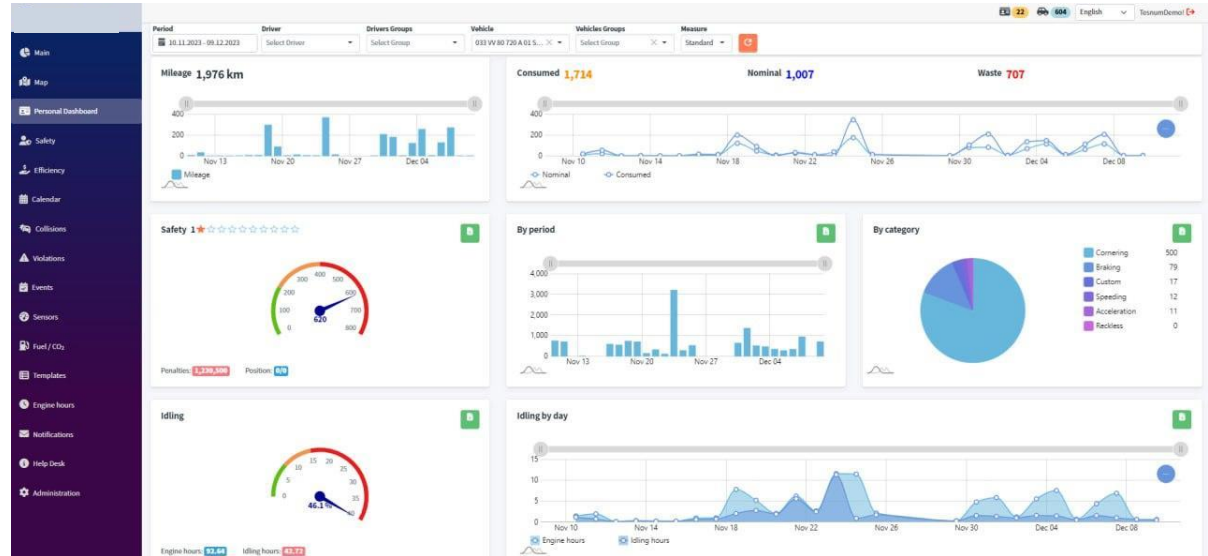




## FleetInsight

## Driver Behaviour Monitoring System

Encouraging Eco-Friendly  
And Safe Driving.



System Based on Track3



# Key benefits of the system



**Enhanced Safety:** The system assesses driver safety by analyzing collisions, tracking violations, and providing automated custom notifications. This helps in promoting safer driving habits.



**Efficiency Analysis:** The system enables comprehensive analysis of fuel consumption and idling patterns, aiding in the identification of inefficiencies and guiding improvements in driving behavior and vehicle maintenance.



**Performance Monitoring:** It ranks vehicles based on performance metrics, encouraging a culture of accountability among drivers and focusing on environmental consciousness.



**Data-Driven Decisions:** By providing a holistic approach to monitoring driver behavior, including detailed insights into various safety and efficiency parameters, the system supports informed decision-making for fleet management.



# Main modules of the system



## Safety

Monitor the safety of drivers and vehicles by tracking mileage, driving habits and penalties for various violations.



## Collisions

Asses collisions based on captured driving data, videos, and acceleration values, up to 10 seconds before and after a collision.



## Violations

Track vehicle violations with acceleration, braking, cornering, and speeding data, as well as video recordings and location coordinates.



## Notifications

Stay on top of driver behavior by receiving notifications when a driver's ranking falls below a specified average.



## Sensors

Receive data from all possible sensors to provide a comprehensive monitoring overview of the vehicle and driving habits.



## Fuel

Review fuel consumption and compare with nominal values to improve driving habits, reduce costs, and minimize carbon footprint.



## Idling

Analyse idling, engine performance, and operational time to identify unnecessary idling.



## Ranking

Easily track and rank vehicles based on driving preferences and violation history per specific time periods.

## Over 25 features for comprehensive driver monitoring

1. Main Fleet Overview Dashboard
2. Driver/Group Overview Dashboard
3. Mileage per Period
4. Fuel Consumption Overview
5. Safety Score and Ranking
6. Safety Score by Period
7. Safety Score by Violation Type
8. Idling Percentage
9. Idling by Period
10. Safety Dashboard
11. Violations Dashboard
12. Violations List
13. Violations Map
14. Collision Dashboard
15. Detailed Collision Analysis
16. Visualization of the Collisions
17. Preventive Notification Dashboard
18. Calendar Dashboard
19. Fuel Consumption Dashboard
20. Custom Reporting Templates
21. Sensors Dashboard
22. Engine Hours Dashboard
23. Events Dashboard
24. User Management and Administration
25. Thresholds configuration

## Where the system can be used?



**Logistics and Transportation:** For managing fleets, ensuring timely deliveries, and reducing operational costs.



**Insurance:** To assess driver risk profiles, tailor insurance premiums, and promote safer driving behaviors.



**Public Transportation:** For monitoring buses, trams, and other public transport vehicles to enhance passenger safety and service efficiency.



**Rental Car Services:** To track and manage vehicle usage, prevent misuse, and maintain vehicle health.



**Emergency Services:** Like ambulances and fire trucks, to ensure quick and safe response times while adhering to safety standards.

## Where the system can be used?



**Construction:** To monitor vehicles and heavy machinery for efficient operation and adherence to safety protocols on construction sites.



**Government Fleet Management:** For efficient utilization and monitoring of government vehicles, ensuring compliance with regulatory standards.



**Delivery Services:** Especially for e-commerce, to optimize routes, ensure timely deliveries, and reduce fuel consumption.



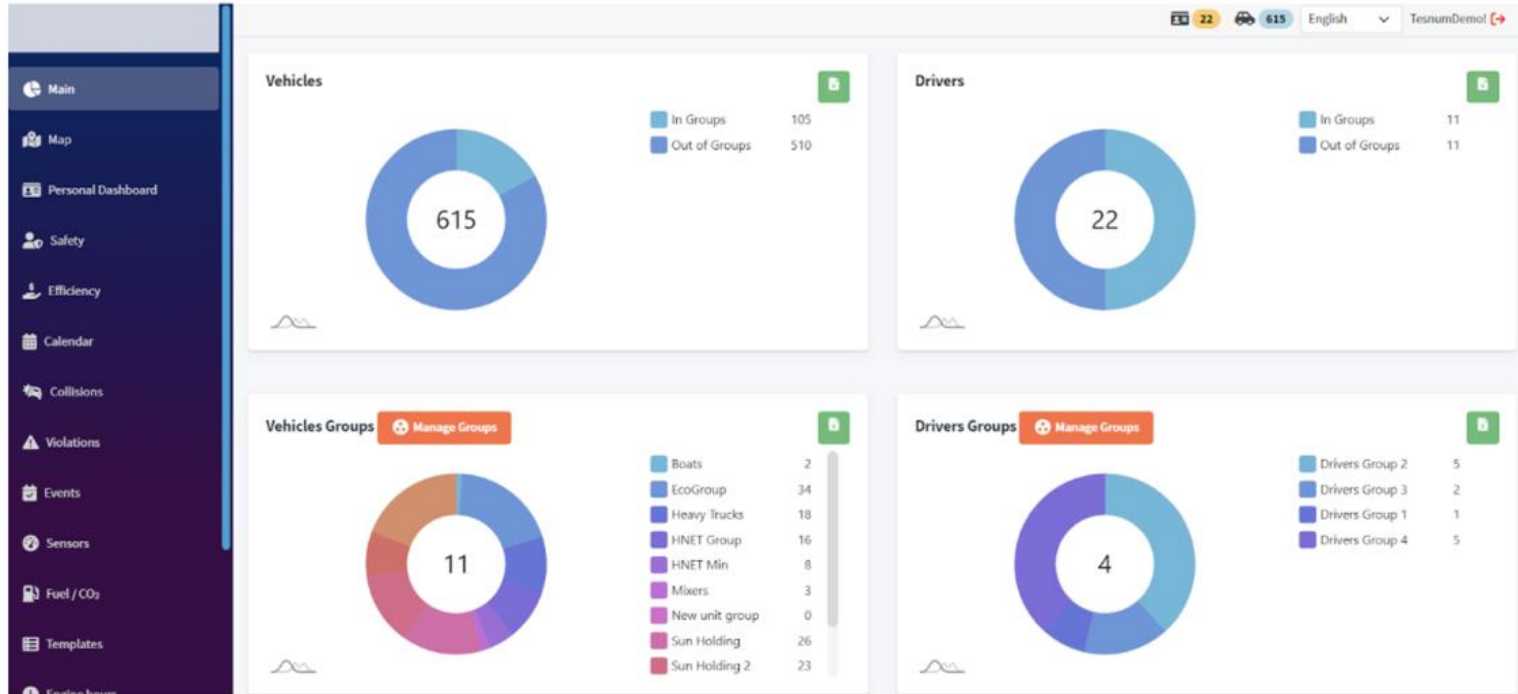
**Waste Management:** To track collection vehicles for route optimization, timely pickups, and compliance with environmental regulations.



**Taxi and Ride-Sharing Services:** To ensure driver safety standards, optimize routes, and enhance passenger experience.



# General Summary view of the fleet

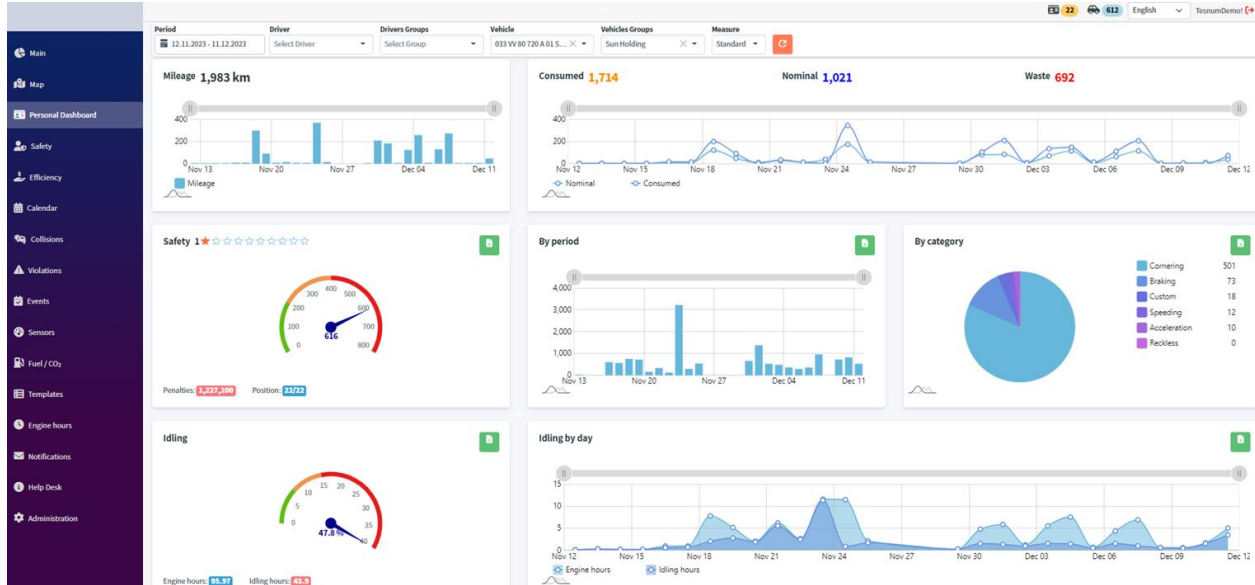


**Create** and **manage** groups of drivers and vehicles, automatically mirrored in the Track3 system.

Eliminating **the need for clients** to switch between Controltech and Track3 for group management.



# General Summary view of the fleet



Provides summary overview for selected vehicles and drivers.

Milage, Safety score, Fuel consumption, Idling and its relevant breakdowns.

Calculates **fuel wastage** for targeted improvements in driving behavior and vehicle maintenance.

**Cumulative** Safety Score for the selected timeframe.

Breakdown by violation types (**cornering, braking, custom violations, acceleration, speeding, reckless**).

Allows **drilling** down to understand specific days of driver performance.





# Safety Dashboard

Period: 12.11.2023 - 11.12.2023 | Driver: Select Driver | Drivers Groups: Select Group | Vehicle: Select Vehicle | Vehicles Groups: Sun Holding 2 | Measure: Standard

Safety 1 ★☆☆☆☆☆☆

NAME	RANK	EVENTS COUNT	MILEAGE	IDLE(%)	SCORE	SPEEDING	ACCELERATION	BRAKING	CORNERING	RECKLESS	CUSTOM
160 CV 61	6.1	41	680 km	46.9	34	25	2	1	5	0	0
37 VP 516	7.7	52	681 km	59	44	28	1	4	11	0	0
033 JO 80 576 C 01 Karen Arakelyan	7.3	264	2,245 km	42.6	56	6	5	9	36	0	0
033 VP 80 259 C 01 Hovhannes Tu...	6.9	203	1,973 km	45.6	69	24	2	2	41	0	0
077 OQ 01	6.7	1154	6,061 km	42	75	27	4	7	27	0	0
033 HH 80 006 C 01 Aram Shahna...	6.6	200	1,217 km	51.2	80	3	6	14	55	0	0
55 RN 755	6.2	946	5,400 km	39.2	98	41	22	12	21	0	0
033 KK 80 574 C 01 Arman Karhanyan	6.1	549	2,464 km	34	101	21	4	12	54	0	0
158 CV 61	6	122	603 km	45.6	103	4	9	13	77	0	0
AG 290 RO	6	1546	7,067 km	32.3	106	28	6	13	57	0	0
033 VY 80 024 666	5.6	62	224 km	57.9	125	3	0	2	120	0	0
033 HR 80 780 C 01 Karen Hovhan...	5.2	372	1,315 km	56.9	149	13	7	42	87	0	0
159 CV 61	4.9	174	600 km	49.6	170	41	1	9	139	0	0
033 NN 80 335 C 01 Gevorg Tovma...	4.6	1239	3,137 km	38.3	194	11	7	30	146	0	0
033 H 80 260 C 01 Robert Petrosyan	4.5	1286	2,524 km	43.5	210	9	5	45	151	0	0
033 VO 80 038 C 01 Grigor Habasya...	4.5	668	1,946 km	58.6	206	50	7	57	92	0	0
033 FF 80 125 C 01 Arak Hovhanna...	4.4	1310	2,790 km	38.4	221	16	7	38	140	0	0

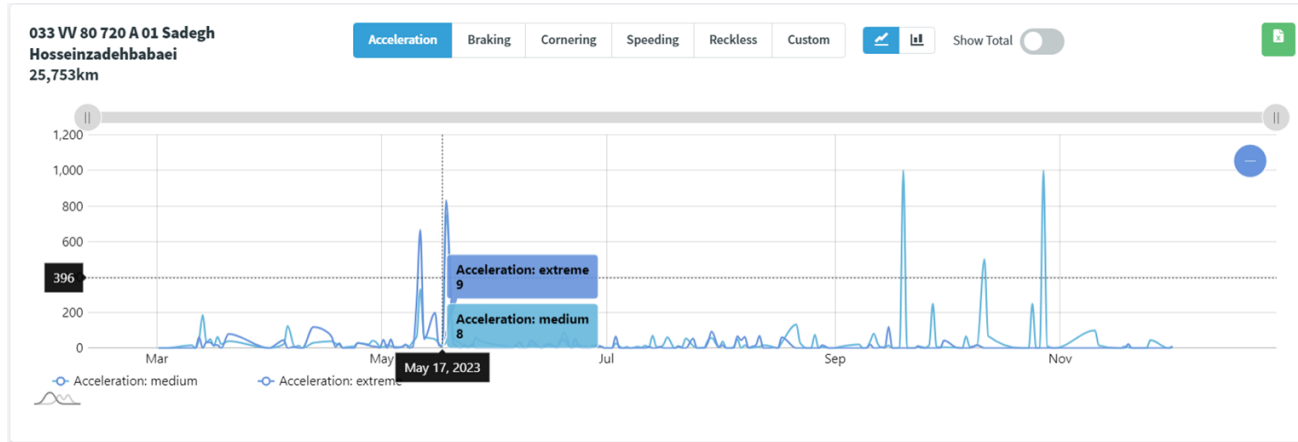
Displays Track3 rank, total violations, mileage, Idling %, and score breakdown by violation types.

Clicking values redirects to detailed Violations dashboard.

Visual cues **highlight** areas of **concern**.  
Customize grading colors and **score** generation.  
Delve into **details** by clicking on specific numbers



# Violations Dashboard



**The Violations Dashboard** analyzes violations for drivers, vehicles, or groups, presenting violation scores on a line chart for each type (**Acceleration, Braking, Cornering, Speeding, Reckless**) with configurable levels (e.g., medium, extreme). Integrated with **Track3**, the definition of an extreme violation is configured within Track3.



# Violations List

VEHICLE	DRIVER	VIOLATION TYPE	DATE	VALUE	PENALTY	SPEED	ADDRESS
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	10/03/2023 23:04:14	0.16	500	60 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, 2.19 км</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 09:55:04	0.16	500	18 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, Нижни</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 12:11:54	0.16	500	5 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, Верхн</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 12:22:26	0.18	500	9 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, Верхн</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 12:32:08	0.18	500	31 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, Верхн</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 12:33:38	0.16	500	28 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, 1.59 км</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: extreme	12/03/2023 12:34:48	0.36	2,000	52 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, 1.96 км</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 12:35:02	0.2	500	77 km/h	<a href="#">A-161, Северная Осетия-Алания, Россия, 1.90 км</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: extreme	12/03/2023 12:39:44	0.34	2,000	4 km/h	<a href="#">Mtskheta-Stepantsminda-Larsi, Mtskheta-Mtianeti</a>
033 VV 80 720 A 01 Sadegh...	Ara Sargsyan	Acceleration: medium	12/03/2023 12:40:16	0.22	500	6 km/h	<a href="#">Mtskheta-Stepantsminda-Larsi, Mtskheta-Mtianeti</a>
Count: 928					701,000		

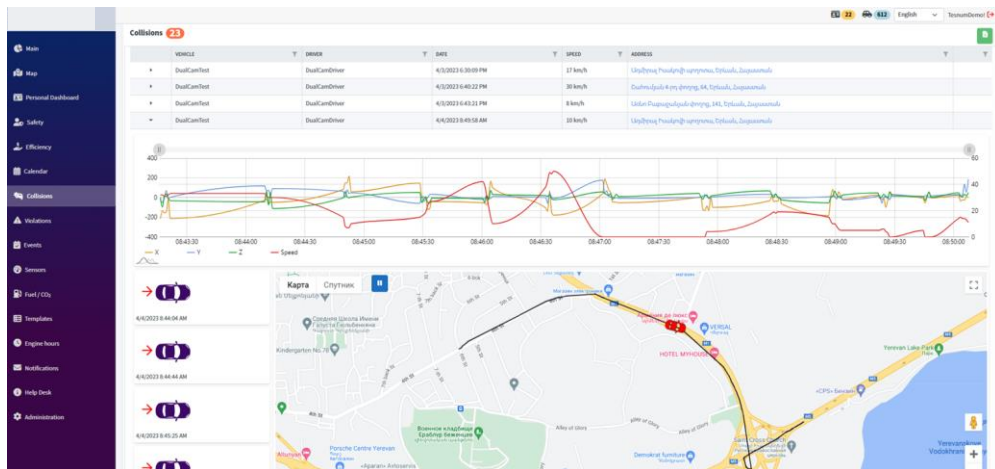
Within the Violation section, users have the capability to select a **specific** period, driver, vehicle and relevant group. The chart illustrates the specific **violations** committed by the driver for the chosen type.



If the necessary dashcam, such as the Teltonika Dual Cam, is connected and configured, users can see a button to view the **photo** and **video** of a violation in the list of violations. Upon clicking this button, a pop-up will open, allowing users to view the moment of the violation.



# Collision Dashboard



**Analyzes** collisions based on vehicle hardware data.

Each accident is **expandable**, providing accelerometer **values** and collision details.

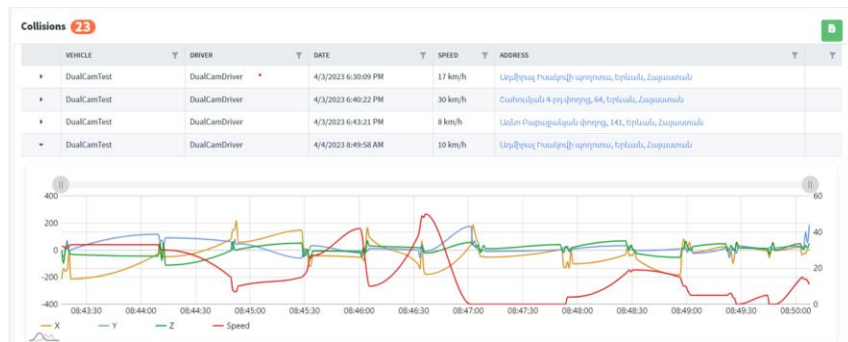
**Animations** on the map depict events before and after the accident.

Displays collision events in **milliseconds**.

Utilizes **special** sensors, automatically created in Track3.

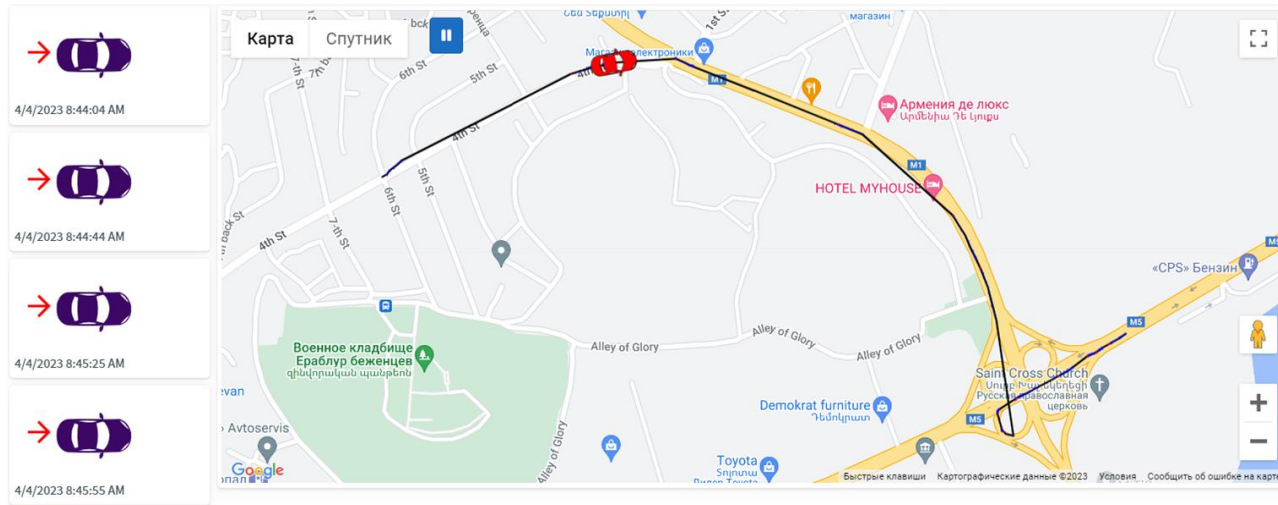
Shows registered **collisions** with vehicle and driver names, date, time, speed, and accident address.

View **photos** and **videos** if configured. Replay collisions on the map for enhanced situational analysis.





# Collision Dashboard









Users can open **individual** collision records for more insights.

Visual representation on the map with an animated sequence illustrating impact **trajectory, speed, and exact time.**

**View impacts, direction, frequency, and angles of vehicle hits.**



# Notifications Dashboard

VEHICLES/DRIVERS	PASSED DAYS	MINIMUM KM	RANK RANGE	DAYS OF THE WEEK	HOURS	
Vehicles 1 Vehicles Groups 2 Drivers 1 Drivers Groups 1	5	1	0 - 5	Monday Wednesday	24	 
Drivers 21	7	100	0 - 5	Monday Wednesday	10	 
Vehicles 565	7	10	0 - 6	Monday	10	 

Set up notifications **based on rank** criteria.

**Define** rank ranges, passed days, minimum kilometers, and active days.

System reviews **selected vehicles meeting criteria** and sends emails.

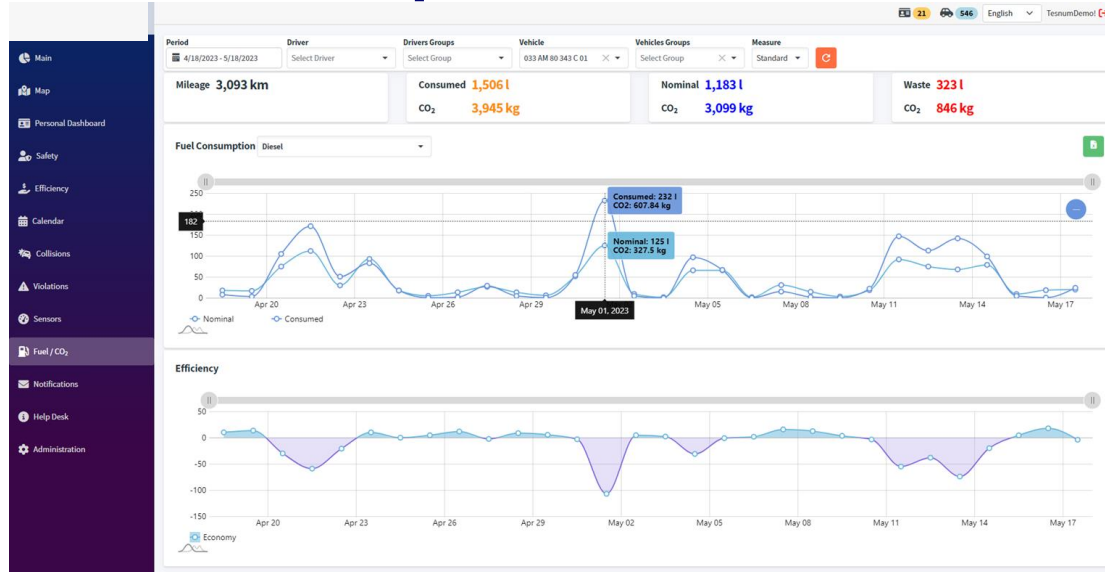
Information compiled into an **Excel** file.

**Automatically** send to the user's designated email address.

Enables **proactive** monitoring and **updates** on vehicle and driver performance.



# Fuel Consumption Dashboard



Vital for fleet management, offering a **comprehensive** view of fuel efficiency. Displays total mileage, actual fuel consumption, and calculates **CO<sub>2</sub>** emissions, based on fuel type. Assists in assessing the fleet's ecological footprint. Compares '**Consumed**' (actual) with '**Nominal**' (expected) values.

**Provides insights for cost-saving measures and budget optimization.**

Chart background color aids in **quick visual analysis**.

Efficiency section **illustrates** the difference between Consumed and Nominal.

**Positive** values denote efficient days, while **negative** values indicate higher consumption.

# Custom Reporting Templates



DOST (R\$)		CO2 emissions		ENERGY CONSUMPTION %			ENERGY CONSUMPTION - kWh			ENERGY COST - R\$			CO2 EMISSION AVOIDANCE		
out peak time	NG (naturO2/kg NG bu.00h up to 16:59h and 20:00h to:			Total	peak time	out of peak time	total	peak time	out peak time	total	peak time	out peak time	total	Hourmeter	kg CO
321.33	[kgNG]	3.00	020-1199)	#VALUE!	(consumed)	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Empowers users to **create intricate report** templates in Excel format.

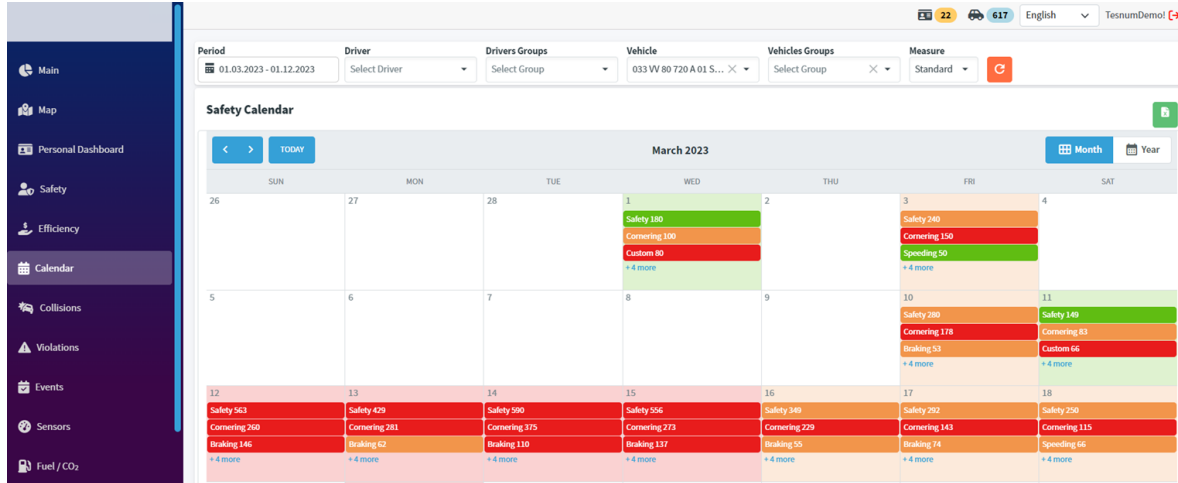
**Allows inclusion of complex formulas** and styling supported by Excel.

- Enables **design** and **implementation** of complex reports without additional expenses.
- Specific rules** for template creation ensure seamless integration.
- Provides a flexible yet structured framework for **diverse reporting** needs.
- Not only addresses immediate client demands but **also anticipates future** needs.
- Put report customization **directly** into the hands of users.





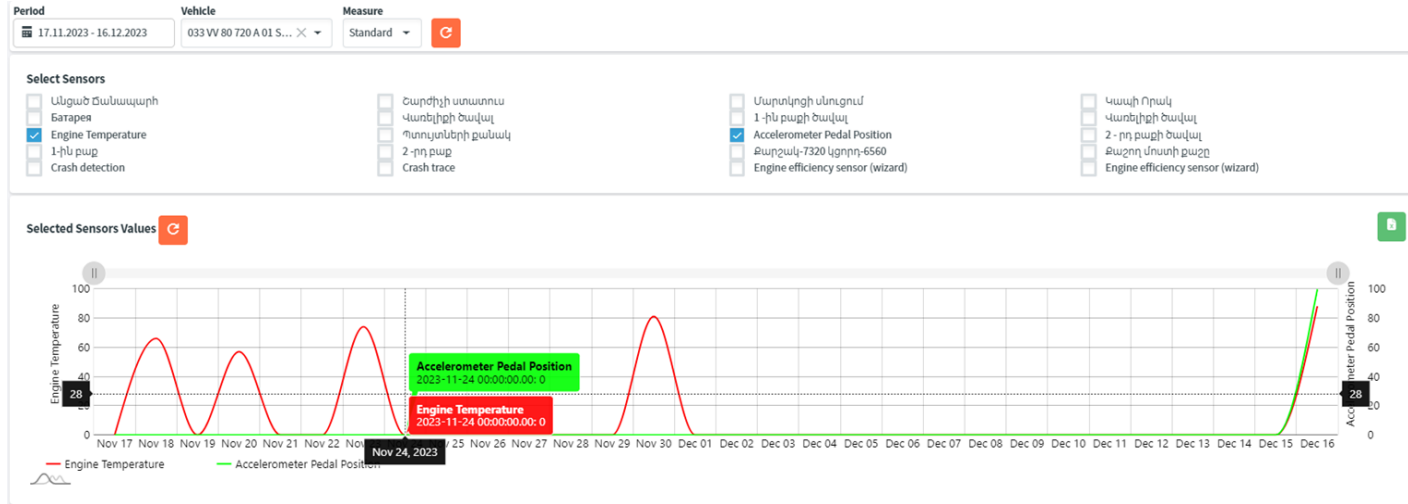
# Calendar Dashboard



Breakdown of Safety and Violations data, visible on the calendar **for each day** in the selected period.  
Switch between **month and year views**.  
Inspect safety scores and **individual** violations for each day.  
**Click on the corresponding number to navigate to the violations dashboard.**



# Sensors Dashboard



Displays all registered **sensors** for the chosen vehicle.

Users can select **multiple** sensors for a single line chart.

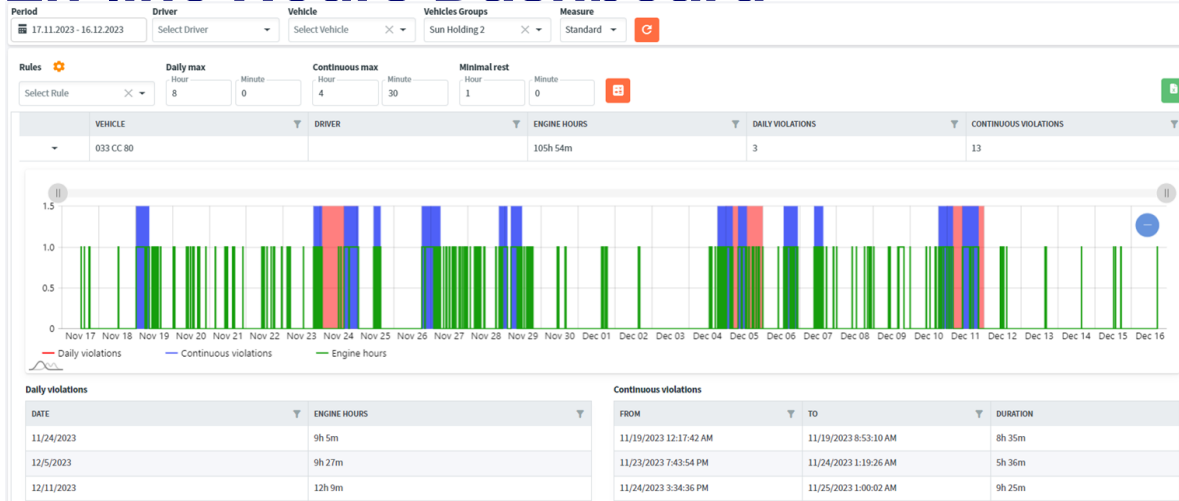
Enables **visualization** of different sensor types (e.g., speed, temperature, fuel) on the same chart.

Line chart uses a **distinctive** approach with the X-axis representing the **timeline** and individual Y-axes for each selected sensor.

Facilitates **comprehensive analysis** of sensor values for each moment within the chosen period.



# Engine Hours Dashboard



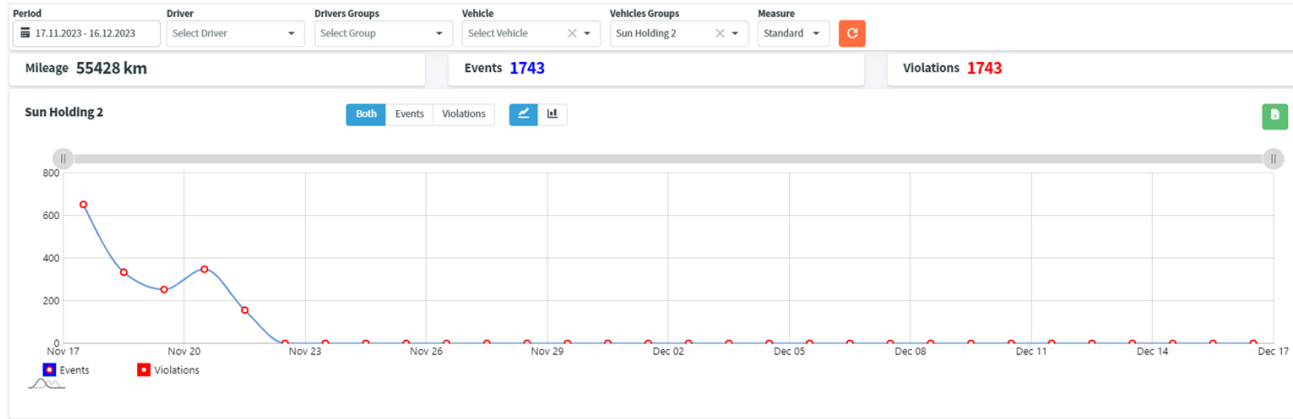
**Configure** driving hours and rest parameters.  
**Set rules** for maximum daily driving hours, continuous driving, and minimal rest.  
**Retroactively analyze** driving hour violations.

Adjust parameters and **recalculate** violations.  
Navigate to rules dashboard for near **real-time execution**.

Receive **email** notifications for engine hour specific custom violations.  
Send commands to GPS trackers for **specific** actions.  
**Create rules** for various violation types with specific actions.  
Implement **custom scenarios** based on unique requirements.



# Events Dashboard

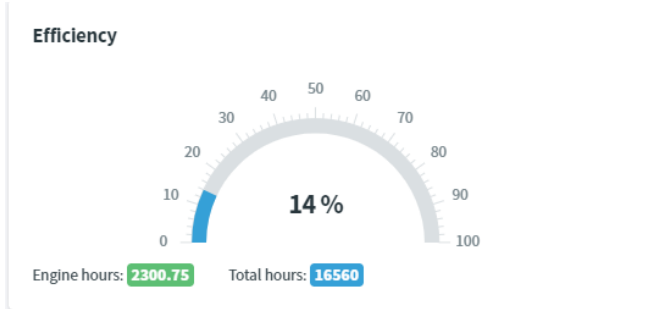


Events can be logged with or without categorization as violations.  
Centralized dashboard for **registered events** and associated violations.  
Fleet operators can establish **custom** rules.  
Tailored rules for local requirements or **industry-specific scenarios**.



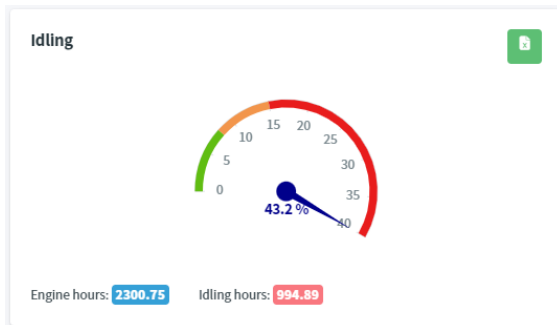
# Efficiency Dashboard

## General Efficiency



**Total Hours:** Calculates the total number of hours in the selected period, multiplied by the number of items in the chosen group for group-level monitoring.

**Engine Hours:** Reflects the total number of hours the engine (or engines, in the case of a group) has been operational.



**Idling:** Highlights the total engine hours and calculates the percentage of idling engine hours against the total engine hours.