

## E-business with maps and digital products from the National Land Survey of Sweden: [www.lantmateriet.se](http://www.lantmateriet.se)

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**The task of Lantmateriet is to contribute to an efficient and sustainable use of Sweden's real estate, land and water. We are specialists in geographic information, land information, cadastral services and geographic information techniques. In these four fields we have the national responsibility and a dominating role. E-business for the geographical services of Lantmateriet is very feasible since the products are digital and consequently easy to deliver via the Internet.**

**Lantmateriet delivers qualified services for the development and application of geographic information technology, with a focus on customised solutions. Satellus was one of the world leaders in the production and interpretation of information from satellite image data. Through an acquisition, Lantmateriet is now able to offer its customers an unique combination of products and services in areas including remote sensing, GIS, cartography, satellite imagery, database access via Internet and visualisation of geographical data**

### **Map services**

As the first governmental agency of Sweden, Lantmateriet offers its services as e-business. In December 1999 the the Web Site <http://www.Lantmateriet.se> was extended with the Map shop online Kartbutiken. The customer can select and order the original maps of Sweden, and pay with credit card. Land use maps at the scales of 1:12 500 and 1:10 000 showing topography, property boundaries and land use restrictions can be delivered as Print on Demand.

In May 2000 the free service **KartSök, Map search**, was launched. The user can free of charge view and zoom original maps in scale 1:50 000 – 1: 250 000, all over Sweden.

Since May 2001 it is possible to buy seamless maps and get them delivered online in the new service **Din Karta**. The customer decides the extent and the details of the map. The maps include the original maps down to scale 1:10 000 with land use information, parish boundaries, land registration sub-district, property and joint-property boundaries, nature reserves, nature conservancy areas, historically interesting natural objects, wildlife sanctuaries, antiquities, military training areas, restricted areas and firing ranges. **Historical maps** from 1628 till present time will soon be delivered online.

## **The real property information service**

All land in Sweden is divided into real property units. There are approximately 3.3 million such units in the country. All of them are available in a few basic public registers on real property and maps showing land use and real properties.

Through **FastighetSök, Real property search**, the customer can get information, register and map, about the real properties in Sweden. It is possible to get information about owners, position, area (extent) and mortgages and assessed values. The real property register forms the basis for a number of important activities in society such as land registration, real property credit, property taxation, agricultural statistics, land surveying, population registration, and urban and regional planning. The register is maintained by a number of cadastral offices throughout the country. Land use maps at the scales of 1:12 500 and 1:10 000 showing topography, property boundaries and land use restrictions for each property can be viewed and printed out.

The main purpose of land registration is to give publicity and legal protection for acquisition of rights in real property. An orderly, well-functioning land registration system is a prerequisite for guaranteeing security and facilitating economic transactions.

## **Imageservices for GIS and publishing**

Lantmateriet Metria is the part of the organisation with resources for aerial photography, collection and manipulation of geographical and real property information, surveying computation and map production, geographic information systems, physical planning. Metria carries out its services on contract and operates in competition with other Swedish and international companies on the national and international markets.

**SverigeBilden, the images of Sweden**, is an online service to view and buy 1meter pixel ortophotos over the whole country, and 25mm pixel coloured ortophotos covering some of the largest cities, and 3D-aerial photos. Metria Satellus is one of the leading European suppliers of geographical and environmental information and services from Earth remote sensing satellites. As part of Lantmateriet, it is an integral part of a multidisciplinary, high technology organisation at the leading edge of European industry. Lantmateriet with the close Cupertino with Swedish Space Corporation SSC have a high profile within European remote sensing, which includes part ownership of the SPOT program, and a major role in the remote sensing operations of the European Space Agency. The smallest visible unit in the Metria Satellus mosaic is 160 x 160 m, thus providing more details and increased utilisation. The mosaic could for instance be used in regional GIS-applications, flight simulation and vegetation study captured during a three-year period (1996-1998). The digital elevation model (DEM) covers all of Europe and parts of North Africa. The DEM has a 90-m grid and is an excellent tool for removing parallax errors in satellite images and aerial photographs. Metria Satellus offers products based on data from the new EROS A1 satellite, under the agreement with ImageSat International (ISI). The EROS imagery has a resolution of 1.8 meter "Standard" or 1 meter "Over-sampled" in panchromatic mode, thus offering a new and

existing opportunity to our customers within the fields of mapping, defence, forestry, telecom, city management and others.

## **Why use Internet?**

E-business for the geographical services of Lantmateriet is very feasible since the products are digital and consequently easy to deliver via the Internet. Also to get information to the citizens in areas where Lantmateriet has responsibility as state authority. A strategy of profiling our competence in high technology will increase the interest in matters within our area of responsibility. Internet is also a channel for information and marketing of our products and services. Lantmateriet has since 1999 gone through an evaluation in the use of Internet, from information oriented to a marketplace for new kinds of services - we act as an application service provider (ASP) for systems using geographical data. Earlier we presented our organisation, our products, etc. Now we start using Internet as a mean for increasing our sales by making it easier for the customers to get information about our products and reaching new customers. Facilitate the ordering of products, establish new kinds of services (print-on-demand and ASP) and for efficient customer support.

Our experiences from Internet is an Umbrella/Gateway/One face to the market, extremely Customer oriented with Customer Service as no. 1 in priority. Need of slimmed administration, database driven technology, information handling near the source, involving expert developers are some keywords. Strategic steering boards for market/ information/ technology with clearly declaration of responsibility and a visionary general manager is our base for leadership.

More at <http://www.lantmateriet.se>