

Report on MFTTT-WG4SDG activities in 2019

MFTTT-WG4SDG made knowledge and propagated UN Sustainable Development Goals and their indicators, which show the implementation levels in 2019. The WG presented the importance of measurement, monitoring and documentation of these indicators by geoinformation, Earth observation methods and tools. MFTTT-WG4SDG informed the international, professional bodies about the progress in Hungary, and compared with other countries. The WG presented the operational solutions used in other countries for the Hungarian professional sector.

MFTTT-WG4SDG participation in international, SDG related working groups (e.g. GEO-EO4SDG, ISDE, UN-GGIM, ICA, EuroGeographics, EFGS), and cooperation with ESA NOAA colleagues was significant with presentations, reports about Hungarian progress.

In Hungary MFTTT-WG4SDG made presentations at MFTTT Surveyors' Days, GISOPEN 2019 and "Fény-Tér-Kép" Conferences and had meetings with SDG interested colleagues.

For the national, as well as international activities the WG had meetings with the experts of Lechner Nonprofit Ltd. (Hungarian Mapping Agency), Hungarian Space Research Office, the project leaders of Hungarian Earth Observation System, HUNSPACE (Hungarian Space Industry Cluster), GEOADAT Ltd., COSIMA Ltd., firms interested in Geo-Sentinel, and other colleagues who are operating geoinformation, Earth observation services are able to monitor indicators of Sustainable Development Goals.

By these action the WG efficiently supported the implementation of UN Agenda 2030 for Sustainable Development. MFTTT-WG4SDG achieved the No. 16 and 17 subgoals of SDG No. 17 goal.

1. Events and actions in 2019

- **GIS OPEN 2019 Conference, 16-18 April, Székesfehérvár, HUNGARY**
Presentation: Szabolcs MIHÁLY: Educational tasks in the field of geoinformatics and Earth observations for the implementation of SDGs.
The presentation showed the results derived from the investigation of national GI/EO education in order to influence the education of SDGs by GI/EO tools.
- **4th GEO Data Providers Workshop, 23-25 April, 2019., Vienna, AUSTRIA**
Workshop dealt with such advanced data technologies, like creation data ready for analysis, building data cubes (for monitoring, analysis and displaying spatio-temporal events), methods for ignoring unnecessary data download, platforms for ground segment of Earth observations, cloud based data and information access services (DIAS).
Gábor REMETÉY-FÜLÖPP participated at the workshop as a delegate from MFTTT.

- **CEOS-WGISS-47 Workgroup meeting, NOAA, 29 April – 2 May 2019, Silver Spring, USA**
 Presentation: Gábor REMETEY-FÜLÖPP: Report on cooperation of Hungarian Space Research Office.
 The presentation had a great success. More detailed information below.
- **MFTTT 32. Surveyors' Days, 4-6 July, 2019., Békéscsaba, HUNGARY**
 Presentation: Szabolcs MIHÁLY: Sustainable development of the world and our profession.
 It was a MFTTT-WG4SDG presentation, which showed the idea of "smart surveyor".
- **GEO-EO4SDG, First Annual Meeting, 5. August, 2019., New York, USA**
 UN-GGIM organized this meeting, just before the official UN-GGIM meeting. Gábor REMETEY-FÜLÖPP, as a member of MFTTT-WG4SDG, participated at the meeting via web. Report on the meeting is available at RFG Diary.
- **9th Session of UN GGIM, 7-9 August 2019., New York, USA**
 Gábor REMETEY-FÜLÖPP, as a member of MFTTT-WG4SDG, participated at the session via web.
- **11th International Symposium on Digital Earth, ISDE European Division meeting, 24-28 September 2019., Florence, Italy**
 Gábor REMETEY-FÜLÖPP, for the request of the chair of European Division, compiled a paper about the Hungarian activities on Digital Earth. He represented MFTTT-WG4SG and made a presentation.
- **Copernicus Global Land Services (CGLS) user meeting in the theme of SDGs, 15th October 2019, Brussels, BELGIUM**
 Gábor REMETEY-FÜLÖPP represented MFTTT-WG4SDG. Report on the meeting is available at RFG Diary.
- **12th European Forum for Geography and Statistics, 9-11 October 2019., Macheenster, UK**
 Tamás PALYA represented MFTTT-WG4SDG at the Forum. He made a poster presentation: Tamás PALYA-Szabolcs MIHÁLY-Gábor REMETEY-FÜLÖPP: Goals of Sustainable Development and the accessibility to Geoinformation Data.
- **DLR Earth Observation Symposium, 12-13 November 2019., Cologne, GERMANY**
 Gábor REMETEY-FÜLÖPP made a poster presentation Promoting the use of EO/GI data and support the related ecosystem development for SDGs. He represented MFTTT-WG4SDG at the Symposium.

Benefits of MFTTT-WG4SDG activities

Education survey and its usability

- Survey on the higher education and trainings in Hungary and SDGs related international experiments
- MFTTT-WG4SDG recognized the main institutions and experts play important roles in education
- MFTTT-WG4SDG digested:
 - starting packs of education materials
 - themes to be educated
 - national education institutions related to SDGs
- Tasks:
 - Starting the initiation of:
 - legal,
 - financial,
 - capacity and
 - organizationalconditions for education in EO/GI for SDGs theme. But at least, organically inspire the potential players, and concerned people.
 - Starting
 - Adoption of education packages,
 - The work with the related education institution experts.
 - Continuing the cooperation with international institutions.

Usability of WGISS-47, NOAA relationship

Gábor REMETÉY-FÜLÖPP's presentation, and his active participation at the Conference have real important consequences:

- A wide-range of international experts were informed about the Hungarian activities, including
 - Earth observation,
 - Space Industry Cluster
 - Activities of Hungarian experts in Copernicus and SDG monitoring
 - Activities of Hungarian Bodies (Hungarian Space Research Office, MFTTT-WG4SDG, Airbus-DS-GEO-Hungary, GEODATA Ltd., Lechner Ltd., COSIMA Ltd., Governmental Informatics Development Agency
- Hungarian Space Research Office (HSRO) should join to CEOS, and via HSRO MFTTT-WG4SDG could work with CEOS
- MFTTT-WG4SDG recommends the extension of Hungarian Earth observation activities with SDG purposes, surveying and geoinformation activities.
- Acknowledges to the following colleagues for their support and help: Ferenc HORVÁTH (HSRO), Zoltán ZBORAY (Ministry of Innovation and Technology), Dániel KRISTÓF and Gergely MAUCHA (Lechner Nonprofit Ltd.)

Conclusions and Recommendations

Looking forward

Smart Surveyor

MFTTT-WG4SDG emphasizes that UN Agenda 2030 is a real challenge for surveyor profession, but it is an opportunity as well. Therefore Hungarian surveyors should be active in this field on national and international (e.g. FIG) level.

Building National Spatial Data Infrastructure

Legislation and financing should be solved, and build as soon as possible.

Integrated land and water management

It was also emphasized, that the Spatial Data Infrastructure, Statistics, Land and Water Management is a real synergy.

Time

Countries have only 10 years for the implementation of SDGs.

Continuation of MFTTT-WG4SDG mandate

We ask Executive Board of MFTTT to accept this report and to confirm the mandate of MFTTT-WG4SDG, and support the activities of the WG.

These activities are time and cost-consuming tasks. In order to carry out these actions, MFTTT-WG4SDG recommends that, the MFTTT and its management:

- support to expand the WG by 1-2 persons,
- investigate and apply for purposeful financial funds.

10 December 2019., Budapest, HUNGARY

Dr. Szabolcs MIHÁLY
Chair
MFTTT-WG4SDG

MFTTT-WG4SDG Presentations in 2019

1. Mihály Szabolcs (2019a):
Oktatási feladatok a térinformatika és földmegfigyelések terén a Fenntartható Fejlődési Célok megvalósításáért.
GISOPEN 2019 Konferencia, Székesfehérvár, 2019. április 16-18., ppt 24 dia,
<http://www.gisopen.hu/eloadasok/2019/sz26.pdf>; (Megtekintve: 2019.12.02.)
2. Remetey-Fülöpp Gábor (2019b):
Hungarian Space Office Liaison Report. HSO update with insight into MFTTT WG4SDG, EO industry and a DIAS developed for the benefit of the Public Administration.
CEOS WGISS-47 Meeting hosted by NOAA in Silver Spring MD, April 29-May 2, 2019, ppt 22 dia,
[Hungarian Space Office Liaison Report](#); (Megtekintve: 2019.12.02.)
3. Mihály Szabolcs, Remetey-Fülöpp Gábor, Palya Tamás (2019c):
A világ és szakmánk fenntartható fejlődése.
MFTTT 32. Vándorgyűlésén, Békéscsaba, 2019. július 4-6., 32 dia,
https://www.mfttt.hu/mftttportal/index.php/letoltes/eloadasok/doc_view/746; (Megtekintve: 2019.12.02)
4. Remetey-Fülöpp Gábor, Mihály Szabolcs, Palya Tamás (2019d):
The changing landscape of EO/GI4SDG-related stakeholders in Hungary.
GEO EO4SDG Annual Meeting 2019 New York, USA August 5, 2019, 3 dia,
<http://eo4sdg.org/wp-content/uploads/2019/09/2019-EO4SDG-Annual-Meeting-Slide-Deck-Session-1.1.pdf>; a webhely 54. oldala (Megtekintve: 2019.12.02.)
5. Remetey-Fülöpp Gábor, Mihály Szabolcs, Palya Tamás, Zentai László, Hargitai Péter, Iván Gyula (2019e):
Unlock and Use EO/Geospatial Data for SDG by Empowering Stakeholder Engagement in a Transformed Society.
ISDE11, 11th International Symposium on Digital Earth, Florence, Italy, September 24-27, 2019, 23 dia,
<http://www.digitalearth2019.eu/slide/Gabor-Remetey-Fulopp-1.pdf>; (Megtekintve: 2019.12.02.)
6. Palya Tamás, Mihály Szabolcs, Remetey-Fülöpp Gábor (2019f):
The sustainable development goals in Hungary and the geospatial data availability.
EFGS 2019 conference, Manchester, October 10-11, 2019, 4 poster dia,
https://www.efgs.info/wp-content/uploads/2019/11/P5_TamasPalya.pdf; (Megtekintve: 2019.12.02.)
7. Remetey-Fülöpp Gábor, Mihály Szabolcs, Palya Tamás, Zentai László, Hargitai Péter, Iván Gyula (2019g):
Promote the Use of EO/GI Data and Support the Related Ecosystem Development for Sustainable SDGs.
2. Symposium „Neue Perspektiven der Erdbeobachtung“ Köln, 12-13 November 2019, 1 poster dia,
https://www.dialogplattform-erdbeobachtung.de/downloads/cms/Stele8/EO-Symposium_Gabor.Remetey.pdf; (Megtekintve: 2019.12.02.)
8. Remetey-Fülöpp Gábor, Mihály Szabolcs, Palya Tamás (2019h):
Földmegfigyelés: A közelmúlt nemzetközi szakmai eseményeinek üzenete.
17. Fény-Tér-Kép konferencia, Tihany, 2019. november 14-15., 36 dia
<https://geoiq.hu/download/2270/> (Megtekintve: 2019.12.02.)
vagy <https://documentcloud.adobe.com/link/review?uri=urn%3Aaid%3Aascds%3AUS%3Afa8a2bec-9ee1-40a5-8bfc-82fe9c26e9b8> (Megtekintve: 2019.12.02.)
9. Remetey-Fülöpp Gábor, Mihály Szabolcs, Palya Tamás (2019i):
Earth Observation: Messages of Some Recent International Events in the SDG Context.
As presented for the Hungarian Community of Experts in Photogrammetry, RS/EO and GI = 17. Fény-Tér-Kép konferencia, Tihany, 2019. november 14-15., ANGOL változat, Magyar hozzájárulás GEO EO4SDG munkacsoport vezetőségének 2019. november 25-i távértekezletéhez, 36 dia
<https://drive.google.com/file/d/1nacn6xMzKglJQn2CaCYDjt4w4t4wRr7N/view> (Megtekintve: 2019.12.02.)