

eSpatial Solutions

Spatial Technologies for Non-experts

eSpatial Solutions Ltd focuses on geospatial technology based on industry-standard IT infrastructure. Established in April 1997, the company is a subsidiary of one of Ireland's leading investment houses, International Investment & Underwriting Limited (IIU).

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eSpatial develops tools and application components for embedded-spatial business systems, with a primary focus on government, utilities, transportation and defence sectors. Over 70% of information used by international business and government is geospatially or location connected. Spatial intelligence offers the ability to visualise information in maps, networks and models, thus providing an intuitive interface for analysis not available when dealing with alphanumeric data alone.

Company Profile

Headquartered in Dublin, Ireland, we employ about forty professionals active in sales and marketing, administration, consulting, technical support and product development. US sales

and implementation operations are based in Herndon, Virginia, and we also have an office in the UK. Our funding has increased by over €12 million since founding in 1997, including a recent investment of €1.2 million to be used for research and development. We ex-

Web-mapping providers (Google and others) create interest but not customise applications

pect a 50% rise in revenue in 2006, following similar growth in 2005. We have partnerships with a number of IT companies and Systems Integrators (SI), including Accenture and L3-Titan, and specialist GIS consultancies such as Geo-decisions and Farrallon. We also have strategic product alliances with established GIS IT companies including Laser-Scan in the UK and PCI Geomatics in Canada, and we have a very close relationship with Oracle Corporation. Internationally, we have worked with major government organisations in the US such as the Department Of Defense, US Air Force, the National Oceanic and Atmospheric Administration (NOAA) and the US Geological Survey (USGS). In Europe we have implemented sys-

tems for the Departments of Agriculture in Ireland, Greece and Portugal, and solutions for local government customers in the UK. Commercial customers include British Telecom in the UK and the Shaw Group in the USA.

Open Standards

For eSpatial the vision is spatial intelligence in every application, on every device for every user, and its mission is to make this a reality by delivering spatial intelligence to the widest possible community, providing cost-effective spatial technology to drive market development. The specific

technology objective is to create 'the leading, open standards-based geospatial development and deployment environment for enterprise applications'. The company provides an Enterprise GeoSpatial suite called iSMART which is built on the industry-standard Oracle database and delivers applications and solutions directly or via a worldwide partner network using iSMART and other established GIS tools. The integration of spatial information into an increasing range of business applications and processes and its use by non-experts is becoming a common business requirement. eSpatial has created a rapid development and deployment environment wherein any enterprise application can be spatially enabled using standard IT tools.

Built entirely on an Enterprise Java (J2EE) Application Server-compliant infrastructure, iSMART is a natural extension to Oracle

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Tablet PC connected to iSMART application over Wireless Net.

Spatial, delivering enterprise-class quality of service such as security, reliability and availability. All geospatial functions are implemented in a standard application server, with support for use from standard Web browsers and integration with other applications via XML Web services and Open Geospatial Consortium (OGC) standards. Capabilities to visualise, query, manipulate and modify spatial data are targeted at users who are not GIS specialists. Given our open-standards approach, an iSMART-based solution can work standalone or alongside traditional tools used by GIS specialists (such as ESRI, Mapinfo, Intergraph, SICAD etc), making iSMART the enabling technology behind the delivery of spatial intelligence to the general business user.

Non-Expert Users

Some key trends we are seeing in the market are:

- increased use of geospatial data in general business applications and by non-expert users, including the introduction of spatial-data use into new organisations, but more typically providing access to and interaction with existing spatial-data holdings across organisations for users and applications previously not using such data
- increasing sophistication in functionality and ease of customisation required for such applications
- move from initial, simple map viewing of static street-map images towards dynamic interaction with spatial data, in-

volving rich datasets created and/or owned by using organisations

- need to adhere to standards, both GIS (particularly OGC and associate ISO standards) but also to general IT standards addressing databases, application servers and security.

The Web-mapping providers (Google and others) create huge interest in the use of spatial data and establish expectations as to ease of use of applications but do not provide the flexibility and sophistication to rapidly and cost-effectively create customised applications using proprietary data. The traditional approach involving interfacing products from GIS-expert tool vendors with applications can make development and deployment of such solutions slow, difficult, costly and compromised in functionality. This is because such vendor technologies have not been originally designed for the purpose and are not easily integrated with standard platforms and technologies in non-GIS multi-user Web applications. eSpatial has built its technologies to address the market emerging from these trends: it provides software products that allow organisations with large investments in geospatial data to make this widely available via Web applications to non-expert users for interaction, analysis and update.

Growth Future

We foresee strong growth in the market for spatial technologies for non-expert users and business applications, with corresponding rapid development of the range and sophistication of technologies addressing this market. We are investing heavily in R&D so as to remain in a market, leading position with innovative solutions. We are finding through our partners in various countries across the world that the 'nobody gets sacked for buying X' attitude to spatial technologies is breaking down in the face of accelerating change, both in terms of requirements and the technologies offered to meet them. ♦

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Customer applications using iSMART.