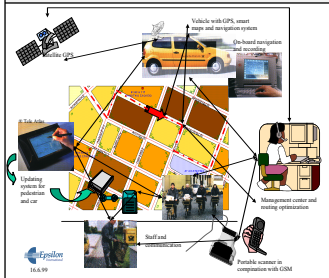
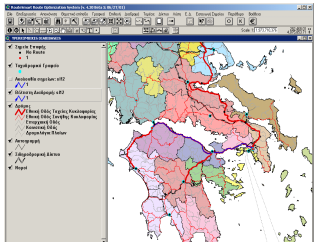
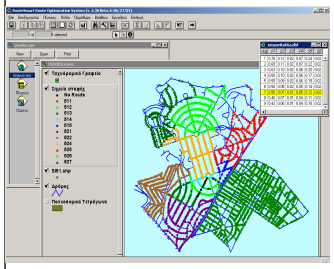
Ref no	Project title		"HERMES": THE HELLENIC POST GIS-BASED DELIVERY SYSTEM					
Name of legal entity	Country	Contract value (€)	% carried out by Epsilon	No of staff provided	Client	Origin of funding	Date (start/end)	Consortium Members
Epsilon	Greece	0,3	100%	6	Hellenic Post, ELTA	Hellenic Post, ELTA	01.01.1999 30.12.2006	None

Description of the project







Project: Embarking with year 2000, the Hellenic Post (HP, ELTA) initiated the use of faster and automated methods for postal delivery, based on GIS technologies. EPSILON developed the "ERMIS" (HERMES) application in cooperation with Route Smart Technologies Inc., and ESRI s/w technologies. The project covers the GIS-based routing optimisations and delivery for the Metropolitan areas of Athens, Thessalonica and Piraeus and for the interconnecting routes between the main National Distribution Centres of Greece. The system considers daily dynamic changes (e.g., new LBSs, alteration of land use), and responds to capacity requirements for of statistics and LBS information. It responds to the needs of the HP for: (i) Urban mail distribution, (ii) Mail distribution between and within junctions (major towns in Greece and their surrounding villages), (iii) Early development of future GPS/GSM/GPRS applications, for both the HP and the Postman.

Technologies: ERMIS is based on: (1) Epsilon high quality digital data (Digital Greece™) for entire Greece in scales 1:250.000 for country-data and 1:5.000 for the cities; (2) ESRI ArcGIS technologies, and (3) "RouteSmart" advanced routing optimization technologies. ERMIS combines customer-input and automated techniques for route selection by simultaneously considering daily needs of customers. EPSILON developed a "toolbox" for the HP, the Regional & Local HP Offices, and the Postman for a dynamic daily use. The technology considers "optimal routes" for sectoral partitions and daily navigational features as seasonal constraints, traffic regulations, street directions, turn penalties, time restrictions, street categories, and various means of transportation. Daily HP-morning (06:00 am) reports are generated for the 90 Hellenic Post Offices, for mail distribution, next-day planning, and the efficient distribution of the day. Reports provide information on street-by-street instructions, and a summary of the customer list. ERMIS is accepting GPS, GSM/GPRS or other telecom in-vehicle technologies linked to automated navigational arrangement of the HP. It is controlled by a Dispatching Center. Extensions of ERMIS are assumed by EPSILON for navigational applications in the Transportation sector (bus, taxis, school buses, waste, etc); Customer & delivery services (Delivery trucks, Courier); Emergency situations (fire, crime, earthquakes etc); Health services (ambulance transportation); Location based services. Basic routines of the ERMIS have been used in the C4I/CBD Olympic Games Security Project, ATHENS_2004 (see reference).

Type & scope of services provided

Major tasks accomplished

- Analysis and establishment of HP user requirements
- Installation of h/w, s/w and middleware infrastructure of a national server-client based system
- Creation of the street network with complete street classification and street numbering and numerous navigational attributes for the major cities
- Generation of clients/homes database
- Generation of partitions for city sectors and selected point locations
- Generation of routes to accommodate service locations
- Generation of the postman & tracks daily routing
- Statistical analyses of the system
- Establishment of a digital mapping system for navigational vehicle extensions servicing of the system up to year 2006

Major innovations

- The first of such projects in Greece
- Extension of Routsmart technologies
- Creation of a navigational database
- Incorporation of GSM/GPRS/NavSat technologies.

Key Words: Athens, collection, digital geographical data, distribution, Epsilon International SA, European Union, Greece, GIS, Hellenic Post, mail, network, operating network, Piraeus, Route Smart Technologies Inc., route optimisation, route, routing application, service location, Thessalonica, ESRI.