SHERPA

MOBILE ROBOTICS

MADE IN EUROPE

SHERPA® : SMART & MOBILE COLLABORATIVE ROBOTS

The safest, easiest and quickest solution to reduce pain, automate your transfers, streamline flows and increase productivity

Your Move to Smart Mobility

SHERPA® : un AMR (Autonomous Mobile Robots) non dédié

RECEPTION / STORAGE
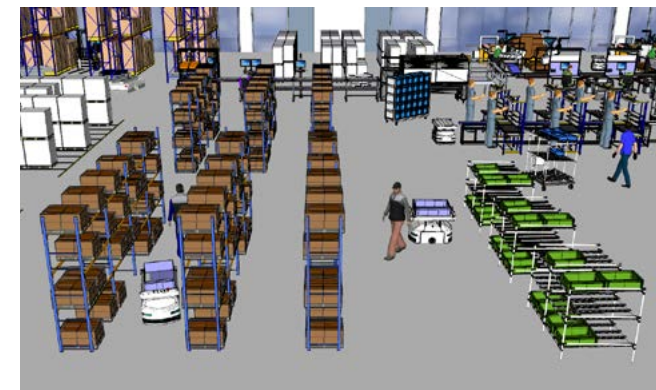Arrivals at the main store

REPLENISHMENT
Transfers to stores / points of consumption

PICKING-KITTING / CROSS-DOCKING
Preparations and transfers on pallets and bins

ASSEMBLY / PACKAGING
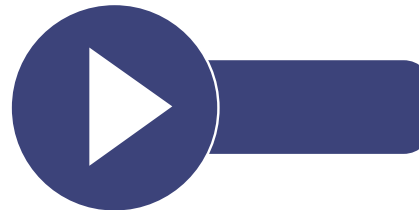Movements in production and assembly operations

SHIPMENT
Transfers to stores / transport preparation points

RETURNS MANAGEMENT
Pallets & bins management

SHERPA
Mobile Robotics

SHERPA®: a versatile AMR (Autonomous Mobile Robots)

A collaborative robot operating as close as possible to operators

> It operates among People and Machines, in the midst of work areas and in crowded spaces

The symbol of a new generation of industrial mobility

> It is highly autonomous and integrates quickly into your existing and new processes

An agile solution for the transformation to Factory 4.0 and the digitised supply chain

> Unlike AGVs that have specific routes, AMRs are completely free and adapt themselves to dynamic environments

AGV

Specific routes

AMR

Free routes

▶ Play Video
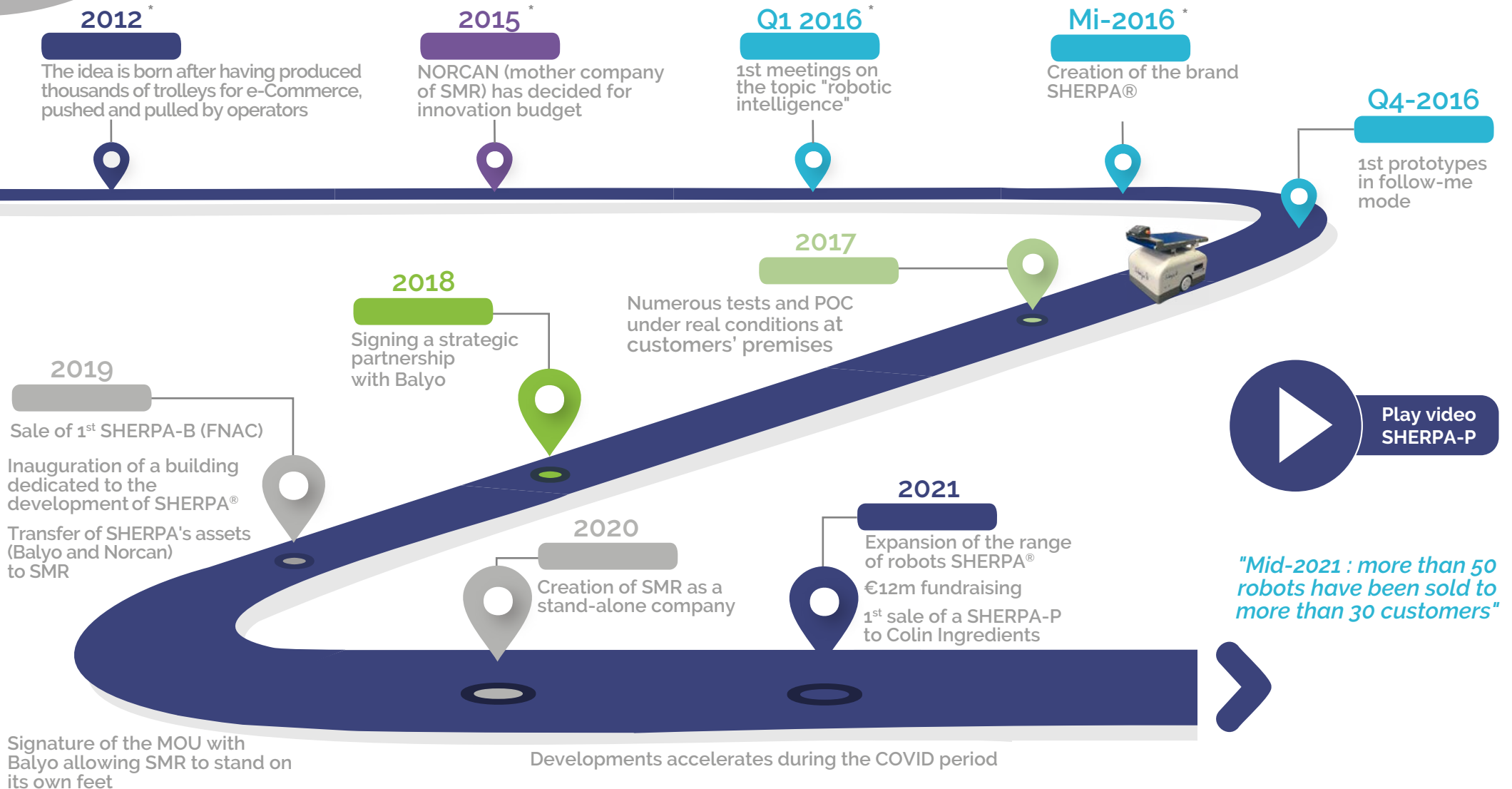
"Our autonomous mobile robots are equipped with state-of-the-art technologies allowing them to navigate accurately within a given perimeter, avoid obstacles and move about without the risk of collision"

SHERPA
Mobile Robotics

sherpa-mr.com

Origin of SHERPA® and SMR : a coherent and already robust history

"SMR : 5 years of developments, experience and technological advances"

2012 *
The idea is born after having produced thousands of trolleys for e-Commerce, pushed and pulled by operators

2015 *
NORCAN (mother company of SMR) has decided for innovation budget

Q1 2016 *
1st meetings on the topic "robotic intelligence"

Mi-2016 *
Creation of the brand SHERPA®

Q4-2016
1st prototypes in follow-me mode

2017
Numerous tests and POC under real conditions at customers' premises

2018
Signing a strategic partnership with Balyo

2019
Sale of 1st SHERPA-B (FNAC)

Inauguration of a building dedicated to the development of SHERPA®

Transfer of SHERPA's assets (Balyo and Norcan) to SMR

2020
Creation of SMR as a stand-alone company

2021
Expansion of the range of robots SHERPA®

€12m fundraising

1st sale of a SHERPA-P to Colin Ingredients

"Mid-2021 : more than 50 robots have been sold to more than 30 customers"

Signature of the MOU with Balyo allowing SMR to stand on its own feet

Developments accelerates during the COVID period

Play video SHERPA-P

*Made by NORCAN, SHERPA parent company and Expert in tailor-made industrial equipment for more than 30 years
**Handled by NORCAN's Innovation Department

SHERPA
Mobile Robotics

A 100% mobilized team and perfectly adapted facilities

Haguenau

Sucy-en-Brie

"SMR has all the skills to complete your projects successfully :
hardware development & software, industry and production, customer support"
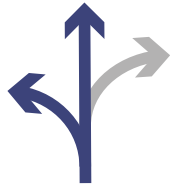
SHERPA
MOBILE ROBOTICS

sherpa-mr.com

An approach focused on your needs and the reality in the field

Less pain and risks in the transport of loads

Much more productivity through the drastic reduction of low value-added tasks

Greater flexibility and space savings by tending towards the «one-piece-flow»

Allows innovative transformation to factories 4.0

Usine 4.0

In short : high operative and economical profits for our customers

Return on Investment : 12 to 18 months

SHERPA
Mobile Robotics

We match Business Experts to our skills to respond to as many use cases as possible

For whom ?

- **OTHERS**
  medical, services, transport
- **INDUSTRY LOGISTICS**
  kitting, line feeding
- **E-COMMERCE**
  inbounds, picking, sorting, outbounds, returns
- **INDUSTRY PRODUCTION**
  transfers of parts
- **RETAIL**
  feeding goods
- **LOGISTICS**
  materialhandling

NORCAN Unlimited Creative Solutions — Flow optimization and automation /layout of work areas

PROCOM SYSTEM

ENGIE Solutions — Input & output for industrial / palletizing lines

ISYCOD

Feet Engineering Industries

ARMIN — Robotic integration

Hub One Digital Technologies — Logistics and order preparation

ALTODIS — Handling and flow management

suffel

BALYO

"Would you like to join us? Contact us"

sherpa-mr.com

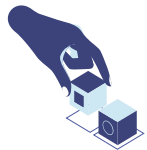# Unique features for a solution to match your expectations

SAFE

Safe alongside people,
obstacles and transported material

Equipped with obstacles avoidance function,
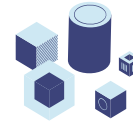reversible to adapt to narrow routes

*Design reference applying to the field
of driverless trucks : ISO 3691-4 and VDA 5050*

COLLABORATIVE

Able to combine «follow-me» and «autonomous» modes,
and to operate in fleet management

Less pain, more ergonomics and less non value-added
tasks, brings more flexibility, streamlines flows

Improved learning and interactions between Man and Machine

INTUITIVE

Plug & Play : requires no changes neither to
existing facilities nor to customer's IT systems

Easy to setup and operate,
simple user interfaces

MULTIPURPOSE

Options adapted to a large spectrum of use cases,
sold complete and ready for use

Customers are keeping control to adapt configurations
and missions by themselves

Play Video

*"Around our robots, we offer a tailor-made and experienced support
to answer a maximum number of applications"*

SHERPA
Mobile Robotics

Components and features meeting the highest regulatory requirements

Lidar
360° navigation sensor and reliable localisation system

Avoidance sensors
Spot obstacles in both directions

Safety electronics
Validates that the instructions given to external elements (motors, sensors, etc.) are correct

SAFETY

Secure architecture
Based on the latest version of LINUX and protected by Windows 10 via Docker

CYBER-SAFETY

Buzzer sound
Warns the presence of the robot

Identification leds
Indicate the status of the robot

Bluespot
Better visibility in the area nearby

VISIBILITY

COMMUNICATION

Wifi (dual band)
Connection for administration and maintenance

USB interface
For updates of softwares

Extractable battery rack or inductive charging
Provides permanent availability

Touchscreen
Unlocking and initiating sequences

EASE OF USE

"When installing a SHERPA robot, you won't have to worry about the safety concept. Our electronics and equipment meet current standards and so much more"

SHERPA
Mobile Robotics

sherpa-mr.com

A range of complementary, collaborative and mobile robots

Integration versions

P-serie for pallets

Plug&Play versions

B-Serie for bins

SHERPA-B
customizable

SHERPA-P
customizable

Pallet lift
(Euro-pallet 1200x800 mm and US-pallet 1200x1000)

Single tray

In progress (2022)

Lift table

Single side conveyor
(bin 800x600 mm))

Single tray

Double side conveyor
(2x bins 600x400 mm)

SHERPA-T
Towing robot for bases and carts

On request versions

Front conveyor
(bin 800x600 mm)

SHERPA-M
Multifunction indoor and outdoor

Conveyor or tray with bin lift

C-serie
Delivery robot for healthcare facilities

Airborne surface disinfection system per dry fog or UV-led

SHERPA
Mobile Robotics

Topics covered by specialized OEMs

Many options to meet to your needs

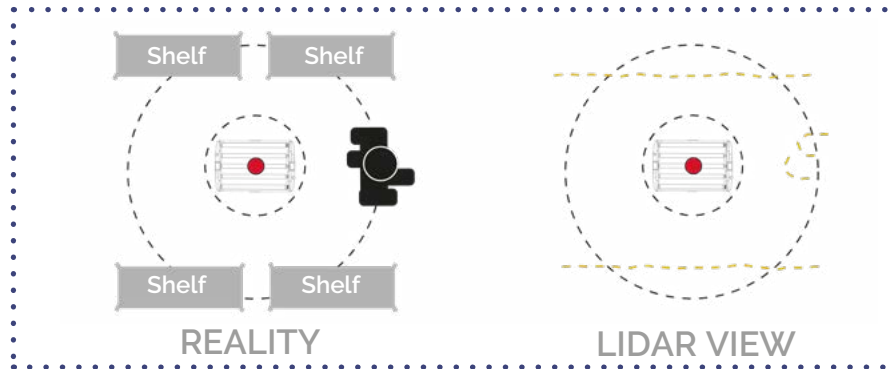|	SHERPA-B		SHERPA-P		SHERPA-T (2022)	SHERPA-M (2022)
Main objective	For bins		For pallets		Towing for bases	Multifunction
Payload (up to)	100 kg	200 kg	500 kg	1.000 kg	250 kg	200 kg
Speed (up to)	7 km/h	4 km/h	7 km/h	4 km/h	3.6 km/h	4 km/h
Dimensions	950 x 600 x 650		1350 x 950 x 350		1050 x 400 x 850	Modular dimensions in width

1 **A rolling base which allows to choose :**
the type of payloads, the operating modes, the driving direction, the user interface ...

2 **Adaptable and standardized top modules, integrated into the safety loop :**
fixed or specific tray, type of conveyor for automated loading/unloading operations

3 **A configurable software-suite :**
creation and modification of maps, definition of zones and missions, communication with external components, fleet management, etc...

4 **A growing number of ready-to-use industrialized options :**
induction charger or battery charging unit, remote touch-screen, beside-me, integrating weighing system, ...
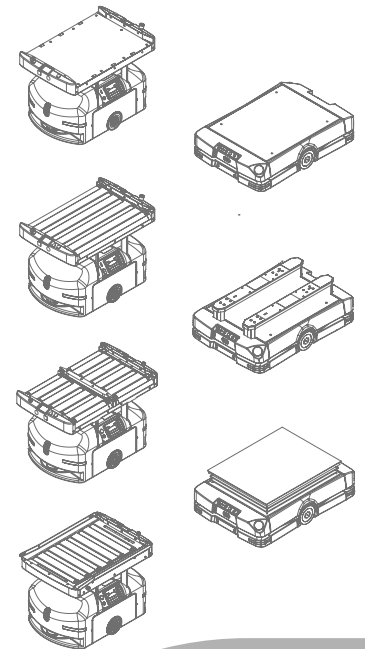
"Its two-way operation allows it to move in narrow and congested areas"

SHERPA
Mobile Robotics

sherpa-mr.com

An agile combination of Follow Me and autonomous modes

FOLLOW ME MODE

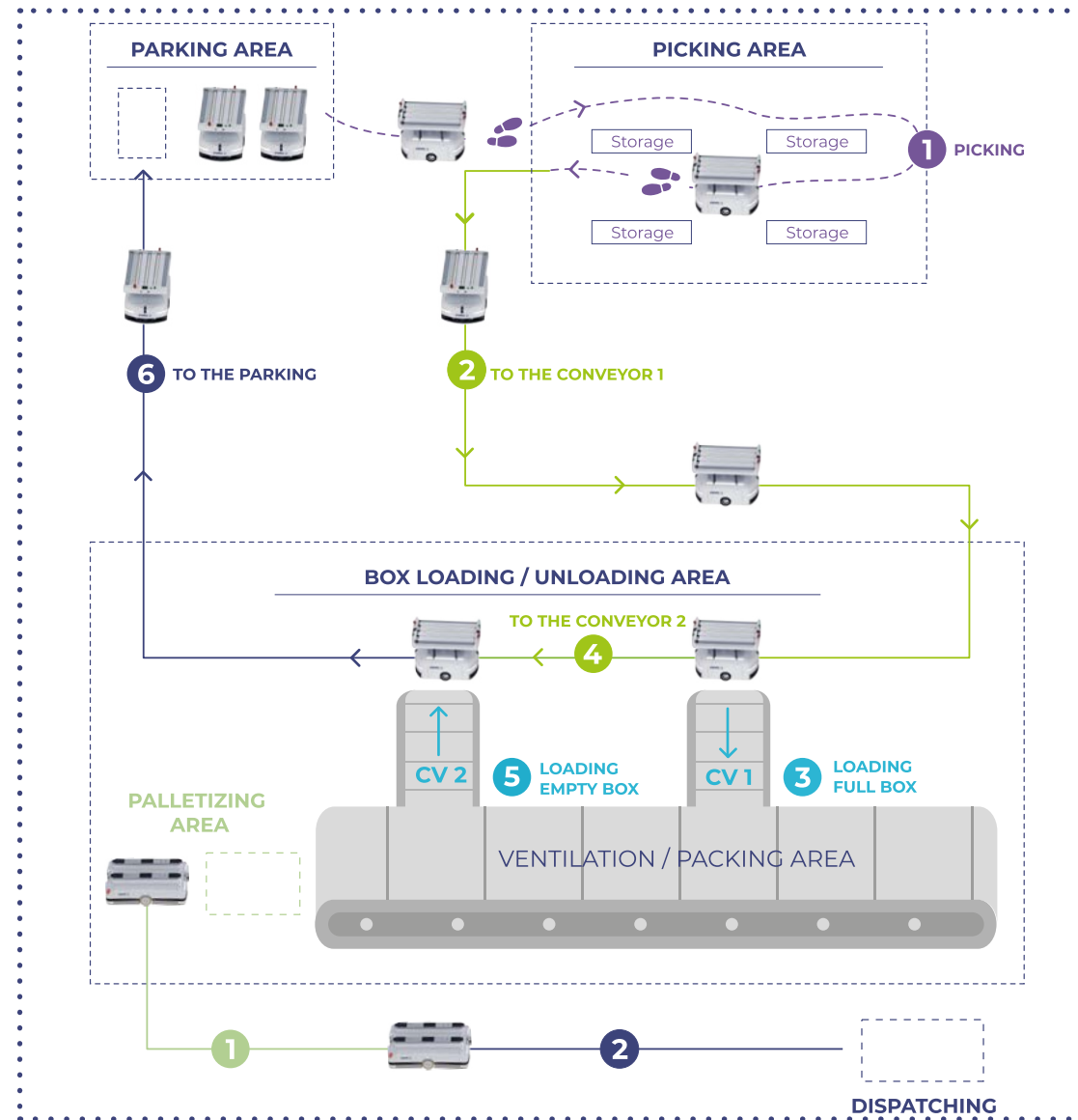| Shelf | Shelf |
| Shelf | Shelf |

REALITY   LIDAR VIEW

▶ Play Video

What uses for this mode?

Immediately operational without programming, it makes it possible to pick orders by following the operator faithfully using its many sensors

Make and edit your own mapping easily and completely independently

"20 to 30% more productivity for order preparation 100% less pain in movements"

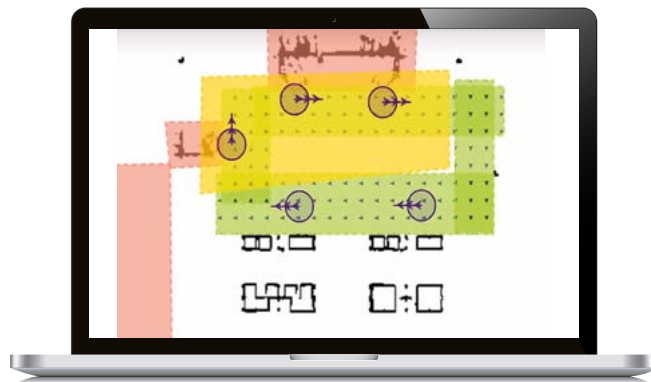## EXAMPLE OF APPLOCATION : FOLLOW ME & AUTONOMOUS MODE

PARKING AREA

PICKING AREA

Storage   Storage   **1** PICKING

Storage   Storage

6 TO THE PARKING

2 TO THE CONVEYOR 1

BOX LOADING / UNLOADING AREA

TO THE CONVEYOR 2
4

CV 2   **5** LOADING EMPTY BOX   CV 1   **3** LOADING FULL BOX

PALLETIZING AREA

VENTILATION / PACKING AREA

1   **2**   DISPATCHING

SHERPA
Mobile Robotics

Smart software modules, easy to setup and operate

Integrated to the robot

Map Fabric	+	Road Editor	+	Mission Editor

Creates and cleans the MAP

Fixes POINTS and ZONES

Elaborates the MISSIONS

▶ Play Video

MAP REPRESENTATION

Remote from the robot

Mission Manager		

"A bespoke software suite"

Mission Manager	+	Fleet Manager

Mission Manager	+	Fleet Monitor *

Mission Manager	+	Fleet Manager	+	Fleet Monitor

Defines the links with EXTERNAL FEATURES

Manages a FLEET

Provides robot USAGE DATA and TRACKING for maintenance

* available soon
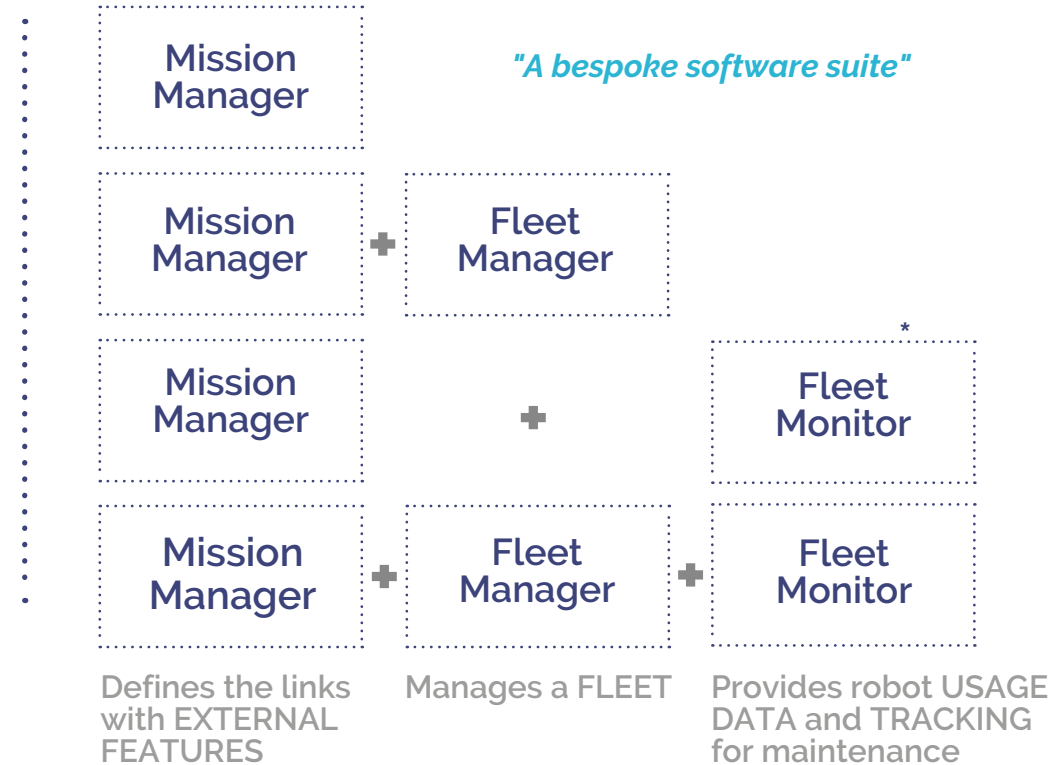
"SHERPA is equipped with reliable and proven location technology, enabling the robot to find its way at all times and avoid unmapped obstacles"

SHERPA Mobile Robotics

sherpa-mr.com

Customer's success stories
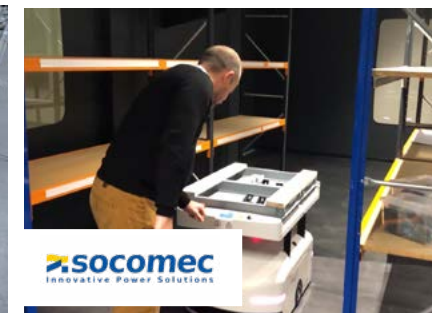
Play Video FPT INDUSTRIAL

Play Video SIEMENS

Play Video KETTERER

Play Video COLIN

"The Robots are used 20 hours a day. In total over one day, 450 robot missions are generated - FPT Industrial"
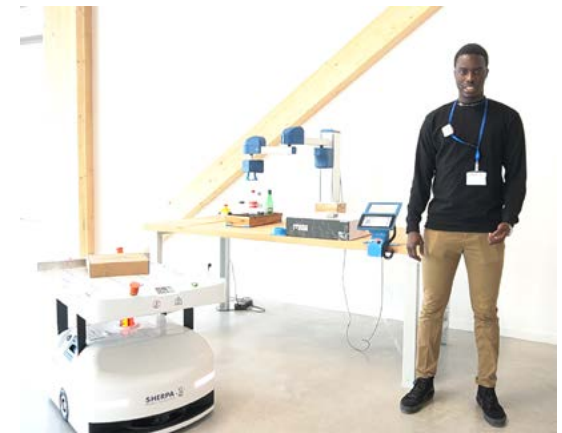
SHERPA Mobile Robotics

Customer testimonials

Michel - Head of debimetry department at SIEMENS
« Improvement of our logistics and future integration in our automated production lines and in our ERP system »

Benjamin - Industrial Projects Manager at SOCOMEC
« Very responsive and easy to implement. Can be coupled with peripherals (conveyors, robotic arms, ...) »

Mohamed - INDUSTREET Project Officer - Total Foundation
«We welcome 400 young people a year for training on jobs in Industry of the Future »

Philippe - Industrial Director of Systems and Equipment at SAFRAN
« Automation of flows and limitation of manipulations that will protect the health of our operators »

Paulo - Logistics Methods Technician, FTP CNH Group
« The programming interfaces are intuitive and getting started is facilitated by the Follow-Me mode »

Julian - Lean Manager, KETTERER
« SHERPA has taken care of the 10,200 km covered up to now by our operators, saving €82,000 over one year »

"It is possible to combine robots with other types of handling equipment using middleware to create interfaces"

SHERPA MOBILE ROBOTICS

sherpa-mr.com

SHERPA MOBILE ROBOTICS (SMR)

11 rue Ampère

67500 Haguenau - France

+33 3 88 93 26 36

info@sherpa-mr.com

sherpa-mr.com