

September 2023

# CARMUNICATION GENERAL ASSEMBLY in TOULOUSE



Strictly Confidential for Carmunication General Assembly no diffusion



## ***BUSINESS ENVIRONNEMENT IMPACT BY MAJOR TREND MAINLY LINKED TO REGULATIONS AND BEHAVIOR TOWARDS A MORE SUSTAINABLE AND DIGITAL MOBILITY***



Transformation of the automotive industry is being accelerated to develop, new connected services, advanced functionalities that improve performance, safety, experience, fostering customer retention by an end-to-end relationship in B2C applications, optimize operations, TCO, productivity in B2B applications. It will be also a key response to the need for more sustainable mobility businesses, both for people & goods

### **Key inflexions**

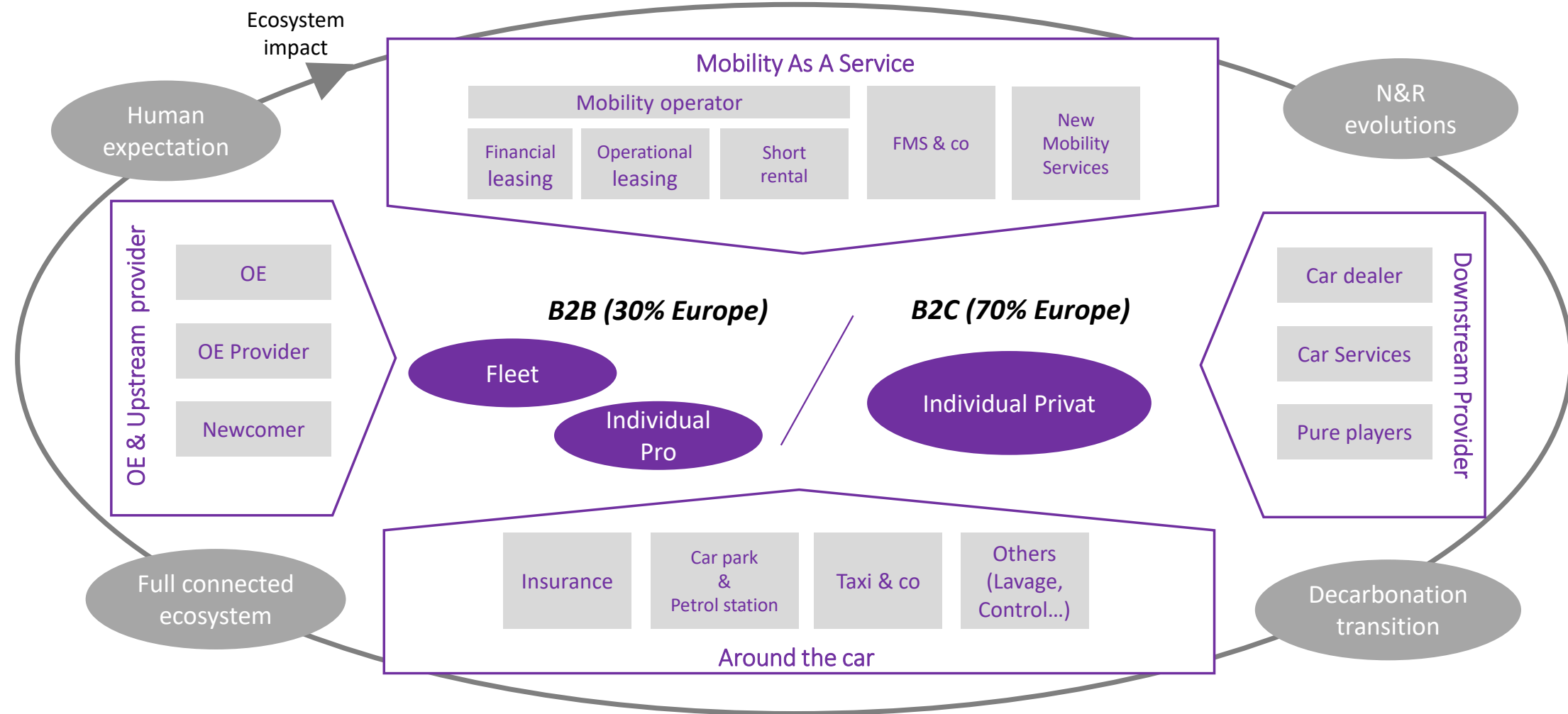
Access to vehicle data via the cloud will accelerate, via EV and regulation. The brake on retrofitting will be lifted, the battle will be on the use of data to serve the interests of customers

EV transition will continue especially in Europe and impact all the mobility ecosystem : from acquisition to refurbishing of the car.

Important fleetization of the market pushed by newcomers & new people's relationship to mobility (green mob, veh sharing, multimodal, pro-private leasing). The frontier between private and fleet will become more and more transparent with the “all inclusive leasing” offers.



# AN AUTOMOTIVE ECOSYSTEM THAT WILL UNDERGO A PROFOUND TRANSFORMATION IN THE NEXT 10 YEARS DUE TO “CSR” IMPACT





## REGULATION OUTLOOK FOR VEHICLE DATA

### 2024 UNECE R155&156 Vehicle cybersecurity



- All new vehicles must be protected from cyberattack.
- VM in charge of **cybersecurity maintenance during vehicle lifetime** and **third-party access authorisation delivery**
- Independent spare parts, when connected, **as extension of vehicle type approval, under VM control.**

### 2026 EU DATA ACT for connected vehicles



- **Transparency** on all data to be generated before purchase.
- **Free access for the user** whatever the interface
- **FRAND access for third parties** on user's request

**COMPLEX TO APPLY  
TO VEHICLES**

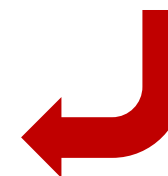
- User definition ?
- Data & functions in the scope ?
- Application per vehicle interface ?
- Global access governance ?
- Consistency with other regulations (DSSAD, EDR, OBFCM, SOH...)?

### 202? EU Vehicle type approval revision for vehicle data access



- Data + Functions
- Standard minimal data set
- OBD standard access governance based on SERMI

**PROJECT EXPECTED  
FOR DEC. 2023**



## EU VEHICLE TYPE APPROVAL REVISION

### – OPTION 2 MOST PROBABLE

#### OPTION 1

1. Introducing a legal requirement for vehicle manufacturers to **publish a catalogue of vehicle data and functions remotely accessible** on a vehicle.
2. Introducing further legal requirements to **prevent monitoring of the business activity of a third party operator** accessing vehicle data, functions and resources in addition to those proposed under Article 5.3 and 8.5. of the Data Act).
3. Introducing the principle of **equal remote access**, for all services providers, **to data, functions and resources** that are accessible to the vehicle manufacturer.

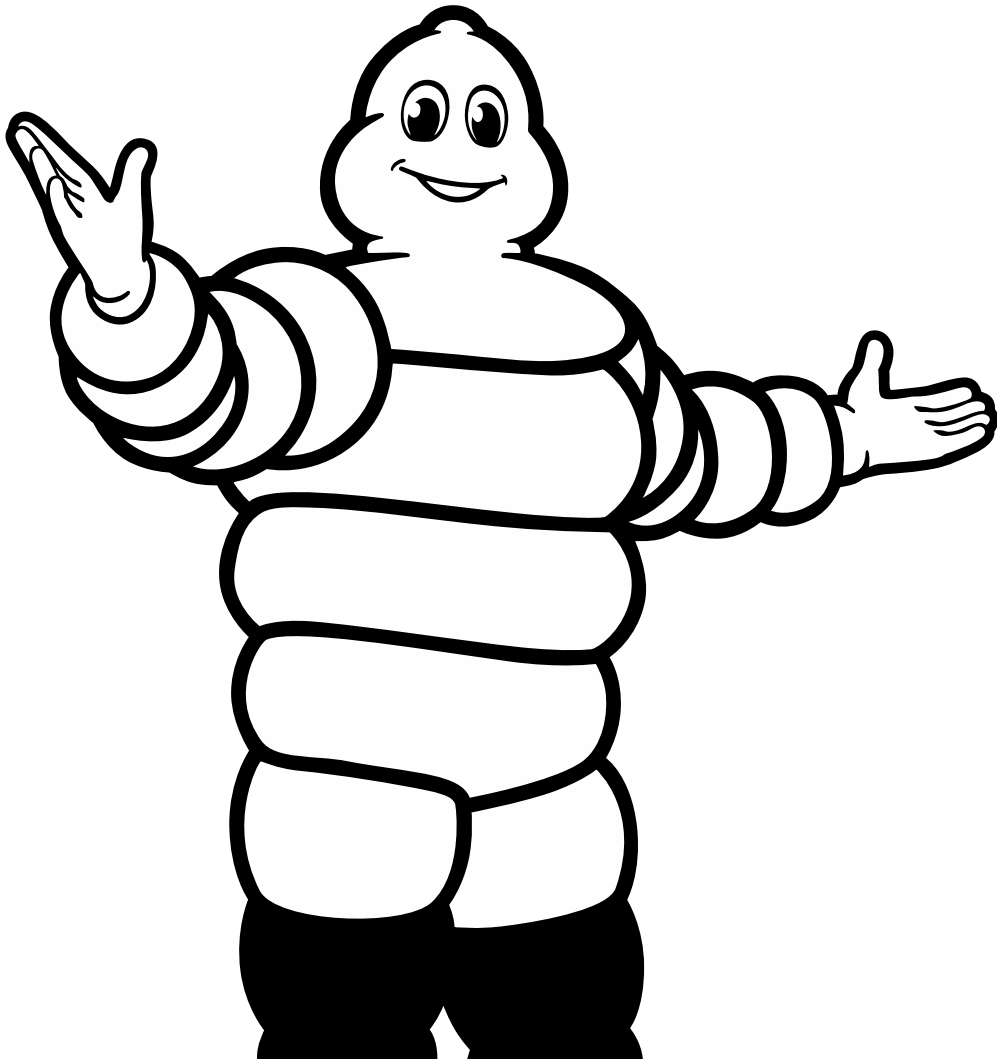
#### OPTION 2

4. Introducing a legal requirement to make remotely accessible to services providers a **minimum set of standardised data**, functions and resources.
5. Introducing legal requirements to **preserve the access to the on-board diagnostic (OBD) port open** for some data while ensuring security of “writing” access, e.g. by means of an **independent accreditation, approval and authorisation scheme**.

#### OPTION 3

6. Introducing legal provisions specifying the **conditions and means of access to on-board platforms**, whenever such platforms are available in the vehicle.
7. Introducing **governance rules on remote access** to enable a secured but non-discriminatory access by the different stakeholders. These rules would further specify the manner in which access to data would be performed and controlled.

# ***Connected concept example***



- 1. Tire pressure alert through SDV journey***
- 2. Point of sales digital experience***
- 3. Phygital service market place***
- 4. RFID ID from Cradle to grave***



## 1<sup>ST</sup> EXAMPLE : DEVELOP "INCAR" UX THROUGH IOT AND ALGORITHM TECHNOLOGY

### SMARTLEAK TECHNOLOGY

Remaining time & repair recommendations

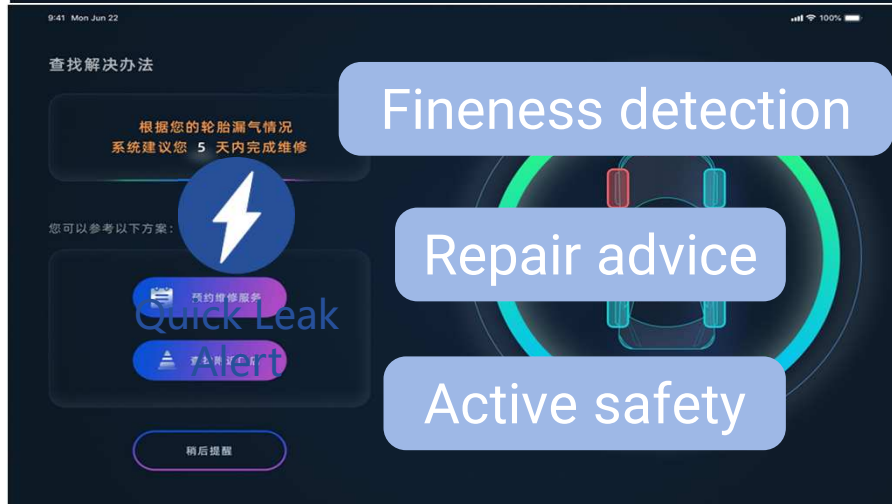
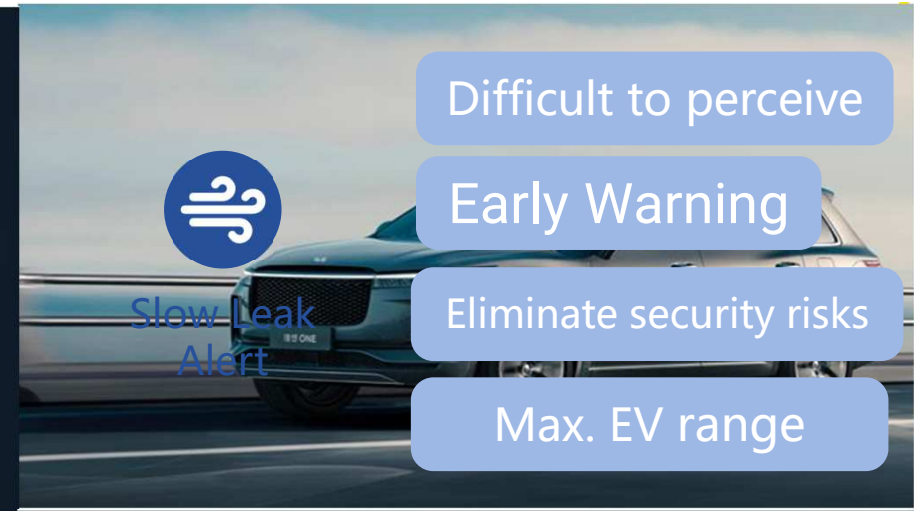
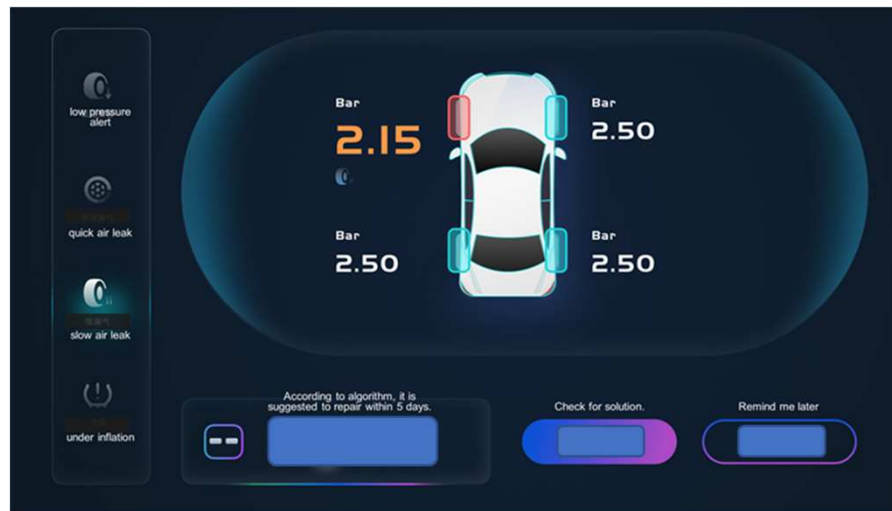


Slow Leak detect Algorithm

Michelin SmartLeak Detection Service is a **cloud-based service** that provides tire-related active safety warnings and tire repair recommendations based on vehicle tire pressure data. It provides **air leak detection, remaining time prediction and repair recommendations** for car owners, thereby eliminating the owner's driving Safety anxiety caused by an accidental tire leak during.

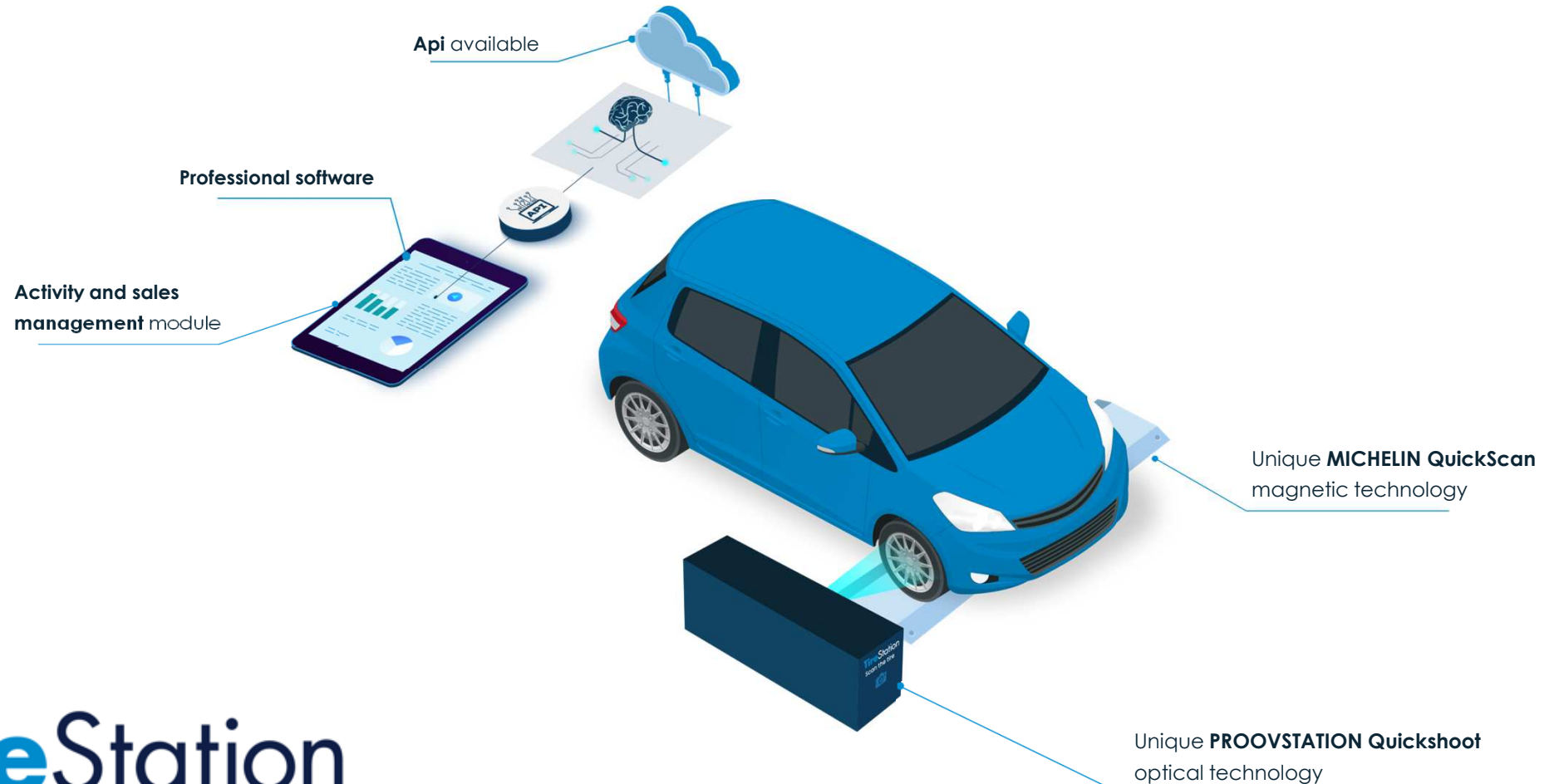
An additional opportunity on EV owners with range optimization. (Weak signal)

# SMARTLEAK TECHNOLOGY





## 2<sup>ND</sup> EXAMPLE : DEVELOP "IN-WORKSHOP" DIGITAL UX THROUGH IOT AND ALGORITHM TECHNOLOGY



# DATA COLLECTION

- Vehicle plate number
- Photos of the tires' sidewall
- Millimetric measurement of each tyre (remaining tread information available both in mm and %)
- Metrics (remaining tread, tire switchover, alignment)
- Michelin recommendation for tire maintenance
- Results display
  - Tablet / Display
  - PDF report printed or sent by email
  - API integrated to your system

## ProofStation

Inspection report powered by ProofStation

Report validated on: Tuesday, February 14, 2023, 5:25:29 PM GMT+1  
 Report validated by: System  
 Vehicle scanned on: Tuesday, February 14, 2023, 5:24:03 PM GMT+1  
 ProofID: CHSAF02\_P20230214172403\_1

Vehicle ID  
**S0742**

### General information

License plate: S07424

### Tire inspection

#### Overview

Tire diagnostic:



**Tire expertise advice**  
 It's time to replace your back tires to maintain optimum security.



### Tire inspection

#### Details

Front Left



Back Left



Front Right



Back Right



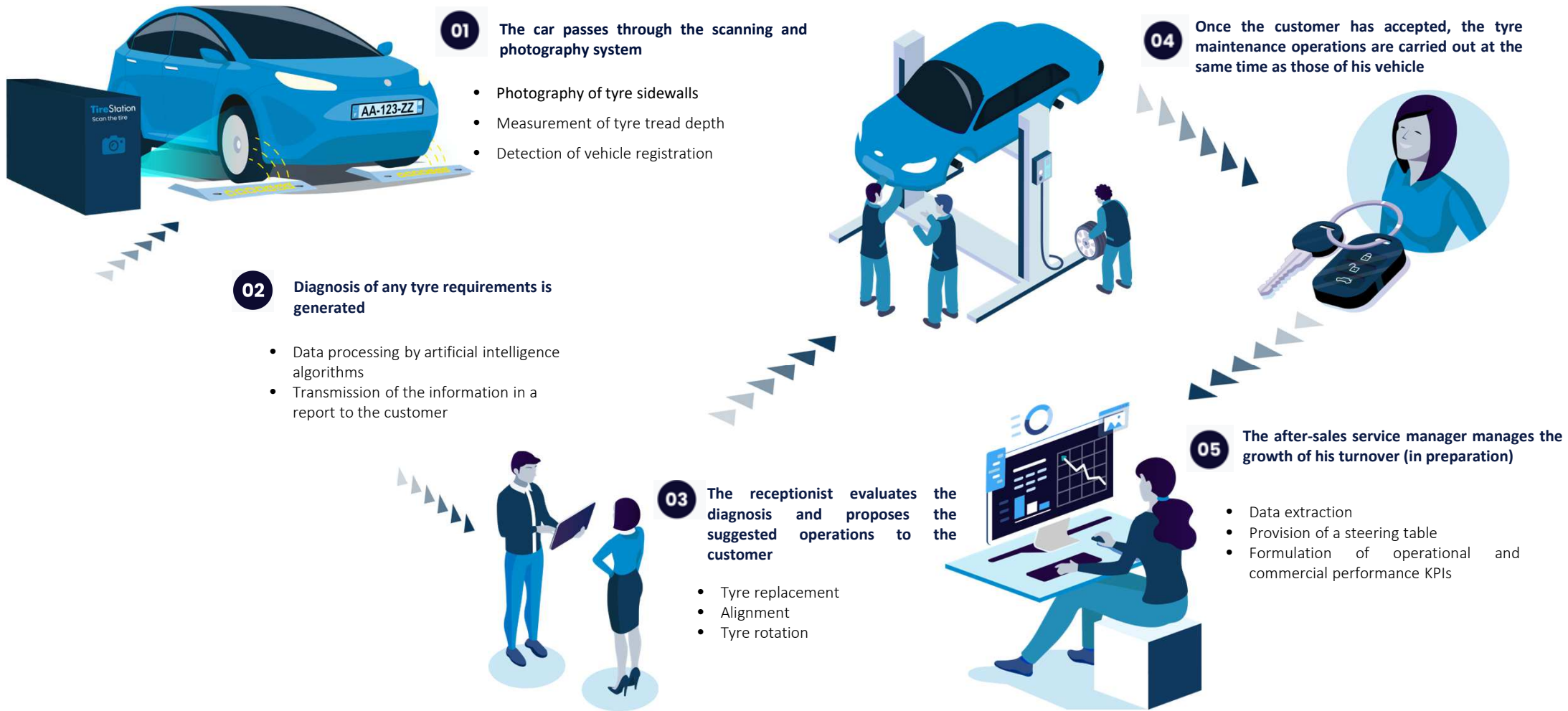
\* Remaining tread depth in mm to reach the tire



Damages from the current report have been spotted by the AI developed by ProofStation. This diagram represents damages grouped by zone and does not reflect the exact position of each damage.

ProofID: CHSAF02\_P20230214172403\_1  
 Report settings: AI • Soft: v8.5.11 • Inspection filters: ProofStation • Speed: 0 km/h  
 Report validated on: Tuesday, February 14, 2023, 5:25:29 PM GMT+1

# CUSTOMER JOURNEY FOR BUSINESS DEVELOPMENT



### 3<sup>RD</sup> EXAMPLE : CAR SERVICES MACHINE A DATA-DRIVEN SERVICES PLATFORM

#### Car Services Machine

- ✓ High traffic location, self-service 24/7
- ✓ Unique phygital user experience
- ✓ Creation of rare contextualized data
- ✓ Monetization of insights and leads



|                          |   |
|--------------------------|---|
| <b>Purpose</b>           | <b>Connect professionals</b> to solve vehicle management issues faster and easier   |
| <b>Client</b>            | LV/LCV Fleet, Mobility operator, Distribution, Consumer, OEM, ...   |
| <b>Value Proposition</b> | <b>Services phygital platform:</b><br><b>Full vehicle inspection</b> , automatic and self-service 24/7 nationwide, providing <b>vehicle valuation</b> and <b>intelligent diagnostics</b> to make the right choices and <b>take action</b> |



Fleet/Consumers

*Use the service*

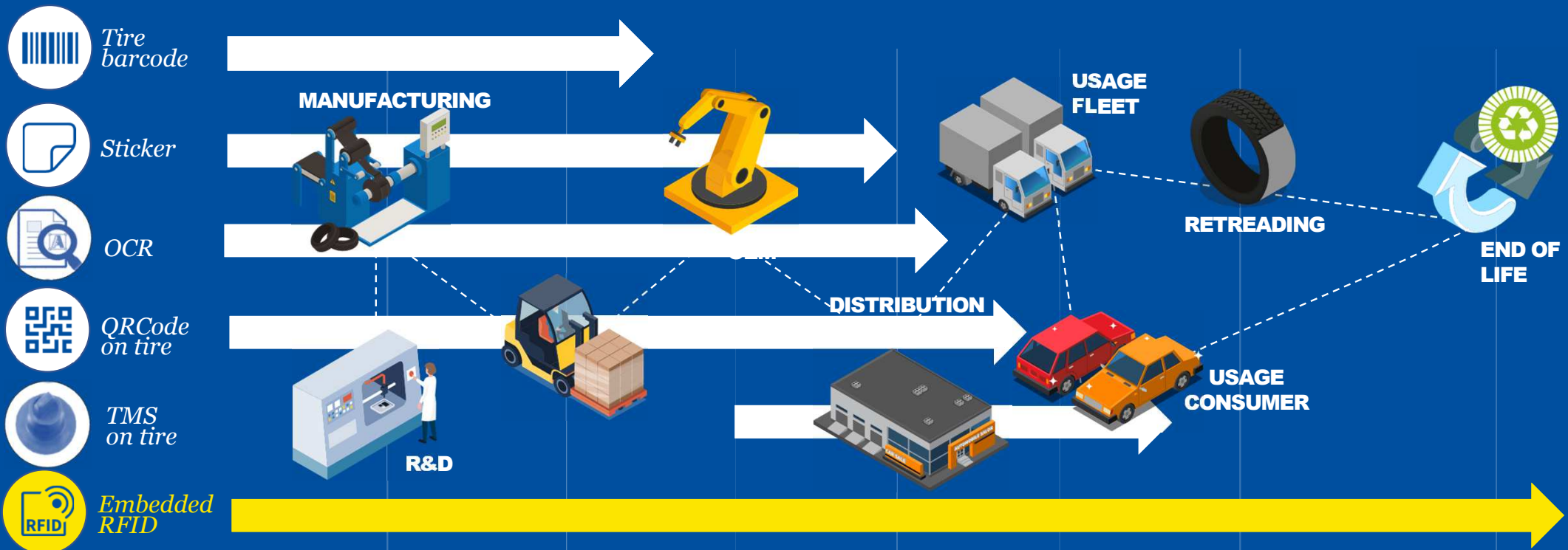
Car Services Machine

*Sell insights & leads*

Automotive Professional

## 4<sup>TH</sup> EXAMPLE : RFID ID FROM CRADLE TO GRAVE

# RFID IS THE ONLY ROBUST TIRE ID FROM CRADLE TO GRAVE





## 4<sup>TH</sup> EXAMPLE : RFID ID FROM CRADLE TO GRAVE

# RFID IN TIRES USE CASES

## A KEY PILLAR OF CONNECTED MOBILITY

### Gain efficiency and optimize operations

of **tire management** during the whole tire lifecycle



### Improve customer experience

By enabling **connected services** for OEMs, customers and consumers to ease driver journey and tire replacement



Optimized logistics /  
Delivery / Order out



Better stock / inventory  
management



Right assembly  
tire / rim



Right tire  
on the right car



Better tire  
(joint) tests



Better lifecycle  
management /  
Recycling



Better certification  
management



Better claim & warranty  
/ recall management



More safety /  
More trust



Peace of mind /  
trust vs fake /  
Car control



Better maintenance &  
aftersales enabler



CRM enabler /  
Loyalty driver



Winter wheel / Tire  
Hotel management



Predictive  
maintenance & eco  
performance