

Introduction

CARMA is a Greek National Project aiming at building an innovative and comprehensive ICT system targeted for supporting and promoting Green daily commuting habits, with a particular focus on helping the user save on fuel expenses, time, and greenhouse gas emissions, on a regular and daily basis.

CARMA's ambition is to provide reliable feedback to the users on how much fuel, money, time, and CO2 they spend when driving their way to their destinations

Vision



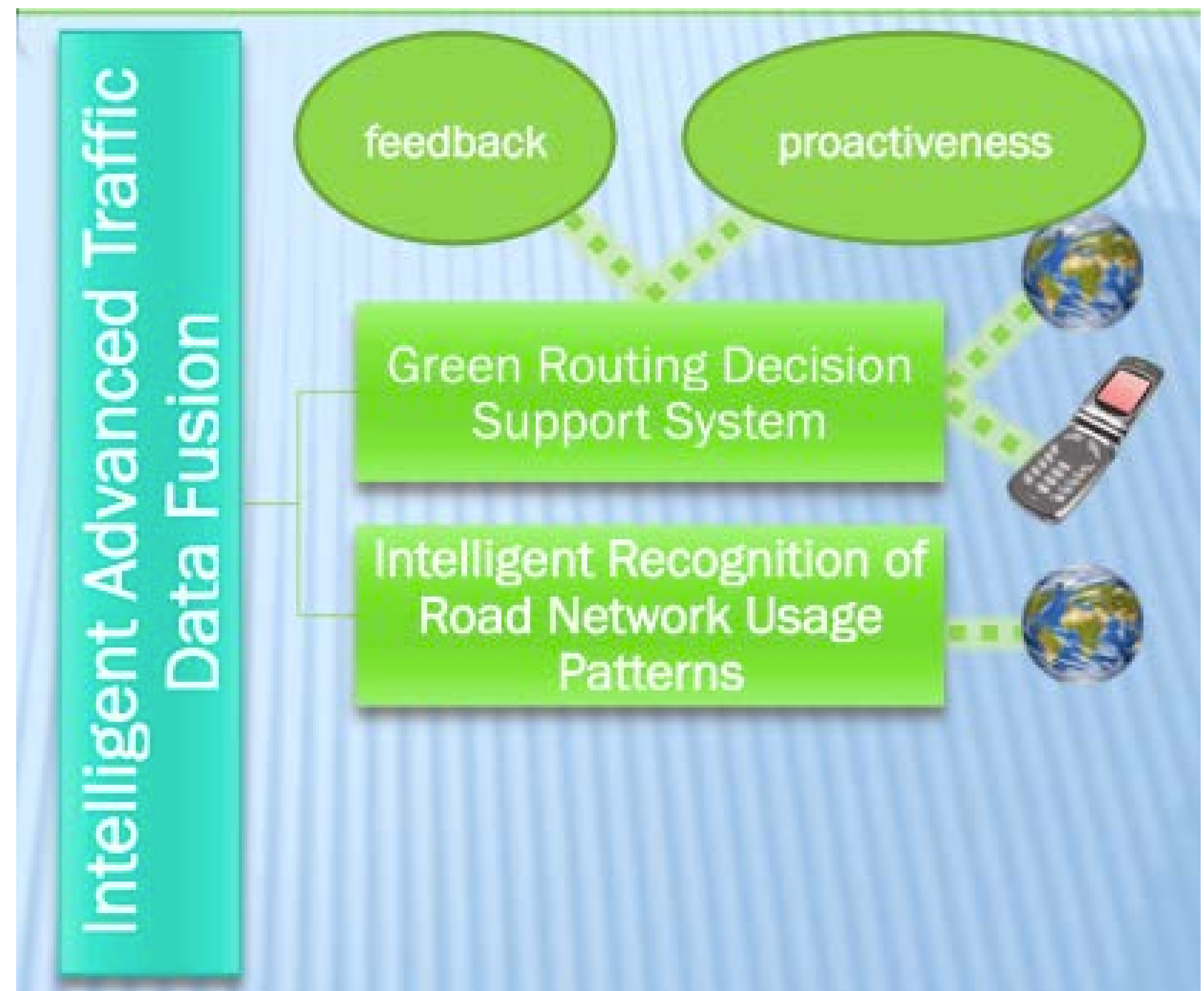
CARMA Data Integration

The project will enable the provision of advanced Green road-transport services to the end users. More precisely, it will address the following popular use cases:

◆ Through **CARMA** users will be able to get informed about the amount of fuel, money, time, or CO2 they spend on routes on which they travel. They will also be able to compare different alternative routing options for getting to their destination, e.g. choosing a motorway vs. an avenue, etc. Users will be able to see such comparative results directly on their mobile devices, as well as on the Web, thus getting proper feedback on their routing choices

◆ **CARMA** will also enable the extraction of important but not easily identifiable road usage patterns. Thanks to its holistic ICT-based approach, **it** will provide an invaluable tool ("O-D": origin and destination matrices) to road operators and authorities for efficiently analyzing the traffic demand and for better serving the public.

Technological and scientific objectives



CARMA Systems

In order to realize the proposed novel services, **CARMA** will pursue the following S&T objectives:

1. Holistic approach for traffic data acquisition
2. Intelligent and advanced traffic data fusion
3. Provision of reliable feedback information
4. Advanced green routing decision support system
5. Smart and efficient computation of usage patterns
6. User privacy assurance
7. Engineering of a comprehensive ICT system implementing the proposed functionalities
8. Validation of the engineered system in laboratory and field trials

Expected benefits

- Reduction of traffic congestions and associated costs
- A greener, healthier and more sustainable environment
- Improved quality of life
- New possibilities in market development
- Fuel savings of about €0.62 billion per year in Greece

Participants and funding

- Computer Networks Laboratory of ICCS (coordinator)
- Attikes Diadromes A.E.
- Vodafone Panafon AEET
- Zelitron S.A.

Budget: 646.500 €

Duration: 24 months



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