EUREKA PROJECT E!2415 - EUROTOURISM MAPFINDER

1. General description

Project	E! 2415 - EUROTOURISM MAPFINDER	**Status**	Announced - 28-JUN-2001
Title	**Development Of A High-Speed Geographic Information Server On The Internet**		

Class	Sub-Umbrella	**Technological area**	Information technology
Start date	05-APR-2000	**End date**	05-OCT-2001
Duration	18 months	**Total cost**	1.06 Meuro
Partner sought	No		
Summary	Miramapa Will Permit Quick Access Over The Internet To Any Geographic Information On Any Country In The World And At Any Scale.In Addition, Users Will Be Able To Make Queries On Tourist Information, Traffic Services, Real Estate, Etc.		

Budget and duration

Phase	Budget(Meuro)	Duration (Months)
Definition phase	0.53	9
Implementation phase	0.53	9
Total	**1.06**	**18**

Member contribution

Member	Contribution	Position	Since
Spain	**70.00%**	**Contact Member**	**18-JUL-2000**
Germany	30.00%	Participating Member	28-JUN-2001

Participants

Company	Country	Type	Role
Servicios Generales De Teledifusion S.A.	**Spain**	**SME**	**Main**
Simotion	Germany	SME	Partner
Nh Hoteles S.A.	Spain	Large company	Partner

2. Project outline

Project description

The aim of the project is to develop a geographic information server for the internet, which will allow the user to quickly access information of any country at any scale, from general regional overviews to detailed urban plans. The type of information that will be possible to display, as a set of continuous, geocoded layers, will be, for example: road maps, satellite pictures, digital terrain models, street maps, aerial pictures (orthophotos), building heights, etc.
The user will be able to position any of those layers at a given point by entering its postal address, its kilometre at a road or just its coordinates in any known system (geographic, UTM, Lambert, etc.).
Conversely, it will be possible to query the address or the coordinates of a given point selected by the mouse.
The user will scroll and pan over the map in a continuous mode, instead of switching from frozen images.
There will also be a set of tools available like shortest and fastest path calculation, distance measurement, height profile display, user-defined marks, 3D-route visualization, etc.
In addition to the general cartographic information, the user will be able to display the location of any service of interest offered by a public or private organisation and, specifically, tourist information, among others.
Those services will also be structured as layers of icons that the user can activate, deactivate or even filter to only show those that meet his requirements. Examples of the icons that can be displayed on the map are: hotels, restaurants, travel agencies, traffic situation with related videos, SOS points, petrol stations, sport facilities, monuments, museums, leisure parks, cinemas, theatres, railway stations, airports, harbours, official buildings, hospitals, real-estate offices, shops/ businesses, etc.
From any of these icons there will be a link that will show more information about it (pictures, plans, timetables, fees) or will enable on-line commercial transactions (bookings, reservations) to be performed.
Users will also be allowed to enter information they want to offer to the general public, so that it is not only queried on-line but also continuously updated (availability of hotel rooms, aircraft seats, concert tickets or houses for sale). In the latter case, authentication measures will be required.
Advertising banners will help to finance the web sites and provide the user with information related to his profile, according to his latest choice of services. To that extent, advertising is also regarded as an enlargement of the information in which the user is interested.
It is also envisaged to adapt this technology to other platforms rather than the conventional desktop PC, like for example, a TV set, a WAP-based mobile telephone handset or a UMTS-based mobile personal assistant.
Keywords: cartography, internet.

Technological development envisaged

Compression techniques specifically designed for the internet will be first developed, so that it will be possible to serve continuous information originally stored in files various gigabytes in size. This compression applies not only to photographic raster images, but also to vector-like maps.

Apart from the compression of source information, the packet communication will also be optimized, so that everybody will benefit from quick access to the information. The system will measure the access speed of the user (depending on his equipment, access bandwidth or time of day) and adapt the presentation technique to that situation, so that users are not discouraged from paying attention to the terminal due to everlasting page downloads. Another advantage of the system is that it will only use standard JAVA code, valid for all types of navigators. It will not make use of plug-ins, which will encourage the user to straightaway navigate over the site without having to install additional software (plug-in) that would make him bored with installations and a little scary about placing strange codes into his already full hard disk. Finally, we will develop specific technologies to access the geographic information with the limited keys and displays of a mobile handset or a TV set, based on different operating systems and programming environments. In the case of mobile terminals, the system will identify the position of the user with the newest technologies (GALILEO, UMTS-delays), in order to offer him, with his authorization, additional services: nearest restaurants, expected traffic jams ahead, etc.

Markets application and exploitation

One of the first applications of this technology will be tourism. Anyone in the world will be able to plan his holidays in a remote country at no cost and with a glamorous approach: just letting his imagination fly over the map and recreating the reality in form of pictures, videos or 3D perspectives on aerial photographs.

It will be possible to calculate the fastest path to the destination point, book a ticket in the desired means of transportation with a credit card, have a comfortable room ready after the journey, reserve a table at a restaurant to taste the delicious local cuisine, etc. However, those who like improvising can simply have a look at the internet while waiting to pay the bill at the petrol station and re-plan what they are going to do that day. If the traffic is too heavy, they can let the system calculate an alternative route that leads, for example, into unexpected worlds of historic and cultural life. And if you get lost, you do not need to blame anybody for having forgotten the navigator, you just need to switch on your mobile phone and the system will recognize your present position and even download local maps for your interest. Another application of presenting mapping data in the internet will be similar to that of old newspaper small advertisements. Anyone with something to offer will be

allowed to present it on a friendly and precise background, like an aerial picture of the town. You can announce a house for sale, a shoe-repairing business, a cultural event or a private party.

Measures will be taken to avoid the presentation of false information, like charging small amounts for service advertising or identification of the announcer. On the other hand, booking transactions will be financially secured for the announcer in order to preserve the rights of the business owners not to be exposed to the risk of customers not showing up after having reserved a specific service on the internet.

The costs for the web site owner will be financed in three ways. First of all, smart, selective and friendly advertising, that does not bore the user but complements the information he is looking for, thanks to customer profiling, storage of previous queries, identification of current geographic situation and so on. Secondly, the web site owner will regularly send his visitors to other previously agreed web pages and can charge the latter for the number of visitors he is providing, regardless of whether they ultimately perform a transaction. Finally, he can also charge a commission for any financial transaction that effectively takes place on the internet as a result of a booking or reservation.

Project codes

BSI

BMM	simulation
EGO	cartography
MU/MX	computer software
MV	software techniques
MVG	data handling (software)
MVS	programming
MVS.TB	algorithms
MVS.TG	coding (programming)

NACE

7220	Software consultancy and supply
7230	Data processing
7240	Data base activities
7260	Other computer related activities
73	Research and development
7414	Business and management consultancy activities
7430	Technical testing and analysis

3. Main participant

Company	**Servicios Generales De Teledifusion S.A.** Edificio Alfa Ii, Of. 106 Avenida De Manoteras, 22 28050 Madrid Spain Tel +34 91 383 2160 Fax +34 91 302 3878 www.sgt.es
Contact	**Ms. Sonia Torrubiano** Product Manager Tel +34 91 383 6457 Fax storrubiano@sgt.es
Organisation type **Participant role**	SME Main

Contribution to project

Development of the software technologies and systems with the following phases: system analysis, design, coding and tests.

Expertise

- Development of software applications based on GIS (Geographical Information Systems) - Design and roll out of digital television and radio networks - design and roll out of mobile radiocommunication networks.

4. Partner

Company	**Simotion** Frankfurter Ring, 193a 08807 Muenchen Germany Tel +49 89 324 554 30 Fax +49 89 324 553 66 www.simotion.com
Contact	**Dipl.-Ing. Franz Markus Reich** General Manager Tel Fax f.reich@simotion.com

| **Organisation type** | SME |
| **Participant role** | Partner |

Contribution to project

Development of distributed database systems, development of image compression algorithms, supply of digital cartography commercialising of the technology in GERMANY and other countries in Europe.

Expertise

- Navigation systems - car-driving simulation - radio planning.

4. Partner

Company	**Nh Hoteles S.A.**
	Santa Engracia, 120
	28003 Madrid
	Spain
	Tel +34 91 451 9724
	Fax +34 91 451 9730
	www.nh-hoteles.com
Contact	**Mr. Luis Javier Garcia Munoz**
	General Manager, Chief Operating Manager
	Tel
	Fax
	ljg@nh-hoteles.es
Organisation type	Large company
Participant role	Partner

Contribution to project

Systems requirements analysis, info on their hotels:location pictures, fees, etc. for the web, development of a room booking system, installation of info booths in their hotels linked to Internet and technical/economic system testing.

Expertise

Expertise in tourism. Founded in 1881, it currently has 3367 employees and is the most consistent and differentiated urban lodging chain to be found today on the Spanish market, possessing a well recognised brand both within and outside the lodging sector. It has a level of awareness and solidity unrivalled by any other domestic company.