



SmarT INtelliGent RAIlwaY

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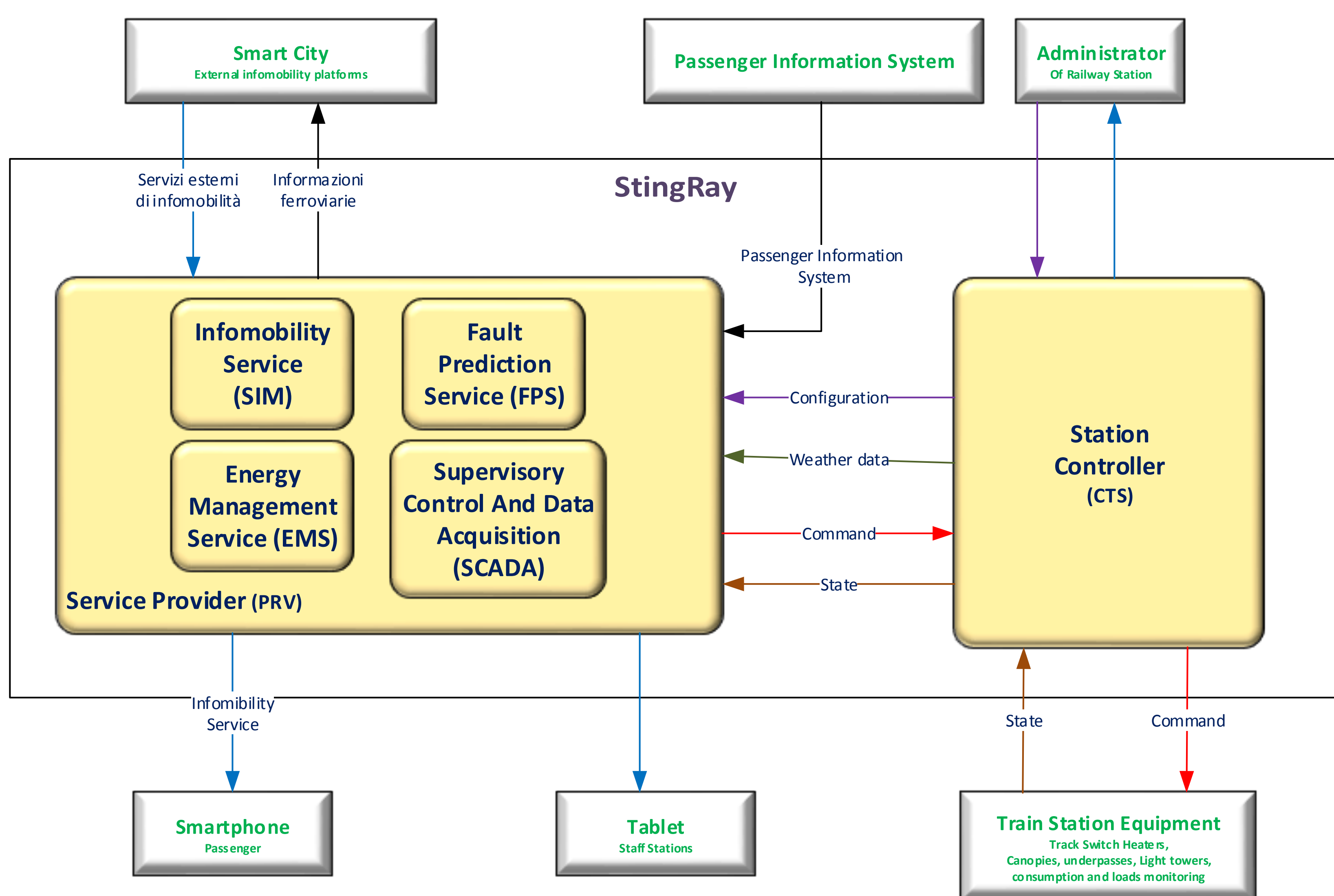
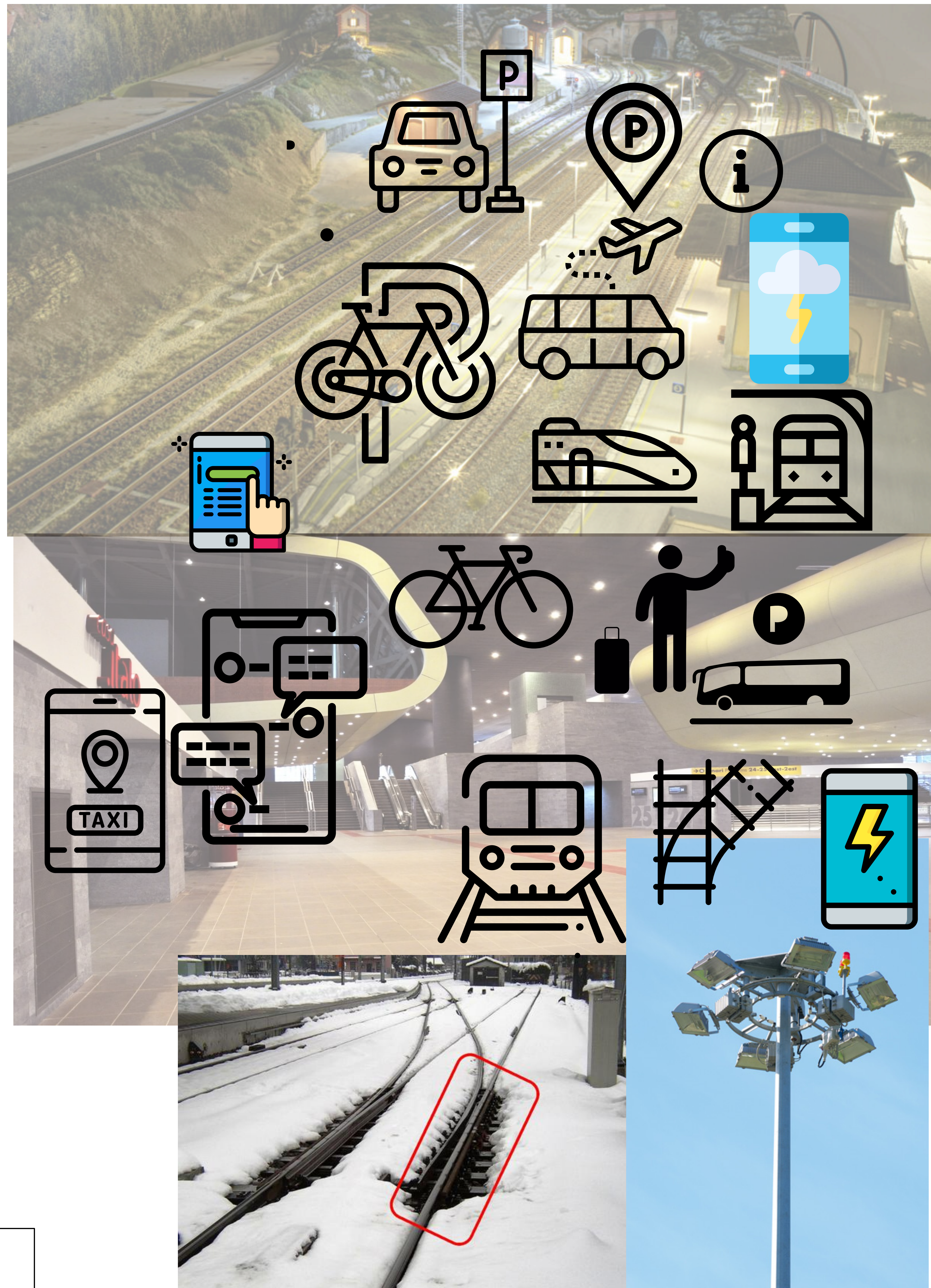
The goal of STINGRAY (SmarT station INtelliGent RAIlwaY) is to renew the role of a railway station, traditionally seen as a meeting point for a city, in order to enhance its importance and integration in the Smart City of the future.

The project is focused on the study, design and development of a station communication infrastructure, integrating power line and wireless technologies, which:

- i) realizes a LAN network over the station plants using Power Line and wireless technologies;
- ii) allows the control and monitoring of the station equipment (Supervisory Control And Data Acquisition (SCADA));
- iii) creates value added services such as connectivity, monitoring, Energy Management Service (EMS), Fault Prediction Service (FPS) video surveillance, environmental surveying, infomobility, for customers and railway staff.

STINGRAY Smart services gather information from timetable of trains, as well as availability of city facilities such as bike-sharing, car-sharing, taxi, hotels, in order to offer aggregated booking services to end users.

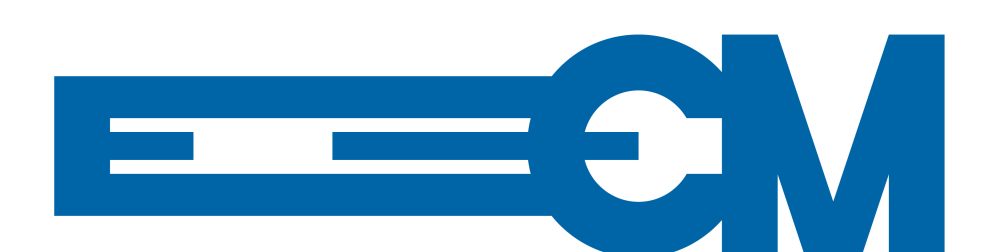
Fault Prediction Service (FPS) is a preventive diagnostic technology based on fault prediction. Railway staff can then preemptively implement the maintenance and troubleshooting according to the predicted fault types, comprehensively improving the customer experience.



Supervisory Control And Data Acquisition (SCADA) is a service allows to remote monitoring and control system of the station equipment.

Energy Management Service (EMS) is a service used by operators of railway station to monitor, control, and optimize the performance of the devices of the railway stations (Track Switch Heaters, Light, Underpasses, Light towers...). Managing the energy consumption of these devices is important in order to reduce costs and minimise the environmental impact. It is also important to guarantee the reliability of the system.

Station Controller Equipment (CTS) is element to realize a LAN network over the station plants using Power Line and wireless technologies.



Regione Toscana

