

# Terrestrial and extra-terrestrial geomatics

Spatial data for the management of structures and buildings are of vital importance for decisions relating to our future. In the next edition of INTERGEO 2019 in Stuttgart, the quality of urban life and the development of rural areas in the long term will be key topics, since they are embedded in the political and social debate of the moment.

A special focus of INTERGEO this year will be the spread of digital technology in mobility and construction, in Smart Cities, Survey, Laser Scanning, Building Information Modeling (BIM), Unmanned Aerial Vehicles (UAVs) and Virtual, Augmented or Mixed Reality. All topics where spatial data are essential.

But what about the future possible life outside the Earth?

Fabrizio Bernardini in the Focus of this issue "Exploring the Solar System: from mapping to prospecting" draws a picture of the situation of the cartography of the planets hoping for future simpler and faster missions. The results of these missions will allow creating resource maps that will guide the selection of landing sites. A next step that is not too far as many would like to think.

Examples of specific in-depth studies are not lacking, such as the geological mapping that requires the combination of many different characteristics of the rock sequences studied. This including lithology, stratigraphy and structural deformation to reconstruct the variation of environments and climates over time. The standards of planetary cartography have been associated with principles defined in the 1970s during the Apollo missions, while recently the need for new cartographic guidelines emerged in the light of progress in understanding the geological processes that shape planetary surfaces.

And this is what the Report from Marco Pantaloni, Roberto Graciotti, Lucia Marinangeli and Matteo Massironi "Revising the geological mapping of Mars", tells us from the networks of scientific institutes and many Universities involved in a pilot project to apply the rules of the cartographic standards used in the Italian Geological Cartography Project for the realization of geological and geomorphological maps in a planetary environment.

GNSS Radio Occultation for weather prediction is the theme of the report from Guillermo Bosch that will tell us about a well-proven technique that goes back to the mid-1960s when the satellite Mariner IV transmitted data while it was approaching Mars.

Marco Lisi from Santo Domingo, Dominican Republic, will report on how Galileo and Copernicus are not only flagship technology programs of the European Union, but they can be considered the ambassadors of European cooperation in other continents.

The Low Altitude Airspace and the new business dimension is the report from Chiara Mozzetti and Alberto De Vitis of Aiviewgroup, highlighting the great emerging opportunity for many companies.

*Enjoy your reading,*

*Renzo Carlucci*