



Società Autostrade Alto Adriatico S.p.A.

Enrico Ferrante



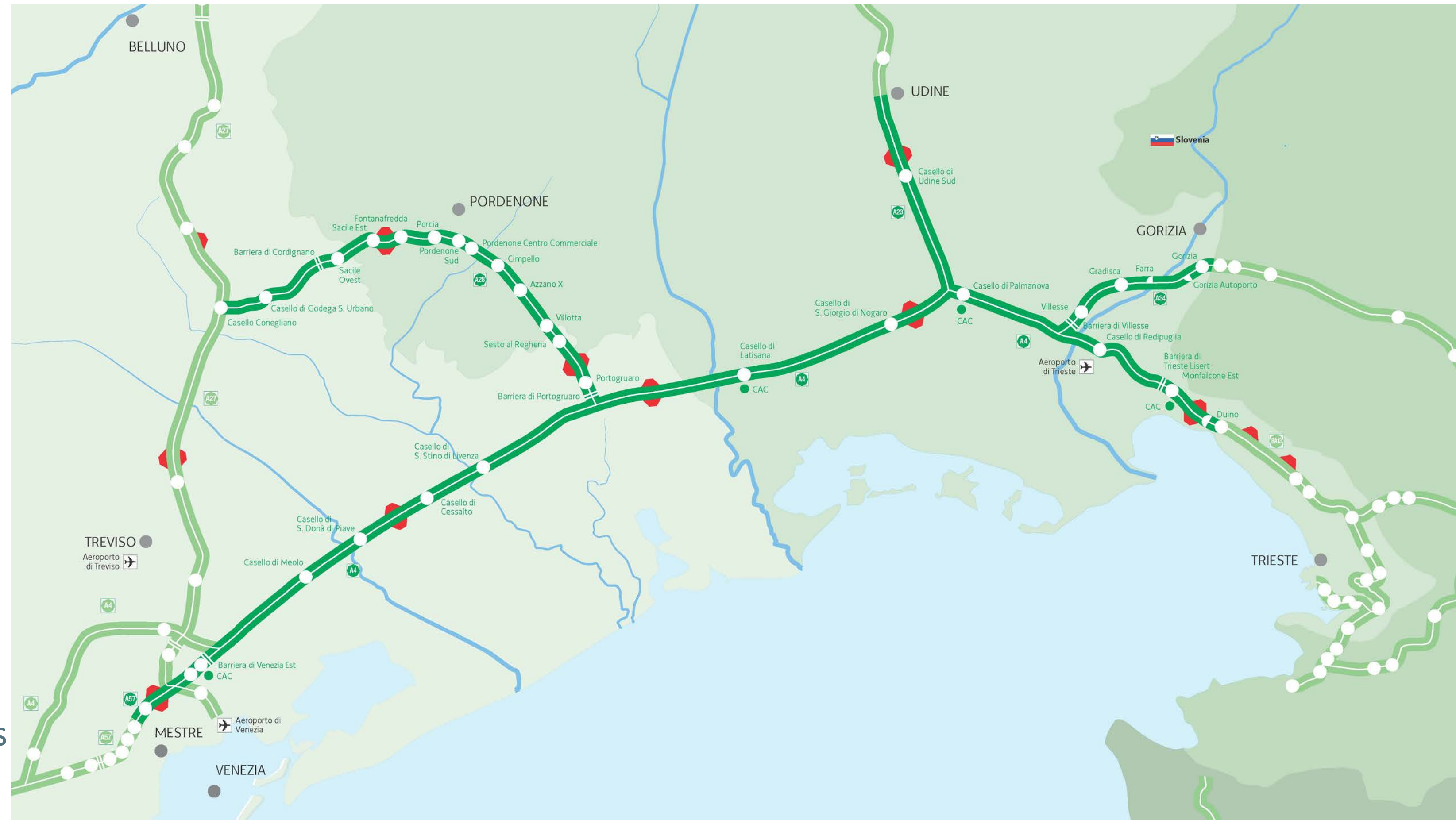
Co-funded by
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INTRODUCTION OF THE COMPANY

Società Autostrade Alto Adriatico S.p.A. is the concessionaire of the A4 Venezia-Trieste, A23 Palmanova-Udine Sud, A28 Portogruaro-Conegliano, A57 ring road of Mestre (with competence up to the Terraglio) and the A34 Villesse-Gorizia.

The company was founded in 2018 by Autonomous Region Friuli Venezia Giulia and Veneto Region.

On 1st July 2023 the company took over the management of the motorways and the actions previously initiated by S.p.A. Autovie Venete.



DESCRIPTION OF THE ACTION

- Phase 3, started in 2020 by S.p.A. Autovie Venete, is an extension of the C-ITS system already implemented in the section between Mestre and San Donà di Piave of the A57 and A4 and on the A28 between Conegliano and Pordenone, completed in phase 1
- In this third phase it is planned to install 20 Road Side Unit (MSW) on the A4 between Portogruaro and Palmanova - where the third lane was built - between km 451 and km 491
- The coverage of the system reaches about 84 km of the motorway network managed

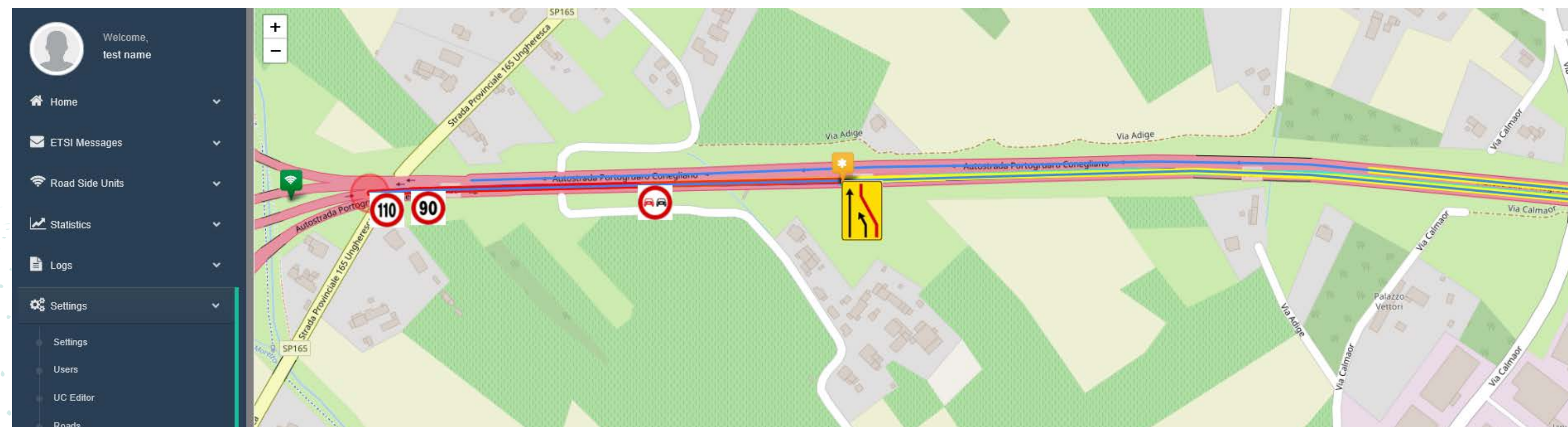
DESCRIPTION OF THE ACTION AND THE OBJECTIVES

- The construction of the infrastructure and civil works for the installation of the RSUs has been completed, including not only the technological corridor but also all the supporting structures. It will be possible to extend the coverage - in the future - with additional RSU with a «pitch» of 500 meters
- Phase 3 also includes the update of the C-ITS Server for the "translation" of events recorded in DATEX 2 towards V2X Communication Systems



DESCRIPTION OF THE ACTION AND THE OBJECTIVES

- The current implementation of the motorway network, with the realization of the third lane on the A4 in one of the section most subject to the heavy and cross-border traffic, allows the realization of the digital infrastructure that integrates the C-ITS systems
- The management of extraordinary events and particularly critical traffic conditions have led the company to find innovative solutions, also in collaboration with interconnected concessionaires, both national and neighbouring countries
- The development of the C-ITS Services Case Study "Day 1,5" for the dissemination of traffic information and "alternative routes" (Smart Routing) has been implemented



FINALISATION OF THE PROJECT FOR SOCIETA' AUTOSTRADE ALTO ADRIATICO

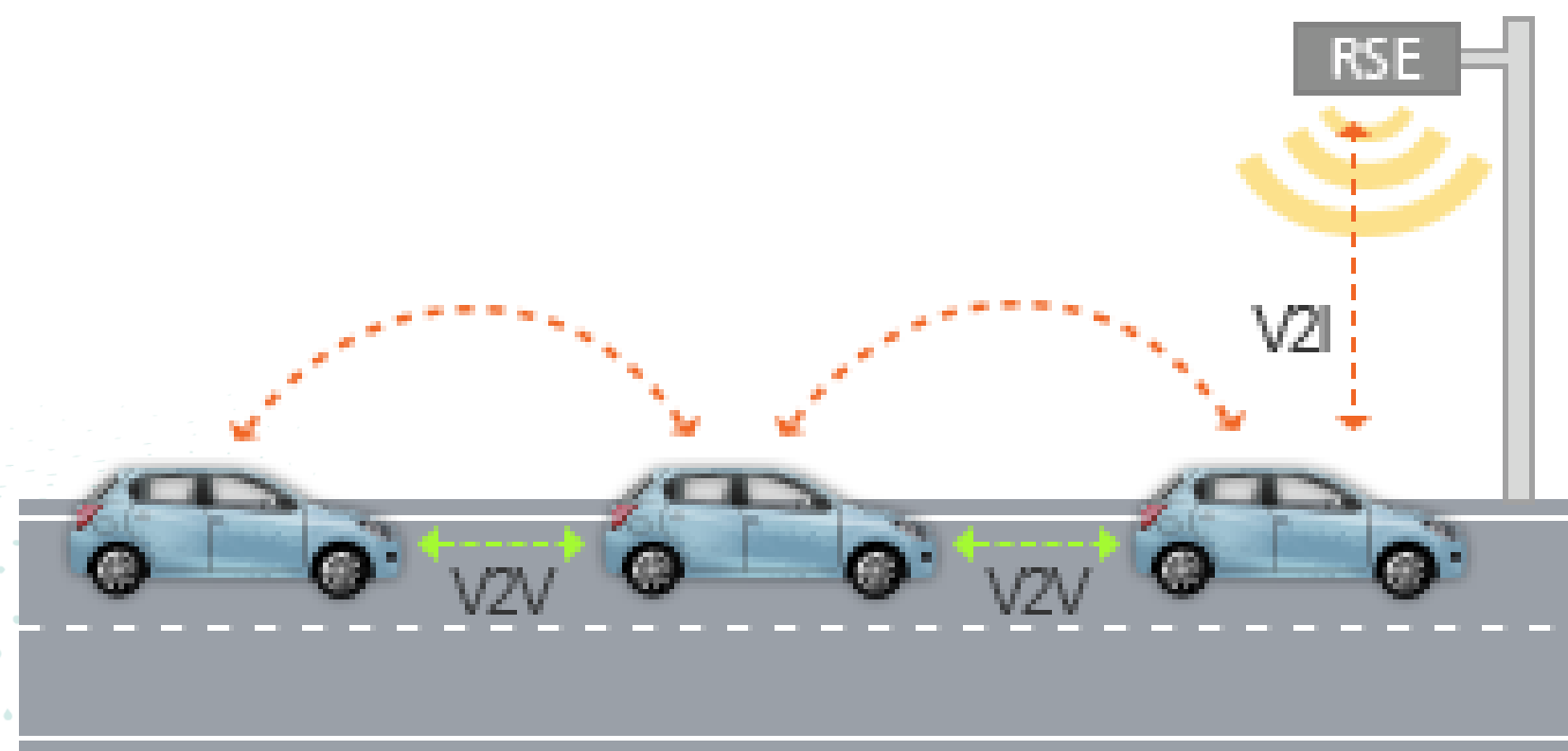
The services provided aimed at increasing road safety, efficiency of the motorway network, environmental impact and reduction of transport costs

Data exchange between different concessionaire - between Traffic Control Centres - and vehicles, by means of protocols shared between road operators (DATEX 2) and by means of V2X communication systems (ETSI-G5 and 4,5G/5G cellular network) are the basis of the services developed, aimed at providing:

- I. traffic information to users to increase safety and comfort of travel;
- II. dissemination of obligations and limitations imposed by regulations and for particular categories of vehicles due to roadworks, maintenance, etc.;
- III. warnings to drivers of hazards or abnormal situations such as accidents, queues, etc.;
- IV. support of connected vehicles and driving services for the implementation of the «Truck Platooning» and «Highway Chauffeur».

FINALISATION OF THE PROJECT FOR SOCIETA' AUTOSTRADALE ALTO ADRIATICO

- The continuation of the development of services for communication V2X (WiFi and 4,5/5G) with RSU, compatible with the security levels requested by road systems and the automotive sector
- The implementation of Cohda RSUs on the network managed by Società Autostrade Alto Adriatico



EXPECTED RESULTS AND OUTLOOK

- The evolution of Cooperative, Connected and Automated Mobility applications (CCAM) such as «Highway Chauffeur» and «Truck Platooning»
- The forecast of an appreciable reduction of the criticalities determined from queues and congestions, in a complex context like that managed by Autostrade Alto Adriatico on border areas and also due to the contextual development of the automotive sector
- Reduced environmental impact (e.g. truck platooning would lead to a significant reduction in emissions and consumption)
- The improvement of the capability of the traffic flows on the infrastructure