Liaison Report
GSDI Association

An update on selected activities since WGISS-43

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Past Secretary-general, HUNAGI (1994-2015)

With Annex on WWEC 2017 prepared by miqueldelcastillo@live.com
Outline

- GSDI at the 10th ISDE&Locate17 Conference
- GSDI at the Del Bianco City Smart Conference
- GSDI involvement in the UN 2030 Agenda
  - The GEO EO 4SDGs Survey
  - GSDI involvement in country level SGDs action – the case of Hungary
  - Geospatial Information for SDGs
  - EO for SDGs
  - UN GGIM for SDGs
- WWEC 2017 Helsinki Conference
- Acknowledgements - Liaison farewell
On behalf GSDI, MoU of ‘Digital Belt and Road’ (DBAR) Alliance was signed by ExCom member A. Rajabifard.

He delivered a plenary presentation on UN GGIM’s Academic Network.

Further GSDI presentation with co-authors P. Hogan of NASA and Prof M. Brovelli of Politecnico di Milano was given by GSDI’s WGISS Liaison.

Follow-on action: visiting GSDI ExCom member Prof. and Director Abbas Rajabifard in his Centre of Spatial Data Infrastructures and Land Administration in the University of Melbourne.
GSDI at the Del Bianco City Smart Conference

Florence, March, 2017

Del Bianco CitySmart in nutshell
Uniting the World on urban management of global challenges

- An open, freely available, integrated web-based framework for urban infrastructure management and visualization
- NASA Web World Wind co-developed with ESA
- Frontend to backend all open source components
- CitySmart data and services so far:
  - Web Map Services
  - Open Street Maps
  - 3D buildings + topography
- Collaboration via open source public repositories

Del Bianco CitySmart serves the UN Agenda 2030 SDGs and Targets in the Urban Context

GSDI contribution in Florence

NASA World Wind Manager Patrick Hogan at the 1st FOSS4G Europe Conference
GSDI involvement in the UN 2030 Agenda

as of August, 2017

- GSDI response for the recent survey of GEO EO 4SDGs Working Group directed by Argyro Kavvada of Booz-Allen&Hamilton at NASA HQ:

<table>
<thead>
<tr>
<th>Contributing Organization</th>
<th>Member/ PO affiliation</th>
<th>Organization category</th>
<th>Type of contribution</th>
<th>Contribution details</th>
<th>Source of funding</th>
<th>Value (actual or estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Spatial Data Infrastructure Association (GSDI)</td>
<td>PO - <a href="https://www.earthobservations.org/pos.php">https://www.earthobservations.org/pos.php</a></td>
<td>International Organisation</td>
<td>In-kind labour And travel costs</td>
<td>Below the table</td>
<td>GSDI reserve funds for Strategic Projects and volunteers' in-kind contributions</td>
<td>$ 5000</td>
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</tbody>
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Contribution details: Awareness raising, Engaging stakeholders, Capacity building inc. webinars and workshops, Methodology development, UN-GGIM: multichannel contribution in the UN 2030 Agenda context on country, regional and global level, Sharing best practices (SDI4SDGs, Marine SDI Best Practice, INSPIRE, Global NSDI Index Project, open data, open source), Contribute to CEOS WGISS and GEO plenaries, Support SDGs accomplishment by SDI (i.e.: spatial data, services, applications toward spatial (location) knowledge infrastructure, Small Grants Programme, Multiple Agency Cooperation, Networking.

GSDI Liaison Report on GSDI Association. An update. CEOS WGISS 44 Meeting hosted by CAS RADI, Beijing, 24-28 September, 2017
GSDI involvement in the UN 2030 Agenda
GSDI in country level awareness raising – the case of Hungary

- Individual GSDI and MFTTT members’ collaboration. A series of presentation in the subject “UN 2030 Agenda – the challenges for the geospatial community” to engage stakeholders. Speakers: Prof. Szabolcs Mihály and Tamás Palya (past and present INSPIRE delegate of Hungary). Co-author: G. Remetey, member of GSDI Association

- Day of the European Surveyors and Geoinformatics MFTTT / Ministry of Agriculture in Budapest, March 22 Participants: 180

- GIS Open 2017 Óbuda University Alba Regia Technische Fachhochschule, Institute of Geoinformatics. Székesfehérvár. April 11-13 Participants: over 150

- 8th Geoinformatics Conference and Exhibition Debrecen, May 25-26 Participants: 120

- XVIIIth Meeting of Surveyors of the Hungarian Technical Scientific Society of Transylvania (EMT) Bánta Tuşnad, May 18-21 Participants: 140


- Mini-conference devoted to the 70th Anniversary of Prof. Béla Márkus. Óbuda University Alba Regia Technical Faculty, Székesfehérvár. July 11 Participants: 45

Ahead:

- Earth Observation for SDGs at Fény-Tér-Kép Conference, Gárdony, October

This MFTTT-GSDI activity has been referred in the Insiders’ view column of the GIM International, September 2017
GEO-SPATIAL Information Science - special issue: Role of EO/Geospatial data, services and applications in the SDGs

SD and GI: a strategic framework integrating global policy agenda into national geospatial capabilities

Greg Scott of GGIM at the UN Statistical Division and Prof. Abbas Rajabifard, ExCom member of GSDI, Chair of the Academic Network of GGIM made an in-depth description how the spatial data infrastructure and related technologies could support the monitoring and reporting of SDG indicators and targets in close interagency collaboration.

GSDI involvement in the UN 2030 Agenda Geospatial Information for SDGs

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GSDI involvement in the UN 2030 Agenda
EO for SDGs

GSDI is observing member of the EO4SDGS working Group and participates its telecons frequently.

Earth observation in service of the 2030 Agenda for Sustainable Development

In a recent article published in the Geo-Spatial Information Science (GSIS) there is a description how the EO data, infrastructure and related services, applications are capable to contribute to the accomplishment of the SDG’s from local to global.

The paper was written by Katherina Anderson, Barbara Ryan, William Sonntag of GEO Sec as well as Argyro Kavvada and Lawrence Friedl of the EO4SDGS team.

These resources are widely distributed.

In frame of the awareness raising actions
GSDI involvement in the UN 2030 Agenda
UN GGIM for SDGs

July, August, 2017

- Dave Lovell, president of GSDI Association, Chair of the UN GGIM Geospatial Societies took part on the Workplan/Way Forward Forum organised by the UN GGIM Academic Network in the UN HQ in NYC.

- GIM International interviewed GSDI President Dave Lovell under the title “Maximising the Benefit of Geospatial Information”

- Former GSDI President Abbas Rajabifard, chair of the strategic knowledge, research and training arm of UN GGIM moderated the Forum’s session devoted to SDGs’ major drivers, opportunities and challenges.

- In the Enablement and Requirements session Prof. Harlan Onsrud, former Executive Director of GSDI highlighted the legal and policy requirements.
Hosted by the Digital Forum of Finland at the Aalto University and Nokia.

12 of 21 teams were present

1st price: World Weather and AgroSphere

Best support teams as rated by all other teams were also awarded

OSGeo (Suchith Anand) and GSDI (G. Remetey) submitted the special Award offered by GODAN for two winners:

- AgroSphere climate change impact analysis
- Aware Algorithmic Wildfire Analysis and pREdiction

The participants visited nanosat labs (SAR and hyperspectral constellation) as start-up companies and technology-business-design based innovation clubs. After the mentor-guided workshop a high level conference forum provided frame for the award ceremony.
Acknowledgements

- Special thanks to Viktor Pusztaı who invited HUNAGI and me to co-organise the WGISS-23 and CVWG Meeting in Budapest and Prof. Harlan Onsrud, Ivan Petiteville and Ken McDonalds for their GSDI-CEOS WGISS liaison initiative, which I tried to serve doing my best in the past 12 years.

- Since Spring 2006 I participated 16 WGISS Meeting and contributed 4 times remotely. I reported for HUNAGI and GSDI also using a frequently visited [blog](#).

- My appreciation to Co-Chairs of WGISS, the Presidents, former Executive Director and present Secretary General of GSDI Association for their support and encouragements to keep the GSDI-CEOS WGISS link live and useful. This community is really close to my hearth and I learned a lot.
Thank you for your cooperation!

Thank you for your attention!
WorldWind Europa Challenge 2017

Finalist Projects
Aims

● Academic event
● 5th year of the Challenge
● Open Source Web Applications
● Particular community needs for each team
● Urban livability
● Sharing solutions
City Smart World Wise
(6th place)

- Urban infrastructure visualization for an entire community (city of Kodiak, Alaska)
- Renewable energy, water purification and treatment, agricultural development,
- Community resource mapping (health, amenities, education, transportation, emergencies, etc.)
3D OpenStreetMap (5th place)

- Provides Web WorldWind with capabilities to seamlessly consume any type of OSM data
- 3D buildings, points of interest, lines, polygons.
- Enhances 3D rendering performance compared to Web WorldWind primitives
Smart Pollen Monitoring
(4th place)

- Tool for people with allergies
- Pollen dispersion analysis
- Based on the time of the year, wind direction, and tree species
- Statistical information visualization tools
AWARE (3rd place)

(Algorithmic Wildfire Analysis and pREdiction)

- Wildfire forecasting on available sensor stations
- Wildfire history probability analysis
- Machine learning-based forecasting
MuViAS (2nd place)

(Multidimensional Visualization and Analysis Suite)

- Takes advantage of 3D capabilities of Web WorldWind to visualize any type of multidimensional data
- Provides developers with a suite of dynamic voxel-based data visualization tools for their apps
- Condenses lots of information in a single screen-space
WorldWeather (1st place tie)

- Climatological and weather data visualization and comparison
- Combines satellite imagery from widely different sources (NASA, ESA, DLR, etc.)
- Provides tools for browsing unrelated satellite imagery datasets simultaneously (legends, timeseries, overlapping, etc.)
AgroSphere (1st place tie)

- Educational tool
- Agricultural and climate relationship visualization and analysis
- Study plan for classroom use
Berry Monitor (Miguel’s honorific mention)

- GIS wild berry monitoring
Resources

WorldWind Europa Challenge 2017 Website:
http://eurochallenge.como.polimi.it/projects2017

City Smart World Wise:
http://eval.cs.aworldbridgelabs.com/

3D OpenStreetMap:
http://osm.eoapps.eu/

Smart Pollen Monitoring:
http://smartpollenmonitor.org/

AWARE:
http://wildfireaware.co.uk/

WorldWeather:

AgroSphere:
https://github.com/NASAWorldWindResearch/AgroSphere/wiki

MuViAS:
http://muvias.eoapps.eu/

Berry Monitor:
https://www.berrymonitor.com/