Report from Geospatial World Forum

The Geospatial World Forum (GWF) 2022 invited participants with the words:

„Geospatial World Forum 2021 is back with a mission to re-connect the supply and demand of geospatial capabilities across economic sectors ….“

GWF has become a famous meeting of experts involved in geospatial sciences from all over the world. The experts cover industry, administration, and academia. Its exhibition is a source of incentives for industrial development, applications in various spheres of administrative branches and scientific research.

GWF organisers addressed ISPRS to prepare a session that would share new ideas and plans based on the latest developments in geospatial sciences and remote sensing. Gunter Schreier, IPAC (ISPRS Policy Advisory Committee) Chair, took over the role of the session organiser. He invited excellent speakers to the session titled „Towards Digital Twins of our Earth“.

Digital Twins is more and more a hot topic in geospatial sciences thanks to amazing developments, especially in time resolution of remote sensing data collection. A large scale of operators enables us, users of their data, to analyse the atmospheric and Earth themes. It is not only the desire and experience of many users, but it has been also observed by the European Commission (EC), European Centre for Medium-Range Weather Forecast (ECMWF), ESA and others.

Three representatives from the above-mentioned organisations accepted invitations to partake in the ISPRS session as speaker, and to share their organisation’s views and policies.

Liina Munari, Acting Head of Unit C1 Digital Modelling and Science Cloud of the DG Connect of EC, talked about Destination Earth Initiative of EC to support the European Green Deal and the Digital Strategy. A very high precision Digital Model of the Earth, i.e., a digital twin is their goal as an important source of information for the sustainable development of the Earth. This goal is based on scientific and industrial excellence.

Peter Bauer, Deputy Director of the Research Department at ECMWF, coordinates ECMWF’s contribution to Destination Earth. He highlighted the importance of weather, which induces weather extremes, since they are proof, among other, of climate change. New models, combining those of meteorological, and of geo- and non-geo-sciences, are the base of better understanding of the environment, and of human ability to adapt to the developments we have been facing. Its success relies on international cooperation and new levels of internship.

Nicolaus Hanowski, Head of the Mission Management & Ground Segment Department, is responsible for the Operations and Ground Segments of the ESA Earth Observation Missions and the Copernicus Sentinel satellites. His talk was dedicated to the ESA contribution to Destination Earth (DestinE). ESA will develop the DestinE Core Service Platform (DESP). The Platform will provide evidence-based policy and decision-making tools, applications and services.

The speakers created a group which provided the audience with a multiple and comprehensive view on future complex analyses of the Earth which have already commenced and are being developed. It can be regarded as an incentive for scientist and decision makers, not only from ISPRS.

I would like to express my thanks to all speakers, and to Gunter Schreier for his role as session organiser. He provided the audience and speakers tools not only for a face-to-face meeting, but also for the virtual presentations of Liina Munari and Peter Bauer, including a discussion, which would not have been possible without his technical skills.