















Latin America Geospatial Forum 2013 was held in September, in Rio de Janeiro, Brazil. The many aspects and dimensions of the theme "Sustainability to Resilience - Geospatial Way" were explored and discussed in plenary sessions, thematic and technical presentations from experts in government, end users, academy and private sector. The event was set up on a platform of discussion and connection, meaning a successful experience for attendees.

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Sanjay Kumar

Chief Executive Officer Geospatial Media and Communications, India

Wasmália Socorro Barata Bivar

President
IBGE – Brazilian Institute of Geography
and Statistics, Brazil

Eduarda La Rocque

President IPP – Pereira Passos Institute Municpality of Rio de Janeiro, Brazil

José Carlos Penna de Vasconcellos

President SBC – Brazilian Society of Cartography Brazil



Key speakers, representing the highest level of important global institutions carried out the opening session. Sajay Kumar, CEO of Geospatial Media & Communications started the event presenting a comprehensive overview of business trends of geospatial industry in the world and specially in Latin America. It was official launched the new platform, in multiple language, for sharing and learning, the Latin American Geospatial Digest.

Wasmália Bivar, IBGE's president, co-organiser of LAGF, talked about the Brazilian tradition in the field of cartography, gathering geosciences, statistics and mappings. She advocated for interoperability for improving quality of information for decision making.

The president of SBC, Jose Carlos Penna, applauded the effort of LAGF in co-hosting for the first time the Geoprocessing Brazilian Congress. He highlighted the efforts of the academy to promote researches in the field of cartography and emphasized international partnerships. And Eduarda La Rocque, president of IPP, from Municipality of Rio

de Janeiro, underscored the works in the application of geotechnology to plan a sustainable city.

The session was closed with all speakers celebrating the International Cartographic Congress that will be held in Rio in 2015.





Under the theme "Geospatial Enabling Resilient Development", the first Plenary session had as a chairperson Paulo Roberto Martini, from AEB. Volney Zanardi Junior, IBAMA's president, gave an overview of some initiatives including monitoring and controlling forest fires, illegal deforestation in the Amazon, and oil spills. As an example, IBAMA teamed with the National Institute for Space Research (INPE) to use satellite imagery to monitor, make public and control deforestation in the Amazon. When the program was initiated in 2004, illegal deforestation was increasing rapidly; the goal of the program was to reduce illegal deforestation by 80%. They are not only using geospatial and earth observation for Brazil but also helping other neighboring countries of the region. To Zanardi, geospatial enables not only to address environmental challenges, but also brings transparency in policy audit.

In his presentation, Mladen Stojic, from Intergraph, said that the geospatial eco-system is changing and shaping the business direction, fusing the real and digital world in a constant flow of information. He emphasized the interoperability on solutions offered by Hexagon that brings together all tools to integrate geospatial with other information systems, enabling decision making. Rolando Ocampo brought to the audience a very successful Mexican initiative. The Digital Map of Mexico is a technological platform that allows the visualization and analysis of geographic and georeferenced statistical information. It offers 158 vector data layers, with more than 66 million geographic objects and 4 raster layers covering the whole country. He noted that many government programs use these georeferenced data, on planning, requires research and public policies in Mexico.

Chairperson

Paulo Roberto Martini

Chief of Office AEB - Brazilian Space Agency , Brazil

Speakers_

Volney Zanardi Junior

President IBAMA - Brazilian Institute of Environment and Renewable Natural Resources, Brazil

Mladen Stojic

Vice President – Geospatial Intergraph, USA

Bhupinder Singh

Senior Vice President Bentley , USA

Rolando Ocampo

Vice President INEGI - National Institute of Statistics Geography and Informatics, Mexico

Antonio Machado e Silva

Director – Senior Consultant AMS Kepler , Brazil

The Senior Vice President of Bentley, Bhupinder Singh said that there is a huge infrastructure deficit in developing countries and this and a great opportunity for new incentives, and geospatial bring together all the pillars for a value proposition. He showed examples of applications in construction and transport. To him, development requires infrastructure, understood as the interface between the people and our planet, and geospatial enabling resilient development. Maintaining that geoinformation with low cost and high return is possible, according to Antonio Machado e Silva, AMSKepler's president. In his presentation, he advocated that geotechnical companies need to present themselves as a necessary investment and not as an extra expense, because they work to solve problems.



The second plenary session had the technological trends as a main subject and Wadih João Scandar Neto, from IBGE, was the chairperson. The pannel showed successful cases in different America's countries, starting with the presentation of the CEDIZ Program, a successful example of GIS technology in encouraging entrepreneurship in Chile. According to the program director, Juan Arenas, a technological tool has been facilitating the process of obtaining the provisional city hall license for new business, besides to make available an Urban Parcels Base Map as a main input for other state agencies to improve and modernize the administration. He highlighted that more important than creating a new platform is the commitment to keep it regularly updated.

The session featured dynamics presentations of world-wide companies showing in practice their solutions and possibilities. Chris Gibson, from Trimble, demonstrated how the company is enhancing the technological changes. In his words, smart devices offers largest network of information dissemination and this is processing a revolution progressively impacted and transformed the way the world works. In the same direction, Bert Turner, from DigitalGlobe, said that new geospatial technologies make sharing and analyzing of information easier and the exponential global growth of mobile devices makes the marriage of real-time information and location a reality leading to new insights. Well-informed decisions save time, money and lives and he expressed the key elements as

Chairperson

Wadih João Scandar Neto

Director – Geosciences IBGE – Brazilian Institute of Geography and Statistics, Brazil

Speakers

Juan Acuña Arenas

Executive Director Programme CEDIZ Ministry of Economy, Chile

Chris W. Gibson

Vice President Trimble, USA

Bert Turner

Senior Vice President Commercial & International Defence & Intelligence Sales DigitalGlobe, USA

Marcio Andrade

Senior Product Manager HERE Maps & Content, Brazil

Iara Musse Felix

Director Santiago & Cintra Consultoria Brazil

land, water, agriculture and natural resource sustainabilities for this changing time.

In the part of Brazilian companies, Iara Felix, from Santiago & Cintra Consultoria, emphasized the issue of interoperability as a central concern in the solutions developed by the company, as from the user's experience. Among the challenges and trends she talked about the interrelation between GIS and IT, cloud computing and big data. In the other hand, Marcio Andrade, from HERE, that almost dominated the automotive geospatial devices in Brazil, presented the ADAS system that brings the most used applications in the area of transport and traffic control, crossing public transport information with pedestrian's routes.



Chair and Lead Speaker

Geoff Zeiss

Editor - Building and Energy Geospatial Media and Communica-

tions, Canada

Speakers

Marcelo Sampaio

Coordinator of Information Systems Georeferenced Ministry of Transport, Brazil

Adailton Cardoso Dias

General Coordinator of Planning and Programming of Investments DNIT – National Department of Transport Infrastructure, Brazil

Claudio Amaral

Director DRM – Geological Service of Rio de Janeiro, Brazil

Marcos Ferreira

Petrobras, Brazil

Luiz Antonio Xavier

IBGE - Brazilian Institute of Geography and Statistics, Brazil

Marcos Guadalini

Sales Director Alezi Theodolini, Brazil

Antonio Machado e Silva

Director AMS Kepler, Brazil

Giandri Machado

Business Development Director Digibase, Brazil

Carlos Alberto Previdelli

Manager Product Marketing OSS CPqD, Brazil

Eduardo Ribeiro

Architect and Urban Planner D5 Cursos, Brazil

Fernando Augusto Corrêa da Silva

Director SINCO Engineering, Brazil

Trevor Taylor

Member Services Americas OGC João Gaspar Director Rede AEC Pro, Brazil

João Gaspar

Director Rede AEC Pro Brazi

Wagner Conde

PMP Architect
A&T Architecture, Brazil

Nuno Vilaca

Worldwide Airborne and Land Mobile Solutions Specialist Trimble, Germany LAGF 2013 promoted, for the first time, a whole day session focused on Construction and Infrastructure. After a brilliant opening talk of Geoff Zeiss, setting the context right and was the chair of the session, the thematic discussion had presentations from Ministry of Transports in Brazil, explaining how the government is using the technology in road construction projects. Marcelo Sampaio talked about the vulnerability in road infrastructure in Brazil and the studies carried out to use GIS with the goal of reducing logistics costs and increasing productivity of transport services. From DNIT, Adailton Dias showed the multiple data integration challenges and solutions in the agency.



Presenting multiple overview of infrastructure, important Brazilian agency attended the session. Claudio Amaral, from DRM, brought to the session the role of engineering geology in infrastructure projects in Rio de Janeiro, expressing his ideas about the new professional assignment of geologists, as performance in systems and methods of engineering geology, soil and rock mechanics and geotechnical mapping before the implementation of infrastructure projects. Marcos Ferreira, from Petrobras, had showcase the

project of a new modelling database of geographic information system for the oil industry, connecting data sources and real time monitoring of platforms.

Fernando Corrêa da Silva, director of SINCO Engineering, talked about his BIM journey in Brazil and the implementation strategy in the real estate market. To him, implement BIM in the country means a changing paradigm. The architects Eduardo Ribeiro and Wagner Conde spoke about the current stage of BIM in Brazil and the challenges to its greater diffusion and integration in infrastructure projects. Conde showcase successful examples of BIM projects and Ribeiro advocated the importance of integrate BIM and GIS to improve efficiency in construction projects. He believes that training in both BIM and GIS can be expected in the near future.

Trevor Taylor, from OCG, defended that availability of geo data is crucial for building information models, the built environment and surrounding geography. To him, the key factor for accessibility is standardisation and it is the definition of common interfaces to enable interoperability.

The session brought industry speakers, as Alezi Theodolini, AMS Kepler, Digibase, Esri and Trimble, who gave demonstrations on geodesign philosophy at construction and infrastructure for city management. Marcos Guadalini, from Alezi Theodolini, talked about the technology regarding to the cell phone coverage facilities, in special the GSM/GPRS connection able to be used in Brazil. From Digibase, Giandri Machado presentation had answered the question: "How to plan the geographic intelligence in so compromising accompanying the decision making concerning my operation and intelligence needed to meet operators, managers, directors and even traders in my business rule?", giving examples in operation today.

3 DAYS

750+
DELEGATES

100+
SPEAKERS





Guest Speaker

Kees de Zeeuw

Director
Kadaster International
Land Registry and Mapping Agency
The Netherlands

Speakers

Oscar Oséias de Oliveira

Chief of Land Division SR-20/ES INCRA – Brazilian Institute for National Land Reform, Brazil

Miriam Barbuda and Wolney Cogoy

National Address Cadastre for Statistics CNEFE / IBGE, Brazil

José Geraldo Reis

SEI / Bahia – Superintendency of Economic and Social Studies, Brazil

Werner Leyh

Professor University of São Paulo, Brazil

Sonia Costa

IBGE - Brazilian Institute of Geography and Statistics, Brazil

One of the biggest and common problems in Latin America is land registration and cadastre. For a full audience, the session contributed to share good practices and solutions existing in different agencies, added with a great overview from the academia. Oscar Oséias de Oliveira, from INCRA, presented the Land Management System, an electronic tool that allows receiving, validating, organizing and providing the georeferenced information limits of rural properties, public and private in Brazil.

Jose Geraldo Reis presented a case study on update of cartographic intercity limits in Bahia, a big Brazilian state where live more than 14 million people and is divided into more than 400 municipalities. The two years project had faced problems as inconsistent legislation, administrative instability and judicial expenses, and nowadays has a digital model of 66% of the whole surface of the state, or 408,000 km².

And the professor Werner Leyh gave his talk under the theme "Geospatial standards, approaches and frameworks for sustainability and economic growth: towards a standardized, repeatable, quantifiable 'ecological zoning' using usgs's-hydrologic unit approach enabling ecological broadcasting". To him, the sharing of geospatial data should be realized through standard concepts and interfaces developed by the OGC.

SESSION EFFICIENT MUNICIPAL MANAGEMENT AND URBAN DEVELOPMENT

REPORT =

Chairperson

Luiz Roberto da Silva Arueira

Director City Information IPP - Pereira Passos Institute Municipality Rio de Janeiro, Brazil

Speakers

Alexandre Cardeman

Chief Executive of Technology Centre of Operations Rio Municipality of Rio de Janeiro Brazil

Guillermo M. Gallo Anderson

Airborne Sensor Sales Manager for Latin America & The Caribbean Leica Geosystems, Inc., USA

GIS applications in urban planning were the subject of this session. Camilla Motta, from IBGE, presented a project that uses geo-referenced information to support the definition and development of housing complexes, needy of essential public services, which have occupied the territory in a disorderly and dense way. Leandro Souza, from IPP, spoke about a project in education area that identified the demand for the unique shift in public schools of Rio de Janeiro. To him, the integration and sharing of geographic information among agen-

Gilberto Pessanha Ribeiro

Professor UFRJ and UERJ, Brazil

Gustavo Henrique Naves Givisiez

UFRJ - Federal University of Rio de Janeiro, Brazil

Camilla Silva dos Santos Motta

CGEO - IBGE, Brazil

Sheyla Santana and Renata Hungari

Geoconsulting, Brazil

Eduardo Luiz Caramello

Operations and pilots chief Rotorwest Aerotaxi e Serviços Aéreos Especializados Itda, Brazil

Victor Barone

Rio Negócios, Brazil

Leandro Gomes Souza

Geographer IPP - Pereira Passos Institute Municipality of Rio de Janeiro Brazil

cies are essential to the efficient implementation of municipal policies.

Bringing the academics researches in urban planning, Gilberto Ribeiro talked about some projects applied for integrated spatial analysis integrated to socio-economic data, for the territorial development in the industrial areas, on a regional scale. Gustavo Givisiez presented a case study, based on georeferenced data, about the economic and social transformations that have occurred in the last 30 years in the region of the Municipality of Campos de Goytacazes

and Macae, in Rio de Janeiro, which suffered deep changes with the construction of a complex logistics and Industrial.

Guillermo Gallo presented the Leica Pegasus mobile mapping system, a distance measuring instrument on a mobile platform (vehicle) to acquire accurate spatial data. And Victor Barone, from Rio Negócios, explained how the platform Rio Digital, a startups official map of the municipality, is providing key information for identifying and fostering industry clusters.

BOSNIA AND HERZEGOVINA CANADA COLOMBIA INDIA CHILE NETHERLANDS MEXICO GERMANY

SESSION GEOSPATIAL FOR AGRICULTURE & ENVIRONMENT

REPORT =

Chairperson

Mateus Batistella

Chief Embrapa Monitoring Satelite Brazilian Agricultural Research Company, Brazil

Speakers_

Ricardo Silva Varotto

Environmental Analyst
Research Center of PETROBRAS
R&D on Energy and Sustainable
Development - Environmental
Monitoring and Assessment

Pierre Duquesne

Director Astrium Brazil

Paulo Costa

Department of Environment VALE, Brazil

Adréa Franco de Oliveira

Manager GIS and Environmental Studies (GEOPEA) INEA - State Environmental Institute, Brazil

Fernando Sampaio

Executive Director ABIEC-BrazilianAssociation of Meat Exporters, Brazil

Iara Musse Felix

Director Santiago & Cintra Consultoria Brazil

Mariano Federico Pascual

Technical Director HexGis, Brazil

Juliano Lazaro

Sales Manager Orbisat S.A, Brazil

Cyntia Virolli Cid Molina

Geographer University of São Paulo, Brazil

George Porto Ferreira

General Coordinator IBAMA - Brazilian Institute of Environment and Renewable Natural Resources, Brazil

Eugenio González

National Director CIREN - Centre for Natural Resource Information, Chile

Edson Silva

Chief Centre for Information on Environmental Resources and Hydrometeorology of SC EPAGRI / Ciram, Brazil

Marcos Alberto Stanischeck Molnar

Sisgraph, Brazil

Tata Lacale

Channel Sales Manager SA Digital Globe, Brazil

Marcos Adami

Researcher Regional Center of the Amazon INPE - National Institute for Space Research, Brazil

Eloisa Domingues

CREN – IBGE Brazil

Among the multiple uses of geotechnology in the environment area, this session brought two examples of Spatial Data Infrastructure (SDI). Eugenio González, director of CIREN, agency responsible for the management of data on all natural resources of Chile, highlighted in his lecture the 'SDI-Miniagri'. The platform gathers geographic information of the 12 services institutions which integrate the Ministry of Agriculture, resulting in the largest SID existent in Chile, with over 500 sheets, 85 different items, meaning a very powerful tool.

On a smaller size, another example of SDI was presented by Adrea de Oliveira. The SDI of State Environmental Institute of Rio de Janeiro INEA/RJ have been increased the agility, efficiency and transparency of processes and environmental licensing in the state.

George Ferreira, from IBAMA, spoke about the environmental monitoring of the six existing biomes in Brazil conducted with tools developed in open source. He emphasized a partnership with the Ministry of Environment for the implementation of the Rural Environmental Registry which aims to simplify and bring quality information to environment agencies.

In addition to presentations of technology companies, Fernando Sampaio, director of ABIEC, provided an interesting overview about the agroindustry sector of meat saying that in 2012, Brazil had 171 million hectares of pasture and produced 9.4 million tons of bovine meat. In his exposition, he showed the uses of technology for mapping productive area, modernizing the infrastructure and in actions to maximize production without deforestation.





Chairperson

Geoff Zeiss

Editor - Building and Energy Geospatial Media and Communications Canada

Speakers_

Adriano Bonfá

Project Manager Light, Brazil

Carlos Xavier Santos

GIS Senior Architect Brazil

Carlos Alberto Previdelli

CPqD Brazil





"We are facing global challenges: increasing urbanization means increasing energy demand, water stress, and environmental impact: more to do, fewer people to do it". The sentence from Geoff Zeiss resumes the importance of geospatial to enable smart utilities. To him, the major challenge is the electricity demand and the primary areas for investment are advanced metering infrastructure (AMI), distribution automation, wide area measurement (phasors), home energy management and information technology (IT).

Carlos Previdelli, from CPqD, spoke about the benefits of integrated networks in the design and management project utilities, such as complete viewing of the wiring connections and the identification of saturation points in the services.

Details of CONVIAS GEOVIAS Program were presented by Adriano Bonfa, from Light. The program uses geospatial tools for a digital ordering of networks and services in Rio de Janeiro, creating and maintaining a unique database with networks of telephony services, water and other "utilities" in the underground. And Carlos Santos spoke about the combined use of Smart Grid technologies and GIS in the management of power grids applied by ANEEL.





In the session on management of risks and disasters, some actions in the mining area were highlighted. Jorge Pimentel, from CPRM, explored the implemen-

tation of the Integrated System for Disaster Prevention, which already has a strong database and maps available on the web. Marcos Monteiro spoke about the use of geotechnologies in DNPM, agency responsible for the management of Brazil's mineral assets. He showcased the GIS uses in monitoring mining activities, electronic cadastre and licenses for exploration, besides the use of UAVs to combat illegal mining.

Focusing on mapping, Marcelo Maranhão talked about the IBGE role on the National Plan on Risk Management and Disaster Response from the Brazilian federal government, contributing on mapping risks by cartographic basis. And Cristina Bentz, Petrobras, showed important initiatives on remote sensing for sea surface monitoring. The integrated analysis of remote sensing and oil drift models data presents an important decision tool for contingency actions. Long-term satellite monitoring allows the elaboration of more reliable environmental assesment studies and contingency plans.

Chairperson

Tania Maria Sausen

Consultant Brazil

Speakers_

Jorge Pimentel

CPRM - Geological Survey of Brazil, Brazil

Irineu da Silva

PhD Professor EESC - USP, Brazil

Marcos Antônio Soares Monteiro

DNPM - National Department of Mineral Production, Brazil

Silvia Marie Ikemoto

Manager instruments of land management INEA - State Environmental Institute, Brazil

Cristina Bentz

Geographer CENPES – Petrobras Brazil

Marcelo Maranhão

Projects Manager Cartography Department IBGE - Brazilian Institute of Geography and Statistics, Brazil

Eduardo Soares de Macedo

IPT, Brazil





Chairperson

Michael Steinmayer

CEO Sulsoft Brazil

Speakers_

Luiz Bahiana

Coordinator IBGE - Brazilian Institute of Geography and Statistics, Brazil

Ricardo Pinheiro

Sales Manager GIS, Nokia, Brazil

Pierre Duquesne

Director Astrium Brazil

Frederico Liporace

Director of Software Deve opment AMS Kepler, Brazil

Nuno Vilaca

Worldwide Airborne and Land Mobile Solutions Specialist Trimble, Germany

Paul Gimenez

Department of Cartography
IBGE - Brazilian Institute of Geography and Statistics
Brazil

SESSION CLOUD COMPUTING AND ENTERPRISE GIS

Roberto Varela

Regional Sales Manager DigitalGlobe South America

Deilson Silva

Imagem Solution Engineer Brazil

Ricardo Pinheiro

Sales Manager GIS – Brazil

Nokia

Arlete T Ohata
Director-Center for Integration & Management of
Information Secretariate of
Environment – São Paulo
Brazil

Gabriel Niero de Carvalho

Operations Manager for Latin America Google, Brazil

Marco Fidos

CEO Inovação Brazil

Luiz Castiglone

Vale Brazil







The **LAGF 2013** programme was enriched by two Mini-courses promoted by the Laboratory of Geotechnology, from the Department of Applied Geology of Rio de Janeiro State University (LABGIS/UERJ). The mini-courses "Geomarketing - How to use this new business?" presented the concepts of Geomarketing, Marketing Space and an introduction to spatial analysis applications such as studies of audience networks, point of sales and marketing planning.

The mini-course "Using the Geo Environmental Licensing Process and Environmental Compensation Calculation" introduced the potential tools and methods for analyzing spatial slices and environmental impacts relevant to the licensing process and the calculation of the value of environmental compensation.

EXIBHITORS











































"Thank you very much for having invited the IPP to participate in the Latin American Geospatial Forum, an internationally prestigious event in this area. It was a big pleasure and an enriching experience for all IPP members who took part in it and it was a great opportunity in which we exchanged experiences about the most important issues regarding the geospatial field, trying to integrate all the information acquired in our daily activities."

Eduarda La Rocque

President

IPP – Pereira Passos Institute, Municipality of Rio de Janeiro, Brazil

"Without a doubt the LAGF event is one of the most important in Latin America and manages to gather industry leaders and government who are building the future of GIS technology, consuming technologies or creating new platforms and applications that can benefit many."

Fábio Andreotti

Head of Sales Geo & Searcg LATAM Google

"I would like to thank the opportunity to participate in LAGF. It has been very enriching for us to spread our institutional work and expand our technological horizons to the different countries attending the forum."

Eugenio González

National Director CIREN - Centre for Natural Resource Information, Chile

"It was the first time that I attended the LAGF. The audience was very select, I met directors and senior executives which makes me believe and continue to invest in the event. The organization also was very good, you all must be congratulated. Events of this sort are extremely important to our company."

Juliano Lazaro

Sales Manager Orbisat, Brazil

"I would like to thank the opportunity and space granted within the LAGF this year. It was great to be able to contribute to the event. We hope that this initiative, which is important for our area, continue thriving. Congratulations for organizing this event."

José Augusto Sapienza Ramos

Professor LABGIS / UERJ, Brazil

"Thank you for the invitation to participate in this exciting event, which was very useful for our Ministry of Economy and especially CEDIZ initiative. Thanks to this forum we had made contacts with authorities to exchange experiences of using these technologies in Public Management. A hug from the south of the world, we look to the next."

Juan Fernando Acuña Arenas

Executive Director Programme CEDIZ, Ministry of Economy, Chile

"I found the event as a whole very good. Congratulations".

Fernando Sampaio

Executive Director

ABIEC - Brazilian Association of Meat Exporters, Brazil