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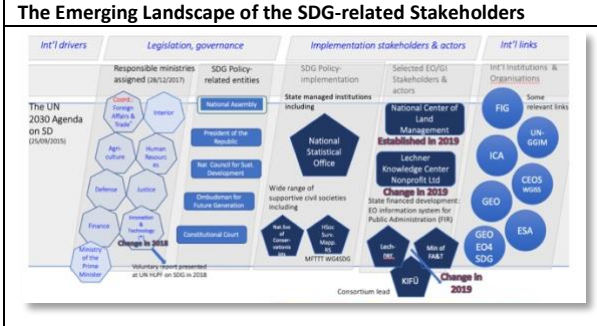
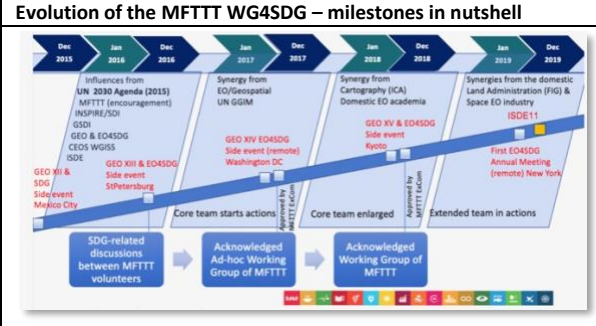
Setting the scene and mission goals of the MFTTT WG4SDG

- The UN Agenda 2030 and the SDGs and the established targets and indicators
- Role of EO/geospatial data in monitoring and reporting on SDG targets & indicators
- From interdisciplinary collaboration to trans-disciplinary approach
- Stakeholder engagement and capacity building from local to global
- Importance of exploitation of Digital Earth vision and technologies to support informed decisions in SDG-related issues
- Mission goal of MFTTT WG4SDG: advocate, promote and facilitate the use of EO/GI data and information for SDG by awareness raising and sharing information

Promoting engagement, interdisciplinary cooperation

In Hungary, the inter/transdisciplinary cooperation and collaboration among stakeholders on domestic level is guided by the national strategy on SD and other documents including:

- o GEO EO4SDG Strategy Implementation Plan
- o CEOS/ESA guide on Earth Observation for SDG
- o Good practices in capacity building and curricula development (as promoted by the Sustainable Development Solution Network - SDSN)
- o Recommendations on the integrated use of geospatial information and statistical data for indicator monitoring and reporting (UN-GGIM, EFGS)
- o CEOS Ad-hoc WG on SDG
- o Documents of relevant ICA, FIG and ISPRS activities
- o UN-GGIM regional and thematic networks
- o EC DG GROW and EC DG JRC publications
- o ISDE's SDG-related documents and messages (Florence Declaration 2019)



Some stakeholders and engaged actors from academia

Some key players in EO in Hungary

Academic/Education institutions Having monitoring capabilities (with satellite EO, and/or airborne RS as well as in situ measurements data)

- Eötvös Loránd University, Budapest
- Budapest University of Technology and Economics
- Esztérházy Károly University
- University of Szeged
- University of Sopron
- Ózuda University
- University Debrecen
- Dennis Gabor College
- University of Pács
- Szent István University, Gödöllő

Engaged actors from the space industry sector HUNSPACE

HUNSPACE The Hungarian Space Cluster

- Established in 2014
- 37 members (as of April 2019)
- Annual General Meeting
- SME4SPACE membership
- Cluster Committee with representatives of each section of the cluster incl. Earth Observation

Some of MFTTT WG4SDG outreach activities in 2019

| Accomplished: | Planned: |
|---|---|
| o GIS Open 2019 at Székesfehérvár on Capacity building aspects of EO/GI for SDG | o Presentation at the Wuhan University Wuhan, November, 2019 |
| o Liaison report of the Hungarian Space Office at CEOS WGISS-47 plenary hosted by NOAA in Silver Spring, 2 May, 2019. | o Poster contribution to the DLR Conference on 'New Perspectives in EO' Cologne, Nov 12-13 |
| o Report on the GEO Data Technology Workshop Vienna, April 2019 | o 'Fény-Tér-Kép' Conference on Remote Sensing, GIS, Image Processing and Photogrammetry Tihany, Nov 14-15 |
| o Sustainability of the surveyor's profession and the Agenda 2030 presented at the MFTTT Bi-annual Roving Conference in Békéscsaba, June 2019 | o Anniversary Conference of HUNAGI devoted to 'Geospatial Intelligence in the 21st Century' Budapest, Feb 2, 2020 |
| o GEO EO4SDG Annual Meeting, Remote participation, MFTTT WG4SDG's 3-slide contribution, New York, Aug 5, 2019. | o GEO Data & Knowledge Week Beijing, February 2020 |
| o ISDE11 Florence, Sept 25-28, 2019 | o CEOS WGISS-49 Buenos Aires May 2020 |
| o The 12th European Forum for Geography and Statistics (EFGS) Manchester, Oct 9-11, 2019 | o ISDE12 Salzburg, July 2020 |
| o Copernicus Global Land Services User's Group Meeting on SDGs, Brussels, October 15, 2019 | o DE Summit Otrnsnk, May 2020 |

EO supported ICT, IoT, AI, 5G, UAVs - examples from Hungary

- o Strategy policy on Digital Agriculture expected by end of 2019.
- o Strength: a multi-decade legacy in digital Land Use/Cover and Ecosystem Mapping
- o Precision Agriculture Cell-based crop assessment using satellite EO, UAV mapping
- o 5G & drones, and Smart Farming Conferences in Budapest and Bábóla whereas NGOs, start-ups, SMEs are forerunners (eg. ACSRS, COSIMA Ltd.)
- o Innovation (EO, drones etc.) in Water-related Disaster Management Oct 29, 2019
- o ITU Telecom World 2019 in Budapest: discussed ICT centric ecosystem & SDGs. Participants from 130 countries
- o Copernicus-based EO information system (EOIS) project with KIFU and Lechner. Supervised by consortium incl. MoFAT responsible for space research and all space-related activities
- o 3D data infrastructure project
- o AI & 5G Coalitions established
- o Data Strategy Policy proposal for accelerating AI-based innovation. An NGO Proposal, elaborated by Magyar Zoltán Society of e-Public Administration Science
- o ICT R+D for resilient, smart cities
- o First 5G network operational in Győr in Spring 2019.
- o ZalaZone a special roving ground & smart city zone for autonomous vehicles and ITS supported by an advanced digital ecosystem (5G, LIDAR, GNSS, IoT, V2X etc) with international extension
- o Hungary joins the pre-exascale EuroHPC consortium to use the 150 Petaflop HPC in Bologna in mid-2020 onward. Anticipated apps include AI, V2X but also computation-intensive analysis of Big Earth Data are foreseen

Some selected GI Systems for SDGs in Hungary

Conclusions

- o Setting up interoperable EO and geospatial data infrastructures for the benefit of the public administration and private sector supports national programs on digital governance and prosperity
- o Supported by innovation, exploitation of novel technologies, investments in broadband rollout and ICT solutions the digital ecosystem will provide synergies and opportunities for the transformation of the society and digital economy including the acceleration of the implementation of global policies on SDGs, Climate Change and Disaster Reduction
- o Need for interdisciplinary cooperation of engaged stakeholders

