

MIUR project Gate46200

Innovative automatic system for tracking and analysing the intermodal logistic units under a freight village's access gate DM46200



Funded project to and partners by Tecnoalimenti S.c.p.A



- conoscenza dei sistemi informativi per la gestione dei modelli di ottimizzazione del processo logistico e dei flussi informativi ad esso legati in un'ottica di Supply Chain;
- capacità progettuali e d'implementazione dei modelli sopra citati, in sistemi informativi integrati con particolare attenzione agli ambienti multi-canale e multi-modale;
- capacità di gestione dei processi logistici intermodali e dei layout dei terminal intermodali
- conoscenza delle problematiche di programmazione, gestione strategica, valutazione e organizzazione operativa di progetti di ricerca industriale dal punto di vista manageriale
- capacità di gestire processi di lavoro e interagire in team interdisciplinari, propri dei progetti complessi di ricerca applicata ad elevata integrazione.

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Objectives

- The funded project “Gate” MIUR DM 46200 on behalf of Tecnoalimenti S.c.p.A to Mediawebview had the purpose to propose an innovative automatic system for identifying and analysing the intermodal logistic units under a freight village’s access gate, in the specific case of Sogemar S.p.A (a Contship Italia Group).



Milestones

- The project was scheduled in 3 work-packages and it ended by 16 months (1980 hours) under the MIUR funds, by 3 years under the EUROPEAN POR-FSE 2007-2013 Lombardia region's funds to the public and private partners as: Mediawebview s.r.l, Fondazione Politecnico, Speed Automazione s.r.l, Dipartimento di Meccanica del Politecnico di Milano, Università LIUC Cattaneo.



Human resources in the project

- The project and the human resources were distributed to the partners which took part to the project. In the MIUR short path has been trained 4 human resources, two in Mediawebview s.r.l and Fondazione Politecnico di Milano; the other two in Speed Automazione S.r.l and Dipartimento di Meccanica del Politecnico di Milano.

Activities in

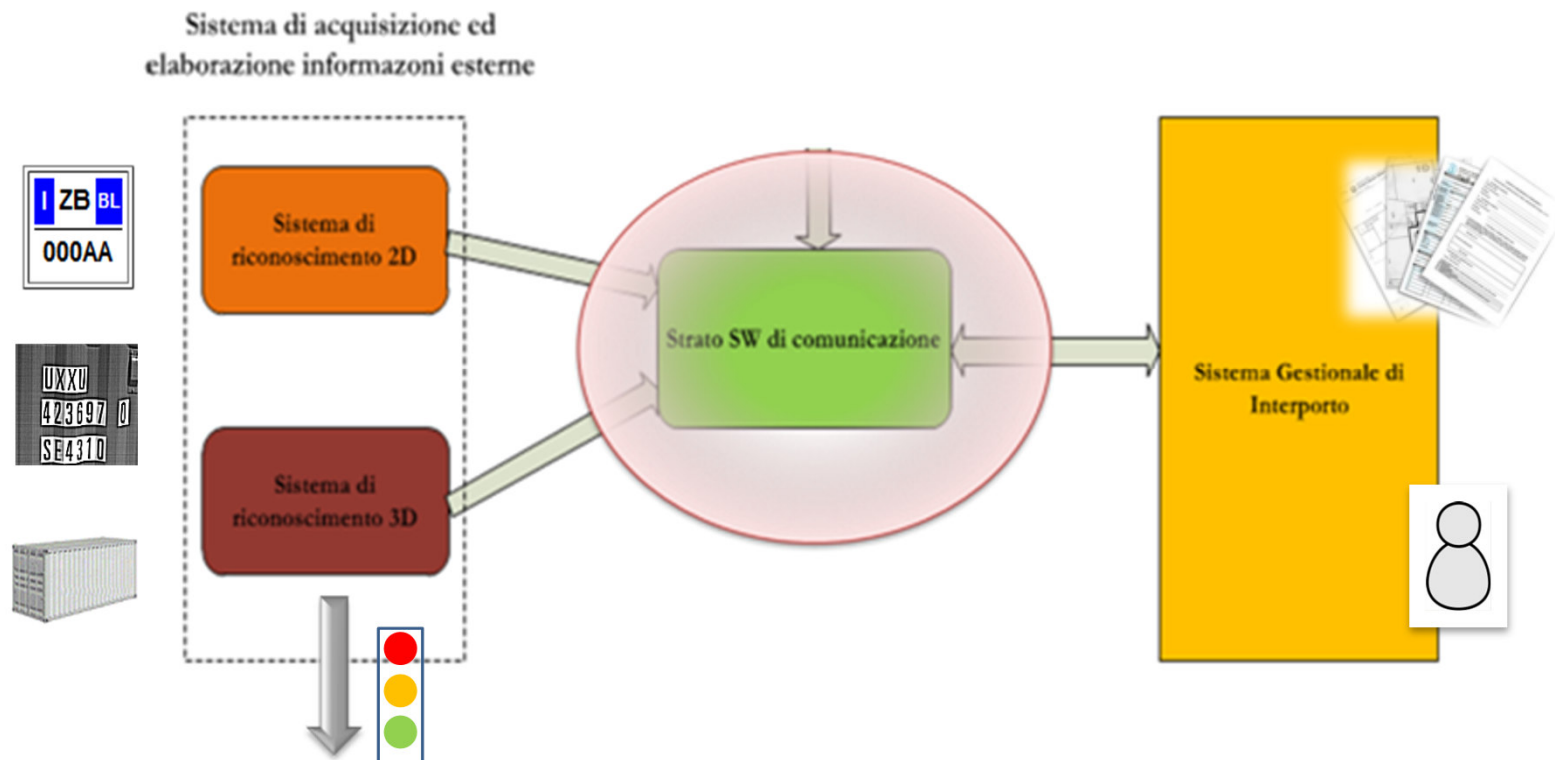


- Gate46200 project content analysis as requested by the tender;
- writing the documentation about the 2D-vision algorithms in logistics for tracking the ITU (intermodal transport unit) and license plates by (ALPR) Automatic License Plate Recognition software;
- benchmark of technological and market ALPR solutions;
- writing the tutorial about the product technical functional description with the application of (ALPR) in the field of logistics;
- writing the tutorial about the regulatories and standards for videosurveillance plants.

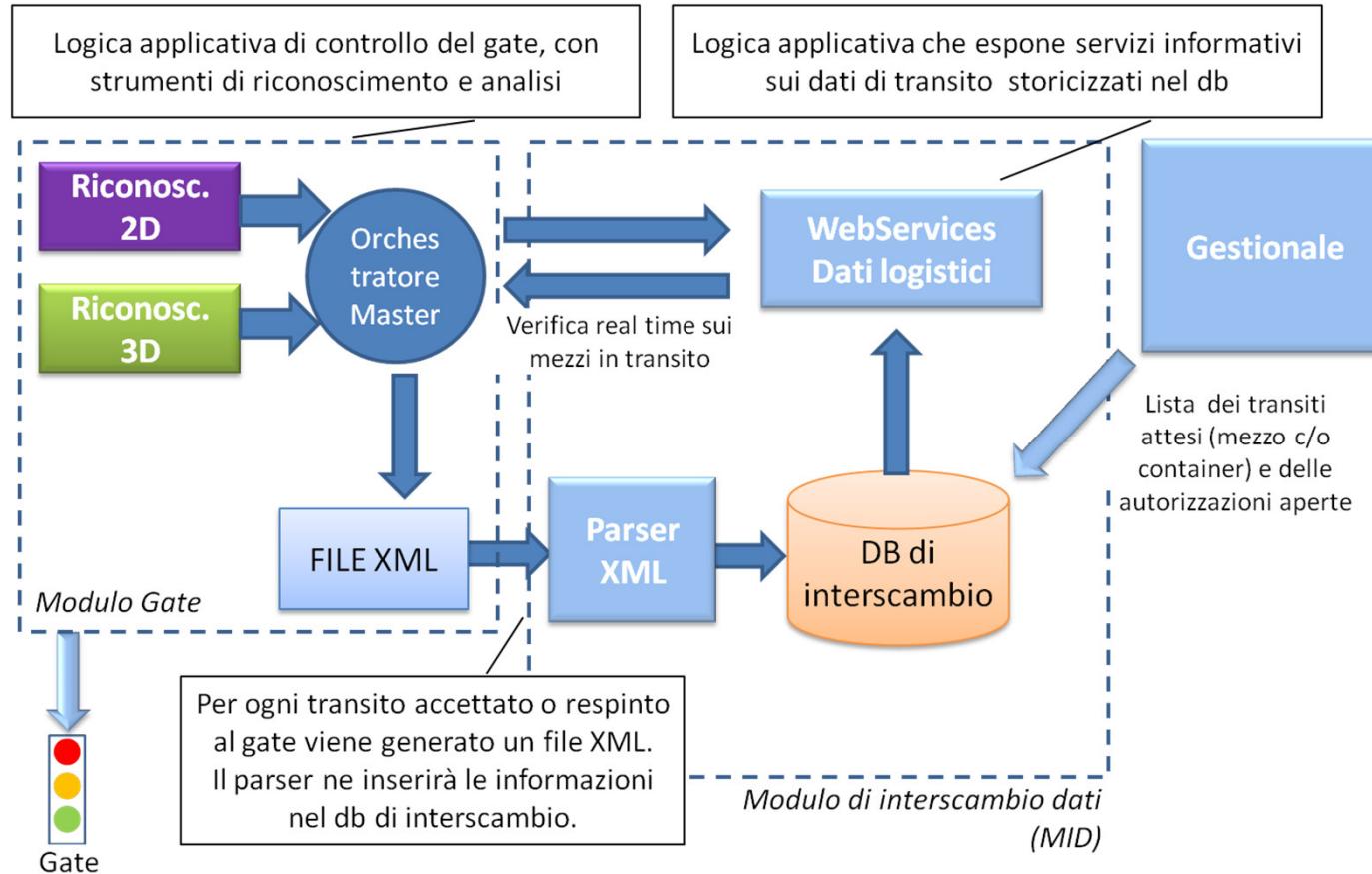
Activities in

- Freight villages context analysis;
- requirements gathering in Sogemar S.p.A and mapping the AS IS business requirements;
- Designing the AS IS business logistic intermodal process architecture in UML (Eriksson-Penker notation):
intermodal logistic flow in input and output;
- AS IS gap analysis by KPI/CSF/FTA techniques for assessing and improving the business processes;
- Proposing a technological model TO BE in order to re-engineering the freight village's access gate and the access flow of truckers and trans-shippers.

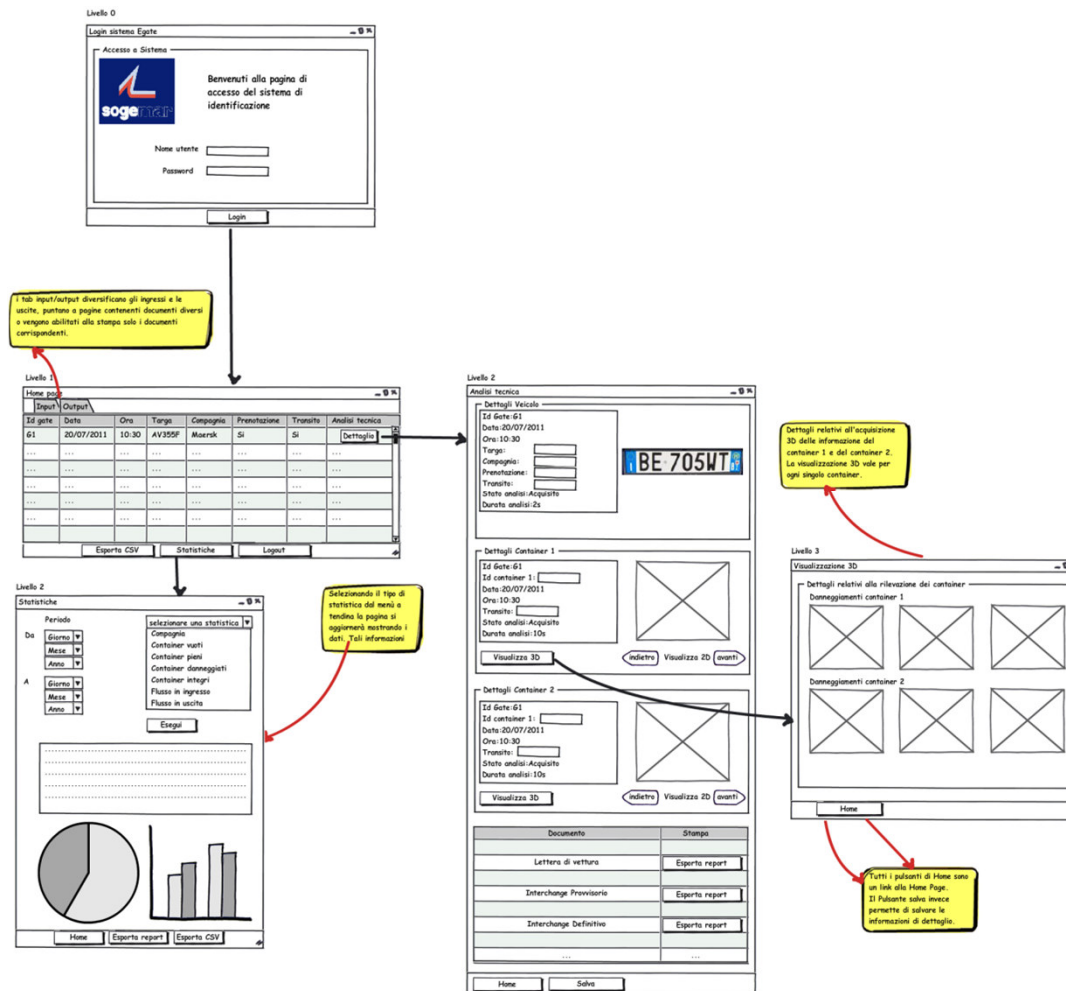
Gate system architecture and sub-system integration middleware.



Sub-system software middleware architecture



Software Application Mockup of the automatic access gate



Structural preliminary automatic gate design

