

ArcAtlantique 3 - POR-03 - Enhancement of ITS and Traffic Control Center Systems (upgrade of telematics equipments and renewal of traffic and environmental systems in tunnels)

Overview

Upgrade, extension and renewal of ITS sub-systems and road equipments in 235km of Portugal Core network (including a tunnel) to improve traffic condition and travel time information services, as well as incident detection, thus allowing for better journey planning and safer travelling for different types of end users. The works started in 2017 and will end in 2020, with an estimated cost of 850k€.

Objectives

ArcAtlantique3 project POR-03 addresses the efficient provision of real time traffic information for end users, improving the level of service. As it involves a long section of core network highways (A1, A3, A4, A25, A17, A29, A44), it will allow the improvement of the information inputs to the existing road operation and traffic management systems, also integrating the road incidents' detection with traffic management. This project addresses a section of core urban highway network, as well as a tunnel, in which traffic management can significantly improve the level of service.

Project description

The project includes the upgrade, extension and renewal of ITS sub-systems and road equipments, supporting advanced traffic management, information services and incident detection features. Also included are the upgrade and renewal of Optical Fiber (OF) network active equipments and devices as well as the improvement of telematic equipment and the renewal of traffic and environmental systems in the Tunnel of Ermesinde

The project is deployed along 235km of core and comprehensive network (A1, A3, A4, A25, A17, A29, A44). The objectives are to provide real-time traffic information, improve the level of service for end users, improve traffic

management efficiency (using improved traffic control centres and deploying electronic signals control systems) thus reducing traffic congestions and improve environmental impacts).

The main objectives for these are the improvement of both safety and mobility for the road users, through the implementation of improved functionality such as monitoring and management of traffic control. This includes an upgrade to the roadside equipment, equipment residing in the Operational Centre / Unit and the development of new functionalities (namely new hardware, new CCTV cameras and Automatic Incident Detection, and new VMS.

Road operator BCR's activities include :

- deployment of traffic management equipment to support advanced management and information services (by upgrading data collection, meaning real-time data collection by, on road sensors, video monitoring and, traffic monitoring);
- improvement of the traffic management system, adding new features , including predictive traffic management (namely by upgrading the Traffic Management Centre, allowing for the usage of real-time decision support tools and better enforcement of Traffic Management Plans).
- upgrade of the telematic equipment and renew traffic and environmental systems in the Tunnel of Ermesinde

Road operator Ascendi will:

- extend and renew ITS sub-systems and road equipment, supporting advanced traffic management, information services and incident detection features;
- deploy the OF network active equipment and devices.

Member States involved:

Portugal

Implementation schedule

Start date:2017
End date:2020

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Budget

Action promoter: Ascendi Costa de Prata – Auto-Estradas da Costa de Prata, S.A.; BCR – Brisa Concessão Rodoviária S.A.

Total project cost covered by this Decision: 850.000,00€
EU contribution: 170.000,00€
Percentage of EU support: 20%:

Geographical Location (If relevant)

235 km of Portuguese core network - A1, A3, A4, A25, A17, A29, A44.

Contact People

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Results expected

The evaluation is to be carried out ex-post on a system that will be deployed and operational. It will be completed, if necessary, by ex-ante analysis to simulate specific situations. The planned evaluation indicators will include change in traffic flow (e.g. vehicles per hour/day at spot location), change in journey time variability, congestion, journey time and difference in Vehicle-km driven.

This project is expected to deliver results in the improvement of traffic management and information systems, with positive impacts in Demand for Travel, Accident numbers and Severity.

