

EuroGeographics



# EuroGeographics

## Annual Review 2012



Connecting you to the authoritative  
geo-information framework for Europe

[www.eurogeographics.org](http://www.eurogeographics.org)

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# EUROGEOGRAPHICS

## CONNECTING YOU TO THE AUTHORITATIVE GEO-INFORMATION FRAMEWORK FOR EUROPE

EuroGeographics represents the European National Mapping, Cadastral and Land Registry Authorities, enabling government, business and citizens to benefit from their collective expertise, products and services.

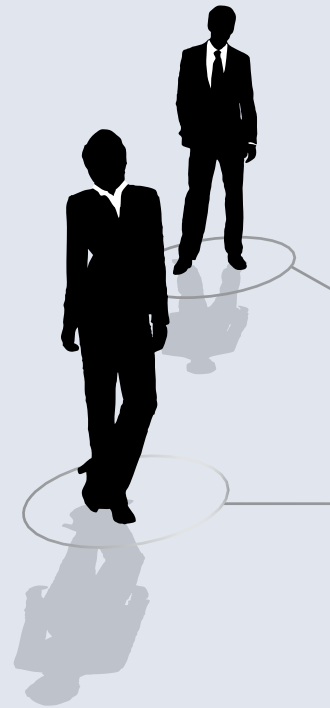
Together, our members invest around €1.5 billion in the development of geo-information each year and use cutting-edge technology to create, manage, maintain and make available authoritative national databases.

We currently bring together 56 organisations from 44 countries who contribute to European social development, economic growth and environmental sustainability by delivering reliable, readily-available, reusable, cross-border geospatial reference data to underpin the European Location Framework (E.L.F.). This will provide Europe with the high quality geographical information it needs to develop policies and legislation for the environment, business competitiveness, public services, legal systems, security and more.

EuroGeographics is an international non-profit association under Belgian law (AISBL) with a head office in Brussels, the heart of European policy development and decision making.



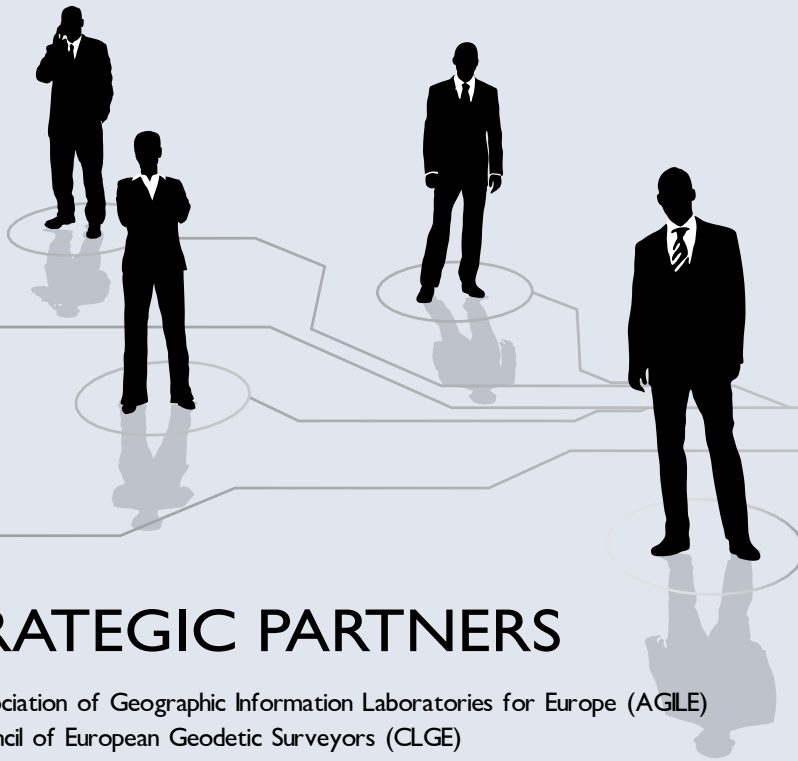
# WORKING WITH STRATEGIC PARTNERS



**T**o ensure that geospatial reference data continues to deliver economic, social and environmental benefits, we are committed to establishing mutually-beneficial working relationships with like-minded organisations. Activities include hosting events, such as workshops or parliamentary briefings, conducting joint surveys and producing reports on issues where we share an interest.

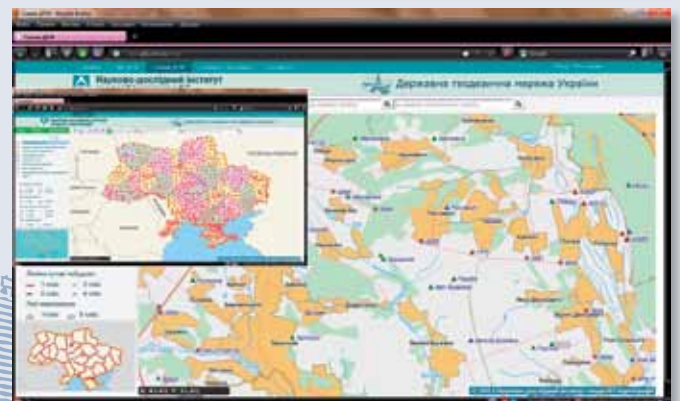
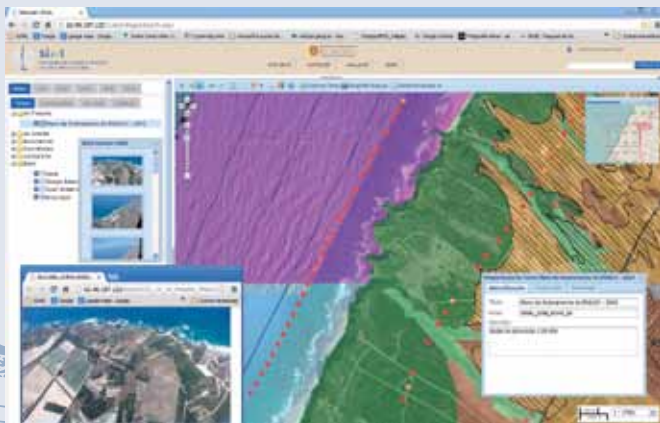






## STRATEGIC PARTNERS

- The Association of Geographic Information Laboratories for Europe (AGILE)
- The Council of European Geodetic Surveyors (CLGE)
- EuroGeoSurveys (EGS)
- European Association of Remote Sensing Laboratories (EARSeL)
- European Environment Agency (EEA)
- European Land Information Service (EULIS)
- European Spatial Data Research (EuroSDR)
- The European Umbrella Organisation for the Geographic Information Community (EUROGI)
- Global Spatial Data Infrastructure Association (GSDI)
- PSMA Australia Limited
- The Permanent Committee on the Cadastre in the EU (PCC)
- The Reference Frame Sub-Commission for Europe (EUREF)
- The United Nations Economic Commission for Europe Working Party on Land Administration (UNECE WPLA)
- United Nations Initiative on Global Geospatial Information Management (UN-GGIM)



# PRESIDENT'S REPORT

Awareness of geo-information's role as a vital inter-linkage for otherwise unconnected information has never been higher and is driving unprecedented levels of demand for data from the national mapping, cadastral and land registry authorities. To meet the increasingly diverse needs of users, they are continually developing ways to increase access, not only to their national datasets, but also to reliable, pan-European geospatial information.





This report highlights how our members are simplifying access to national spatial data to drive applications that realise economic, social and environmental benefits, as well as quicker, more efficient and reliable land registration. Many have national open data policies and, with the introduction of our new open data license for EuroGlobalMap, a high-quality, pan-European geographic backdrop is now also available free of charge. The move is part of our wider package of new licensing agreements and lower pricing.

During 2012, the realisation of the European Location Framework (E.L.F.) came a step closer and I am delighted to report that the proposal we submitted on behalf of the E.L.F. project consortium has secured EU funding. This technical infrastructure will deliver interoperable, cross-border geo-information and play an important part in raising awareness of the importance of developing a European Location Strategy. The foundations for the E.L.F. were laid by the European Spatial Data Infrastructure Network (ESDIN), which was completed in 2011. ESDIN won a Geospatial Excellence award for Policy Implementation SDI at the 2012 Geospatial World Forum in Amsterdam.

We also saw the launch of the new GMES Emergency Management Service (GIO EMS) which provides digital map information and other data to support the geospatial analysis and decision making processes of emergency managers. EuroGeographics is facilitating the provision of national reference data to the GIO EMS service providers through our partnership agreement with the European Environment Agency.

In the past 12 months a number of members celebrated important anniversaries, including 175 years of the geodetic profession in the Republic of Serbia and 100 years of cadastral surveying in Switzerland. In March we also joined one of our strategic partners, the Council of European Geodetic Surveyors (CLGE) for its initiative the first ever Day of the European Surveyor and Geoinformation, which marked 500 years since the birth of the famous Belgian cartographer Gerardus Mercator.

The fact that this event attracted such attention is further evidence of the profession's increased profile and we are



committed to encouraging the next generation of geospatial specialists by participating in events such as the European Geography Association's 2012 Annual Congress. Working with the National Geographic Institute, Belgium, we gave students the opportunity to try a new Mapfragments game, developed using fragments of our 1: 250 000 scale map of Europe and designed to test their knowledge of European locations.

Like our members, EuroGeographics is passionate about geo-information and the benefits it brings to society. This report gives an overview of our activities, more information is available on our website - [www.eurogeographics.org](http://www.eurogeographics.org), in our e-newsletter, The Messenger or by contacting me direct at [president@eurogeographics.org](mailto:president@eurogeographics.org).

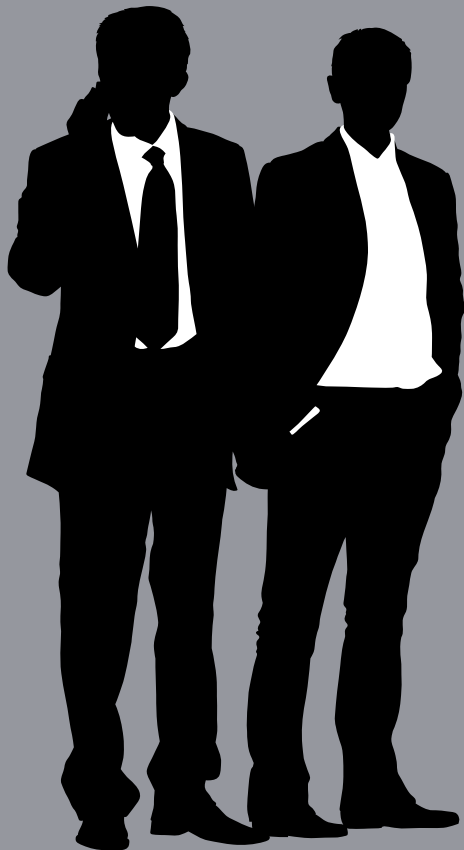
Finally I should like to extend my thanks to our members and my colleagues on the Management Board and in Head Office for helping to make 2012 another successful year for EuroGeographics.

Ingrid Vanden Berghe  
EuroGeographics' President



# KEY CONTRIBUTIO

REPRESENTING OUR  
MEMBERS IN EUROPE  
AND THE WORLD







# IONS 2012

**DEMONSTRATING THE ROLE AND CONTRIBUTION OF OUR MEMBERS TO THE EUROPEAN PROJECT THROUGH OUR CONSTRUCTIVE PARTICIPATION IN THE WORK OF THE EUROPEAN INSTITUTIONS**

**DEVELOPING EUROGEOGRAPHICS' REPUTATION AS THE AUTHORITATIVE VOICE OF THE CADASTRAL, LAND REGISTRY AND MAPPING AUTHORITIES OF EUROPE**

**MAXIMISING THE BENEFITS OF EUROGEOGRAPHICS' MEMBERSHIP FOR ALL ORGANISATIONS BY INTRODUCING NEW WAYS OF WORKING WITH US SUCH AS WEBINARS, FACE-TO-FACE MEETINGS AND REGIONAL CONFERENCES**

# THE EYES, EARS AND VOICE OF OUR MEMBERS

As the Association representing the Cadastral, Land Registry and Mapping Authorities in Europe, EuroGeographics contributes authoritative information and views to officials and policymakers in the European Union (EU). We have renewed registration with the European Transparency Register and have continued our accreditation to the European Parliament. The Register provides the public with information about those engaged in interest representation with the EU institutions and the level of resources they invest in these activities. We adhere to the Register's Code of Conduct along with other appropriate professional codes.



In 2012, our members, President, Directors, Policy Knowledge Exchange Network (PolKEN), Task Forces, Task Force Leaders and our Head Office all helped to deliver our EU Affairs and Representation Strategy (EARS). The Strategy is the catalyst which enables members to contribute their expertise and knowledge to projects and initiatives where we have a legitimate interest, thereby developing our relevance, effectiveness and reputation as a responsible player at a European level.

During the year, we focused on four priority issues: The Digital Agenda for Europe; the review of the Directive on the re-use of Public Sector Information (PSI); sustaining appropriate programmes through funding from ICT-Policy Support Programme; and our role in the European Earth Monitoring Programme (Copernicus/GMES).

## Copernicus (GMES)

EuroGeographics has an on-going working relationship with the GMES Bureau and is pleased to offer support around licensing issues, as well as facilitating the delivery of members' data to the GMES emergency management service.

### Key activities in 2012

- We continue to contribute to work developing future GMES data policy.
- Working towards making members' reference data, available to the Copernicus programme.
- Commenting on IPR issues within the draft Delegated Regulation on GMES data and information policy.

### Review of the PSI Directive

The review of the PSI Directive is a key action within the Digital Agenda for Europe. At the beginning of the review EuroGeographics had a strategic priority to realise a sustainable public sector information framework that maximises benefits and accommodates all our members' contributions. To this end, in collaboration with members, EuroGeographics aim was to develop and maintain a positive contribution to each stage of the review process, including where appropriate, the development of the legislative act. We gratefully acknowledge the help and courtesy of all those within the EU institutions and other groups who allowed and facilitated us this participation.

#### Key activities in 2012

- Demonstrated members' contributions to European society and discussed areas in the proposal with potential to impact on these contributions at the PSI Alliance annual conference.
- Contributed positive briefing papers into the review discussions.
- Meeting as appropriate with those involved in the review and responding to their questions.
- Proposing wording for possible amendments to the PSI Directive.
- Member participation in annual ePSIplatform conference sponsored by the European Commission.

### Sustaining appropriate programmes through funding

We are delighted to be a leading player in the project consortium delivering the geo-information proposal within the ICT-PSP of the Competiveness and Innovation Programme. Working with 30 partners, including 15 of our members, we will develop a technical infrastructure to deliver authoritative, interoperable, cross-border geospatial reference data provided by the national mapping, cadastral and land registry authorities. This will enable the analysis and understanding of information connected to places and features and maximises the benefits of our members' PSI.

The project, which will be completed during 2016 and so begin operational delivery, will also play an important part in demonstrating the value of developing an ELS.

#### Key activities in 2012

- Successful bid for EU funding to deliver a technical infrastructure to provide the basis for innovative new geo-information services, support public administration and environmental and security management.
- Enabling members to explore European and wider funding possibilities through a workshop and webinar.

### The Digital Agenda for Europe

We believe that location is fundamental to the quality content for Europe's Digital Agenda and, together with our members, we are committed to playing a positive role in supporting the Europe 2020 strategy for smart, sustainable growth through initiatives such as the E.L.F. and re-use by others of members' authoritative geo-information.

#### Key activities in 2012

- Representatives from the European Commission - including DG Information Society (now DG Connect), the Joint Research Centre (JRC) along with colleagues from EuroSDR - participated in a EuroGeographics-hosted workshop on the embryonic European Location Strategy (ELS).
- Working with representatives from the European Parliament to raise the profile of ELS and the E.L.F. among MEPs and relevant Committees.
- Assisting the Commission in finding experts in location strategies for the first meeting of the EULF Advisory Group.

### A new programme of strategic communications

2012 saw EuroGeographics making a positive contribution to Copernicus and Public Sector Information. Both these European initiatives had a legislative base which meant we took an appropriate public affairs route in our representation and participation in them. However, we anticipate that the forthcoming years, 2013-2016, will present an arena with fewer legislative issues and seeing EuroGeographics taking on an increased strategic communications and advocacy role.

Our strategic communications and advocacy will concentrate on several strategic themes including:

- Advocating and working towards an operational and sustainable E.L.F.
- Promoting the need for an EU Location Strategy which defines the policy for the effective management of geo-information at European level
- Demonstrating the role and contribution of our members to the European project

We will continue to be involved in European legislative issues where we have a legitimate interest and expertise to make a constructive contribution to the respective theme or issue.





# KEY CONTRIBUTIONS 2012

## DEVELOPING PRODUCTS AND SERVICES TO MEET THE DEMANDS OF DATA USERS

**ENSURING MAXIMUM BENEFIT IS  
REALISED FROM MEMBERS' EXPERTISE BY  
IMPROVING ACCESS TO AUTHORITATIVE  
DATA THROUGH OPEN DATA SERVICES  
AND ENHANCED PRICING AND  
LICENSING**

**DELIVERING ONLINE SERVICES FOR  
QUICKER, MORE EFFICIENT AND RELIABLE  
LAND REGISTRATION AND SIMPLIFYING  
ACCESS TO, AND USE OF, NATIONAL  
SPATIAL DATA FOR PUBLIC SERVICES,  
BUSINESSES AND CITIZENS**

**IMPROVING ORGANISATIONAL  
EFFICIENCY AND DATA  
QUALITY BY EMBRACING NEW  
TECHNOLOGIES**

# IMPROVING EFFICIENCY AND QUALITY THROUGH AUTOMATION IN BELGIUM

Automating the labour-intensive tasks involved in data generalisation to improve both efficiency and quality is one of the goals of the National Geographic Institute, Belgium which has been particularly interested in whether existing software can be useful in this process, possibly when complemented by proper code.

Automatic processes can take place outside traditional working hours and, by speeding up the generalisation process, enable cartographers to focus their time on other work. Dataset quality is also enhanced as a result of higher consistency with the reference scale. In this case the reference scale is 1:10 000 (ITGI-VRef) whilst the scale of the generalised dataset is 1:50 000 (ITGI-VGen) and for the third edition of this generalised map, the update process has been limited to the roads and the buildings.

The starting point was the idea that the results of automatic generalisation would coincide with the results after an interactive generalisation, that is one carried out by cartographers. However, where certain operations are difficult or impossible, it was decided to adapt the technical criteria.

The first results of the automatic generalisation of ordinary buildings are now being integrated in the production process, with automatic operations taking about three hours for one map sheet. Manual corrections are still necessary but the whole process is much less time-consuming than before. Future works will mainly concern the optimisation of the present operations. In the short term, this means optimising the typification process and also the



execution of automatic generalisation on the specified buildings.

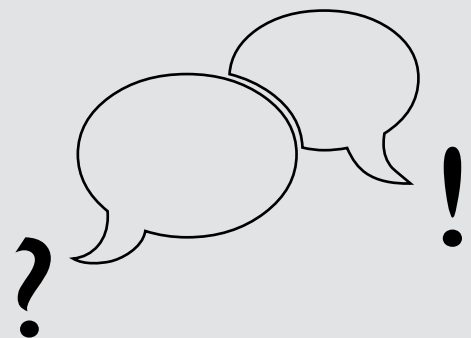
Focus will also be put on the automatic generalisation of the other themes, and next year will see the start of the

production of the fourth edition of the 1: 50 000 map series, an edition in which all themes will be updated but whose data model is still being discussed.



# DELIVERING A WIDE RANGE OF PROJECTS **IN THE CZECH REPUBLIC**

**P**roviding a high level of customer service whilst delivering a range of projects, such as the digitisation of cadastral maps due for completion in 2017, is a key focus for the Czech Office for Surveying, Mapping and Cadastre (ČÚZK).



Launching a new base register to provide identification, location and address data was a major achievement of 2012. The first of four public administration base registers, the Registry of Territorial Identification, Addresses and Real Estate (RUIAN) includes parcels of land, buildings and addresses. ČÚZK is responsible for implementing the project as well as updating the information contained in it.

Work continues on the airborne laser scanning of the altimetry with a number of elevation and land cover models created in association with the Ministry of Agriculture and Ministry of Defence. In addition, the use of digital aerial photography has improved the quality of orthophotomaps. The Czech Republic is currently covered with orthophotos at a resolution of 0.20m.

The Geoportál ČÚZK continues to play a key role in providing data and services, as well as in meeting the demands of the INSPIRE Directive. This includes the processing and publication of metadata; monitoring and reporting; and viewing and searching services. Metadata for all datasets and services must also now

conform to the Czech Republic's national metadata profile. A further development has been the development of a English version of the Geoportál's e-shop with all product information metadata translated into English as well.

The past year also saw the completion of the Czech Republic's GNSS network stations (CZEPOS) so that their services are now compatible with NAVSTAR GPS, GLONASS, and the Galileo System.





# USING GEOSPATIAL DATA TO ENHANCE PUBLIC SECTOR EFFICIENCY IN DENMARK



With a new name to match a new strategy and organisational structure, the Danish Geodata Agency is focusing its efforts on the use of geospatial data to enhance public sector efficiency.

As part of the Danish e-Government Strategy 2011-2015, a €126 million basic data programme was launched to enable many data sources, including several types of geospatial information, to function as a public data infrastructure. Since January 2013, enterprises and citizens have had free, open access to many types of basic data - the first step in the programme. The next steps include initiatives for releasing additional real property, address, geographic, personal and business data to foster more efficient management and reuse of data.

The Agency is also coordinating a common hydrological digital elevation model in a 1.6 metre grid resolution to meet the needs of those working on climate change adaptation and emergencies. Public authorities and private sector shareholders have agreed a shared funding model that will result in an EU tender in early 2013.

By reducing errors and improving the quality and timeliness of data collections, the IT project Mobile Data Management is significantly enhancing efficiency in a public sector context. The project, which was awarded the Digitisation Award 2012 for best government IT project in the efficiency category, delivers more consistent digital case management practices, and makes manual practices redundant. When used to collect data for more than 2,500 field inspections of protected natural resources,



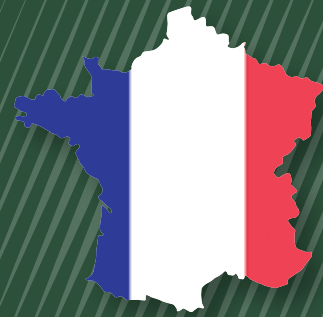
results suggest a resource saving of up to 25%, - equivalent to 10 full years' manual work.

The Danish Geodata Agency has also contributed to the new Public Hearings Portal, a web-based application that can be easily used by citizens, businesses and levels of government to collect, manage, coordinate and publish inquiries, objections and public proposals related to public hearings. Information within the portal is structured so that an overview of responses, either individually or grouped by topic, geography, etc. can be obtained. This provides a better, faster and more flexible way to handle responses and proposals, and has been used with great success in several hearings on the Water Framework Directive.



## FRANCE BENEFITS FROM FASTER, MORE INTERACTIVE GEOPORTAL

Upgrades to France's geoportal now mean it is 10 times faster, offers greater interactivity and provides an INSPIRE-compliant dissemination platform. The service, implemented by the National Institute of Geographic and Forest Information, also offers free historical maps and aerial photographs.



Enhancements to the infrastructure enable faster access from the Internet, GIS or mobile applications as well as quicker data downloads. By creating a personal account, users can save sketches drawn using the geoportal tools, save data imported from GPS or GIS and share these with their contacts.

The geoportal also provides French institutions with access to images from the Pléiades satellites as a result of a partnership between IGN and the French Space Agency (CNES). The satellites capture images covering 40,000 km<sup>2</sup> at a resolution of 0.7m daily which is ideal for cartography.

IGN collates applications and then works with CNES to produce images to meet user needs. After superimposing the satellite imagery onto the national large-scale reference database, IGN distributes them via the geoportal in accordance with INSPIRE specifications.



# FASTER CADASTRE SERVICES, GREATER TRANSPARENCY AND FREE APPS IN THE FYROM

Citizens and property professionals throughout the Former Yugoslavian Republic Of Macedonia are benefiting from a range of new services developed for the e-Kat system. This includes improved interoperability for data sharing and the ability to issue the Property List for any part of the territory from any Local Office for Real Estate Cadastre.



To meet the needs of users who may require information when away from their offices, AREC has developed the free i-Kat app. This provides up-to-date information for the cadastre parcel where the device is being operated. The app offers national coverage and enables people to view aerial imagery, digital cadastral maps or originals from the archive. Property List information and data for parcels and objects can also be accessed.



Using the Agency of Real Estate Cadastre (AREC) web portal - [www.katastar.gov.mk](http://www.katastar.gov.mk), anyone can browse the real estate cadastre database free of charge. Enquiries can be made using the cadastre parcel or Property List number as well as the property address. To improve transparency, users can also check the status of applications free of charge.

For professional users, the e-Kat Front Desk avoids waiting lines at AREC offices by enabling online submission of Property List applications in paper form, in real time. AREC then delivers documents back to users electronically. The Front Desk can also be used to pay for services and for browsing Property List data.





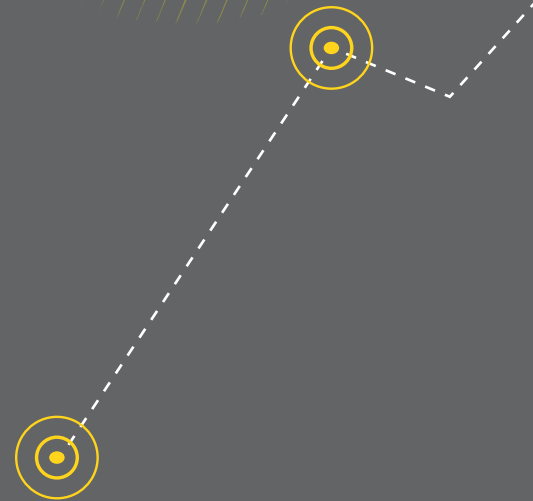
# PROVIDING OFFICIAL MAPPING AND SURVEYING IN GERMANY

**A**nationwide, official basic map of Germany - WebAtlasD - is the first service to be delivered as a result of enhanced cooperation between its surveying and mapping authorities.

As well as contributing to SDIs, WebAtlasDE also meets the needs of industry and the administrative units with a charge made only if it is used for business purposes. Developed by the Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany (AdV), it uses the digital landscape model, official house coordinates and building polygons, and a web-capable signature key.

Version 2.0 is used in federal government and Laender geoportals and has been integrated in a broad range of geo-applications as a WMS or WMTS.

The AdV is responsible for coordinating and harmonising official mapping and surveying. It is assigned to the Permanent Conference of the Ministers and Senators of the Interior and uniformly regulates technical issues as well as setting the standards for the modelling and provision of geo-information.



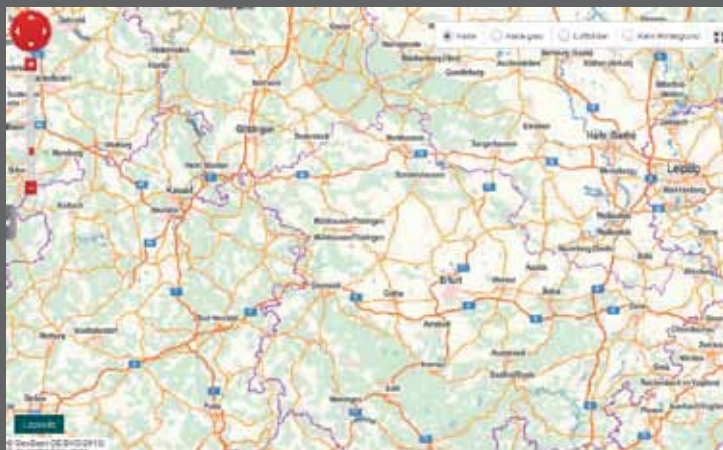
# A SINGLE POINT OF CONTACT FOR GEO-INFORMATION USERS IN GERMANY

**G**eo-information users in Germany now benefit from a single point of contact for data and advice. Based in Leipzig, the Service Centre of the Federal Agency for Cartography and Geodesy (BKG) provides information to federal institutions, public administrations, businesses and citizens. It also supports federal authorities to develop compliant geodata services.



Formed following the Federal Law on Geo-Reference Data, the service centre can answer a wide range of questions - from finding aerial photography which stretches across administrative boundaries to advising on data format and delivery. It also provides topographic reference information such as digital terrain and landscape models, digital aerial photographs and digital topographic maps.

By receiving enquiries centrally via the Service Centre, BKG can now meet user needs more effectively and efficiently than ever before.



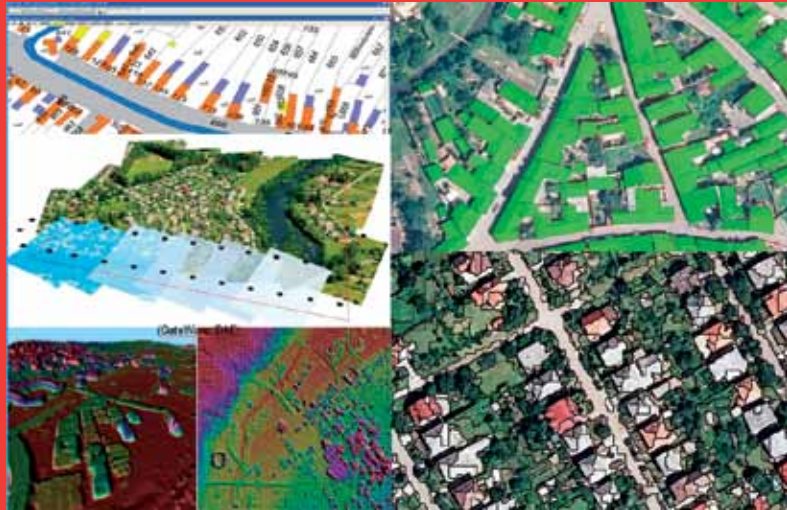
# STRENGTHENING THE ROLE OF LAND ADMINISTRATION IN HUNGARY

**A** new Act on Surveying and Mapping Activities is strengthening the role of land administration in Hungary to deliver a number of essential projects with a total budget of €14 million.

The Act, which came into force at the beginning of 2013, marks a change from traditional analogue maps to digital information created using a database and sets the legal base for a national 3D cadastre. The Institute of Geodesy, Cartography and Remote Sensing (FÖMI) is a key player in the implementation of the project's legal and technical rules.

The Institute has led the unification of the land registry and cadastre system, an initiative that started in 2011 with the Central Unified Land Registry data Service System (TAKARNET 24). The work is financed through EU and national funds. FÖMI is also working on the Integrated State-owned Real Property Cadastre (INIK) project which will deliver a unified structure and a harmonised content for a central transaction database. The renewal of Land Administration IT systems is a key element for this and lays the foundations of the new database. A further project, the Electronic Document Repository of Land Offices (DALNET24), will provide back and front office services for data and land office transactions.

On-going work to archive more than 410,000 analogue aerial photos from the 1950s is preparing a digital database to ensure compliance with the new Act. The aim is to provide an easily accessible online service. Initially 15% of the photos will be digitalised by mid 2014



with the remaining 85% expected to be completed in around six years.

Following a successful pilot project, FÖMI is now extending the Building Monitoring project across the country. The Institute is using an existing digital terrain model, orthophotos, aerial photos and building coverage to produce a national digital surface model with a special orthophoto cover. This will enable any differences in the cadastral data to be detected and the relevant building authority to take any necessary measures.





# NATIONAL LAND SURVEY OF ICELAND NAMED INSTITUTE OF THE YEAR

The National Land Survey of Iceland was named medium-sized institute of 2012 confirming its commitment to a family-friendly workplace is well received by employees.

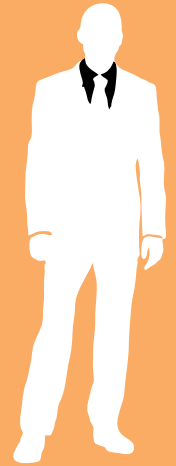


The award is the result of a survey of employees carried out by the country's two main unions and its Ministry of Finance. With around 200 agencies taking part, it is Iceland's largest regular labour market survey and provides important information about the status of workers. Participants are asked about work-related factors such as the credibility of management, autonomy, workload, working conditions, stress and demands and flexibility.





# IRELAND BENEFITS FROM AWARD-WINNING WEB MAPPING SERVICE



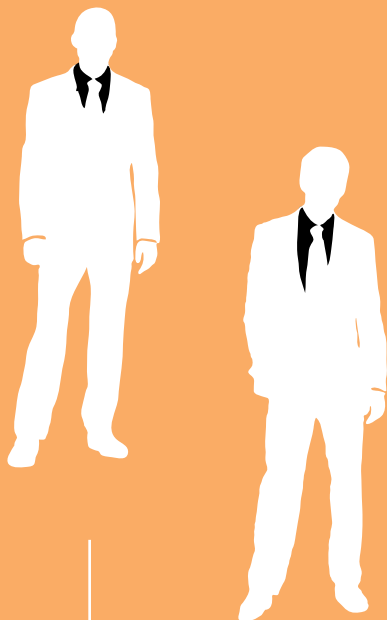
Offering immediate access to the most complete and highest quality map data of Ireland, MapGenie is widely-used and well-regarded by both public and private sector users. Further recognition came in 2012 when the web mapping service, developed by Ordnance Survey Ireland, won an Irish Public Service Excellence Award. The awards showcase innovation and best practice in public service administration and service delivery, and share ideas between public sector organisations.

Detailed mapping and aerial photography is also available for teachers and students to use via Scoilnet Maps, an initiative between Scoilnet, the portal for Irish education, and the National Centre for Technology in Education.

Geo-information's important contribution to the Irish economy was also recognised with the commission of a study into the size and potential of the sector. Announced by Minister of State, Fergus O'Dowd to mark World Geographic Information Day, it will examine this potential growth area.



# ACCOLADES FOR AWARD-WINNING SERVICE IN AN ANNIVERSARY YEAR FOR STATE LAND SERVICE, LATVIA



In a year which marked its 20th anniversary, the State Land Service, Latvia also won a number of accolades for its customer focus which includes communicating with users via a range of social networks.

Named as the most public-friendly state and local authority institution and the most public-friendly state institution in e-services in the Praise Good Service campaign 2012, the Service was also awarded a certificate of recognition in the annual Effective Administration prize. This acknowledged its compliance with good governance principles; its customer-orientated approach to service development; the implementation of sustainable administration; and the reduction of administrative barriers for customers.

The creation of a new e-service enabled the 24/7 electronic submission of cadastral surveying files using the data publication portal [www.kadastrs.lv](http://www.kadastrs.lv). Signed with an electronic signature and submitted via the State Land Service FTP server, the files are then registered

in the cadastre information system. Thirteen of the 82 services provided by the State Land Service are now e-services and, during the past year, their use increased by 15%. In addition, the Service provides open data to 137 State institutions - 119 of which are local governments.

Work on the geospatial data geographical information system and to improve data quality in its information systems also continued. As a result of the new regulation of legal acts, local governments can now submit declarations for the registration of data on existing but not registered buildings in the cadastre information system. More than 6,400 buildings with a total cadastral value of €56.92 million were registered in this way in 2012. These provide extra income for the state budget from the real estate tax. During the year, the Cabinet of Ministers also approved a project to ensure the quality of cadastral valuation data so that it will be more consistent with real estate market values and more easily understood by the public.



# HELPING DECISION-MAKING AND THE SHARING OF INFORMATION IN LITHUANIA

Local authorities, citizens and businesses in Lithuania all are benefitting from a new geo-information tool developed by the State Enterprise Centre of Registers. The Regional Geo-information Environment Service known as REGIA is based on the cadastral map but also allows the addition of other data. A third of all Lithuanian municipalities are now using the system.

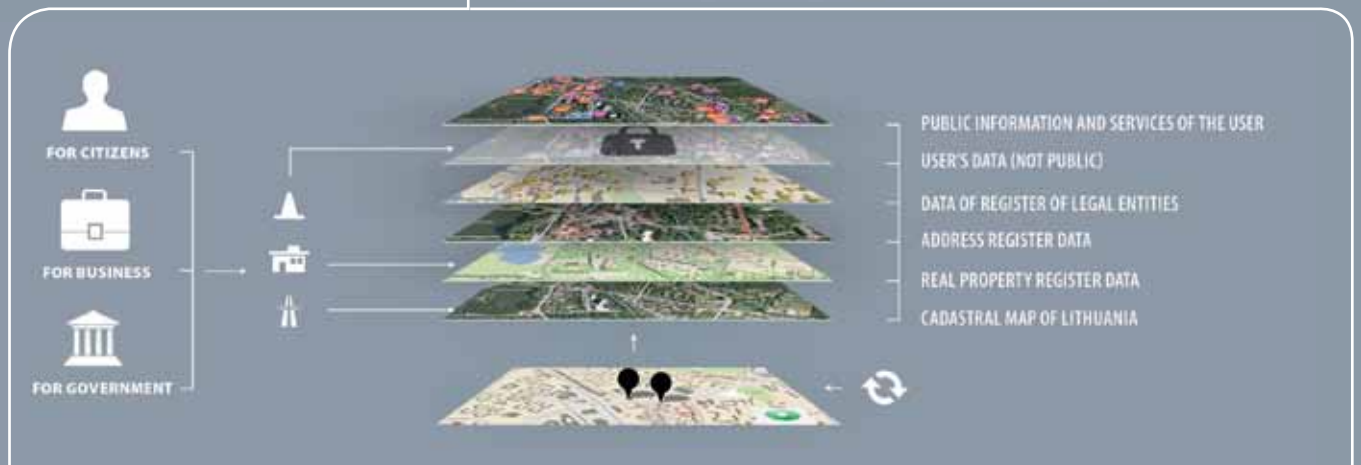


Administrators can create and manage their own data layers; store and manage information including documents; and create and provide services based on geo-referenced data. They also decide whether their data should be publicly visible and who is entitled to use it.

REGIA is easy to use and requires only a computer with Internet access as all services are managed through a web browser. It operates on the cloud principle: all user-created information, recorded data and uploaded documents are stored on the REGIA servers so that they can be accessed from any computer.

Users can quickly and easily find clear information about municipal services and decisions and, using the map, can locate objects of interest. This includes

addresses, property values and the different companies, agencies and organisations operating within the municipality. The REGIA map can also be used to advertise businesses, directing users to specific goods or services. New tools are being created to enable people to communicate with local government and businesses via the service.





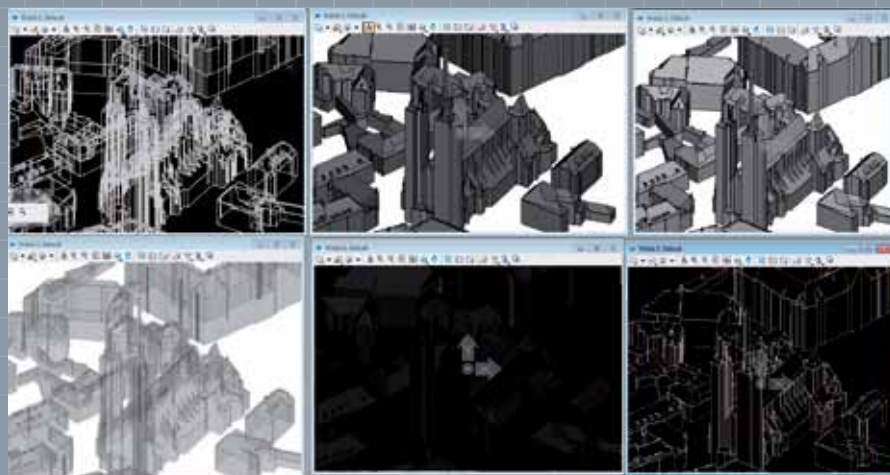
# POLAND'S GEOPORTAL PROVIDES DATA FOR ALL

Citizens, administrative bodies and the emergency services are all benefitting from the Polish geoportal at [www.geoportal.gov.pl](http://www.geoportal.gov.pl).

A universal map viewer with a mobile application allows users to search metadata for geospatial databases and services; access geospatial databases via discovery and view network services; set up personalised mapping; and search for geographical objects including address points.

To develop and maintain spatial data nodes, an SDI module developed by the Head Office of Geodesy and Cartography provides management and metadata software through network services. It also allows the harmonisation of databases maintained by different administrative bodies.

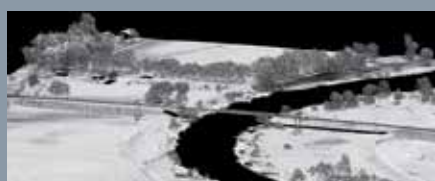
The Universal Mapping Module or UMM uses a combination of reference



data from the National Geodetic and Cartographic Resource and geospatial data from the emergency services to enable quick and precise spatial analysis for a wide range of uses.

The Head Office of Geodesy and Cartography is also part of the consortium delivering the innovative IT System for Country Protection against extreme hazards (ISOK). One of first such systems to be implemented in Europe, it will provide comprehensive data on areas threatened by flooding as well as relevant infrastructure and estimates of potential losses. The public will also be able to access information on risks related to weather conditions such as extremes of temperature, fog and high winds.

A further project was the use of LIDAR to gain altitude data for river basins with a total area of 204,000 km<sup>2</sup>. Airborne scanning was also performed to gain auxiliary materials for interpretation and information on RGB attributes for the LIDAR point cloud which were then made available via the National Geodetic and Cartographic Resources.



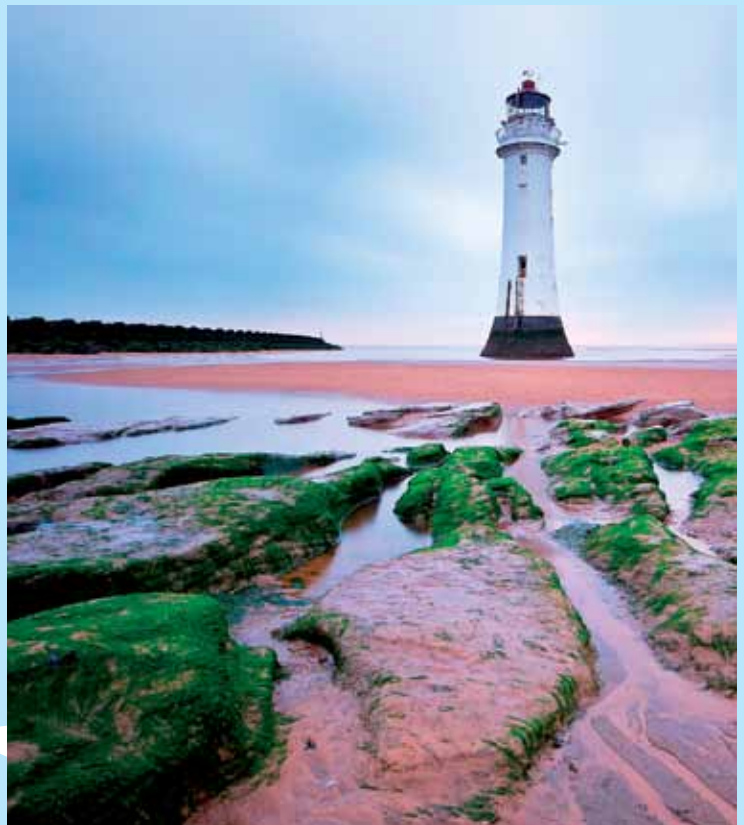


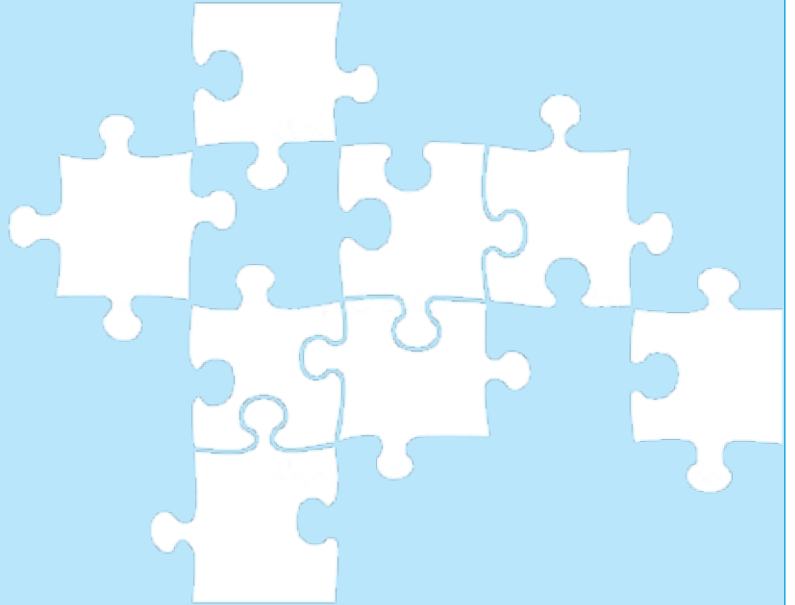
# ORDNANCE SURVEY GREAT BRITAIN, DELIVERING SAVINGS AT HOME AND EXPERTISE ABROAD

The recognition of the importance of high-quality geographic information (GI) continues to grow, and the demand from customers for up to date, accurate location data has never been greater. GI now underpins decision making for millions of people worldwide and is used extensively within Great Britain by businesses, government and individuals. The need for up to date, consistent and detailed geographic information was recognised at an international level during the London 2012 Olympic Games. Geospatial data from Ordnance Survey was used by a range of organisations and teams during the planning and delivery of the games, this included the emergency services, transport providers, utility companies and construction companies.

Nearly 3,500 public sector bodies in England and Wales are benefitting from the Public Sector Mapping Agreement (PSMA), a centrally-funded licensing agreement between the UK Government and Ordnance Survey. During 2012-13, around £20 million in savings were identified as a result of the PSMA. Organisations benefitting from the agreement include the Environment Agency, Department for Transport, local authorities across England and Wales, health organisations and town and parish councils. In Scotland, public sector organisations benefit from a similar agreement known as the One Scotland Mapping Agreement. Both agreements allow government organisations to access, for free at the point of use, a range of Ordnance Survey mapping and addressing datasets to underpin decision making, support internal systems and enable the delivery of valuable public services.

Open Data continues to be high on the UK Government agenda and Ordnance Survey has continued to support this activity in a variety of ways. It has been three years since the launch of OS OpenData and even longer since the popular API, OS OpenSpace was launched. Both initiatives continue to be popular with developers, businesses and government and are playing an important role in stimulating digital innovation and the re-use of mapping data. Over the last year Ordnance Survey has made a number of enhancements to the mapping datasets available through OS OpenData, as well as improving OS OpenSpace to allow developers to use the online mapping on mobile devices.





The leisure market continues to be an important area for Ordnance Survey, and the on-going commitment to customers within this sector has been highlighted with the launch of several new products and services. Customers can now access detailed mapping through a number of channels including paper, online and mobile. In January, Ordnance Survey launched its first official mapping App, OS MapFinder, allowing users to have all the detail of the trusted paper products on their tablets and phones.

In September 2012, Ordnance Survey launched a new international advisory service to help other countries around the world tap the multi-million pound potential of accurate GI. This supports the British Government's drive to share and promote the nation's knowledge and expertise overseas. Ordnance Survey International is advising and supporting national mapping agencies and governments to ensure that they are using GI to support and enable economic growth.



# MANAGING PORTUGAL'S VULNERABLE COASTAL ZONES

**M**anaging its 900 km of mainland coastal zones is a critical issue for Portugal. Thanks to the introduction of a new geospatial system produced using open source software, organisations with an interest in these vulnerable areas can now access a wealth of data to inform their decision-making and create more sustainable policies.



Developed by Portuguese Geographical Institute, the interactive geospatial platform enables public and non-public bodies to work together and easily visualise all kind of data. By providing a global and local view, the tool supports integrated actions from different organisations so that knowledge about the coastal zones can be continually updated using the online reporting function. Interested parties can report, monitor and consult on land uses, hazards and territory management plans.

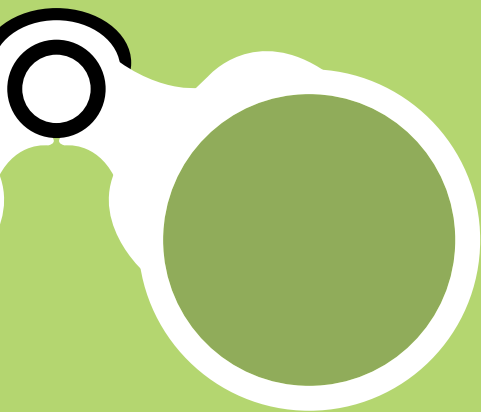
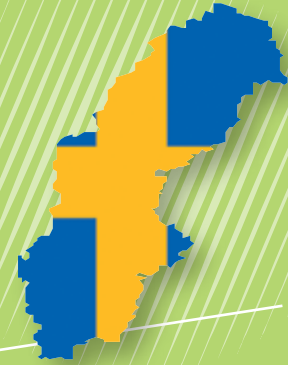
The platform is INSPIRE orientated, respects Open Geospatial Consortium (OGC) standards and follows European recommendations for integrated coastal zone management





# HELPING GEODATA USERS IN SWEDEN TO EASILY ACCESS INFORMATION

To help geodata users in Sweden easily access the information they need, the Government has given the Mapping, Cadastral and Land Registration Authority, Lantmäteriet responsibility for co-ordinating activities in the sector. This includes developing and managing the national geodata infrastructure with central and local government authorities, the county administrative boards and other semi-official organisations.



Lantmäteriet is a primary source of geodetic data for positioning services and for a wide range of cartographic products. It provides land acquisition, easements and security of tenure services for a wide range of uses - from the preparatory stages of the extension of the national broadband networks to the right to take water from a neighbour's well.

2012 marked 75 years of aerial photography in Sweden. These first images were used to produce the national Land Use map series and Lantmäteriet continues to scan historic imagery to make it more accessible and easier to use in a digital format. Approximately 96 000 negatives were scanned by the end of 2012. Airborne laser scanning of Sweden for the creation of the new national elevation model is also in progress and, by the end of 2012, 70 percent of the country had been completed.

The launch of the first stage of a new management system for land registration, which incorporates a digital application and handling system, was among the major changes initiated during 2012. This will improve both services and efficiency.

Lantmäteriet and the Swedish Meteorological Institute (SMHI) are working together to create a 1: 10 000 scale hydrographic network to meet demand for information



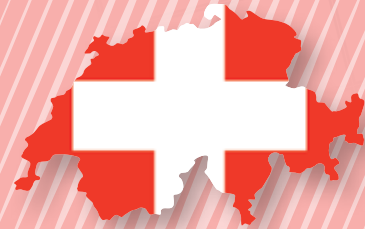
about lakes and watercourses from, amongst others, local authorities and county administrative boards. The intention is to rationalise and simplify work in the environmental sector by collecting information in one place and enabling it to be adapted to other types of data.

Lantmäteriet also took part in Sweden's biggest political meeting place, the Almedalen Week in Visby. The organisation hosted a public workshop and seminar on the topic "Who has the right to know where I am? - geographic positioning services in the future", and took part in an event to discuss the streamlining of the real estate market through e-governance.



# CREATING A SINGLE SOURCE OF INFORMATION ON LAND OWNERSHIP LEGAL RESTRICTIONS FOR SWITZERLAND

**B**ringing together information about more than 150 legal restrictions on land ownership will create a new type of cadastre for Switzerland.



Arising from the new federal law on geographic information, the Cadastre of Public Law Restrictions (PLR) on land ownership is now being developed by the Federal Office of Topography, swisstopo through the Federal Directorate of Cadastral Surveying. Unlike the Land Register which contains PLRs imposed in an individual case, the PLR Cadastre will deal with decisions on general regulations such those for communal or municipal buildings.

Information about a specific PLR relating to a parcel of land is currently available by contacting the relevant canton or commune office. Complications arise when people need to compare or combine different restrictions which means contacting a number of offices and, in some cases, getting help to evaluate all the information. The PLR Cadastre will change this by compiling all the information from these different sources to provide a comprehensive, reliable central register.



As well as the regulations setting out what is included in each restriction and its effect, the PLR Cadastre will also contain plans showing the area to which these apply. Users will be able to retrieve information online or by asking for a paper or digital extract. A certified extract, which has official status, can also be requested.

The first phase of development has focused on the 17 most important restrictions from eight sectors including contaminated sites, groundwater protection and forests. Cantons can also add their own restrictions. The pilot cantons have now reported on their experiences. By 2015 eight cantons will have introduced the register with the rest expected to do so by 2019.



# A VISION TO MEET THE NEEDS OF 21ST CENTURY GEO-INFORMATION USERS IN TURKEY

**G**eneral Command of Mapping (GCM) is responsible for the establishment and maintenance of geodetic networks, collecting and structuring topographic data and producing standard topographic map series of Turkey. Its vision is to provide consistent, up-to-date geospatial information which meets the needs of 21st century military and civilian users in a timely and economic manner.



As well as continuing to maintain the Turkish national geodetic infrastructure, GCM also completed the connection of the national leveling network to the United European Leveling Network through the Bulgarian border in 2012. In addition it hosted a national scientific workshop focused on modernising the national height system. The event, attended by representations from public institutions, universities and the private sector, provided an opportunity to suggest definitions and ways to realise the new vertical coordinate reference system. It concluded that improvements were needed to the geoid model that will provide a direct determination of physical heights from GNSS observations and that there should be no more levelling at the user level.



For the cartography department, the main emphasis during 2012 was on the production of topographic maps with 596 sheets produced and printed. Among them are 128 for 1:25 000, 117 for 1:50.000, 37 for 1:100 000 and 12 for 1:250 000 scales. The production of scales smaller than 1:25.000 is dependent on the results of a cartographic generalisation project. The outlook is very good and demonstrates the importance of its research and development activities.



# OPENING UP ACCESS TO DIGITAL TOPOGRAPHIC DATASETS IN THE NETHERLANDS



By making its topographic data freely available, the Dutch Cadastre, Land Registry and Mapping Agency (Kadaster) is meeting national government aims and European Commission policies such as the INSPIRE Directive, the PSI Directive and the initiative regarding the Digital Agenda for Europe.



The Key Register Topography (BRT) contains digital topographical maps at scales of 1:10 000 (TOP10NL) to 1:1 million. Data can be downloaded as raster or vector files and is also published as reference map in web portals. It is available at no cost and with a CC BY licence (Creative Commons <http://creativecommons.org/licenses/by/3.0/>).

Since the beginning of 2012, around 12,000 topographical datasets have been delivered on request, a considerable increase on figures before the introduction of open data when the average number of deliveries was round 2,500.





# KEY FIGURES FOR 2012

Operating income	: €242.1 million
Operating expenditure	: €239 million
Number of employees	: 1788 FTE (by 31/12/2012)
Number of deeds (related to ownership)	: 293,200
Number of mortgage documents	: 275,600
Survey requests (verification requests and divisions)	: 77,100
Kadaster online: (paid) information products	: 19,700,000

Up-to-date, reliable digital geographic information from the public sector is provided via the web portal PDOK, the national SDI. This key milestone in unlocking geo-datasets allows anyone to access this information and was developed by Kadaster in collaboration with two government ministries, implementing agencies and Geonovum, the organisation providing better access to geo-information in the public sector. By the end of 2012, the PDOK portal offered access to 41 public datasets, including the BRT and the Key Register for Addresses and Buildings, and attracted around 1 million visits every week. Since 2013 Kadaster has been responsible for its management.

Kadaster plays a key role in safeguarding legal certainty in the property market, collecting information about the owners and locations of parcels of land and making this information available to citizens, companies and public sector agencies.



# KEY CONTRIBUTION



SHARING IDEAS  
AND EXPERTISE TO  
EXCHANGE BEST  
PRACTICE

# TIONS 2012

**FACILITATING  
ACCESS TO  
MEMBERS' DATA  
FOR EMERGENCY  
AND CRISIS  
RESPONSE  
VIA THE  
DEVELOPMENT  
OF THE GIO EMS**

**EXTENDING OUR  
KNOWLEDGE  
EXCHANGE  
NETWORKS (KENS)  
TO FOCUS ON  
KEY ISSUES FOR  
MEMBERS AND  
USERS OF THEIR  
DATA**

**MAINTAINING  
A NETWORK OF  
STRATEGIC PARTNERS  
TO ENSURE THAT WE  
CAN CONTINUE TO  
MEET FUTURE USER  
DEMANDS AND PLAY  
A KEY ROLE IN THE  
GLOBAL GEOSPATIAL  
COMMUNITY**

## MEETING USER NEEDS FOR CADASTRAL INFORMATION - CADASTRE & LAND REGISTRY KEN

Working with The Permanent Committee on Cadastre (PCC), the European Land Information Service and the European Land Registry Association (ELRA), the Cadastre & Land Registry KEN (C&LR KEN) has developed a common vision for cooperation. As a result, the four organisations agree, wherever possible, that they will join forces to establish close cooperation and coordinate their strategies to assist national cadastre and land registry authorities.

During the year, members of the C&LR KEN participated in a range of workshops including the PCC workshop in Paphos, Cyprus. In his presentation, Chair Julius Ernst told delegates from the European Parliament and Cypriot Government that working together is the key to influencing EU policies. The C&LR KEN also organised a joint workshop with the PCC during which participants agreed to maximise the use of existing channels to engage with MEPs and representations from the European Commission to help increase awareness of the role of cadastre and land registry authorities, particularly in e-government, SDIs, financial markets and information systems.

## PROVIDING AUTHORITATIVE DATA FOR EUROPEAN EMERGENCIES - EMERGENCY MAPPING KEN

Established in July 2012, the Emergency Mapping KEN welcomed attendees from more than 20 countries to its first meeting.

Representatives from national mapping, cadastral and land registry authorities joined those from European Commission bodies, such as the European Environment Agency, Joint Research Centre and GMES Bureau, to discuss the requirements of the GIO EMS, the reference datasets available and to share best practice in the handling of emergency mapping at national and international level.

With representatives from the Commission expressing a strong desire to use data from the national mapping, cadastral and land registry authorities in the GIO EMS, a workplan for obtaining access to real-time information from national geoportals was agreed as an interim measure. National experts on monitoring access to national reference data for emergency mapping and a responsible person from each of the relevant Commission bodies were also identified.





# DELIVERING EUROPEAN DATA INTEROPERABILITY - INSPIRE KEN



Created to help members implement the INSPIRE Directive, the INSPIRE KEN enables the sharing of best practice and experiences. This network of around 50 INSPIRE experts within EuroGeographics helps members to follow the development of the INSPIRE regulations and plays a key role in delivering the Association's commitment to European data interoperability.

Issues for 2012 included the use of cloud computing to set up INSPIRE-compliant view services and the implementation of discovery, view and download services. Members expect to present some of their findings at the 2013 INSPIRE conference.



# IMPROVING ACCESS TO EUROGEOGRAPHICS' PAN-EUROPEAN PRODUCTS THROUGH SIMPLE AND TRANSPARENT PRICING AND LICENSING - BUSINESS INTEROPERABILITY KEN



2012 was a busy year for the Business Interoperability KEN, as it saw the completion of EuroGeographics Sales Improvement Programme. A new licensing framework was implemented between EuroGeographics, its product partners, customers, distributors and value added resellers, to ensure consistency and make licensing data as simple and transparent as possible.

To further encourage its use and increase its availability, a new pricing model was agreed for EuroGeographics' pan-European products. This included releasing EuroGlobalMap a 1:1 million scale topographic dataset as an open data product in March 2013. The prices have been reduced for EuroBoundaryMap, EuroRegionalMap and EuroDEM, for some users by up to 60%.

Work continues to increase the network of distributors and partners, so EuroGeographics products produced by the authoritative national mapping and cadastral agencies can be opened up to as many markets and users as possible.

# MAINTAINING THE QUALITY OF AUTHORITY EUROPEAN GEO-INFORMATION - QUALITY KEN

Following the established tradition of taking the Quality KEN to member organisations, the group held plenary meetings in Iceland and Croatia in 2012. This helped to promote its work, encourage engagement and improve links between members.

To reach a wider audience and in recognition that travel to plenary meetings is not always possible, a number of technical webinars were also held. Feedback confirmed that group members feel that plenary meetings, webinars and website are useful to their job and share outputs with their colleagues.

During the year, the Quality KEN published the results of its study into national mapping, cadastral and land

registry authorities' use of ISO Quality standards. It found that majority of EuroGeographics' members make use of the main ISO 19100 spatial data quality standards together with the guidelines document produced by the Association.

Despite changing geospatial technology trends and new customer requirements, members remain responsible for the production of authoritative geo-information. To deliver this, quality

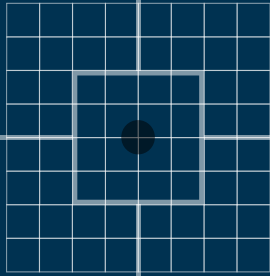
managed and efficient systems are vital. The group is currently investigating members' adoption of quality management systems and is carrying out a survey looking at how they handle and publish data quality. The results will help to information quality management best-practice within EuroGeographics.

The Quality Knowledge Exchange Network is composed of 33 members from 25 countries.





# KEY CONTRIBUTIONS



Delivering the building blocks of interoperability through SDIs




**ENSURING THE AVAILABILITY OF AUTHORITATIVE GEO-INFORMATION**



# UTIONS 2012



**CO-ORDINATING  
THE WINNING  
PROPOSAL  
TO SECURE EU  
FUNDING FOR THE  
DEVELOPMENT OF  
THE E.L.F.**



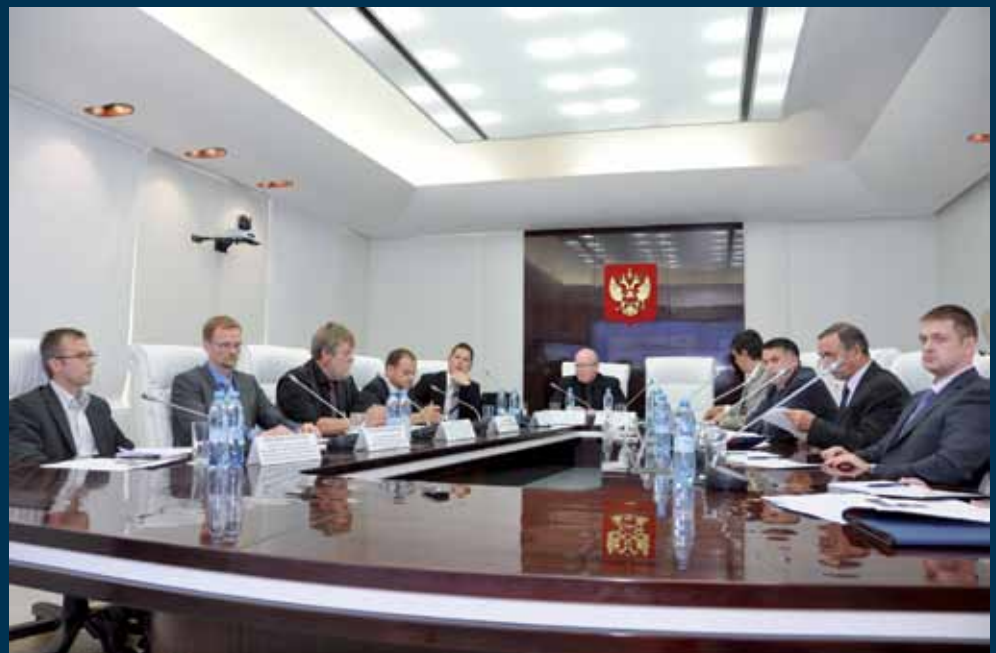
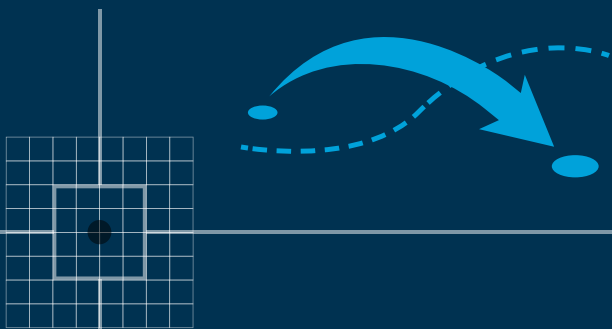
**MAINTAINING THE QUALITY  
OF MEMBERS' GEOSPATIAL  
REFERENCE INFORMATION  
TO ENSURE OUR PRODUCTS  
CONTINUE TO PROVIDE  
HARMONISED, CONSISTENT,  
RE-USEABLE AND READILY-  
AVAILABLE CROSS-BORDER  
DATA**

# CREATING A HARMONISED MAP OF THE ARCTIC REGION

Work continues to deliver the Arctic region's first ever SDI which will enable easy access to up-to-date geo-information. Commissioned by the Arctic Council, this common map portal will enable more flexible environmental and climate monitoring to underpin decision making and cost-effective, integrated planning between organisations.

The 8 countries of the Arctic Council, including five members of EuroGeographics, are collaborating in its development. The Structuring Phase started 2010 with focus on the project plan and organisation. Project Kick Off took place 2011 starting the Establishing Phase which is on-going and focuses on technical solutions in particular.

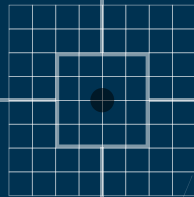
The Operational Phase, taking care of the management and further development the Arctic SDI, is getting closer. The Operational Phase is a management assignment with its own organisation governed by a Management Plan.





# MAJOR PROJECTS FOR LAND INFORMATION AND SPATIAL DATA IN CYPRUS

A major project to upgrade Cyprus's land information system and create a SDI is now in the first stages of implementation following an open contest for services by the Department of Lands and Surveys.



Work has started on a strategic plan for the development of a national SDI and implementing a pilot programme. The project is 85% co-financed through the European Regional Development Fund with the remainder by national resources. It includes the implementation of the Department's Portal and a GIS for the Strovolos Municipality as well as the upgrade of the land information system.

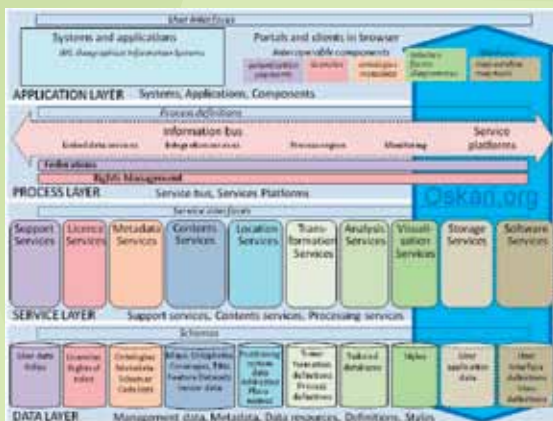
In addition to the Department of Lands and Surveys, stakeholders include the

Department of Information Technology Services; the Strovolos Municipality; the Ministry of Interior; the District Administration, Nicosia; the Water Development Department; and the Department of Town Planning and Housing.

An agreement with a local IT company, HS-Data has been signed with the basic partners being Geodan for all GIS matters and KPMG for all other matters including project analysis and management.

# UNDERPINNING A NATIONAL SDI WITH AN OPEN SOURCE FRAMEWORK AND SERVICE PLATFORM IN FINLAND

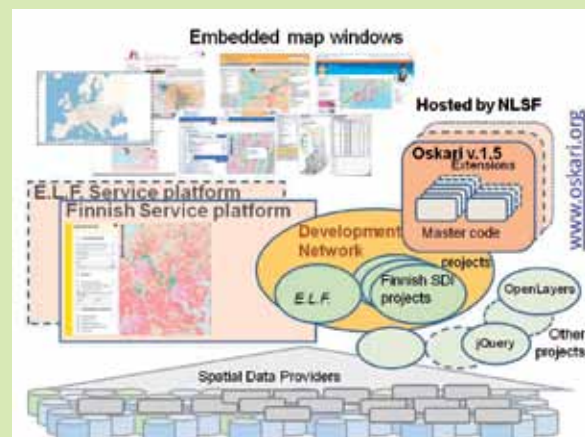
In 2012 the National Land Survey of Finland (NLS) - named the best central government place to work in Finland - became the first Finnish agency to provide open data via the national geoportal. It is now developing Finland's SDI - currently the country's most significant e-government initiative.



To deliver these services, NLS developed Oskari.org, an open source Javascript map application framework and Java-based spatial data service platform that delivers huge savings in the provision of interoperable map services. It provides INSPIRE-compliant mapping and visualisation services that extend beyond metadata, content and transformation services. The resulting easy-to-use, browser-based end-user application will be accessible to all through the national geoportal service platform. A separate service platform with a guaranteed service level will be available for the public sector.

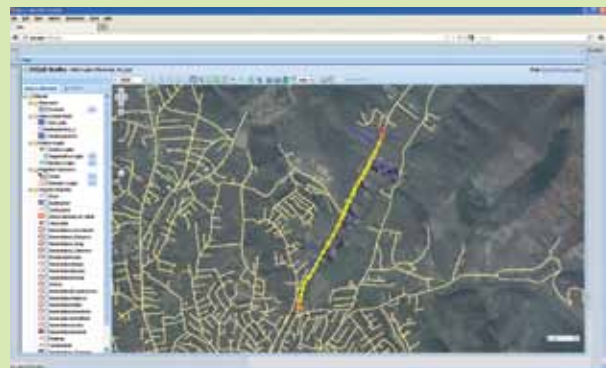
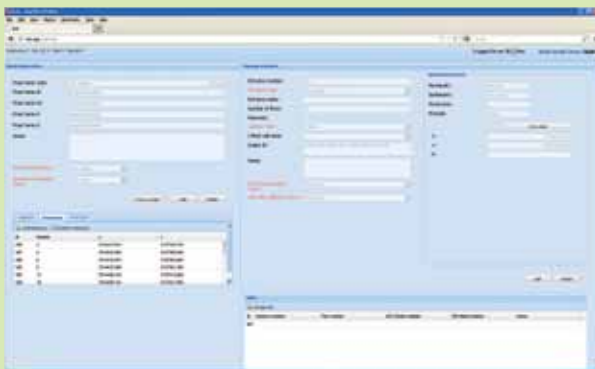
Oskari.org uses OpenLayers for map functionality and bases its user interface on jQuery (although any other Javascript library can be used). Using these to implement the SDI will provide a range of benefits including extensibility; support for multiple languages; a component-based architecture; and support for distributed development.

Oskari.org is already being used by other government agencies in Finland, for example to show the location of job vacancies. It will also be used to implement the E.L.F. platform, enabling many more national mapping agencies to see how it works.



# UNIFYING THE KOSOVO ADDRESS SYSTEM

Kosovo's first ever unified address system is enabling a wide range of services to citizens as well as providing an important element for the national SDI.



Developed with support from the EU Office in Kosovo and the Norwegian government, the new system stems from the 2011 law on address systems which sets out the format of addresses. It is based on best practice and also complies with the INSPIRE Directive.



The Kosovo Cadastral Agency is responsible for implementing the system centrally whilst 38 municipalities maintain it at a local level. Both use the Address Register Information System (ARIS), a web application used to digitise data and collate road information, units and buildings. The resulting official digital unified system will be distributed via the national geoportal which is due to be completed in 2013.

The initiative is part of further developments to the cadastral system which also includes the registration of buildings which plays a vital role in the operation of the real property market as well as the property tax.

Kosovo has seen an increase in people using their property as collateral, for example to secure mortgages. Consequently the registration of buildings and apartments is a priority for the Cadastral Agency, enabling legal rights to be secured and supporting the creation of an active mortgage market.

A five-year project, supported by the World Bank, is delivering the systematic registration of property. Currently it involves 10 cities with the rest of Kosovo expected to be completed by mid 2014.

# DELIVERING REAL ESTATE PROJECTS IN MONTENEGRO

The Real Estate Administration of Montenegro has continued to collaborate with European partner institutions on a number of key projects. During the year, work focused on establishing a real estate cadastre; creating a digital topographic map; production of Digital Terrain Model and orthophotos; updating web services; and the renovation of branch offices.



Cooperation with the Norwegian Mapping Authority is continuing to deliver geographic information for development and EU integration. As well as establishing capacity for SDI development, the project encompasses orthophoto scanning of Montenegro (with the resulting digital terrain model available online); the upgrading of electronic services; and active partnership in INSPIRE. In addition, work with the Japan International Cooperation Agency (JICA) is creating a digital 1: 25 000 scale topographic map of Montenegro using aerial photography which is due to be published in 2013.

As part of the Census cadastre, a real estate cadastre for 555,909 hectares of territory is currently being implemented. This will provide real estate data and information about associated rights via the internet. Digital orthophoto plans with upper-air terrain display are also being created and will form the geometric base for drafting spatial planning technical documentation. A wide range of geo-information, data and services are provided via [www.geoportaluzn.me](http://www.geoportaluzn.me).





# A CHALLENGING AND SUCCESSFUL YEAR FOR CADASTRE AND LAND REGISTRATION IN ROMANIA

Four new projects, financed through European funds, will help improve institutional capacity for Romania's National Agency for Cadastre and Land Registration (ANCPI).



A €1,991,000 project to standardise street nomenclature at national level will deliver unique administration numbers for referencing in official documents and deeds issued by public authorities. The National Electronic Register of Street Names will also provide public bodies and citizens with access to a unique streets denomination system.

By setting the technical and legal framework for the Romanian SDI, the €4,295,000 INSPIRE - substantiated decisions and coherent policies at national level to fit in an unitary European frame - project will improve the ANCPI's search, view and download services. The transformation of spatial data will also provide scope for developing documented policies and decisions.

An online payment system for ANCPI services will also be achieved through the €4.3 million implementation of an e-commerce system and a critical review of the legal, regulatory and institutional framework will improve the real estate registration process through the €2 705 000 Real Property - a base for national and European policies project.

Systematic registration for the first four communes was successfully concluded in the Complementing European Support for Agricultural Restructuring project (CESAR) which is financed through an International Bank for Reconstruction and

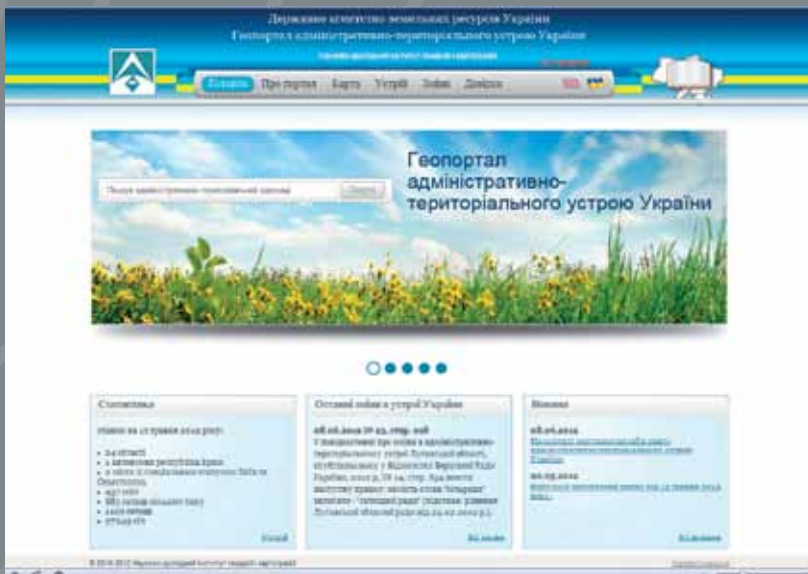
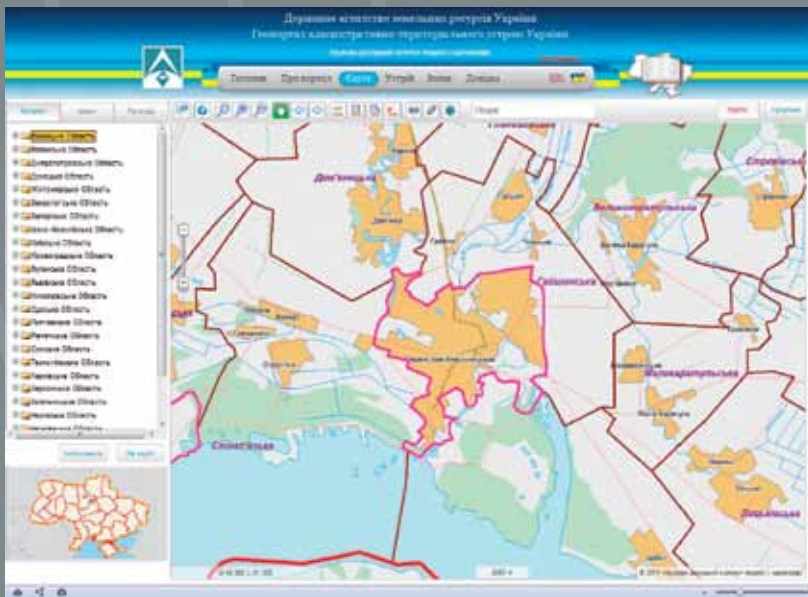


Development loan. As a result around 36,000 real properties covering some 25,000 hectares have been registered. This work was complemented by a nationwide publicity campaign to raise awareness of the benefits of systematic registration.

In addition, 928,000 land books were converted in six counties and the nationwide 1: 5000 reference topographic plan was finalised at the National Mapping Centre. This dataset - TopRO3 - was downloaded to the INSPIRE geoportal of Romania and is used as the basis for the graphical representation of 'tarlas' where property titles have been issued. A project to offer spatial data for the uniform management of administration limits across the Romanian territory was also concluded.

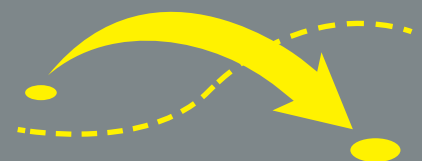
# A YEAR OF CHANGE AND OF PROGRESS IN THE UKRAINE

Surveying, mapping and cadastral activities in the Ukraine have seen significant changes during the past year.

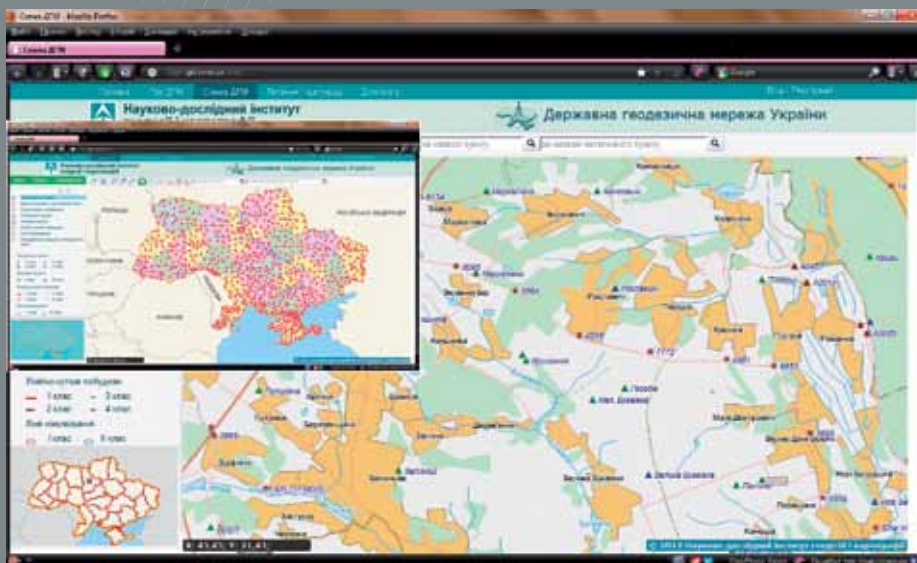


As a result of Presidential decrees, the Ministry of Agriculture and Food is now responsible for surveying and mapping policy whilst the coordinating activities associated with installing, registering, using and storing geographic names have been assigned to the State Agency for Land Resources of Ukraine.

Legal and technical support for the national SDI is creating a national standard for the Ukraine Geographic Information Reference Model which harmonises with the appropriate ISO 19101. The sectoral standards of geographic information were also developed and approved according to ISO 19100.



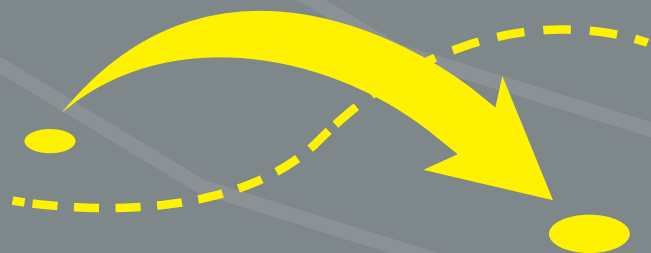
E-maps for the territory of the Ukraine, including national, regional and individual cities, are supported by the implementation of the Ukrainian research mapping network web server. These services are used by the majority of the Ukraine's web portals, enterprises and citizens and the geoportals implemented during 2012 will facilitate broad access to official information and a transparent and timely exchange of geospatial data for users.



The State Geodetic Network of the Ukraine - <http://dgm.gki.com.ua> - provides users with coordinates for points defined in the coordinate system UCS-2000 and contains information about the location, class, level of accuracy, type of centre, position and other indexes of geodetic points. Geodetic points are reflected on 1: 100 000 cartography of the administrative-territorial system.

The official source of information about the administrative-territorial divisions and names of units and settlements is the Manual of administrative-territorial structure of Ukraine at <http://atu.gki.com.ua>. This contains cartographic materials of boundaries including the State boundary, boundaries of the Autonomous Republic

of Crimea, regions, cities of Kyiv and Sevastopol, districts, cities of republican and regional significance (plotted according to the Ordinary information map of the Ukraine), municipal boundaries and city and village councils plotted according to the Council of Ministers of the Autonomous Republic of Crimea and regional administrations.



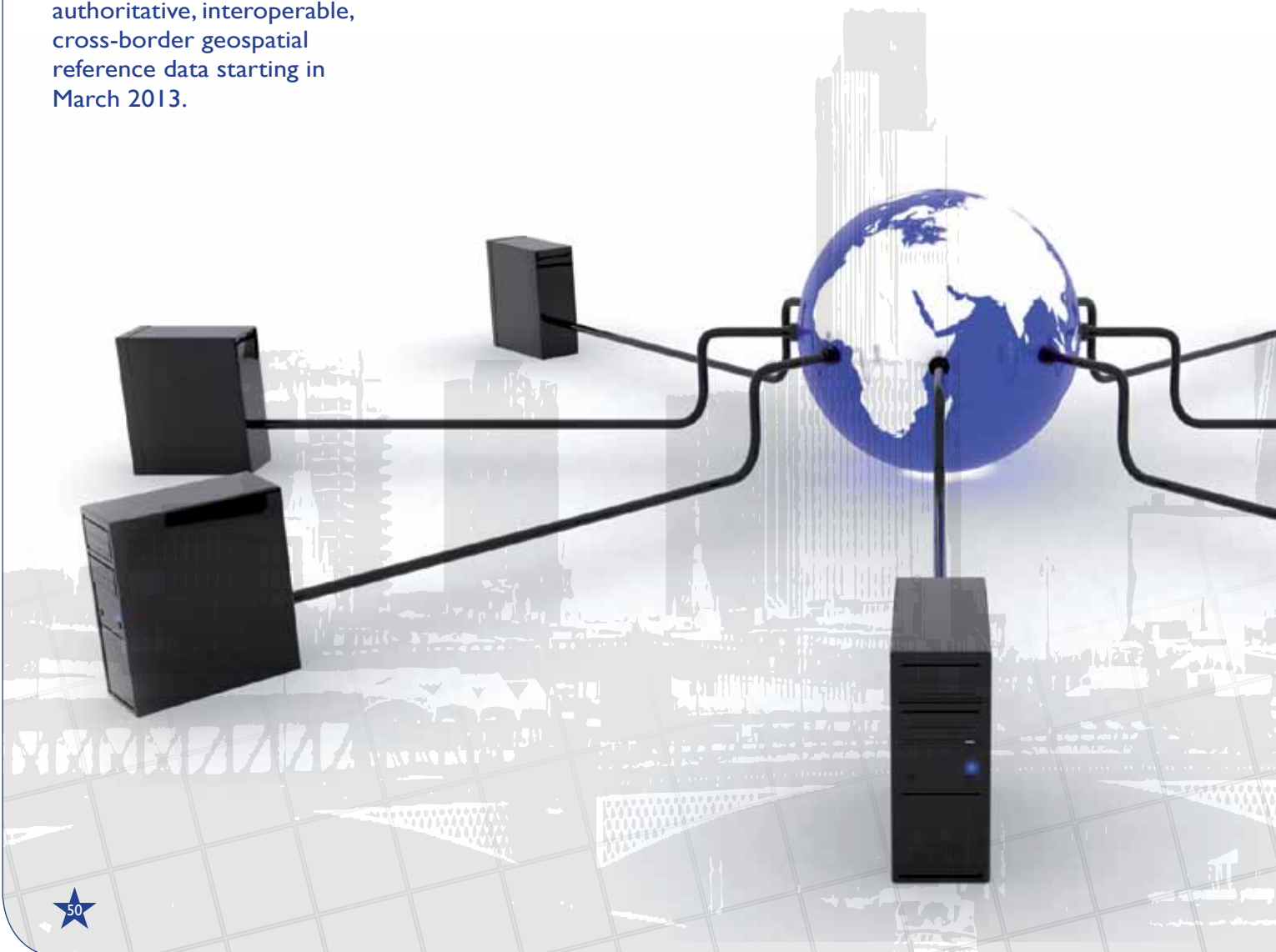


# INCREASING THE AVAILABILITY OF AUTHORITATIVE GEO-INFORMATION UPDATE ON THE EUROPEAN LOCATION FRAMEWORK (E.L.F.)

**W**ith the successful conclusion of the award-winning ESDIN project, a number of the components of the E.L.F. are now in place. EU funding for the proposal submitted by EuroGeographics on behalf of the project consortium was secured in 2012 with work on the technical infrastructure to deliver authoritative, interoperable, cross-border geospatial reference data starting in March 2013.

EuroGeographics has already introduced an automated generalisation process to generate a global level of information for EuroGlobalMap, our 1:1 million scale topographic dataset from the regional level data of 1: 250 000 scale EuroRegionalMap. We have also introduced a geographical names services, EuroGeoNames, the pan-European web service providing the definitive and authoritative place names for Europe.

ESDIN, which was co-funded by the European Commission's eContentplus programme and co-ordinated by EuroGeographics, delivered specifications for the E.L.F., based on ISO/EN 19100 standards, enabling information to be connected to individual places and features. The project also provided geo-tools and tested the technical architecture, helping to prepare data and prototype services essential for meeting the requirements of the INSPIRE Directive.





# BENEFITS OF THE E.L.F.



## FOR USERS

- ★ Consistency between a number of INSPIRE data themes, including administrative units; hydrography; and transport networks, so that themes can be used together in various resolutions.
- ★ Better 'up-to-dateness' and consistency between resolutions.
- ★ Quality conformance levels and metadata enabling users to ensure that their requirements are met.
- ★ Maintenance of reference information in user databases; unique identifiers enable change only updates.
- ★ Reference data provision for European users including the European Commission.

## FOR PRODUCERS

- ★ Cost savings in the national production and maintenance processes of European data.
- ★ Common feature type dictionary between resolutions enables use of generalization process in maintenance processes of medium/small scale resolutions which means better up-to-dateness and consistency between resolutions.
- ★ Help implementing the INSPIRE Directive.
- ★ Implementation of interoperability processes including edge-matching between countries to achieve cross-border consistency, quality evaluation and conformance testing, generalization and transformation services.
- ★ Increased use of national data in services, European and global use.

The E.L.F. implementation project, led by the Norwegian Mapping Authority, started in March 2013 and we look forward to reporting on progress in the coming year.

# EUROGEOGRAPHICS' MEMBERS

	Organisation	Country
	Agency of Legalisation Urbanisation and Integration of Informal Zone/Building	Albania
	State Committee of the Real Property Cadastre	Armenia
	Federal Office of Metrology and Surveying	Austria
P13	National Geographic Institute *	Belgium
	General Administration of Patrimonial Documentation	Belgium
	Federal Administration for Geodetic and Real Property Affairs	Bosnia & Herzegovina
	Republic Authority for Geodetic and Property Affairs of Republic of Srpska	Rep. Srpska, Bosnia & Herzegovina
	Geodesy, Cartography and Cadastre Agency	Bulgaria
	State Geodetic Administration	Croatia
P43	Cyprus Department of Lands and Surveys *	Cyprus
P14	Czech Office for Surveying, Mapping and Cadastre *	Czech Republic
P15	Danish Geodata Agency *	Denmark
	Estonian National Landboard	Estonia
P44	National Land Survey of Finland *	Finland
	Finish Geodetic Institute	Finland
P16	National Institute of Geographic and Forest Information *	France
P17	Agency of Real Estate Cadastre *	FYROM
	National Agency of Public Registry	Georgia
P19	Federal Agency for Cartography and Geodesy *	Germany
P18	Working Committee of the Surveying Authorities of the Laender of the Federal Republic of Germany *	Germany
P26	Ordnance Survey Great Britain *	Great Britain
	Hellenic Mapping and Cadastral Organisation	Greece
	Helenic Military Geographical Service	Greece
	Hellenic Cadastre	Greece
P20	Institute of Geodesy, Cartography and Remote Sensing *	Hungary
	Geoinformation Service of Hungarian Defence Forces	Hungary
P21	National Land Survey of Iceland *	Iceland
	Registers of Iceland	Iceland
P22	Ordnance Survey Ireland *	Ireland

	<b>Organisation</b>	<b>Country</b>
	Italian Military Geographic Institute	Italy
	National agency for cadastre, cartography, land registration, real estate market monitoring and appraisal services	Italy
P45	Kosovo Cadastral Agency *	Kosovo
P23	State Land Service *	Latvia
	Latvian Geospatial Information Agency	Latvia
	National Land Service under the Ministry of Agriculture	Lithuania
P24	State Enterprise Centre of Registers *	Lithuania
	Administration of the Cadastre and Topography	Luxembourg
	Malta Environment & Planning Authority	Malta
	State Agency for Land Relations and Cadastre	Moldova
P46	Real Estate Administration of Montenegro *	Montenegro
	Land and Property Services	Northern Ireland
	Norwegian Mapping Authority	Norway
P25	Head Office of Geodesy and Cartography *	Poland
P28	Portuguese Geographical Institute *	Portugal
P47	National Agency for Cadastre and Land Registration of Romania *	Romania
	Federal Service for State Registration, Cadastre and Cartography	Russia
	Republic Geodetic Authority	Serbia
	Geodesy, Cartography and Cadastre Authority of the Slovak Republic	Slovakia
	Surveying and Mapping Authority of the Republic of Slovenia	Slovenia
	National Geographic Institute	Spain
	General Directorate for the Cadastre	Spain
P29	The Swedish mapping, cadastral and land registration authority *	Sweden
P30	Federal Office of Topography *	Switzerland
P32	Cadastre, Land Registry and Mapping Agency *	The Netherlands
P31	General Command of Mapping *	Turkey
P48	State Service of Geodesy, Cartography and Cadastre *	Ukraine

\* Highlights members' who have a case study in this report



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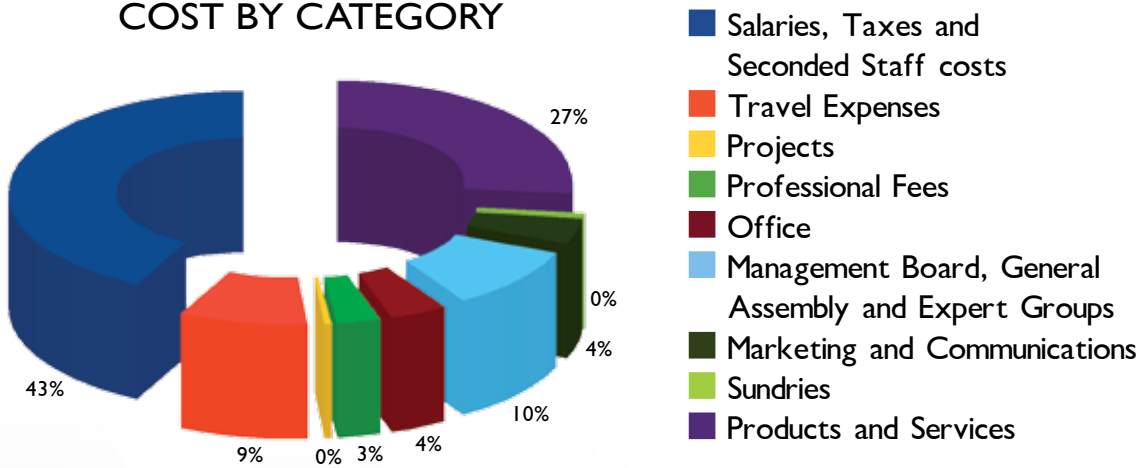
Brian Sexton



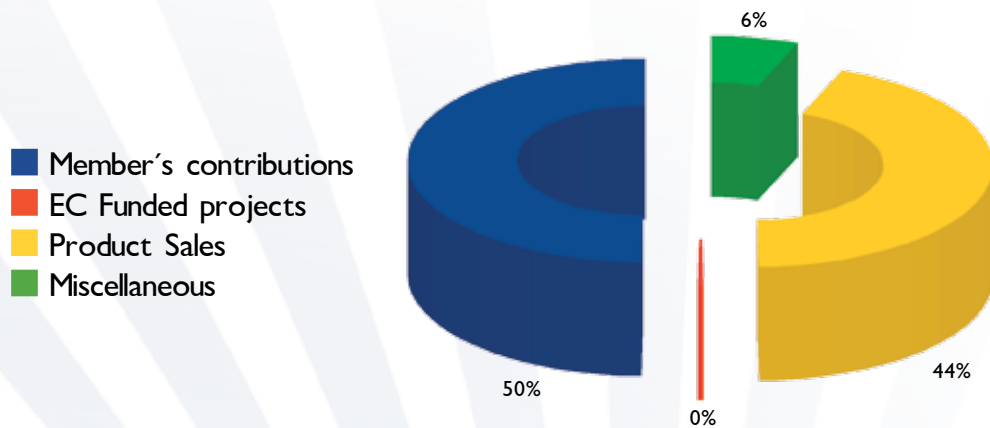


# FINANCES

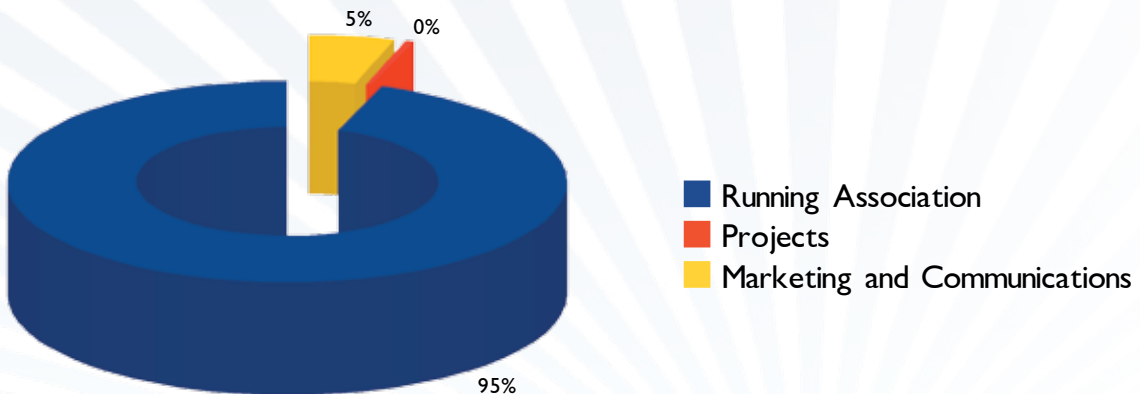
## COST BY CATEGORY



## INCOME



## COST BY ACTIVITY



# EuroGeographics

## Annual Review 2012

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