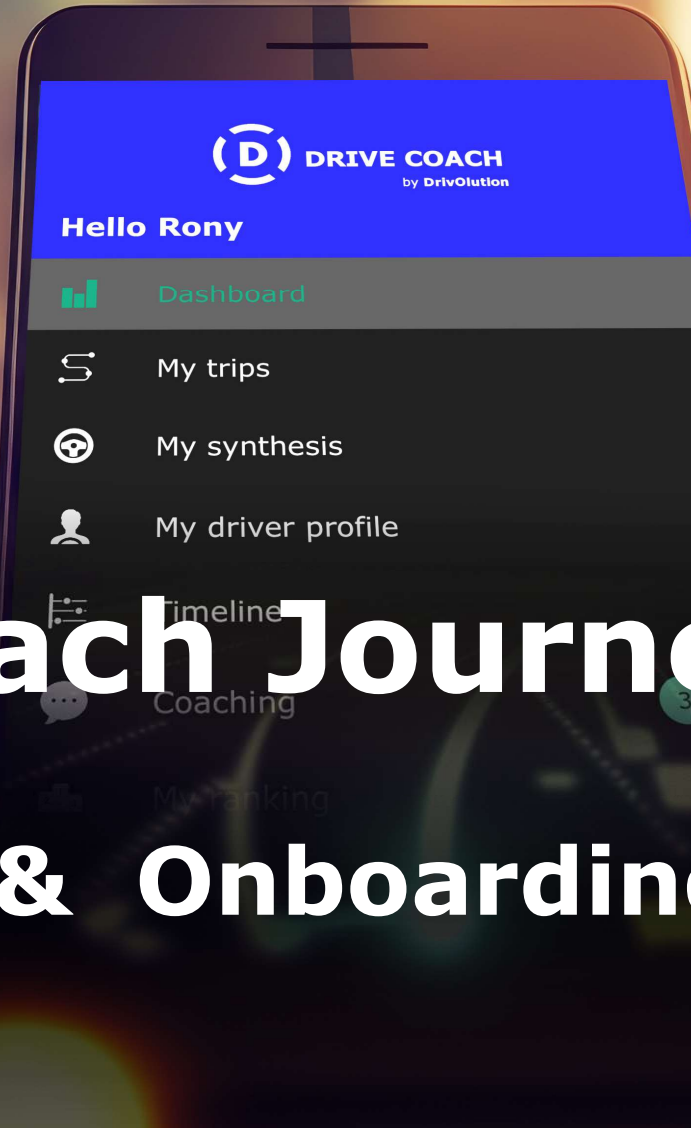


DRIVOLUTION 



# Drive Coach Journey

## User Policy & Onboarding Manual

# Drive Coach Journey: User Policy & Onboarding Manual

- Table of contents
  - Drive Coach installation & configuration
  - Drive Coach Journey: How does it work?
  - Drive Coach GDPR Compliance for employer & employee

# Drive Coach

## Installation & configuration

# 1) Installation and account creation

Links to download:

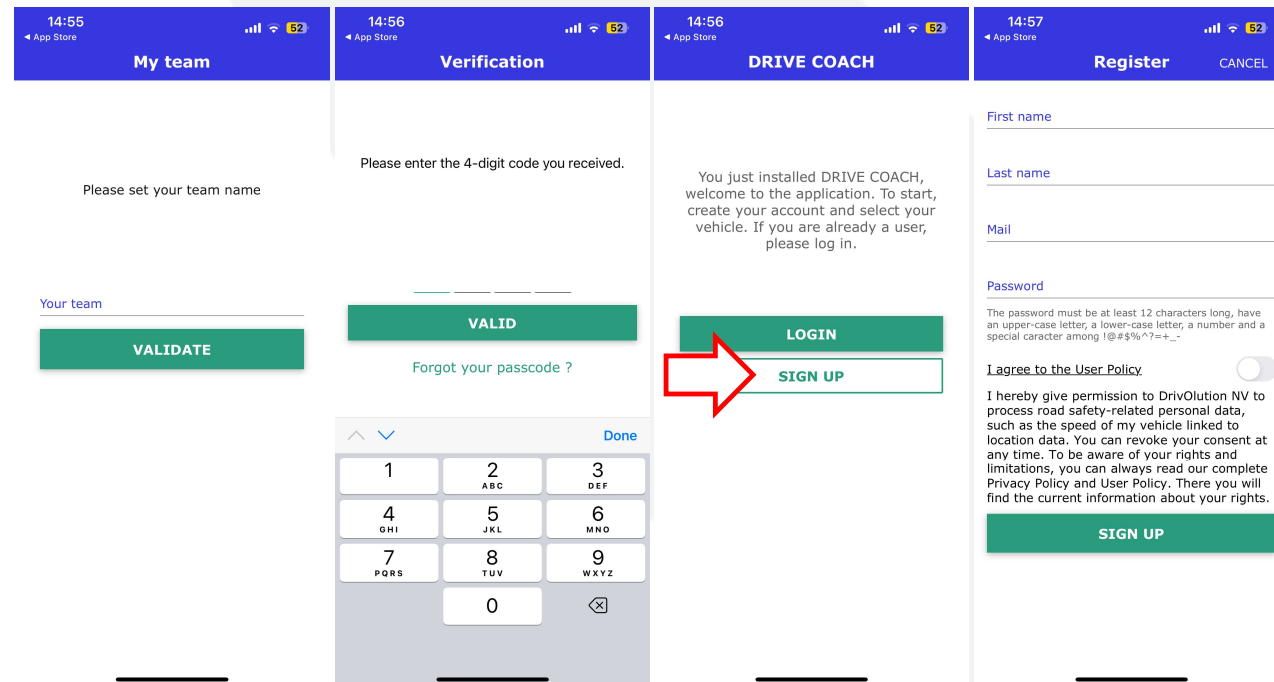


Or search « DRIVE COACH by DrivOlution » directly on stores

Once the app is installed, a user can create an account:

- team name: e.g. **drivolution-dc**
- Security code: e.g. **1234**
- Click « **sign up** »
- First name, last name, email & password as preferred

The app then request access to sensors so it can work properly in the background

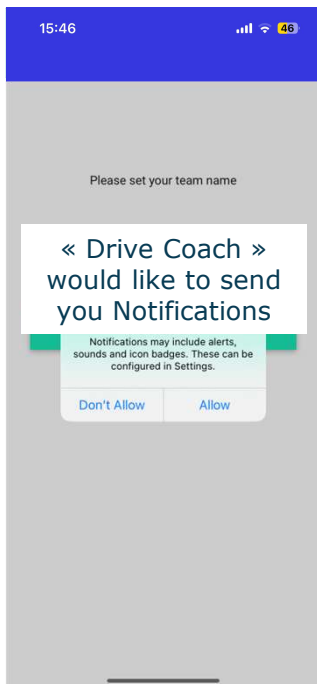


## 2a) App permissions

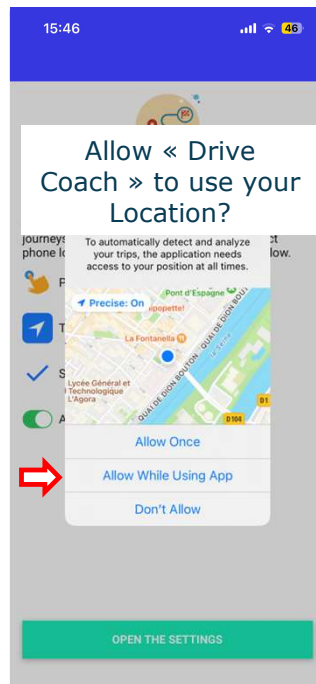


In order for the application to automatically detect and analyse background journeys on iOS, it is necessary to accept the requested permissions(\*) :

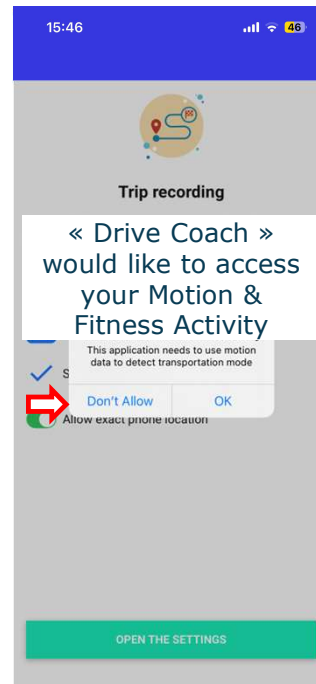
### Notifications



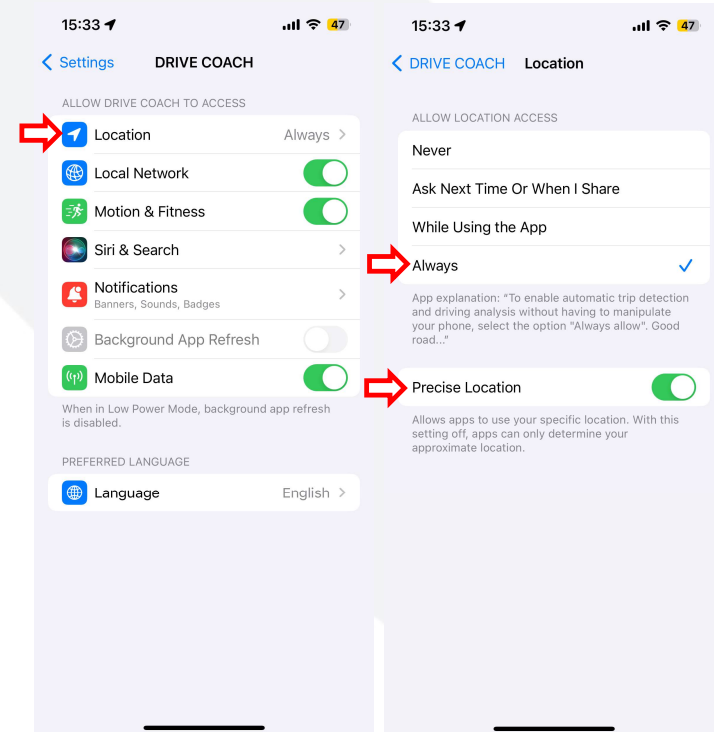
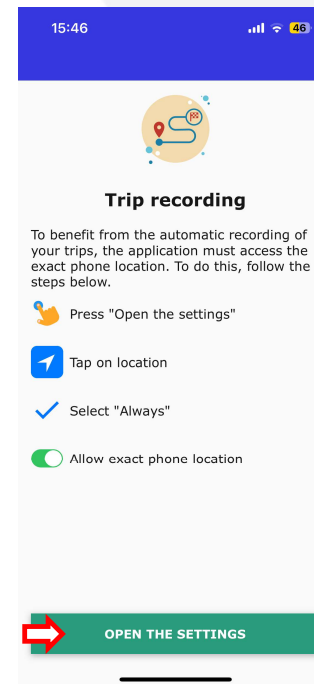
### Location sharing



### Motion data



### Access to « Precise location » and « always »



(\*) depending on the phone or iOS version, some steps may differ or not appear

## 2b) App permissions



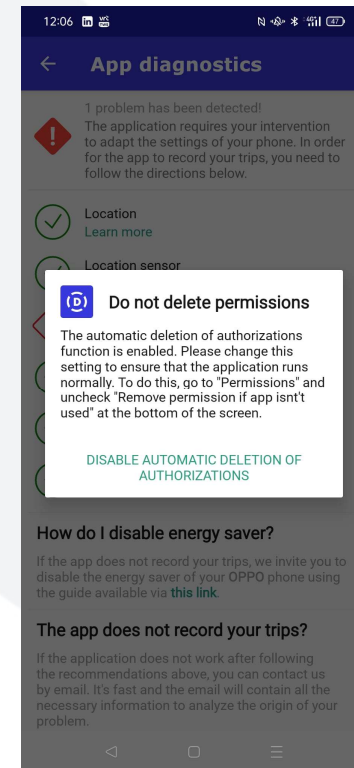
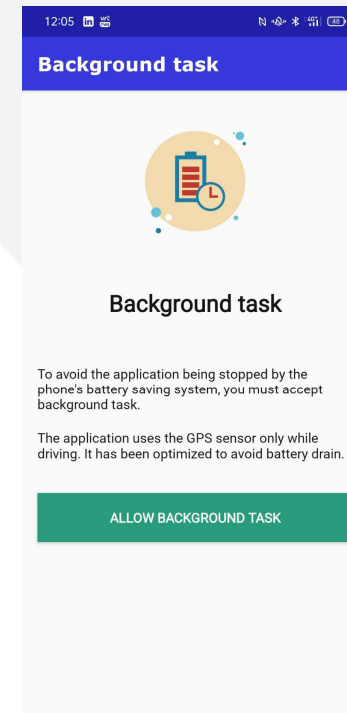
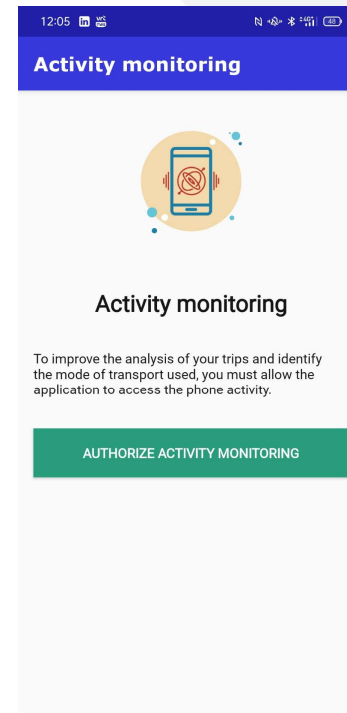
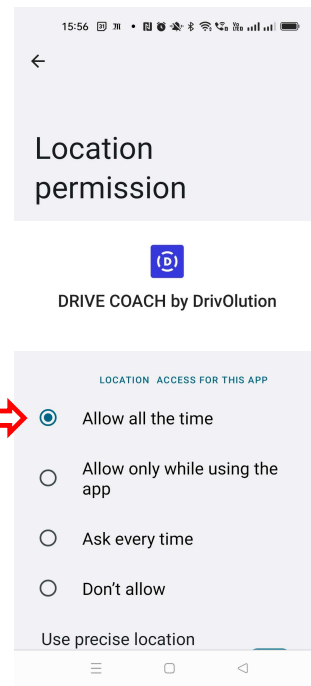
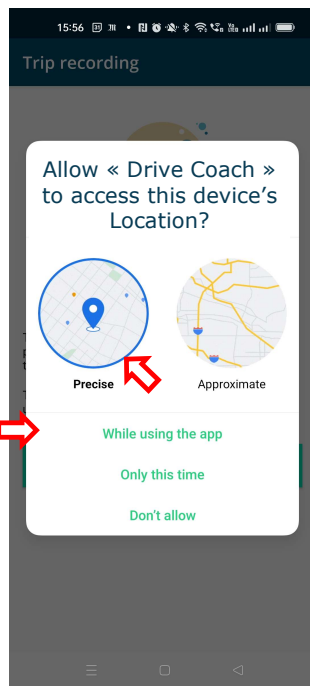
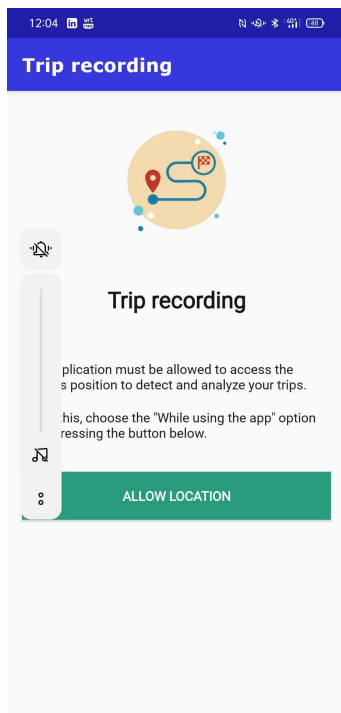
In order for the application to automatically detect and analyse trips in the background on Android, it is necessary to accept the requested permissions(\*) :

Location permission: Precise + All the time

Activity

Background task

Authorizations

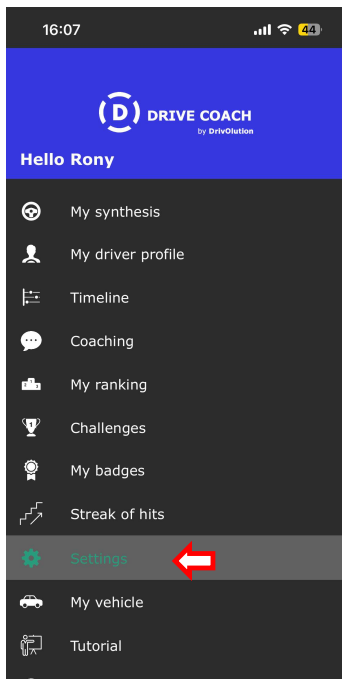


(\*) depending on the phone or Android version, some steps may differ or not appear

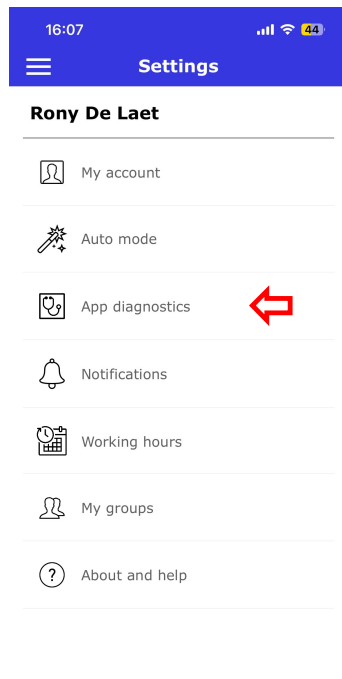
## 2c) App diagnostics check

Open the App diagnostics menu to check for errors(\*) :

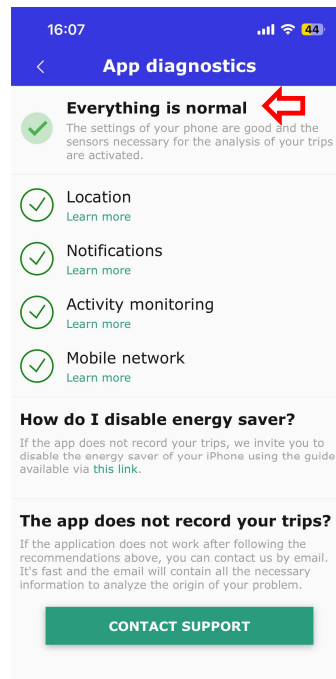
Open the settings menu



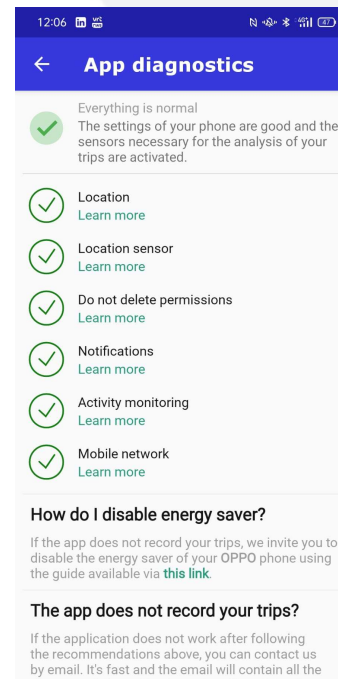
Open the App diagnostics menu



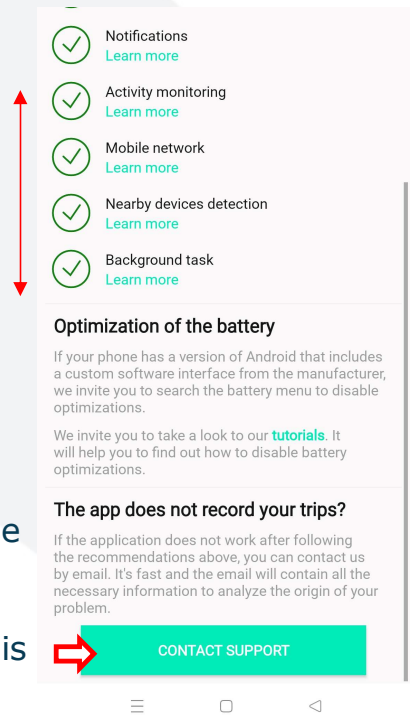
IOS



Android



Scroll down



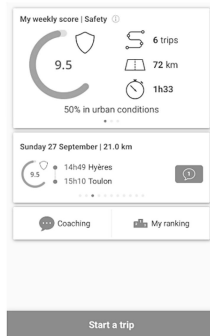
Finally, in case of difficulty, contact the support via this button

(\*) depending on the phone or Android version, some steps may differ or not appear

### 3) Welcome tutorial

A welcome tutorial gives an overview of the different functions of the app

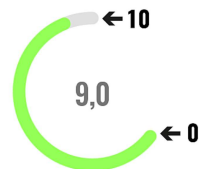
Scroll sideways through the screens



#### Dashboard

The dashboard displays your score and statistics for the current week. It includes shortcuts to start a trip manually, to view your last trip and to access your timeline.

1 / 10



GAUGE COLOR



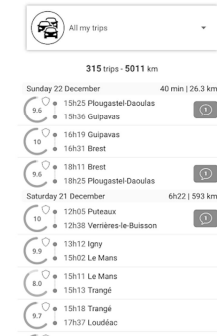
#### Safety score

The score ranges from 0 to 10 and is accompanied by a gauge. The fill level highlights the score and its color corresponds to an appreciation that depends on the context of your journey.

2 / 10



Quit at any time to go to the last step



#### List of trips

Find your trips in a list sorted chronologically. Select a trip to display details on a map.

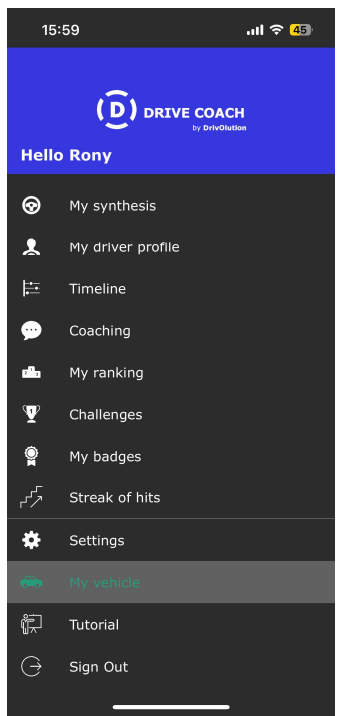
3 / 10



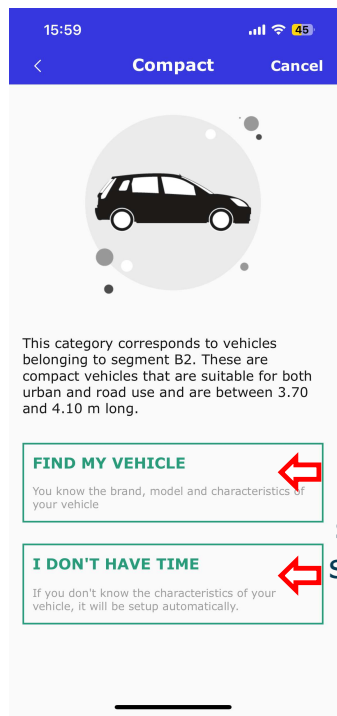
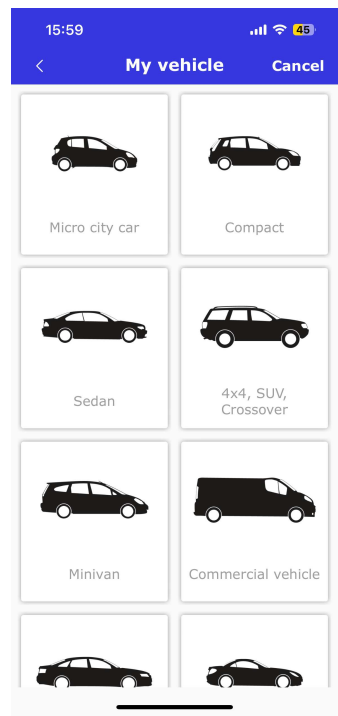
# 4) Vehicle Configuration iOS & Android

To estimate certain driving events and energy consumption, the app requires the creation of a virtual vehicle

Light vehicles or trucks

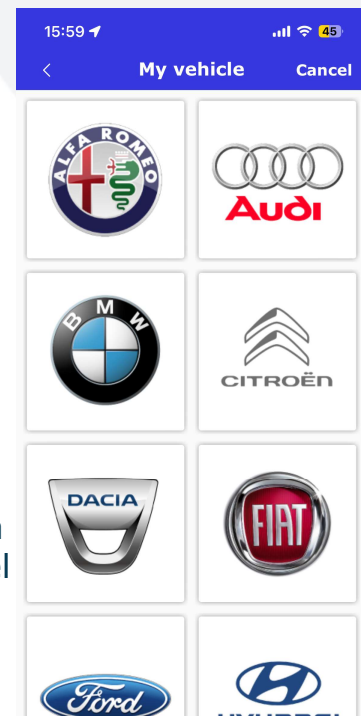


Type of vehicle selection

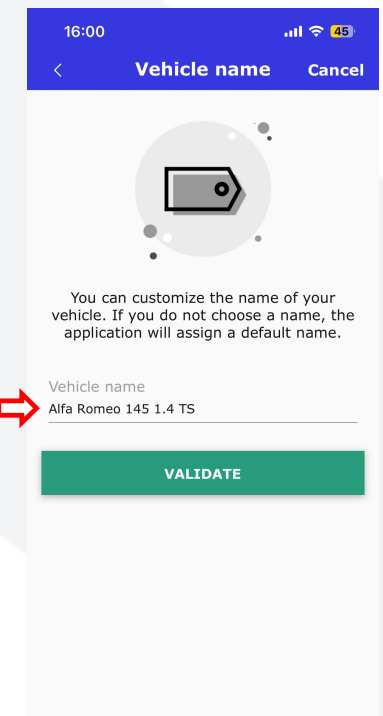


Validation or selection of a specific model

(Optional) Selection of the exact model



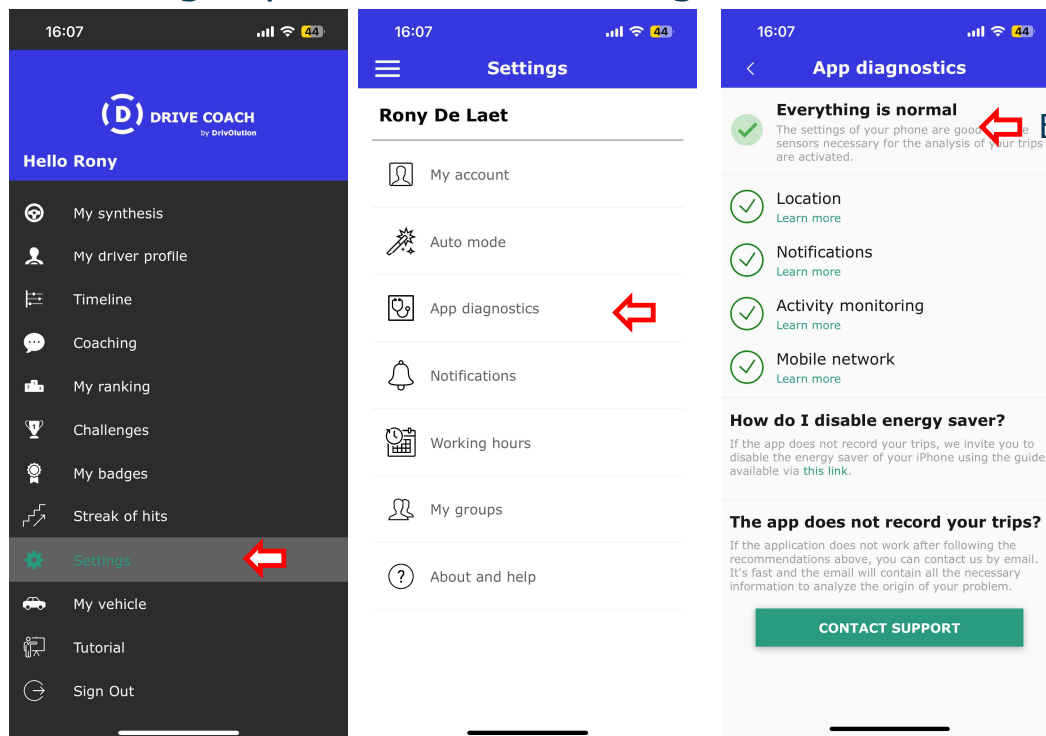
Possible renaming of the vehicle



## 5) Ready to drive!

The app is now able to detect and analyse journeys automatically. Even if the app prompts it, there is no need to manually trigger a recording of a trip.

### Missing trips? Consult the diagnostic menu

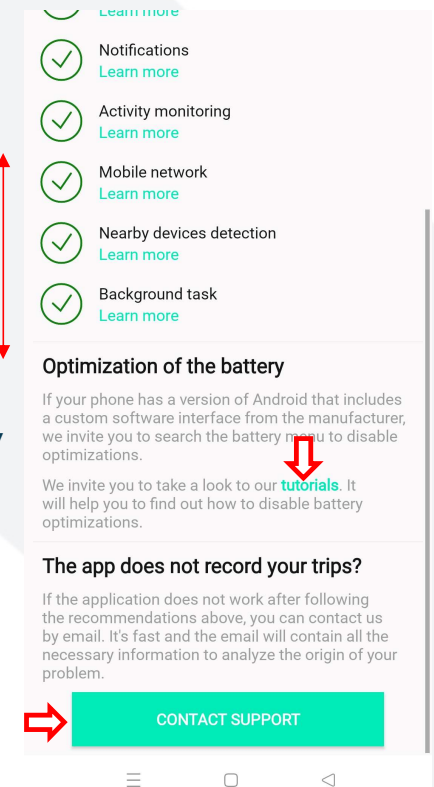


Everything must be green

Scroll down




On some Androids it is necessary to disable battery optimization (click « tutorial »)  
Don't worry, the app is battery-friendly by design!

Finally, in case of difficulty, contact the support via this button



## 6) Option : Working hours schedule configurator

It is possible to customise the driving analysis ranges (e.g. exclude off-duty hours)




16:07    44

**DRIVE COACH**  
by Drivolution

Hello Rony

- My synthesis
- My driver profile
- Timeline
- Coaching
- My ranking
- Challenges
- My badges
- Streak of hits
- Settings**
- My vehicle
- Tutorial
- Sign Out

---




16:07    44

**Settings**

Rony De Laet

- My account
- Auto mode
- App diagnostics
- Notifications
- Working hours**
- My groups
- About and help

---

16:14    44

**Working hours** ✓

Enable working hours  ← Enable working hours

This feature configures the automatic trip recording periods and labels the trips.

Within the time range **Business** ↓

Outside the time range **Personal** ↓ ← On the "outside" range select "disabled"

MON  08h00 ————— 18h00

TUE  08h00 ————— 18h00




WED  08h00 ————— 18h00

THU  08h00 ————— 18h00

FRI  08h00 ————— 18h00

SAT  00h00 ————— 23h59

---

16:14    44

**Working hours** ✓

Enable working hours

This feature configures the automatic trip recording periods and labels the trips.

Outside the time range **Personal** ↓

MON  08h00 ————— 18h00

TUE  08h00 ————— 18h00

WED  08h00 ————— 18h00

THU  08h00 ————— 18h00

FRI  08h00 ————— 18h00

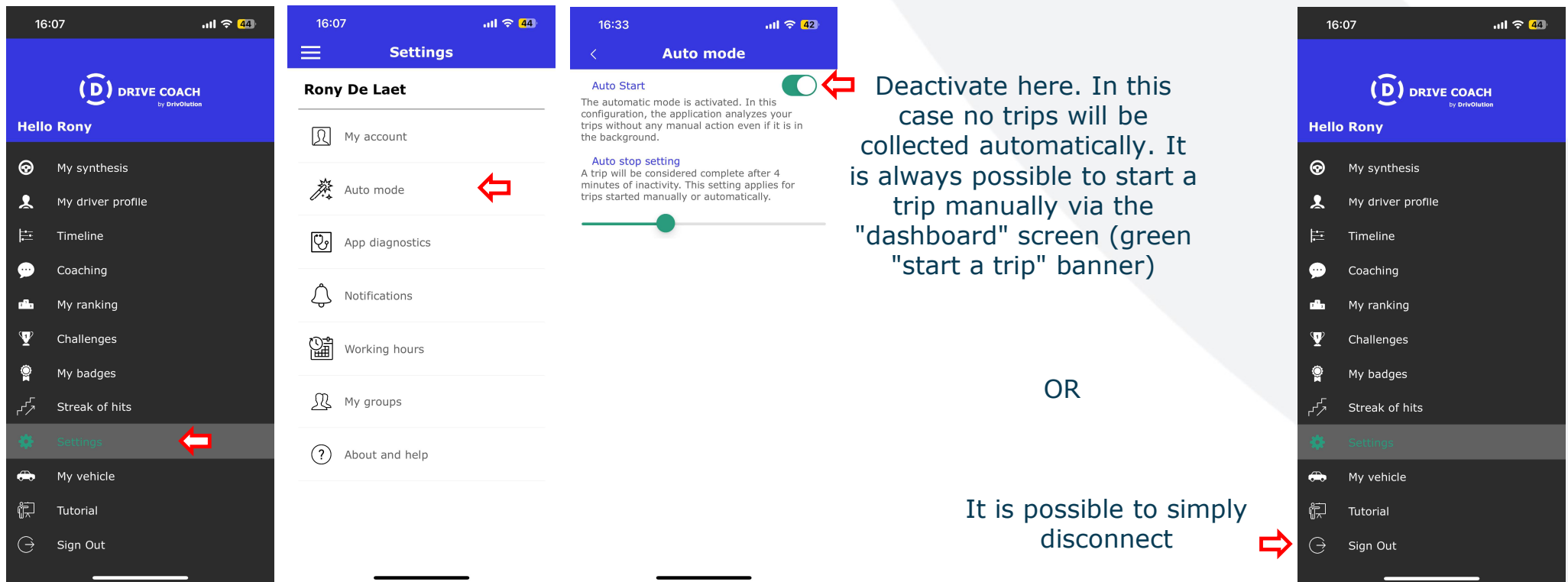
SAT  08h00 ————— 18h00

SUN  08h00 ————— 18h00

↑ Scroll and select the active days and times allowed ↓

## 7) Deactivation of the app

It is possible to deactivate the automatic collection of trips



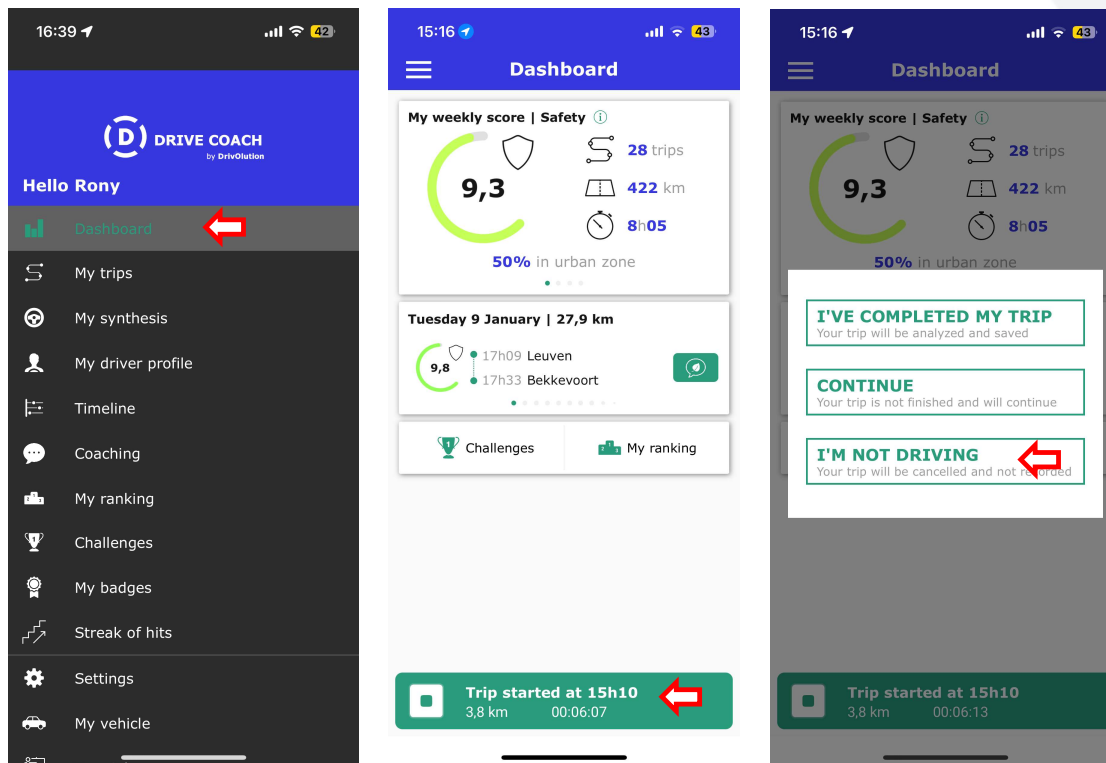
Deactivate here. In this case no trips will be collected automatically. It is always possible to start a trip manually via the "dashboard" screen (green "start a trip" banner)

OR

It is possible to simply disconnect

## 8) How to stop a trip recording?

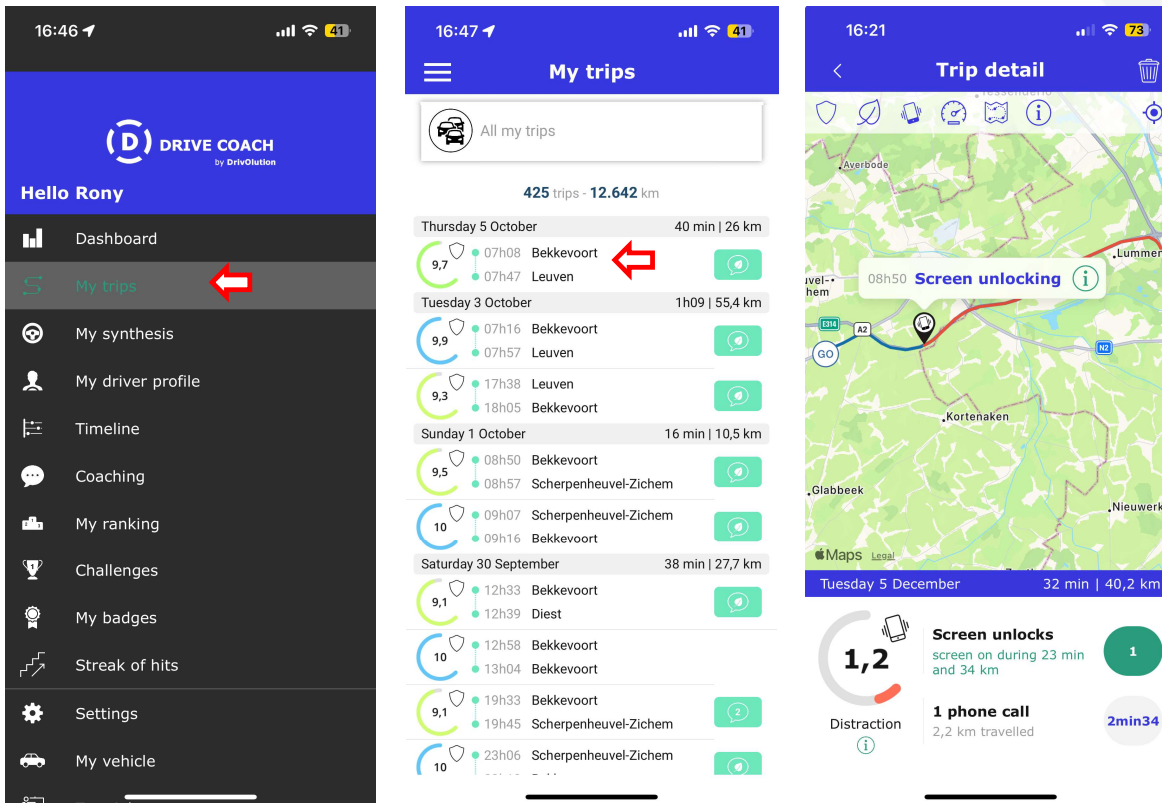
Open the dashboard & click « stop recording »



The trip will be deleted. It will not be analysed, or added to the scores.

## 9) How to delete a trip?

It is possible to manually delete a trip



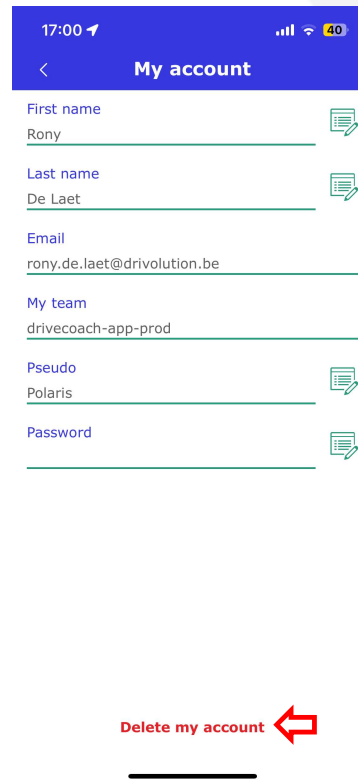
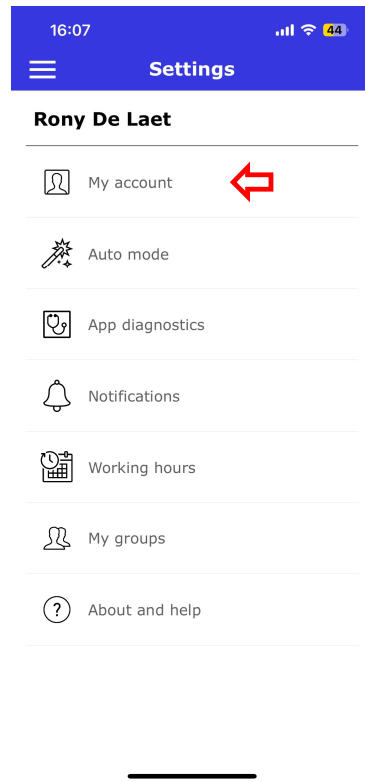
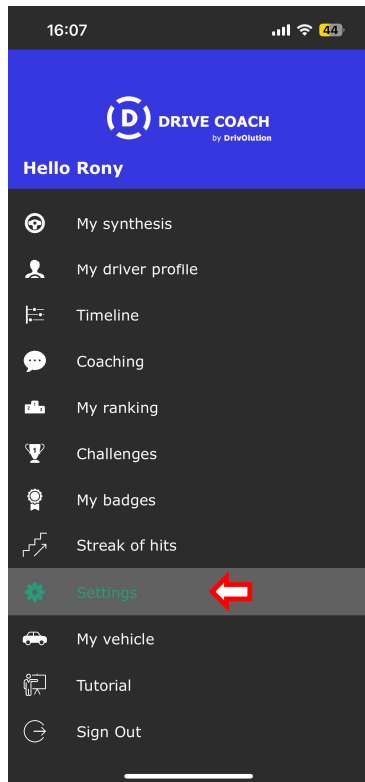
Open « My trips ». Select a trip in the list. Click on the dust bin in the right upper corner. Confirm the « Delete trip? » message.

Deleted trips can not be recovered.

Trip deletion does not change the values of the aggregated data or the scores. It is not possible to recalculate the scores after a trip removal.

## 10) How to delete your account?

It is possible to delete your account and all your data

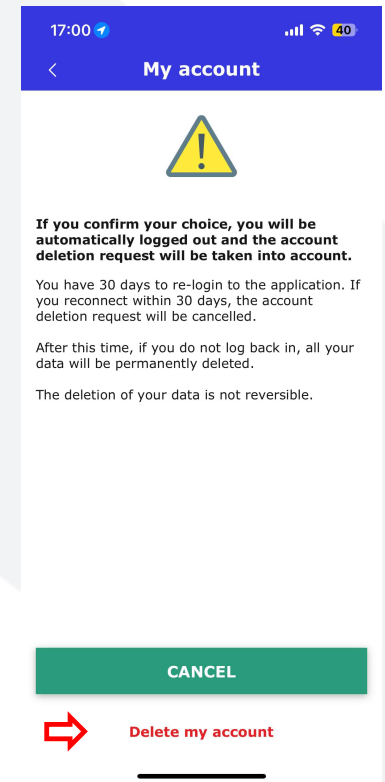


Open « Settings ».

Select « My account ». Click at the bottom on « Delete my account »

Confirm: click on « Delete my account »

Account deletion comes with a 30 days reflection period. If you don't reconnect, all data will be permanently deleted!



# Drive Coach Journey

## How does it work?



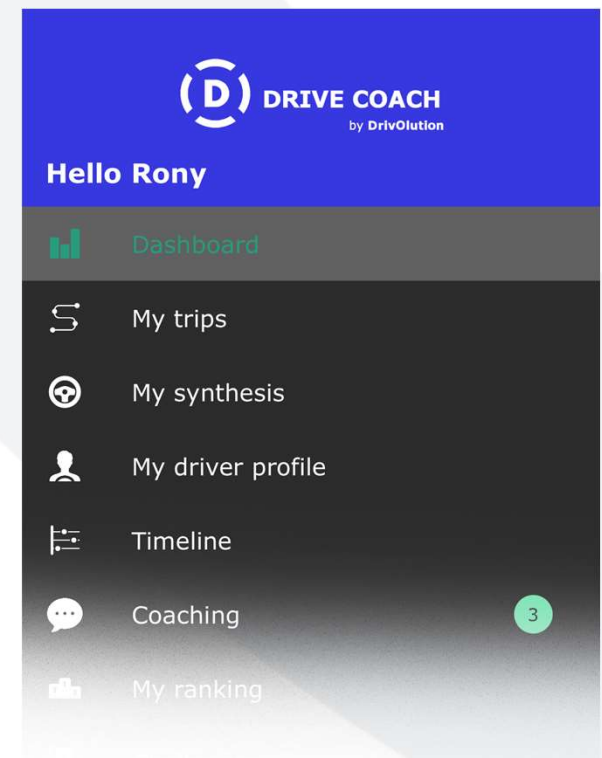
# Drive Coach Journey: How does it work?



# Drive Coach Journey: How does it work?

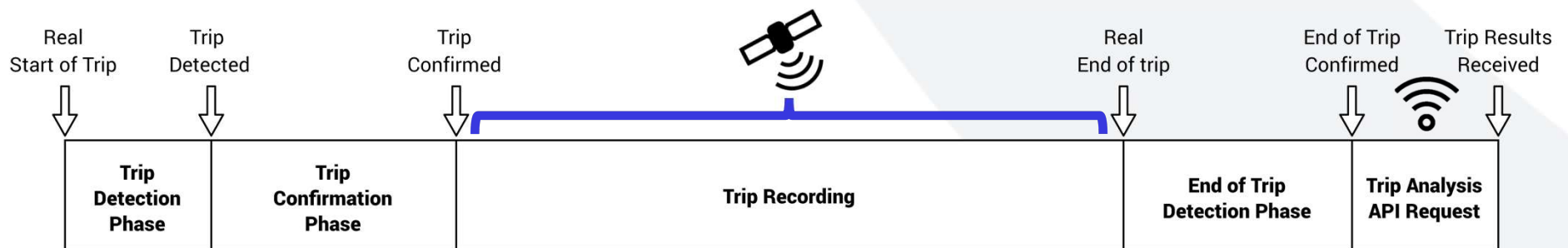
## Data Collection



- **Drive Coach** collects GPS & motion data
- In the background / no need to open the app
- **Drive Coach** uses low energy sensors/mechanism to detect a trip start
- GPS is disabled until a trip start is detected
- **Drive Coach** only captures motored trips



# Drive Coach Journey: How does it work?

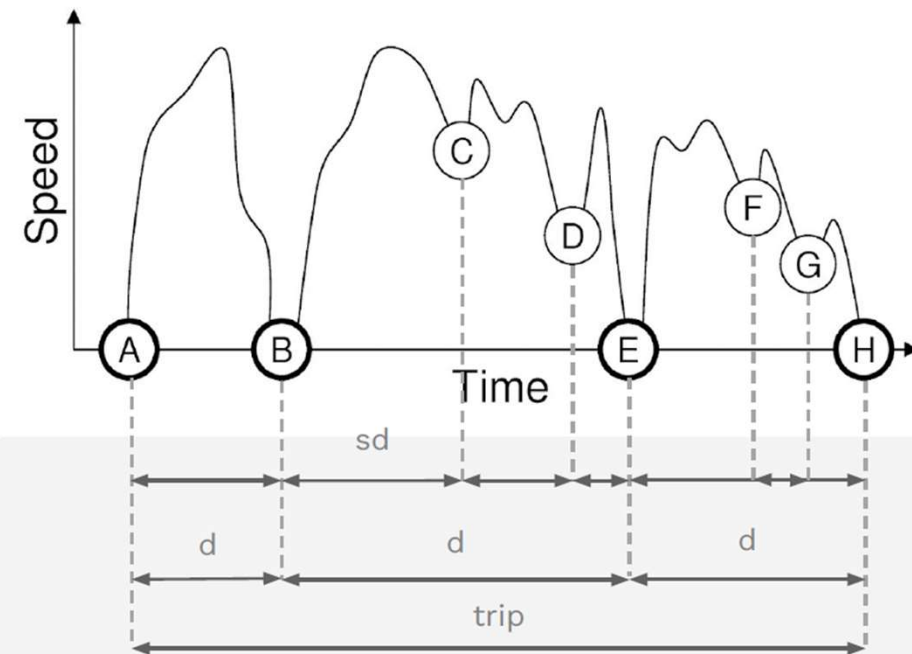
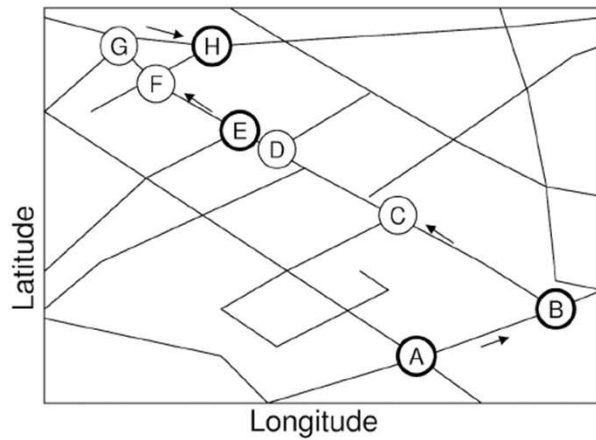
## Trip Recording



- GPS is only enabled once a trip is confirmed 
- 1 Hz GPS recording locally for the entire trip
- End of trip detection: automatic stop after 4 min timeout, GPS is disabled
- Trip analysis: only after end of trip detection
- Data are pushed to backend for processing 
- Trip results are available in less than 2 minutes in the **Drive Coach** app

# Drive Coach Journey: How does it work?

## Trip Recording

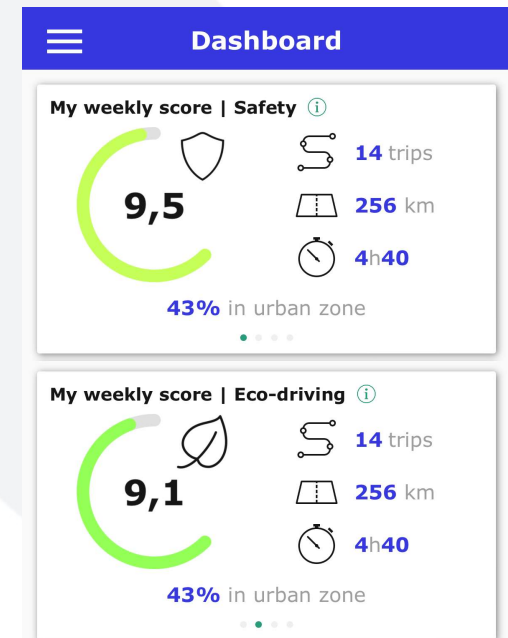


# Drive Coach Journey: How does it work?

## Scoring Overview

**Drive Coach** calculates 4 scores for driver assessment

<b>Safety</b>	Acceleration, braking, cornering
<b>Ecodriving</b>	Energy / fuel economy
<b>Distraction</b>	Smartphone interactions
<b>Speeding</b>	Speed limit awareness

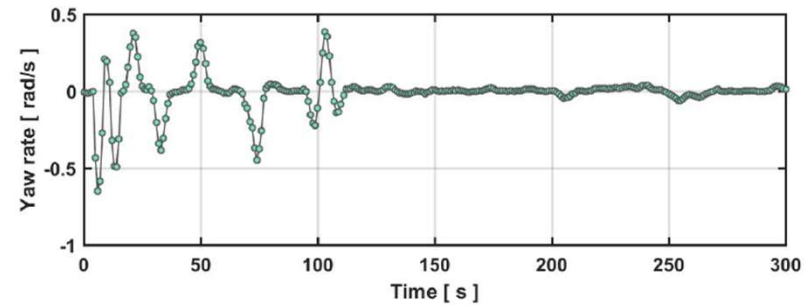
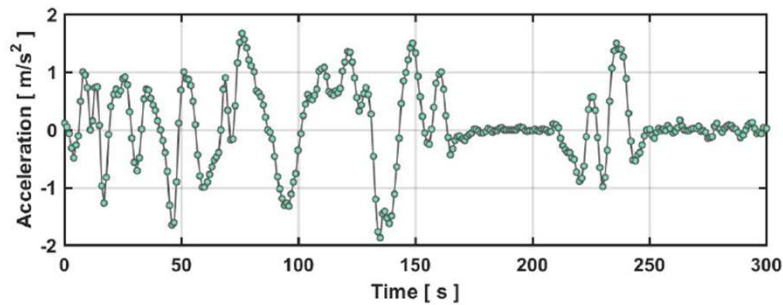
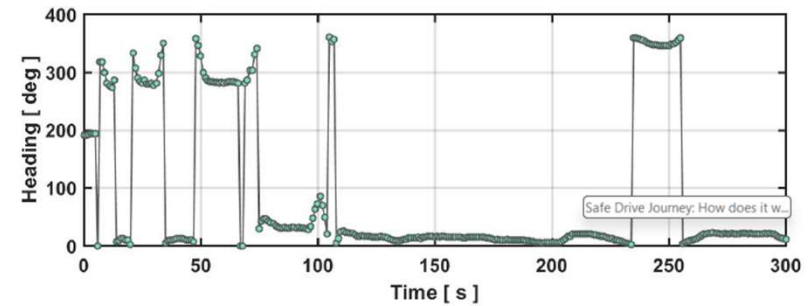
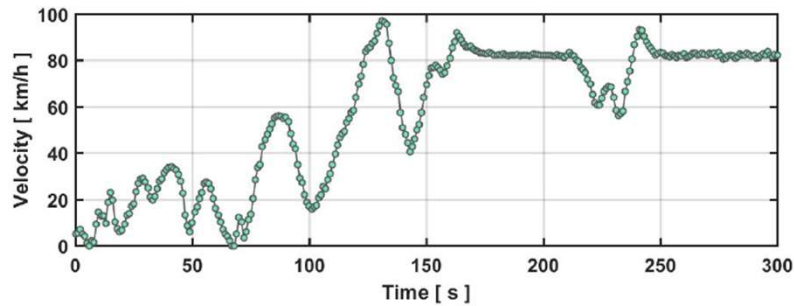


**!The scores are developed to make drivers aware, not to judge them!**

# Drive Coach Journey: How does it work?

## Safety Score

Acceleration and yaw rate are computed from GPS velocity and heading



# Drive Coach Journey: How does it work?

## Safety Score

The safety score is a decreasing function of the **number of safety events per 100 km**

3 types of safety events : **acceleration, braking** and **adherence**

As far as the number of safety events increases, the score decreases

Acceleration, braking and adherence events are equally weighted

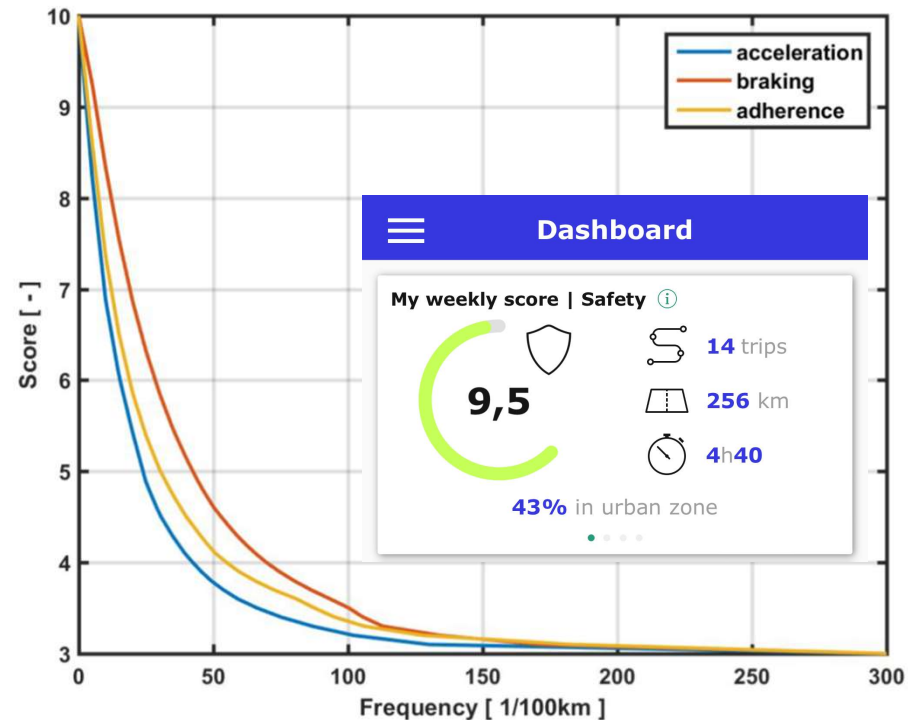
Type of event	Unit	Strong	Harsh
Acceleration	m/s <sup>2</sup>	2.0	2.5
Braking	m/s <sup>2</sup>	-1.8	-2.4
Adherence limit	-	0.2	0.3

# Drive Coach Journey: How does it work?

## Safety Score

The safety score is a decreasing function of the **number of safety events per 100 km**

The safety score = average of the event scores of Acceleration, Braking and Adherence



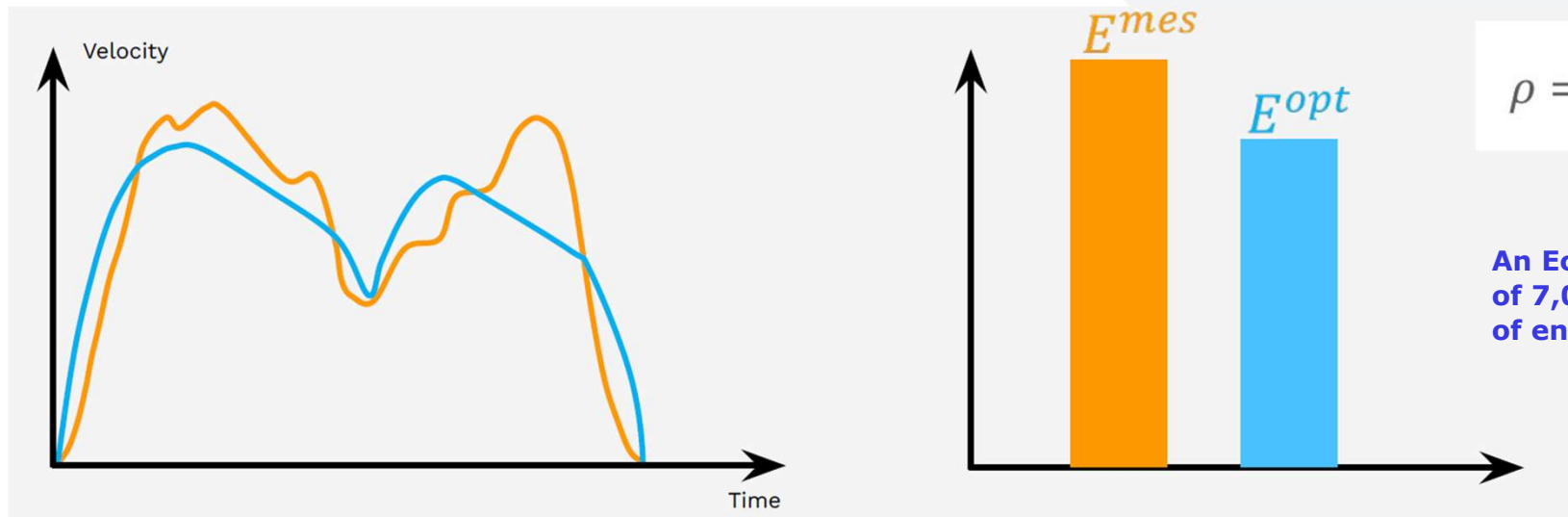


# Drive Coach Journey: How does it work?

## Ecodriving Score

The approach is based on research work done on physics modelling of the vehicle, in collaboration with car manufacturers. It compares the **measured velocity curve** with the **optimal velocity curve**. From the velocity curve the energy consumption is calculated.

The score is the ratio the energy consumption  $E^{\text{measured}}/E^{\text{optimal}}$  of a trip.

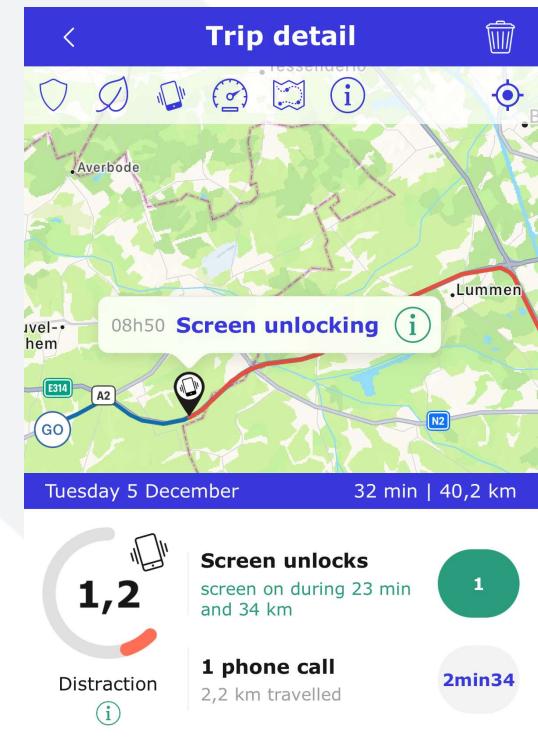


# Drive Coach Journey: How does it work?

## Distraction Score

Distraction score relies on two subscores

- **Phone unlock score** relies on phone unlock events /100km
- **Phone call duration** identified by analysing the audio system (microphone & speaker of the smartphone or car kit)
- **Authorised / forbidden calls** depend on the use or absence of a handsfree car kit
- Calls made with a handsfree car kit are allowed & not scored!

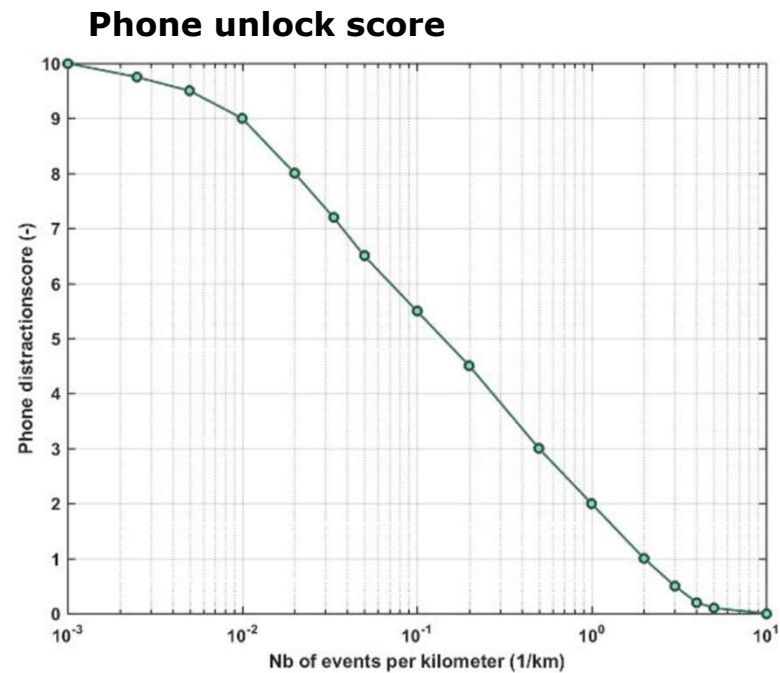


**!The distraction score is not a measure for checking hands-free calling in traffic!**

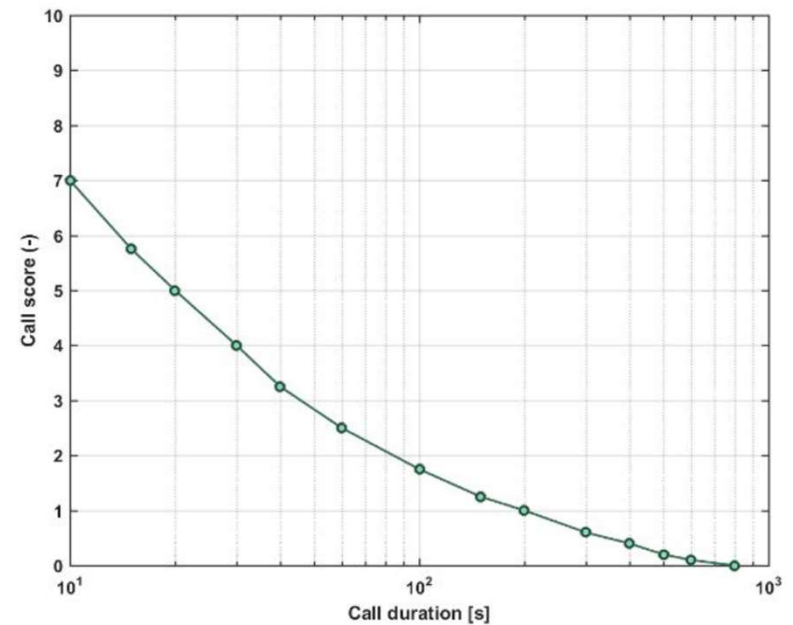
# Drive Coach Journey: How does it work?

## Distraction Score

Distraction score relies on two subscores:



& **Forbidden Call score (which is stricter!)**



# Drive Coach Journey: How does it work?

## Speeding Score

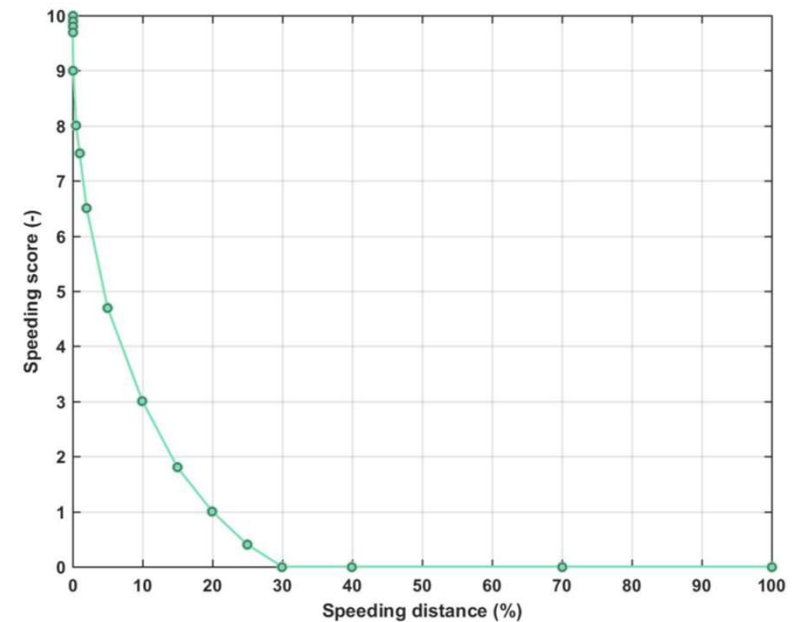
The goal of the **Drive Coach** speeding score is to create a ***speed limit awareness***.

It is designed in such a way that the score cannot be used to trace traffic violations.

Speeding distance is computed from the measured GPS speed and the speed limit data from Here Maps.

The Speeding Score is a measure of the relative speeding distance, not the relative speed difference.

The score decreases as far as the relative speeding distance increases

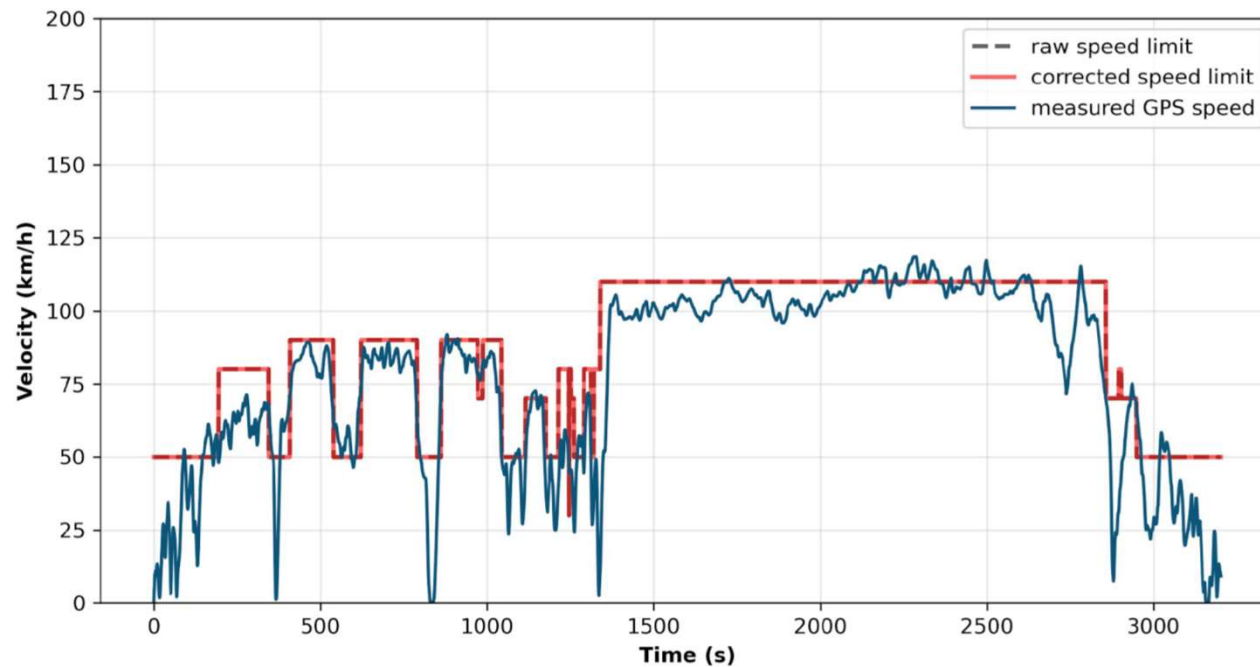


**!The speeding score is not a means to judge speeding violations!**

# Drive Coach Journey: How does it work?

## Speeding Score

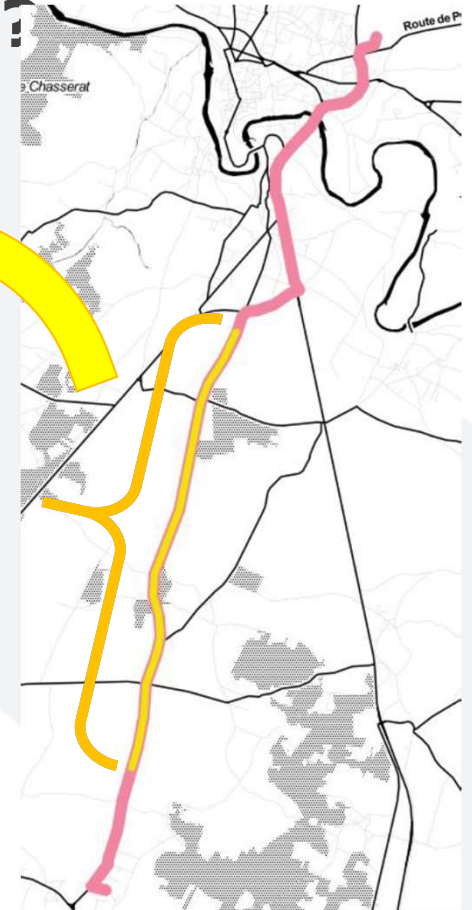
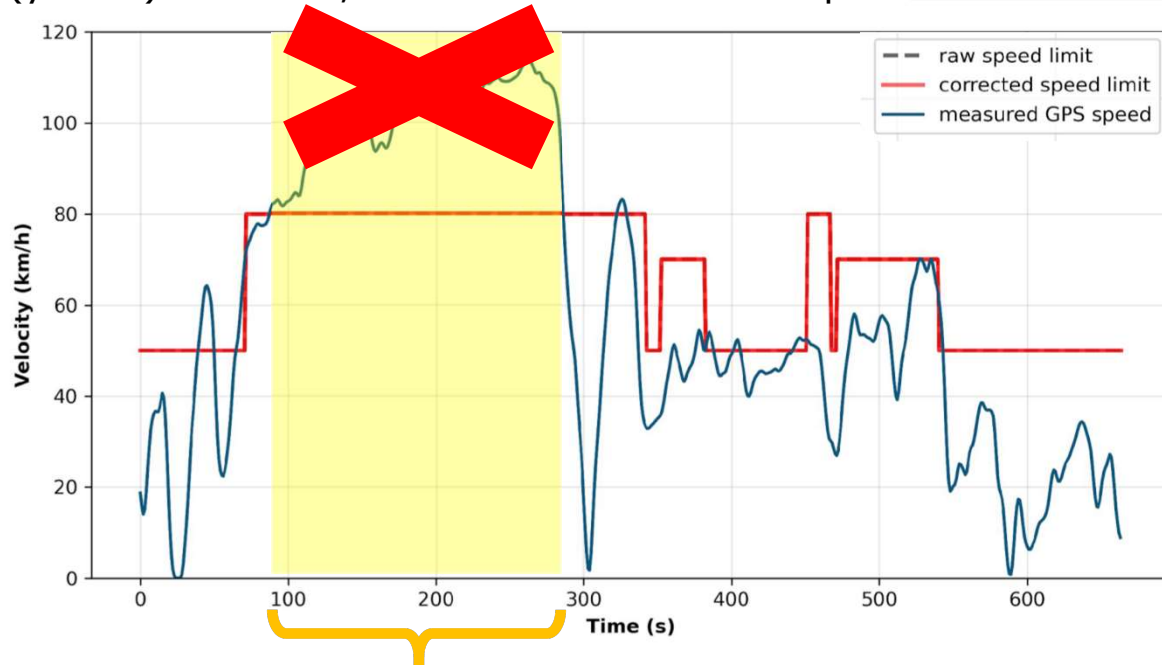
Trip without speeding



# Drive Coach Journey: How does it work?

## Speeding Score

Trip with speeding: only the relative speeding distance & time (yellow) is scored, not the measured GPS speed



**Drive Coach**

**GDPR Compliance for employer &  
employee**

## Drive Coach is GDPR Compliant for employer & employee





# Drive Coach is GDPR Compliant for employer & employee

## The employer has control over his collected data



- Participation is on a voluntary basis
- The user has control over the configuration of the trip recording (see the Settings Menu of Drive Coach):
  - Auto mode (automatic) recording: Drive Coach detects and records motored trips
  - manual recording: the user starts the trip recording
  - Time window of automatic trip recording via the feature **'Working hours'**
  - The recording of started trips can be cancelled and erased
  - The users appear anonymously in the **'My ranking'** menu of Drive Coach.
  - The user can choose a pseudonym to appear in the ranking (see the 'My account' menu)
- The user has control over the collected data
  - Recorded trips can be deleted in the **'Trip Detail'** menu of Drive Coach
  - The user account can completely be deleted upon request

# Drive Coach is GDPR Compliant for employer & employee

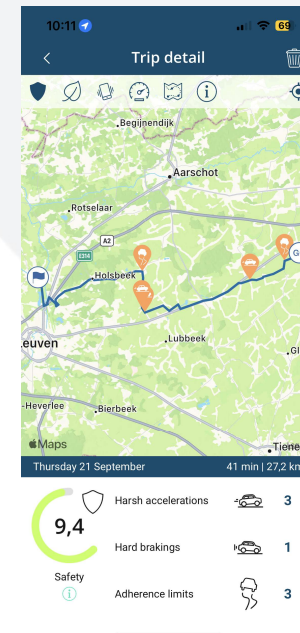
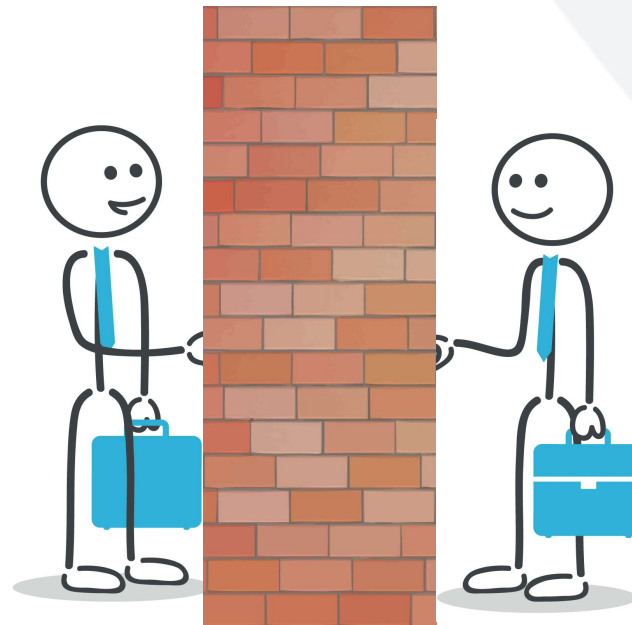
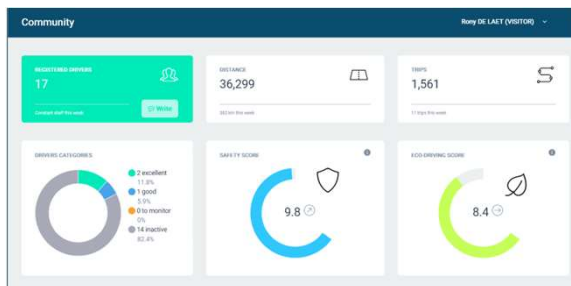
## Data Retention Policy of the Drive Coach Journey



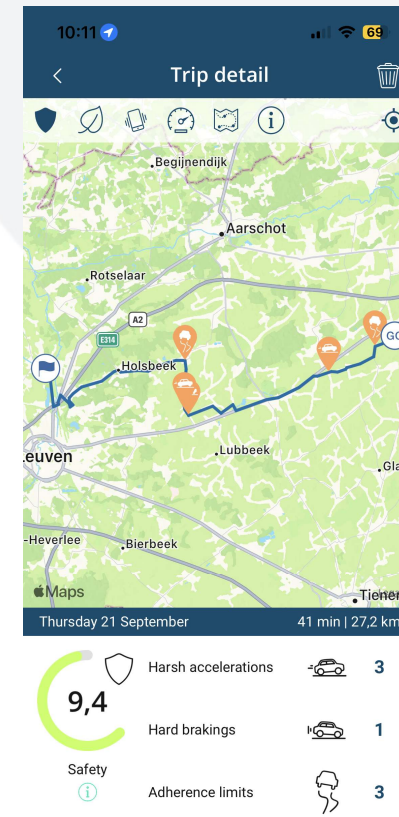
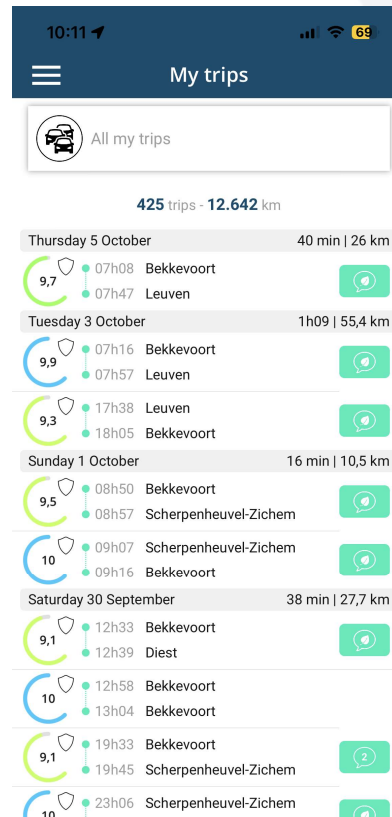
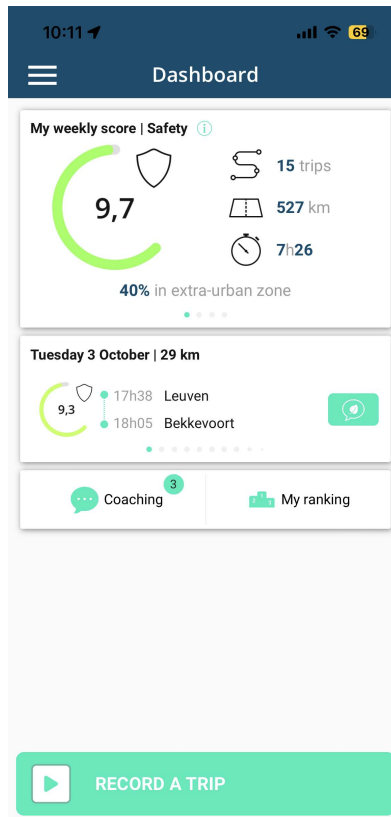
- **Individual trip details**, like GPS data and driver events (acceleration, braking, etc..) are stored for **only eight weeks** for the convenience of the user of comparing trips and then automatically deleted. There is no back-up.
- **Score averages** (weekly, monthly), timelines and aggregated data from users, teams and organisations are stored for **3 years** for evaluation and training purposes, and then automatically deleted. There is no back-up.
- If a user deletes trips in the Drive Coach app, the raw trip data is completely deleted from the app and from the servers. There is no back-up
- When trips are deleted, it is technically not possible to restore the **Score averages** (weekly, monthly), timelines or aggregated data as if the trip did not happen.

# GDPR Compliance:

The Chinese Wall between the app of the employee & the dashboard for the employer



# GDPR Compliance: Data accessible only to Drivolution & the driver!! (personal trip details, GPS data, driving events)



Individual trip details, like GPS-data & driving events are automatically deleted after **8 weeks**. There is no back-up

# GDPR Compliance: Data accessible to the employer (no personal trip details or GPS data, no driving events !!)



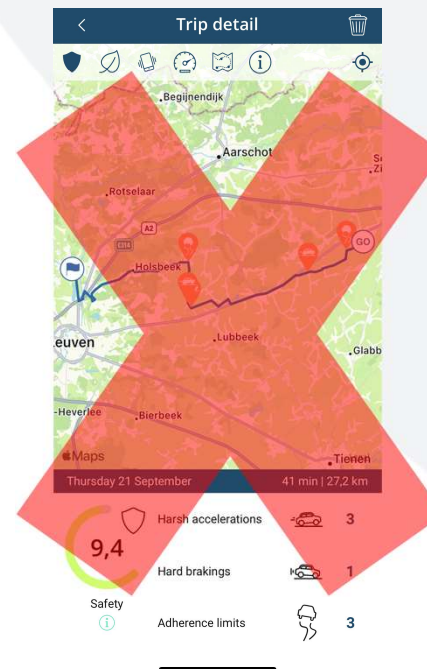
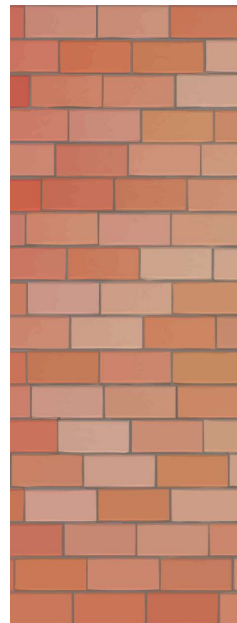
Individual employee data

limited to 12 parameters

Team data (min 5 members)

this data is anonymous &

is limited to 42 parameters



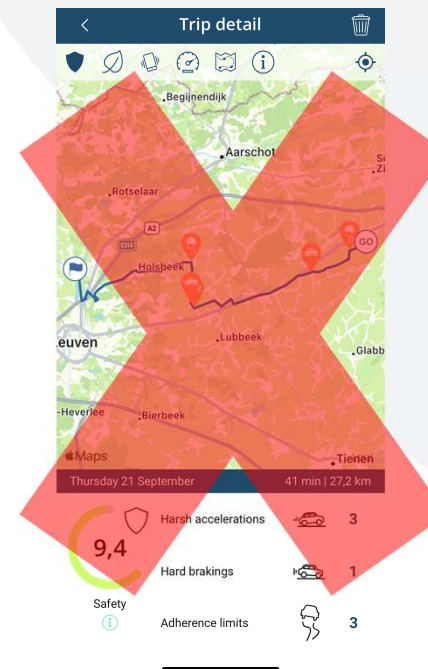
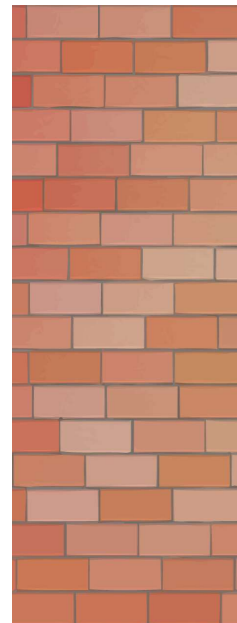
# GDPR Compliance: Data accessible to the employer (no personal trip details or GPS data, no driving events !!)

Individual employee data is limited to 12 parameters




Only the average scores of the latest week are available, no history of the scores of the previous weeks

Name
First Name
email
Date first trip
Date latest trip
Trip number
Distance travelled (km)
Driving duration (h)
<b>Average Safety score</b> of the latest week
<b>Average Eco-driving score</b> of the latest week
<b>Average Distraction score</b> of the latest week
<b>Average Speeding score</b> of the latest week



# GDPR Compliance: Weekly accumulated data for the employer (no personal trip details or GPS data, no driving events !!)

Individual driver data is limited to 12 parameters

Members | 14 drivers Search for a driver 

Active Inactive Good Excellent No trips

First name	Last Name	Email / Id	Eco-driving	Safety	Phone use	Speeding	Trips	Distance	Duration	1st trip	Last trip	...
Rony	De Laet	rodelaet@yahoo.com	8.9	9.4	10	9.6	161	3,517 km	57h57	21/10/2023	17/12/2023	Actions
			8.3	9.4	8	7.2	193	4,311 km	75h60	20/10/2023	16/12/2023	Actions
			8.5	9.7	9.3	6.3	171	1,841 km	29h20	16/10/2023	16/12/2023	Actions
			8.7	8.8	10	7.1	113	1,626 km	33h37	27/10/2023	14/12/2023	Actions

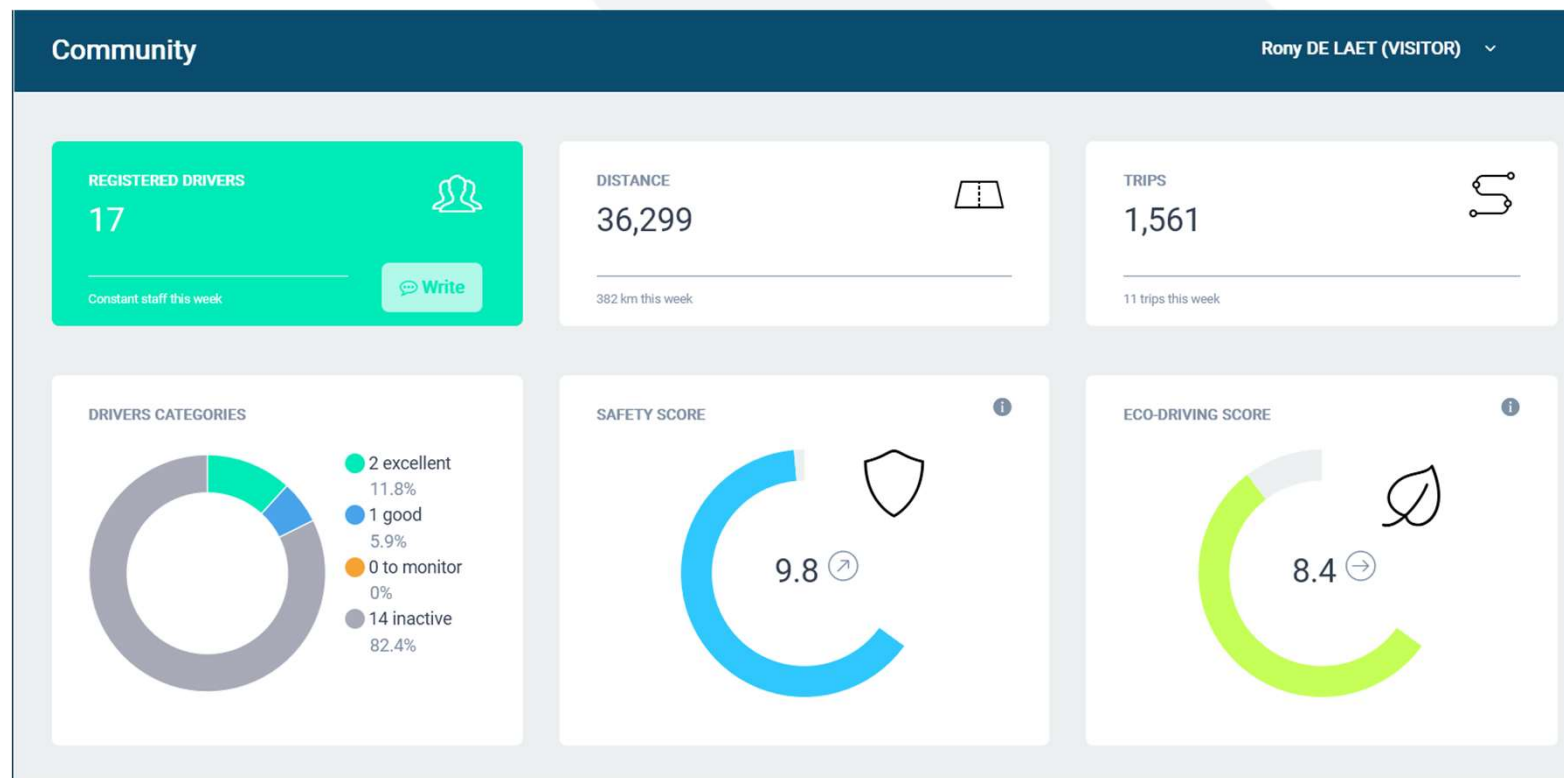
Only the average scores of the latest week are available, no history of the scores of the previous weeks

# GDPR Compliance: Weekly accumulated data for the employer (no personal trip details or GPS data, no driving events !!)

## Team data with history

**this data is anonymous**

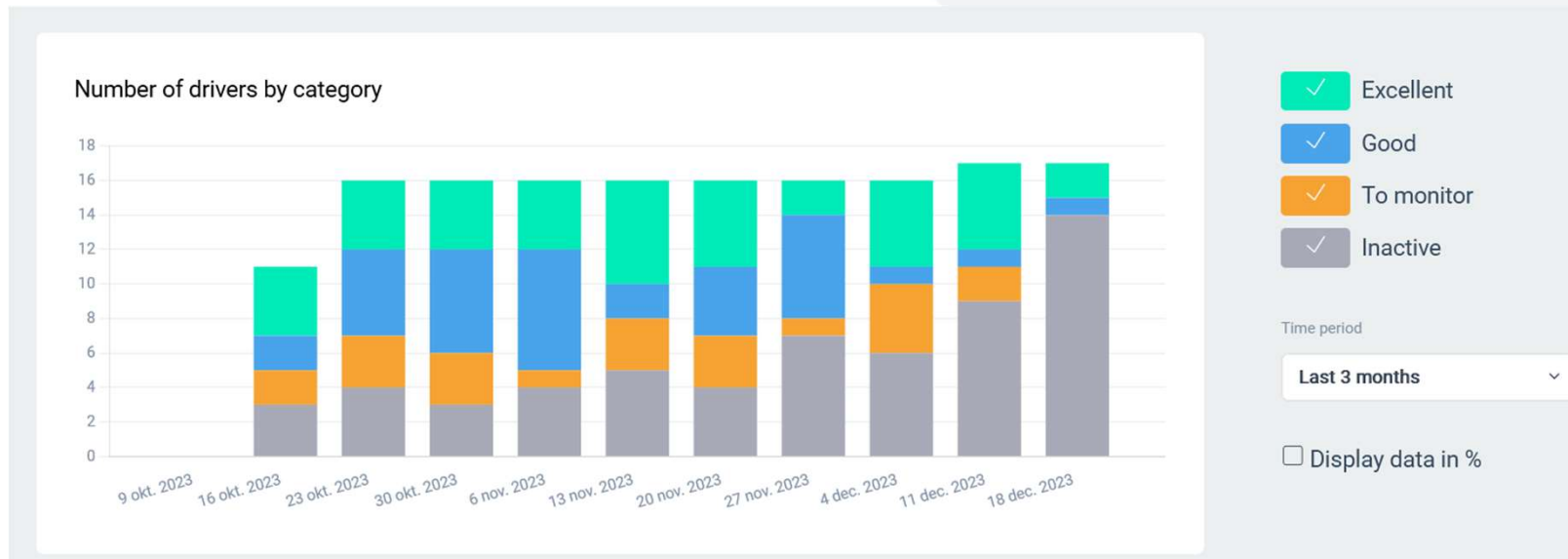
**limited to 42 parameters**





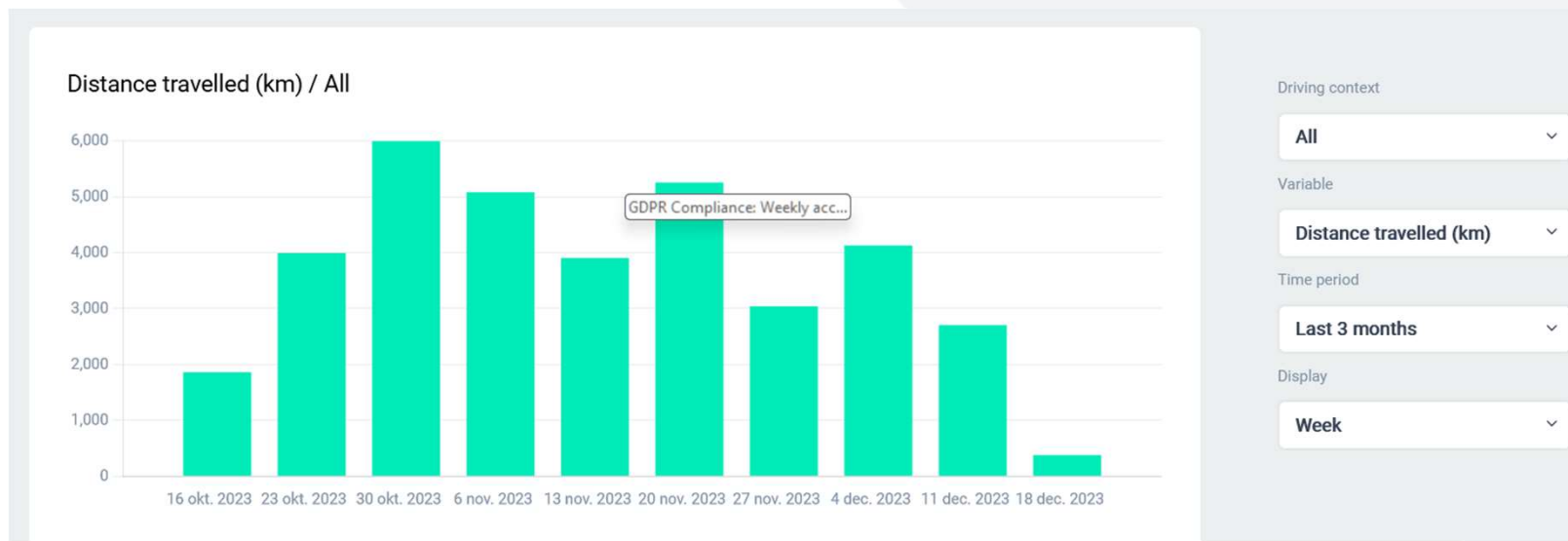
# GDPR Compliance: Weekly accumulated data for the employer (no personal trip details or GPS data, no driving events !!)

## Team data: Categories



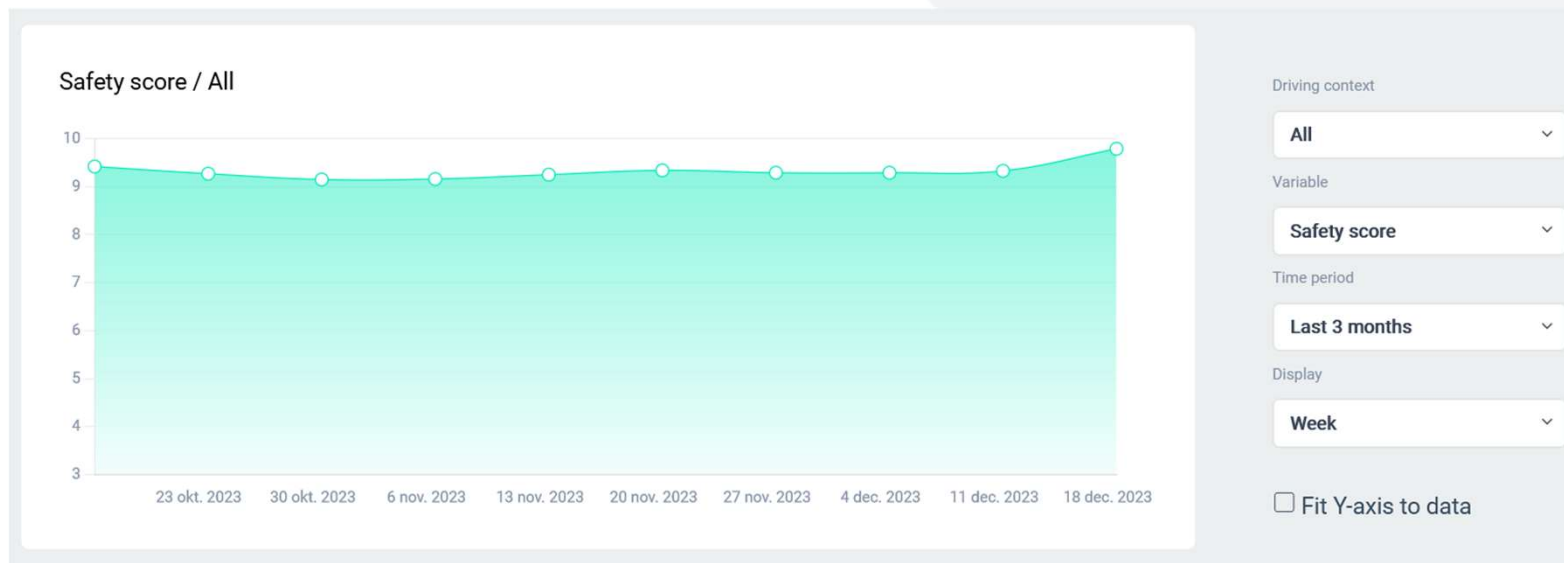
# GDPR Compliance: Weekly accumulated data for the employer (no personal trip details or GPS data, no driving events !!)

## Team data: Statistics



# GDPR Compliance: Weekly accumulated data for the employer (no personal trip details or GPS data, no driving events !!)

## Team data: Statistics



# GDPR Compliance: Weekly accumulated data for the employer (no personal trip details or GPS data, no driving events !!)

## Team data: list of 42 parameters

Community dashboard for Employer						
Date	16/10/2023	23/10/2023	30/10/2023	6/11/2023	13/11/2023	20/11/2023
Consumption (l)	75,1	64	199,7	99,5	83,2	124,4
CO2 mass (kg)	190,2	208,2	533,1	308,6	252,9	365
Average fuel consumption (l/100km)	4,03	1,6	3,33	1,96	2,13	2,37
CO2 emissions (g/km)	102	52	89	61	65	69
Trip number	86	195	254	200	171	204
Distance travelled (km)	1.862	3.994	5.993	5.082	3.906	5.255
Driving duration (h)	27	69	98	82	65	89
Safety score	9,42	9,27	9,15	9,16	9,25	9,34
Acceleration / 100 km	0,86	2,88	2,97	3,13	2,46	1,98
Braking / 100 km	3,12	5,56	6,29	4,66	5,58	5,16
Adherence / 100 km	1,77	4,13	3,75	3,88	3,3	2,82
Harsh accelerations	16	115	178	159	96	104
Harsh braking	58	222	377	237	218	271
Adherence threshold crossing	33	165	225	197	129	148
Eco-driving score	8,44	8,2	8,29	8,25	8,43	8,2
Acceleration score	-0,94	-0,81	-0,77	-0,32	-0,36	-0,48
Speed maintain score	1,3	1,76	1,69	1,96	1,76	1,93
Deceleration score	0,52	0,69	0,54	0,71	0,45	0,57
Consumption (l) : Measured	75,1	64	199,7	99,5	83,2	124,4
Consumption (l) : Target	73,1	60,9	193,6	95,1	80,5	118,5

CO2 mass (kg) : Measured	190,2	208,2	533,1	308,6
CO2 mass (kg) : Target	185,1	199,7	517,5	295,7
Average fuel consumption (l/100km)	4,03	1,6	3,33	1,96
CO2 emissions (g/km)	102	52	89	61
Achievable fuel savings (l)	0,3	1,4	0,7	1,5
Achievable CO2 savings (kg)	0,8	4,1	1,9	4,7
Achievable savings (%)	0,4	1,9	0,4	1,5
Distraction score	9,44	8,96	9,25	8,9
Number of phone unlocks	28	96	93	101
Unlocks / 100 km	1,5	2,4	1,55	1,99
Unlocks / 100 trips	32,56	49,23	36,61	50,5
Number of calls : Forbidden calls	0	2	2	3
Number of calls : Authorized calls	2	39	24	28
Forbidden calls / 1000 km	0	0,5	0,33	0,59
% of trips with forbidden calls	0	1,03	0,39	1,5
Call duration (min) : Forbidden calls	0	2	5	4
Call duration (min) : Authorized calls	10	192	91	160
Speeding	7,91	8,34	7,69	8
Overspeeding duration (min)	61,7	59,08	312,47	112,05
Overspeeding distance (km)	95,77	69,13	512,82	161,31
Overspeeding relative duration	3,85	1,43	5,31	2,27
Overspeeding relative distance	5,14	1,73	8,56	3,17



**DRIVOLUTION** (D)

**Drive Coach Journey**

**info@drivolution.be**