



**MIDDLE EAST**™  
GEOSPATIAL  
FORUM

**2 - 4 FEBRUARY, 2014**

Hotel Al Bustan Rotana  
Dubai, UAE



# REPORT



## INTRODUCTION



Geospatial technologies have witnessed rapid advancement over the past few years with the future looking even more promising and full of opportunities. The need of the hour is for a platform which can bring together stakeholders to share ideas and information and thus accelerate this process. Geospatial Media and Communications (formerly known as GIS Development) is dedicated to raising the profile and expanding the horizons of the geospatial industry worldwide. As part of its efforts to bridge the divide between various sections connected to geospatial technology in the Middle East, Geospatial Media and Communications organised the Middle East Geospatial Forum 2014 (formerly Map Middle East) at Hotel Al Bustan Rotana in Dubai, UAE from 2nd to 4th February, 2014.

The 2014 Middle East Geospatial Forum took our engagement with the stakeholders to the next level and built on our objective of propagating and promoting the significant usage of geospatial technology as a tool that serves varied domains. The conference was based on a carefully designed plan with plenary and technical sessions that featured an array of celebrated speakers from around the globe. With its theme as 'GeoSmart Government', the programme was successful in its endeavour to bring out the tremendous significance of geospatial technology across various verticals such as construction and infrastructure, utilities, city management, transportation, defence and security etc.

Number  
of Participants

700+

Organisations  
Represented

200+

Countries  
Represented

32+

- Abu Dhabi City Municipality
- Abu Dhabi Police
- Abu Dhabi Ship Building Company
- Abu Dhabi Transmission and Despatch Company
- Abu Dhabi Urban Planning Council
- Access Links
- ADSIC
- ADSSC
- Advancis Middle East GmbH
- Airbus Defence and Space
- Al Ain Municipality
- Al Futtaim Carillion
- Al Taif
- Al Thrawat
- Al Warqa
- Al Warqa Survey Engineering
- Alabama Power Company
- Amberg Technologies
- American University of RAK
- American University of Sharjah
- AMMROC
- Amrita – Media
- AMS Kepler
- Apex Knowledge Technology
- Applanix
- Ashghal
- Ask Explorer
- Atheeb Intergraph
- ATK
- Atkins
- Autodesk
- Avineon
- Bayanat
- Bantley Systems
- Boundary Affairs Council
- BRGM
- Bunya – Al Reem Island
- CA Advanced Solutions
- Capital Surveys
- CEIT Consultant
- Centre of Excellence
- City 7 TV
- City of Vancouver
- Command and Control Center Public Security Directorate
- Communigate ME
- Cybermak
- DBI Services
- Department of Municipal Affairs
- Dubai Electricity and Water Authority
- Digatech ERP Solutions
- Directorate of Town Planning and Survey, Sharjah
- DPS
- DSS
- Deputy Governorate Riyadh Region
- Dubai Civil Aviation Authority
- Dubai Civil Defence
- Dubai Municipality
- Dubai Police
- Dutco Tennant
- Edge Pro for Information Services
- EIAST
- eMISK
- Environment Agency – Abu Dhabi
- EOMAP
- ER Solutions
- Esri
- Esri NEA
- Etisalat
- European GNSS Agency
- Fugro Maps
- Fujairah Municipality
- Fujairah Statistics Center
- Galdos Systems
- GECO
- General Civil Aviation Authority
- General Computers and Electronics
- GEO Image
- Geoscope
- Geosystems
- GISTEC
- Global Scan Technologies
- Globe Telecom
- GMV
- Google
- Government of Umm Al Quwain
- GPC GIS
- Graphics

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- GSBAC
- Gulf Canadian Engineering Consultancy
- Gulf Computers
- Hansa Luftbild Arabia
- Harris
- HCP International
- Heathrow Airport
- Holy Makkah Municipality
- Horizon International Flight Academy
- HP
- HUAWEI
- Ideal Solutions Company
- Infotech Enterprises
- Injazat
- ISF
- Japtech World General Trading
- Jeddah Municipality
- Jordan Police
- Jordan PSD
- KAHRAMAA
- KAUST
- Khaleej Times
- Khalifa University
- Khatib & Alami
- King Saud University
- KSU
- Kustar
- Kuwait Police
- Lamprell Energy
- Land and Cartography of the Republic of Azerbaijan
- Larsen & Toubro Technology
- Leader Helicopter
- Leica Geosystems
- Libyan Petroleum Institute
- Loay International
- Lockheed Martin
- Lorienne SA
- LSE Space Middle East
- Madina Municipality
- Mapping Solutions Ltd.
- Marine Resources Research Centre
- MASDAR Institute of Science and Technology
- Mena3D GmbH
- Ministry of Defence, Dubai
- Ministry of Health
- Ministry of Education
- Ministry of Housing
- Ministry of Interior
- Ministry of Municipality & Rural Affairs
- Ministry of Water Resources and Irrigation
- Mohammed Bin Rashid Al Maktoum Humanitarian and Charity
- Mohammed Bin Rashid Housing Est.
- Mubadala
- Munich Airport
- Munich RE
- Municipality of Ajman
- National Survey Authority
- National Water Company
- Navmatica
- NBCC
- NCMS
- NCSI
- NDMA
- NDOC
- NPCC
- OGC
- Oman Tel
- ONG GmbH
- Ooredoo
- Optech Incorporated
- Oracle
- Oriental
- PCFC
- Pitney Bowes Company
- Proteus FZC
- Quantum Asia
- RAK Municipality
- RCJ
- Riegl Laser Measurement Systems GmbH
- Riyadh Municipality
- Roads and Transport Authority
- Rolta Middle East
- Royal Commission of Jubail
- RSAF
- RSLF
- RSNF
- SAAB Middle East
- Saif Bin Darwish
- Saudi International Trading and Marketing
- SAR
- Scientech
- Sharjah Electricity and Water Authority
- SGC
- Sharjah GIS Center
- Sharjah Government
- Sharjah Municipality
- Sharjah Police
- Sigma Enterprises
- SITML
- Six Construct
- SLRB
- Sokkia
- Space Imaging Middle East
- Spectra Energy
- SRCA
- State Aerogeodesy Corporation
- Supermap
- SWERI
- Tawazun Holding
- Tekla
- Thomson Reuters
- THTC
- Topcon Positioning Middle East and Africa
- Trakhees
- Trimble
- UAE Armed Forces
- UAE University
- UIS
- University of Sharjah
- Vectuel
- Vexcel ME
- WWF
- Yahsat
- Zayad University
- ZFP
- Zublin

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## PRE-CONFERENCE

(2ND FEBRUARY 2014)



Setting the stage for Middle East Geospatial Forum 2014, a pre-conference **Dialogue** Forum on 'Geospatial Enterprise for Smart Governance in the Middle East: Challenges and Prospects' was held a day before the main conference. **Mark Noort**, Editor – Agriculture, Geospatial World chaired the dialogue forum. The forum brought together representatives of major organisations from the region to deliberate upon the implementation of geospatial technologies at the enterprise level, the kind of challenges encountered and the possible solutions to those issues.

**Abdul Hakim Abdul Karim Malik**, Director – GIS, Dubai Municipality, talked about the importance of smart addressing system. Giving a brief overview of Dubai Municipality, he discussed about the 'Makani' app developed by the municipality. The app provides a ten digit number to each building and every location, including government organisations, hospitals, parks, commercial buildings, houses, factories, warehouses, etc. The number or GIS coordinates help in locating places and people more

easily. "The app has taken thousands of coordinates throughout the city and there has not been a single repetition," he added. He also said that the app will be updated every six months.

**Nasser Mohd. Abdullah**, Director of Spatial Data Directorate, Al Ain Municipality talked about the successful implementation of GIS in Al Ain Municipality. "The municipality aims to embed geospatial workflows in all its processes and implement an enterprise level GIS. This will make Al Ain Municipality a geo-matured entity," he said. He also explained how the municipality is using 3D, LiDAR, remote sensing and many other cutting-edge technologies to maintain up-to-date datasets.

**Eng. Khalid A Hameed Al Hammadi**, Act Director of GIS, Central Informatics Organisation (CIO), Kingdom of Bahrain explained how geospatial information is becoming an important part of people's life. He talked about how CIO not only collects data but also collates and integrates that data which is used by a wider community for effective decision

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making. "CIO aims to empower the Kingdom of Bahrain by promoting and facilitating a dynamic GIS system," he said.

**Omar Al Shaiba**, Director of Property and GIS Division, Department of Municipal Affairs, Abu Dhabi said that policies, standards, technology, business prospects and capacity are essential for a geo-smart government. He said that the department is working towards developing a unified street addressing system which can be used for emergency management.

**Eng Abdulla Al Khaddeim**, Director of Project Management, Fujairah Municipality discussed how the municipality is using geospatial technology in every aspect of its workflow. He informed that the work on mapping all the cities and villages within the emirate of Fujairah is in progress.

**Anil Kumar, Director**, Environmental Information Sector, Environment Agency – Abu Dhabi talked about environmental information management. He said that initially GIS was used by environment organisations only to track wildlife. But now it is used for monitoring groundwater, coastal oil spill, soil studies, air quality and climate change studies. All their information is available through their geoportal. He explained how the agency is based on DPSIR (Driving forces, Pressures, States, Impacts, Responses) framework which promotes real time information for making informed decisions. **Eng Nader Abdel-Halim**, GIS Consultant, eMISK, Kuwait gave a brief overview of his organisation and discussed the objectives of the Kuwait Environmental Public Authority. He said that KEPA has been established to collect, store and manage environmental data. "Our aim

is to manage environmental data and promote sharing and exchange of this data," he said. He explained how eMISK (Environmental Monitoring Information System of Kuwait) as a centralised and comprehensive geo database for all environmental datasets is enhancing KEPA capabilities.

**Dean Angelides**, Corporate Director, Internal Operations, Esri, USA talked about the importance of web-based GIS. "Web GIS provides a new architecture and integrates all data types. It is integrating people and organisations and breaking down all the barriers," he said. **Haytham Dabboussy**, Director, Government Advisory, Land Management Information Systems, Middle East & North Africa, Thomson Reuters, through his presentation, shared industry knowledge on how technology is enabling governments to provide greater service to their communities than ever before. The presentation highlighted that Thomson Reuters has deployed cutting-edge land administration and tax solutions around the globe: in the United States, Canada, Australia, Egypt, Qatar, Ukraine, China, and many more. The company's projects, including the Pearl in Qatar and the Cape Town South Africa municipal assessment authority, have assisted in transforming government use of land and property information management systems and delivering real results for governments.

**Kevin Daugherty**, World Wide Sales Manager – Land Administration Solutions, Trimble Navigation, USA said that almost 85% of government data has spatial context and state governments should use GIS data at all levels to formulate a smart government.

# INAUGURAL SESSION

(3RD FEBRUARY, 2014)



**H.E. Eng. Hussain Nasser Lootah,**  
Director General, Dubai Municipality elaborated on various smart

city initiatives undertaken by the Municipality in his inaugural address. He talked in detail about the municipality's street addressing project which aims to provide a geocode to every street in the city. He also talked about the municipality's project which aims to map the underground facilities of the city and the 3D project which envisions creating a 3D model of the entire city. H.E. Dr Abdullah Al Ghareeb, Executive Director, Department of Municipal Affairs, Abu Dhabi explained how the world around us is constantly changing and evolving. Highlighting the goal of his organisation he said, "Our vision is to deliver an efficient and world-class municipal system." He described how the municipality is working with Abu Dhabi Police, transport department and many other organisations to build a geosmart city.



**Abdul Hakim Abdul Karim Malik,**  
Director, GIS, Dubai Municipality talked in detail about newly developed Makani app which

provides a 10-digit number, based on MGRS coordinate system, to give location of the entrances of all building in Dubai with an accuracy of one metre. "Under this system each building is given a unique number," he said. He explained how this system complements the traditional addressing system. Greg Bentley, CEO, Bentley Systems talked about the various software solutions and services of the company which aids in development of a smart city. "The main goal of a geosmart government should be to accelerate infrastructure delivery, mitigate project risk and nurture world class innovation," he said. He also explained how Building Information Modelling (BIM) can help in delivering better performing assets and projects.



**Dr Vanessa Lawrence,**  
Director General and Chief Executive, Ordnance Survey, UK revealed that the

geographic information has become pervasive in an individual's life. She highlighted various initiatives undertaken by the Ordnance Survey like the Geovation Challenge to promote the creation of new technology.

## PLENARY SESSION

### EVOLVING DIMENSIONS OF GEOSPATIAL TECHNOLOGIES



**Mark Reichardt**, President and CEO, OGC, USA chaired the first plenary on 'Evolving Dimensions of Geospatial Technologies' at the Middle East Geospatial Forum held in Dubai. **Abdul Karim Al Raeesi**, Director of Strategy & Planning, ADSIC, Abu Dhabi gave a brief overview of the e-government initiatives undertaken by the organisation. He said that Abu Dhabi government through the Abu Dhabi Spatial Data Infrastructure is advancing its vision of a geo smart city. "ADSIC aims to make the city of Abu Dhabi geospatially mature by implementing various e-governance initiatives in a phased manner," he said. **Brig. Eng. Kamel Buti Al Suwaidi**, Director General, Department of Operations, Dubai Police outlined how his department uses modern technologies to fight crime and



provide various citizen services to the residents of Dubai. He gave details about the GIS-based incident management system of Dubai Police which locates and detects caller's location in a map. The system is available in different languages like Arabic, Chinese, Russian and Urdu. The 3D model of Dubai developed by the Dubai Police gives a realistic view of the city and offers great planning capabilities. He also talked about the various other initiatives of the department like heart patient service, handicap service, elderly people service and the smartphone application of Dubai Police which have been instrumental in making it one of the best police agencies in the world. **Chris Gibson**, Vice President, Trimble, USA talked about the evolving nature of geospatial technology. With the help

of some examples he explained how this technology is creating incremental value for the geospatial professionals and the industry end users. "Geospatial technology is moving from the process of simply collecting the data towards processing and modelling that data to offer decision support system," he said. **Johann Jesenk**, EMEA Regional Manager, Middle East and Africa, Intergraph Corporation, Austria highlighted how GIS technology is helping in adapting several changes across the globe. He revealed that one can bridge the gap between the real and virtual world by combining and integrating data from the sensors. **Steven Hagan**, Senior Vice President, Oracle Corporation, USA revealed that the mankind will generate around 35 zettabytes of data by 2020. As a result there is an urgent need to process, analyse and store this data and Oracle Corporation can help business and governments in doing this. **Richard Humphrey**, Senior Director, Autodesk, USA highlighted that around 60% of major infrastructure projects fail to meet their budget criteria. This problem can be solved by the 3D modelling technology which allows for radical acceleration of the planning, design, visualisation and simulation processes for infrastructure.



# PLENARY SESSION

## GEOSPATIAL STRATEGY FOR NATIONAL AND REGIONAL DEVELOPMENT



The second plenary on 'Geospatial Strategy for National and Regional Development' was chaired by **Barbara Ryan**, Director, Geo Secretariat, Switzerland.

**Dean Angelides**, Corporate Director, International Operations, Esri, USA revealed the growing demand of geospatial information in this era. He highlighted how web-GIS enables new thinking and a whole new generation of applications to support government and business to grow and develop more effectively.

**Michael Jones**, Chief Technology Advocate, Google, USA talked about the importance of maps and revealed that it has become a part of normal human

psychology. He said that Google Earth and Google Maps get one billion unique users every month. "Maps make a beautiful artwork out of daily routine," he added. He discussed about Google's Streetview and underwater mapping initiatives which present a reality of the world to users.

**Gian Gherardo Calini**, Head – Market Development, European GNSS Agency, EU talked about the Galileo and EGNOS initiatives of the European government. He said that Galileo services will be available by the end of 2014. He further said that European Galileo and EGNOS deliver top performance positioning and is on its way to become one of the main pillars of future smart city applications.

# REPORT

## SEMINAR

### EARTH OBSERVATION SYSTEMS FOR ECONOMIC DEVELOPMENT

#### Chairperson

**Ali Al Suwaidi**, Head of Image Applications Section, EIAST, UAE

#### Speakers

**Barbara Ryan**, Director, GEO Secretariat, Switzerland

**Mark Noort**, Editor – Agriculture, Geospatial Media & Communications and Founder, HCP International, The Netherlands

**Aurélie C. Shapiro**, Satellite Remote Sensing Specialist, WWF, Germany

**Andreas Siebert**, Head Exposure Analytics & Geospatial Solutions Munich Re, Germany

**Hessa Rashid Almatroushi**, Associate Image Processing Engineer, EIAST, UAE

**John Murtagh**, Strategy and Marketing Manager, Airbus Defence and Space, France

**Dr. Hussein Harahsheh**, General Manager, Global Scan Technologies, UAE

**Dr. Deb Jyoti Pal**, Head Business Development, Space Imaging Middle East, UAE

#### KEY OUTCOMES

- Earth observation systems benefit in mapping requirements, environmental studies & the development of regional specifications
- Broad, open data policies can play a major role in stimulating economic development, as well as facilitating environmental governance
- Earth observation systems have a major role to play in observation of forests and marine ecosystems over time; the impacts of human activities and climate change on the natural environment, and pathways for sustainable development and green economies to ensure natural resources are well managed and biological diversity is conserved
- Earth observations systems have a major role to play in the insurance industry with its ability to disaster modelling, risk identification and even loss prevention
- Just about every industry from construction to utilities to roofers to insurance is being impacted, and often transformed, by high resolution Earth observation (EO) imagery
- The strategy of earth observation industry should encourage a more effective use of information in many domains, which means effective processing, management and distribution of data, development of instrumentation to cover all user needs, more scientific collaboration among researchers, institutes, universities etc.

**Chairperson**

**Geoff Zeiss**, Editor – Building and Energy, Geospatial Media & Communications and Founder, Betweenthepoles, Canada

**Speakers**

**Paul Archer**, Projects Director, Atheeb Intergraph, Saudi Arabia

**James Weninegar**, Alabama Power, USA

**Dr. Samy IsmailElmahdy**, Civil and Environmental Engineering Department, UAE University

**Joseph Abdo**, Partner/ Director of Professional Services, GPC-GIS, UAE

**KEY OUTCOMES**

- Electricity companies can dramatically improve their ability to meet their customer needs for reliable electrical energy while controlling cost through the use of data from earth observation systems
- Geospatial technology can help utility organisations to help reduce their environmental footprint and aid in transmission planning, design, construction, and maintenance
- GIS footprint is expanding at a relatively active pace into core business areas such as enterprise resource planning, customer relationship management, regulatory reporting etc.
- Shared government activities and services such as infrastructure development planning, construction permitting, and utility clearance management are empowered by information sharing for better decision making

## WORKSHOP

### SIGNIFICANCE OF STANDARDS



#### Speakers

**Mark Reichardt**, CEO, Open Geospatial Consortium, USA

**Carsten Roensdorf**, Head of Advisory Services (International) at Ordnance Survey, UAE

#### KEY FOCUS AREAS

- The economic value of open standards
- Community Exemplars where standards have made a difference
- From the user community point of view:
- Improving Inter-disciplinary collaboration – tackling the complex regional global issues that know no boundaries
- The role of standards in advancing the vision of smart infrastructure, smart cities From the Technology Provider point of view
- The impact / significance of ongoing standards work
- Sensors and the Internet of Things – further advancing the vision of living maps
- Mobile applications as the rule
- Big Data Analytics – making more out of location information
- Leveraging Societal Contributions of location information

**Chairperson**

**Dr. Thomas Heege**, CEO, EOMAP, Germany

**Speakers**

**Hans Viehmann**, Product Manager, Oracle, Germany

**Dean McCormick**, Regional Sales Manager - Middle East and Africa, Intergraph, South Africa

**Ibrahim Y. Al Obaidly**, Department Head - Geo Spatial Services, Bayanat for Mapping and Surveying services LLC, UAE

**Lynn Liu**, Technical Consultant, SuperMap, China

**Shaheryar Chaudhry**, Google Enterprise Technical Lead, Space Imaging Middle East, UAE

**Ishan Das**, Infotech Enterprises, India

**KEY OUTCOMES**

- Integration of various technologies can have several benefits for the users such as eliminating redundancy of data and efforts, promote efficient management of location intelligence assets and foster a collaborative decision making process across different components of the project lifecycle
- Consolidation of different types of geospatial data, such as 3-dimensional terrain or city models, point clouds or raster data as well as the integration of semantic query capabilities into the data management layer has a positive effect on operational cost
- The fusion of geospatial genres is helping to shorten the lifecycle of sensing information to actioning change

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## SESSION

### GEOSPATIALLY ENABLED FUTURE CITIES



#### Speakers

**Dr. Andreas Ullrich**, CTO and Managing Director, Riegl Laser Measurement Systems GmbH, Austria

**Mohamed Hamoud**, GIS Applications Development Team Leader, GIS Section - Spatial Data Division – Town Planning Sector, Municipality of Abu Dhabi City, UAE

**Eric Wittner 3D Technology Evangelist**, Esri, USA

**Mohammed Shihab Addeen**, Urban Planning Council, Abu Dhabi, UAE

**Richard Budden**, Regional Geospatial and Information Management Business Manager, Atkins, Dubai

**Wolfgang Haller**, Head of CAD/CAFM, Munich Airport, Germany

**Jill Urban-Karr** Executive Director, Consulting Svcs/landfolio Solutions, Land Administration Solutions Group, Trimble Navigation Ltd, USA

#### KEY OUTCOMES

- In urban environments, LiDAR provides a sound geospatial basis for rapidly establishing accurate and detailed maps and models of manmade objects and structures
- GIS tools and procedural methods are being used to change the way we model our future
- By integrating geospatial technologies into their planning and design efforts, planners are able to anticipate the impact that new or updated plans will have on the target areas
- Geospatial technologies play a crucial role in infrastructure asset value management

# REPORT

## EXHIBITORS

			 A Mubadala Company
			
			
		 شركة المشاريع العامة قسم الهندسة GENERAL ENTERPRISES CO. ENGINEERING DIVISION	
			 Creating Business Impact
		 LASER MEASUREMENT SYSTEM	
			

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Geospatial Media and Communications (FZE) Executive Suite Z3 – 30  
P O Box 121324 SAIF Zone Sharjah, U.A.E. **Tel:** + 9716 5529592 **Fax:** +9716 5529584  
**Website:** [www.megf.org](http://www.megf.org)