Your projects, our passion

ASSIST is a project which is born to meet the needs of an industrial sector where automation and technology can give a huge boost.

As in other industry sectors, safety standards are getting higher and higher and the economic crisis requires efficiency to streamline costs reducing to minimum accidents risks. ASSIST thanks to the collaboration man-machine allows to reduce the operator’s workload enabling them to comply with operational procedures by improving the quality of work.
WRM TODAY
In the presence of a tunnel the operations to be carried out are: restrict the clearing width of the snow plough, restrict the spreading width, stop the spreading once entered and restart it before exit. On the motorway viaducts the formation of ice is greater because the road temperature is lower and the presence of steel joints for thermal expansion it’s a real pitfall, with the risk of damaging both the joint and the plough. The operator must vary the snow plough geometry and the dosage of de-icing material, including different percentage of humidification.

All this, for maximum effectiveness, must be done in the shortest possible time. In addition, the operator is in the worst driving conditions that can be faced: slippery road, hidden obstacle, low visibility, traffic and maybe in nocturnal hours.

ASSIST CONCEPT
The project it’s based on the parametrization of all known factors given by the road morphology, and predictable ones that came in during a winter maintenance “mission” which are the road surface, the weather forecast and the traffic conditions.

The creation of the mission is done through an online web service, where the responsible can completely parametrize the intervention remotely and, thanks to help of satellite photos and mapping, pre-set operative functions of plough and spreader based on geo-referenced points, with high accuracy. On the vehicle is installed a microprocessor control system, able to use mappings as satellite navigations, a precise GPS positioning and the possibility to communicate via cloud with the web portal.

The entire system processes the incoming data and proposes to the road responsible the alert, secondly to the operator the path to do and if necessary to change some parameters.

WHY CHOOSE IT
ASSIST handles all the commands simultaneously, compared to man that is limited to one at a time, especially in critical conditions typical of this sector. This means less workload for the operator and a greater service quality which is the road user safety; moreover every operation is suggested on real data, calibrated on the conditions and registered, providing protection against dispute in the event of an accident.

The system guarantee a great saving starting from the medium to short term avoiding accidental damage to motorway viaducts steel joints, sidewalks, sos columns on the motorways or bus stop, thanks to advanced satellite mapping services, that knows they’re position also if covered from heavy snowfalls.

All the spreading material excessed it’s a waste of money and adversely affects environment and artwork; we firmly believe technology has to aid us for a cleaner world: this is a duty for our generation is a right for our children.

WINTER ROAD MAINTENANCE

SAFETY
For road users, for WRM operators, for WRM vehicles

ENVIRONMENT
Reduce waste, reduce pollution (chemicals!)

CERTIFICATION
What you report is what you really do!

WORKLOAD
WRM driver have to drive and not to operate complex equipment

FROM NEEDS TO ADVANCED SERVICES

SNOW PLOUGHS SUPPORT
Working settings suggestions to driver (real-time notification), even full automation

SPREADING CONTROL AUTOMATION
Optimization of spreading (i.e. road geometry, road surface, weather forecast)

DRIVER ASSISTANT
«Context awareness» information (i.e. road conditions) Alerting (i.e. approaching obstacles)

MANAGEMENT SUPPORT
Mission planning
Real-time tracking
Mission data archive & analysis