



WE CARE ABOUT THE SAFETY OF WORKERS IN ALL WORK ENVIRONMENTS

Contributing to the safety of employees in complex environments was not solely the result of the evolution of Laser Navigation, but was also the constant confrontation with our robotic customers. The genesis of SophyAI stemmed from real needs in finding a solution that would allow A.I. to be leveraged in a structured platform with immediate practical use. We think we have successfully succeeded.



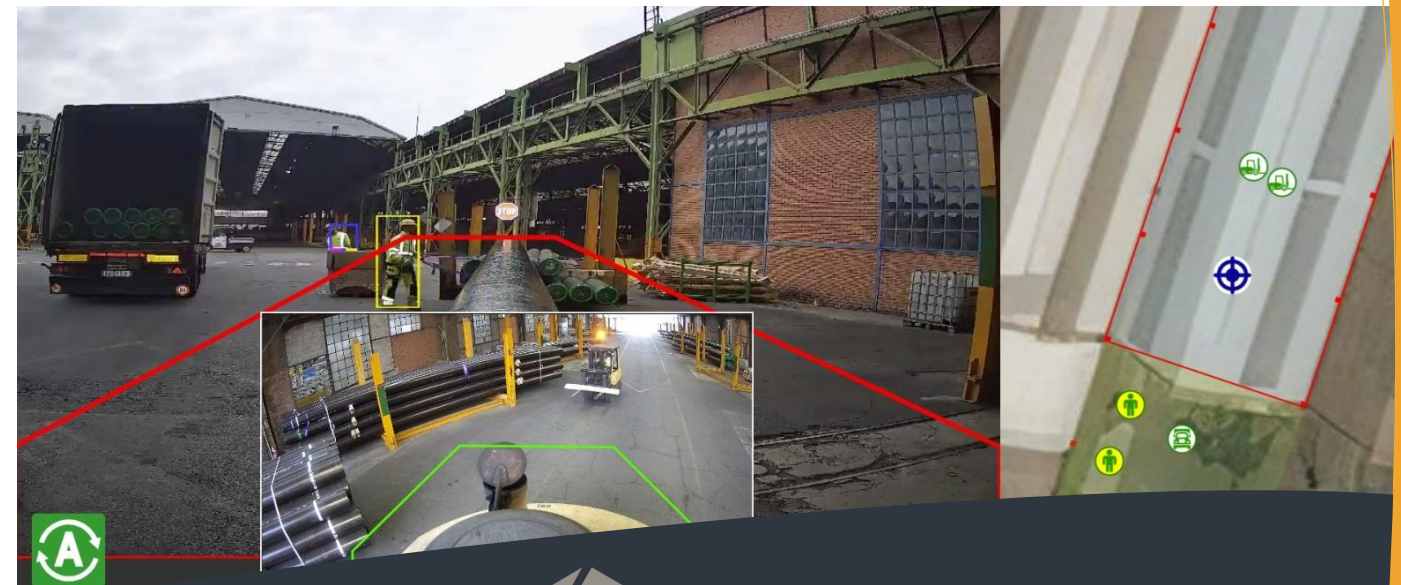
THE ANTI-COLLISION SYSTEM MANAGED BY SOPHYAI EXPANDS THE PARAMETERS OF THE OBSERVED SCENARIO

By having a "helicopter overview" of the situation, the movement of vehicles and personnel can be kept under control. Not only do the cameras on the vehicle operate to detect obstacles and people in the proximity, but other fixed cameras can be operated simultaneously by SophyAI and can cover areas blind to the vehicle, creating a "whole" view of the scene that increases the operational safety of the entire area under observation.



tecnology
For industry 4.0

A comprehensive and versatile Artificial Intelligence platform for worker safety in areas with moving vehicles



Powered by our patented A.I. platform **SophyAI®**

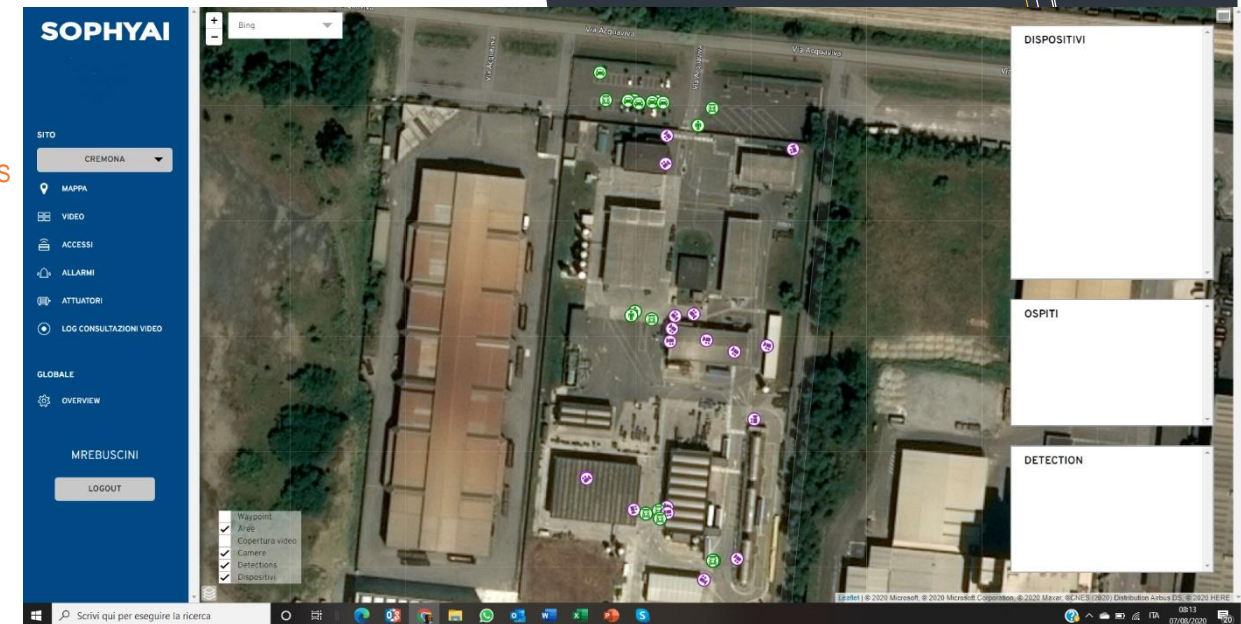
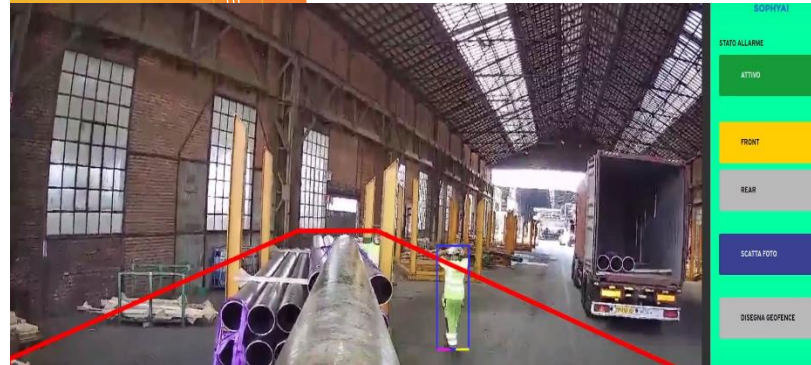


VERSATILITY
AND
SCALABILITY

It is not just a collision avoidance system

THE INTERPRETATION OF WHAT SOPHYAI OBSERVES FROM THE VEHICLE, INTEGRATED WITH WHAT IS SEEN FROM THE FIXED CAMERAS IN THE ENTERPRISE AREA

SophyAI is a complete patented modular platform of artificial intelligence applied to vision. The system takes charge of video streams from cameras, mounted on the vehicle that are processed by a neural process. A specific georeferencing module makes it possible to know the exact spatial location of the observed "objects" and of the vehicle itself, re-proposing, in digital twin mode, their position on any map or planimetry. Based on what is detected, **SophyAI** autonomously handles alerts to the driver and workers in the vicinity of the same. **SophyAI** operates in full compliance with the GDPR by not recording images but interpreting and acting on them.

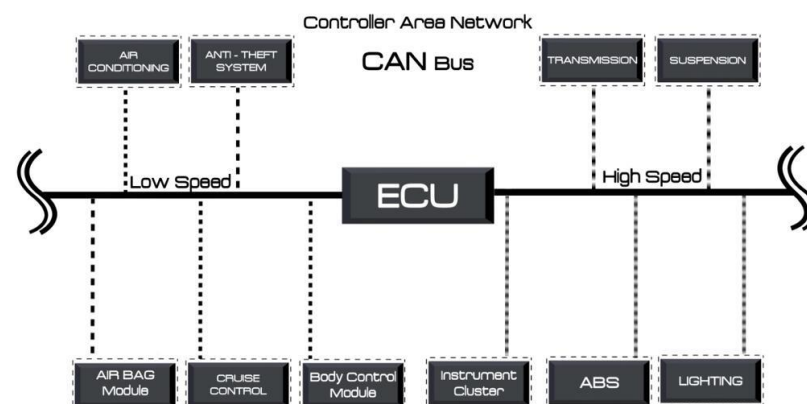


Interaction with the CAN-BUS of the vehicle easy configuration of geofences and....much more

- FRONT AND REAR CAMERA.
- GEOLOCATION OF THE OBSERVED.
- DIGITAL TWIN OF THE OBSERVED SCENARIO
- TRAINABLE NEURAL NETWORK FOR SCENARIOS WITH SPECIAL VEHICLES.
- GEOFENCES DEFINABLE WITH A FEW MOUSE CLICKS.
- RUGGED TABLET ON BOARD VEHICLE.
- EXTERNAL HORN.
- INTERACTION WITH PRESENT FIXED CAMERAS (If these are connected toSophyAI).
- ALARMS HISTORICIZATION .

INTERACTION AND CONTROL OF THE VEHICLE

Through interaction with the vehicle's CAN-BUS (if available), SOPHYAI can intervene to implement slowdowns or stops if it "observes" potential dangerous conditions for those near it. The collision avoidance system also contemplates a tablet, placed on board the vehicle, which displays the conditions of the space around the vehicle and audibly warns both the driver and those in the vicinity of the potential collision hazard.



MULTIFUNCTIONAL TABLET ON BOARD

The in-vehicle multifunction tablet allows the driver to observe the scene around him and is immediately alerted if there are dangers of potential collision with people , other vehicles or recognized objects.

In addition to the actual image taken by the cameras, the tablet also replays a map with the dynamic location of the people around him (digital twin) so that the driver has a complete overview of his surroundings. The tablet, if there are fixed cameras connected to SOPHYAI, also shows the scenario "hidden" to him by increasing his awareness.



INTUITIVE WEB CONFIGURATION INTERFACE

The configuration of the types of alarms , how they are to be dispatched and historicized, permissions and prohibitions for particular areas , are easily defined in the convenient web interface of SOPHYAI.



CONFIGURABLE GEOFENCES

Geofences around the medium can be configured with a few mouse clicks. In addition, geofences can be defined for specific areas that can be given special recognition peculiarities (e.g., they can be barred from the presence of vehicles or people))