



EURAMP (EUropean RAMP Metering Project), contract number 507645, is part of the European Commission's FP6 Action Line "e-safety of road and air transports". The project total cost is € 3,104,540 and the Commission contribution is €2,198,000.

Project Main Goals

Ramp metering is the most direct and effective control measure towards an optimal, orderly and safe utilisation of the motorway infrastructure. EURAMP's major objective is to advance, promote and harmonise ramp metering control measures in European motorways in the aim of improving safety and increasing efficiency of traffic flow. This major objective is pursued within EURAMP via a number of multifaceted actions and sub-objectives:

- Advancement of methodological issues, with particular focus on traffic flow safety, to secure a European technological leadership in the area.
- Consolidation, harmonisation and advancement of ramp metering practice in Europe.
- Demonstration of new developments in European sites and paving the way for a new generation of extended (network-wide) ramp metering installations.
- Co-operation of ramp metering with signal control and further heterogeneous control measures for maximum synergy in terms of traffic flow efficiency and safety.



Munich A94 Test Site



Utrecht A28 (Uithof) Test Site



UK M6 Test Site

Project Test Sites

There are five test sites in EURAMP:

- A6 motorway, south of Paris (Ile-de-France)
- A28 Uithof, A2 Breukelen West and A2 Maarsse West, in Utrecht (Netherlands)
- A94 in Munich (Germany)
- M6 motorway, Birmingham (UK)
- Ayalon Highway, Tel Aviv (Israel)

The five test sites are located on motorways and surrounding networks of various characteristics and levels of telematics infrastructure.

In addition there will be simulation testing at two virtual sites, in Paris/Ile de France and Munich.

A number of follower sites and industrial partners will assist the project with advice on user needs, and will be kept informed of progress in EURAMP.

Technical Approach

The first stage in the project is the design and simulation testing of ramp metering algorithms in the test sites and virtual sites. This will be followed by the field implementation and verification of the strategies and the field demonstrations, allowing assessment of the strategies, as well as a comparative evaluation across strategies and test sites.

Early in the project there will be consideration of user needs, with input from the User Group, and a review of the current state-of-the-art in ramp metering world-wide.

	Demonstration Sites				
	Ile-de-France (A6)	Utrecht (A28 & A2)	Munich (A94)	UK (M6)	Ayalon Highway
Number of ramps	6	3	3	2	2 or 3
Existing ramp metering system	local/ coordinated	local	local	Local (n-car at a time)	no current system
New local strategies			Y	Y	Y
New metering policy (n-cars-at-a-time)		Y			Y
Network-wide strategies	Y		Y	Y Coordinated	
Safety Issues	Y		Y		possibly
Urban/ Interurban Integration			Y	Y	possibly
Maintenance/ Operations		y			Y

EURAMP Project Work at Test Sites



Paris A6 Test Site



The Ayalon Highway

The Project Co-ordinator is:

Antulio Richetta
 IBI Group
 113 Neratziotissis Str.
 15124 Maroussi – Greece
 (+30)-210-6109360
arichetta@ibigroup.com

Expected Achievements and Impact of EURAMP

- Advancement and cross-site field-evaluation (with special emphasis on traffic safety) of local and network-wide ramp metering strategies.
- Development of a generic software prototype that is interoperable (applicable in various sites).
- Advancement and field-evaluation of integrated urban/interurban strategies.
- Development and evaluation of risk indicators for motorway traffic operations.
- The *Handbook of Ramp Metering* that will be initially prepared at an early project state and will be continuously updated and extended until it reaches its final form at the project end.
- A helpdesk providing advice and support to ramp metering sites will be continuously operated during the project's lifetime.

List of Participants:

IBI Group, Technical University of Crete (Greece); Napier University, University of Southampton, Southampton City Council (UK); Institut National de Recherche sur les Transports et leur Sécurité, Direction Régionale de l'Équipement de l'Ile-de-France, Phoenix ISI Ingénierie des Systèmes d'Informations (France); Bayerische Motoren Werke AG, Transver GmbH, Autobahndirektion Südbayern, Verkehrszentrale Hessen (Germany); Ministerie van Verkeer en Waterstaat RWS-AVV, RWS-DUT and RWS-DON (Netherlands); Ayalon Highway Company Ltd, Elia Ben-Shabat Transportation Planning, Traffic Engineering & Control (Israel).



This project has been partially funded by the European Commission DG INFSO under the IST programme. The content of this publication is the sole responsibility of the project partners listed herein, and in no way represents the view of the European Commission or its services.

For further information see the project web site at: www.euramp.org