



*"GeoSur develops geographic services on a free-access web platform"*

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## The Editor's Note

In this newsletter the importance of regional spatial data infrastructures and their differences with national initiatives are highlighted. Consistency of the regional approach manifests both at global and continental levels (Americas, Europe) and their organizations and programs (EuroGeographics, IPGH, GeoSUR). Appraisals in the interview of the month, institutional modernization processes (IPGH), relevant events with key stakeholders (UN-GGIM, GeoSUR, CAF, IPGH, USGS, INEGI), and the

development of new maps (flooded areas in LAC 2012) promote this regional interest.

GeoSUR newsletter seeks to disseminate GeoSUR Program's achievements and characteristics as well as events, projects and best practices for the application of GI into sustainable development and decision making in the region, as part of the Geospatial Data Infrastructure of the Americas.

The Portuguese translation is performed by **Eduardo Freitas**, Manager of the GEOeduc Institute of Brazil. Please send your contributions and suggestions to: **Nancy Aguirre**, Editor GeoSUR Newsletter, at [cnaquiere@ipgh.org](mailto:cnaquiere@ipgh.org).



**Dave Lovell** is Secretary General and Executive Director of [EuroGeographics](#) the not-for-profit association representing 60 national mapping, cadastre and land registry authorities in 47 European countries. He is also a member of the Advisory Committee of the [British Geological Survey](#) and President Elect of [GSDI](#).

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## Dave Lovell, Excecutive Director of EuroGeographics, talks about the EuroRegionalMap and ELF Projects

***In previous years Global Map depended on the availability of 1:1,000,000 scale data sets at the national level, EuroGeographics contributed with the EuroGlobalMap. EuroGeographics has also developed the 1:250,000 scale EuroRegionalMap covering 33 European nations. In your opinion which should be the next standard for global mapping?***

That is quite a difficult question for me to answer because it's the users not suppliers of geo-information who will influence its future direction. The demand for more detailed, more authoritative and more up-to-date information has increased over time and this will certainly continue. Different users however require different content, for example in terms of features, accuracy and quality. Whilst online services such as Google and Bing maps can meet this using tools to pan and zoom, they currently remain challenged by up-to-datedness and, some would say, authenticity.

We also know that the desire for up-to-datedness and centralised databases implementations, containing aggregated data (of different dates), which is the Global Map approach, are inconsistent. The European Commission's INSPIRE Directive

recognises this and proposes a distributed database architecture. In the ESDIN project we tested this theory and proved that technically it can be done with national services aggregated on the fly once challenges such as edge-matching at national boundaries are overcome. Internet performance and other technical performance limitations however currently prevent delivery at speeds which would satisfy users; caching offers a solution but is it adequate?

In terms of level of detail, of course EuroRegionalMap at 1:250,000 scale moves towards a new standard for global mapping, but in Europe fewer countries, compared to those in EuroGlobalMap, for one reason or another (technical, political, capacity, capability, inadequate investment, etc.), are currently able to provide this. Whilst digitally produced, EuroRegionalMap is the output of a 'conventional flowline' with the data brought together in a central database and a new version produced on a cyclic basis. For some applications such as emergency response, this is inadequate. That is one reason why we have commenced implementation of the European Location Framework.



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*"INSPIRE has been successful in changing the way national geospatial information is managed and made available at a national level; the ELF now takes this to the next, a European level."*

*"By working together across continents, national borders, cultures, languages and business models, we are stronger and smarter, more efficient and more effective."*

## Dave Lovell continues...

***In the Society of Knowledge era in which we are living the exchange of knowledge is paramount but still not a good practice in many regions of the World. What can you tell us about your experience with the EuroGeographics Knowledge Exchange Networks?***

I'm pleased you have raised this point - it highlights, I believe, an important contradiction – 'is knowledge exchange' consistent with a competitive capitalist ethos?

Within the community of EuroGeographics' members, knowledge exchange is a highly-valued activity. Our network of 7 knowledge exchange networks, or KENS, is underpinned by the basic notion that not every national mapping and cadastral authority will advance at the same pace, focus on the same issues and so on. By meeting on a regular basis, one member can learn from the experiences of another. This enables each member to go further and faster in delivering their national products and services.

But again we have to manage the reality that there is a cost to this activity and this cost is met by the members directly through their subscriptions. This leads to the question: 'Should non-members benefit, through participating in activities when they contribute nothing to the costs?'

My view is that increasingly the answer must be yes! The challenges we each face, that the whole of civilisation faces, demands that we cooperate more and compete less. That's why CAF, EuroGeographics, PAIGH and PSMA Australia have agreed that we will work together to share knowledge and experience.

I believe that this is why the UN initiated Global Geospatial Information Management movement has important roles to play at organisational or national level and why organisations such as GSDI which promote international cooperation and collaboration has an important role to play at the individual level.

***EuroGeographics has now embarked on the European Location Framework, the ELF project, what could be its potential impact beyond Europe?***

Although that's a relatively short and seemingly simple question, the nature of the European Location Framework project (ELF) demands a detailed and, I think, quite complex answer.

The ELF is a long- term vision and plan to deliver a 24x7 operational service which provides one Reference Geo-Information Source for Europe. INSPIRE has been successful in changing the way national geospatial information is managed and made available at a national level; the ELF now takes this to the next, a European level.

The ELF has to aggregate national services and deliver them on the fly, edge-matched at national borders, to a common specification, quality assured and so on. And, as we have seen, currently information and communications technology does not adequately support that.

What we can say is, that at the end of the project, an infrastructure will have been developed, a platform for solutions will exist and some content will be available. Will the content in terms of feature types, level of detail, accuracy, quality and so on satisfy the many users who can benefit from it? No, but then neither did the first mobile phone, or indeed the latest, and Rome, like Europe, was not built in a day. Over time the service will expand to include more content, covering more of Europe at increasing levels of detail.

ELF is a big step in the right direction and yes, it will have impact beyond Europe because we are going to share what we learn and what we know with others. By working together across continents, national borders, cultures, languages and business models, we are stronger and smarter, more efficient and more effective.

## From Eric's Desk

In this month's issue I want to highlight the development of two events of major importance for the advancement of the geospatial sciences in the region.

The first was the Fourth Workshop for Integration of the Mesoamerica Map developed in El Salvador between September 29 and October 3.

This innovative initiative driven by geographical institutes of this region with support from CAF, PAIGH, USGS and INEGI points to the future generation of an integrated map at scale of 1: 250,000 for Latin America, a key product for undertaking integration projects driven by the CAF, IDB, UNASUR, the Pacific Alliance, CELAC and other regional bodies.

The water layer information produced during this workshop will be incorporated into the GeoSUR Viewer, where layers developed during three regional workshops previously held are now available.

The second was the Latin American Geospatial Forum held in Mexico City from September 22 to 25.

I had the great pleasure of attending this event, and two important meetings that took place there: the First Session of the UN-GGIM: Americas Committee and the session of GEOSS in the Americas.

In all these occasions I could see the great need we have in Latin America and the Caribbean for regional geographic information - and associated geoservices - in order to monitor natural phenomena and support disaster management that often transcend our national borders.

Presentations to which I attended - and hallway conversations - reiterate my conviction that the development of practical applications that address real problems in our society is definitely the way to go.



Eric van Praag, GeoSUR Program Coordinator



1st Session of the UN-GGIM: Americas Committee



GeoSUR Presentation in GEOSS Session

## From PAIGH's Secretary General

Dear readers of the Newsletter, this time I would like to share with you some thoughts regarding the ongoing modernization process of the PAIGH. Our long-term vision is to establish ourselves as a benchmark at continental level in the areas of History and Earth Sciences especially through Cartography, Geography and Geophysics.

Some years ago it was defined the Pan-American Agenda in this context, which itself is a strategic development axis including the interests of our Member States, and partly focuses our scientific production on climate

change, land use planning (territorial ordering), and natural hazard management that is developed both through the respective Technical Assistance Program and a series of publications permanently edited by the PAIGH.

At present, we undertake a persistent adaptation process in order to cooperate on capacity building and institutional strengthening in our region, which involves for example, reinforcing cooperation mechanisms we organize through GeoSUR as to continue optimizing service delivery to our members.



The Secretary General of PAIGH while participating in the "4th Workshop on Data Integration and Development of Technical Capabilities for Central America" held in El Salvador (September / October, 2014)

## GeoSUR Portal's Novelties

During September a new map of flooded areas in Latin America and the Caribbean (LAC) in 2012 was included in the Portal and Data Download Service, which is available as a WMS service.

The map was developed by the University of Colorado Flood Monitoring Centre for GeoSUR Program and required 28 days of continuous processing to analyze more than 15,000 MODIS images of the Terra and Aqua satellites to generating a final vector product of 753 MB.

In a month the Center will end the map of LAC flooded areas during the 2000-2011 period.

Once we have this new map we will incorporate the "flood" variable into the module for Project Impact Assessment inside the [GeoSUR Viewer](#) that will allow users to draw new infrastructure projects using the Viewer and to estimate whether or not these are passing through flood-prone areas.

A series of maps on forest cover change in South America developed by the University of Maryland, Google, and USGS were also incorporated into the Viewer.

The series consists of three types of maps:

1. Forest Cover Year 2000
2. Forest Cover Year 2010
3. Forest Cover Annual Change Maps for the period 2000-2010

Over 650,000 Landsat images were used to create the above products, - in a personal computer these data would take 15 years to process -, which processing took only a few days with support of Google.



Floods in Latin America and the Caribbean (LAC) in 2012 at the [GeoSUR Viewer](#); map developed by the University of Colorado for GeoSUR



Map of Infrastructure Projects Impact Assessment

### GeoSUR Program: Basic Figures

Years in Operation	8
Participating Institutions	100
Beneficiary Countries	26
GeoSUR Network Specialists	550
Officials Trained (6 Regional Workshops)	250
CAF Officials Trained	130
Virtual Workshops Offered	40
Available Digital Maps	20,000
Available Metadata	14,000
Map Services (WMS)	300
WFS Services	25

Webpage: <http://www.geosur.info>

## CAF - Development Bank of Latin America

[investorinformation@caf.com](mailto:investorinformation@caf.com)

[www.caf.com](http://www.caf.com)

## PAIGH

[secretariageneral@ipgh.org](mailto:secretariageneral@ipgh.org)

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

## GeoSUR Program

[geosur@googlegroups.com](mailto:geosur@googlegroups.com)

[www.geosur.info](http://www.geosur.info)

## Other events in the region

### CAF: NEW OPPORTUNITIES FOR COOPERATION IN THE CARIBBEAN

As to promoting projects that contribute to structural changes in the region leading to a higher, sustainable, employment-creating, and inclusive growth, officials of both CAF- development bank of Latin America, and the Caribbean Development Bank (CDB) identified new cooperation opportunities on infrastructure, energy, education and climate change during a working meeting on September 3<sup>rd</sup> in Caracas, Venezuela. In 2013 Enrique Garcia, President of CAF, and Warren Smith, President of CBD signed an agreement aimed at jointly promoting initiatives for investment on infrastructure, social development, human capital and renewable energy among several critical sectors for the Latin American and Caribbean development. The above require geoinformation that could be provided by an SDI (i.e. integrated, standardized, at appropriate scales) and that are promptly available for their application in public policy and development. Thus, reconsideration of the question posed by Santiago Borrero in his editorial in [GIM International of August 2014](#) (a free subscription journal): "Do experts think that this goal can be achieved in the estimated time, without deep changes occurring in the institutions responsible for mapping and producing fundamental databases in each country?" is sensible. Eric van Praag asserted in the previous issue of this newsletter that since SDI at all levels "have financing deficit ... CAF could help to improve this situation" [Source: [CAF](#); GeoSUR Newsletter; *GIM International* magazine].

"... officials of both CAF- development bank of Latin America, and the Caribbean Development Bank (CDB) identified new opportunities for cooperation in infrastructure, energy, education and climate change"

### SEVENTH CARIBBEAN GIS CONFERENCE

Join the Caribbean GIS Community in Curacao, October 26-30, 2014 for URISA's Seventh Caribbean GIS Conference. Take advantage of workshops and sessions on topics ranging from UAV imagery collection, change detection, disaster response, ROI and economic development. The conference theme this year is "Spatial Technologies: Fueling Economic Growth and Development." Visit [www.urisa.org](http://www.urisa.org) for complete conference details. URISA hosts a Caribbean GIS Conference every two years to foster GIS development and collaboration in the region through its [Caribbean Chapter](#) [Source: Wendy Nelson, Executive Director URISA]



7th Caribbean GIS Conference  
[Conference Program and Mobile App](#)

**PUBLICATIONS:** Is now available for free download in PDF the book "[Fundamentals of Spatial Data Infrastructures](#)" (in Spanish) originally published in print by UPM Press in 2012 [Source: Miguel-Angel Bernabe, Polytechnic University of Madrid]