by more than 10 %

<sup>5</sup> Based on internal testing by Goodyear, actual results may vary based upon vehicle condition and maintenance, traffic conditions, driver behaviour and other factors

<sup>6</sup> American Trucking Associations' Technology and Maintenance Council

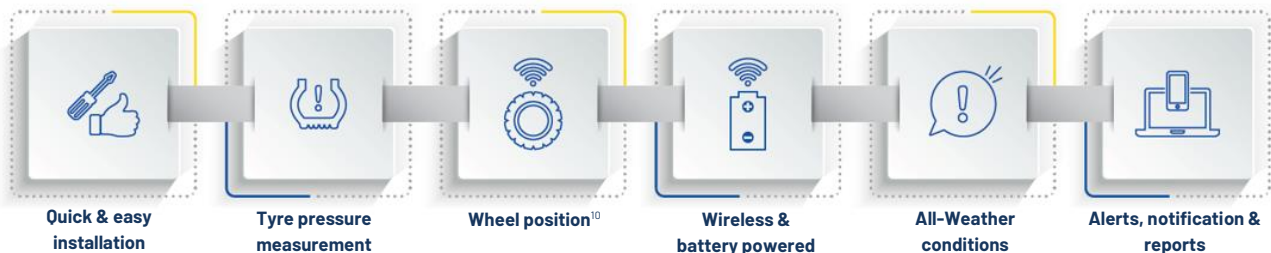
Goodyear DrivePoint has been developed for fleets that are searching for a cost-effective tyre maintenance solution to secure their operational fleet efficiency but which at the same time can be quickly and easily installed. Combined with the user-friendly mobile and web applications, the solutions support an instant display of the tyre health allowing proactive monitoring and maintenance of the fleet. Daily, weekly, and monthly tyre inflation reports can also be scheduled to improve fleet efficiency.

### How does it work

Goodyear DrivePoint is designed as a Dynamic Drive-Through Tyre Pressure Measurement Solution consisting of On-Valve Sensors and two battery-powered Receivers. The solution can be easily installed at the location of customer's choice - preferably at the most regular touchpoints, meaning entry or exit of the fleet yard.

- When a vehicle drives through the two Goodyear DrivePoint Receivers, the system instantly checks the tyre pressure data. The vehicle does not need to stop when driving through the dedicated receiver area.<sup>7</sup>
- Whilst the vehicle is nearby the receivers, the On-Valve Sensors screwed on the tyre valve are collecting instantly the live tyre pressure data from each wheel position.<sup>8</sup>
- The sensor data (tyre pressure, sensor battery level) is immediately captured via antennas inside of the receivers and transferred via mobile network to the Goodyear Cloud for intelligent analysis.
- After the data has been processed, the tyre health can instantly be retrieved by the fleet operator via the mobile and web applications for proactive monitoring of the fleet. The customers are then supported with fast and user-friendly reporting and automatic notifications.

The solution allows a measurement in both driving directions.<sup>9</sup>



### Goodyear TPMS (Tyre Pressure Monitoring System)



Goodyear TPMS provides real-time tyre monitoring during operations to help reduce breakdowns and optimize tyre life, fuel savings and operational costs. TPMS sensors are mounted on the wheel rims and constantly monitor tyre pressure and temperature, this information is transmitted via battery-powered on-board telematics to a Goodyear server.

Goodyear TPMS features G-Predict technology, a series of intelligent proprietary predictive algorithms to flag any potential issues before they can become critical. Combined with clear, accurate reporting, these proactive alerts help fleet operators to precisely identify and resolve tyre-related issues before they happen and increase uptime by up to 90%<sup>1</sup>.

<sup>7</sup> A maximum speed of 10 km/h should not be exceeded.

<sup>8</sup> If sensor data is above the set-up threshold (20 % lower than the RCP), the data will be stored and submitted to the Goodyear Cloud every 6 hours. A secure environment that is compliant with all applicable data protection regulations as EU General Data Protection Regulation.

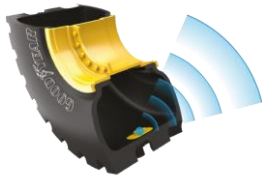
<sup>9</sup> For more accurate data, it is recommended to measure vehicles when leaving the yard.

<sup>10</sup> Requires vehicle creation and sensor assignment in the Goodyear Proactive Solutions platform.

<sup>11</sup> In-Ground version of the Goodyear Drive-Over-Reader

Goodyear TPMS also includes a Track & Trace functionality using GPS technology. This is allowing fleet managers to locate their vehicles as well as to prevent unauthorized movement or theft and to know when deliveries are made.

### Goodyear TPMS Heavy Duty



Goodyear TPMS Heavy Duty is specially developed to withstand the tough operating conditions off-the-road machines endure. Special TPMS sensors are attached to the tyre and transmit pressure- and temperature-related information to a Goodyear server via battery-powered on-board telematics.

Goodyear TPMS Heavy Duty includes a Track & Trace function; a built-in GPS allowing fleet managers to locate their vehicles as well as to prevent unauthorized movement or theft.

### How Goodyear TPMS and Goodyear TPMS Heavy Duty work

After measuring the relevant tyre and vehicle data, the system continuously transmits this information to the Goodyear server via the mobile network. This tyre data is then analyzed using Goodyear algorithms featuring G-Predict technology and translated into fast and user-friendly reports, alerts and automatic notifications. Goodyear's user-friendly mobile and web applications provide fleet operators with a complete overview of the fleet's condition.

In the event of irregularities, notifications and alerts are immediately sent from the Goodyear server to the fleet manager showing what tyre is affected and the degree of urgency from needing to stop the vehicle immediately to having it checked at the next service. A dedicated app is available for drivers to inform them of irregularities in real time.

### Goodyear Drive-Over-Reader



The Goodyear Drive-Over-Reader automatically measures tyre tread depth, tyre pressure and axle load<sup>11</sup> in just a few seconds whenever a vehicle drives over it. The Goodyear Drive-Over-Reader consists of a hi-technology ground-based plate equipped with special sensors and cameras. This state-of-the-art tyre monitoring technology helps fleet managers optimize the efficiency of their vehicles by real-time tyre management and allows them to proactively plan tyre maintenance.

### How Goodyear Drive-Over-Reader works

- When the vehicle is driven over the Goodyear Drive-Over-Reader, ground-mounted sensors and cameras are scanning the tyres and vehicle parameters in seconds. Remaining tread depth and tyre pressure for each tyre as well as the load of each axle<sup>11</sup> are displayed in seconds. It can also identify variations of tread depth that can shorten tyre life.

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- This data is analyzed by powerful algorithms and a comprehensive report is generated providing critical input and potential warnings on insufficient tread depth, incorrect tyre pressure or overload. This allows maintenance to be programmed (including regrooving, retreading or replacement) to ensure maximum tyre mileage and fuel efficiency as well as correct vehicle loading.

**More information on [Goodyear Truck](#)**

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