Modern Geospatial Technologies in Infrastructure Information Uncertainty Decrease

Artur Janowski, Malgorzata Renigier and Marek Walacik (Poland)

Key words: e-Governance; Geoinformation/GI; GNSS/GPS; Risk management; Spatial planning;

Valuation; uncertainty, infrastructure

SUMMARY

The aim of the paper is to propose solutions based on the use of satellite techniques for detecting and providing information about technical infrastructure in municipalities. The concept is to fulfil growing demand for user friendly and accurate information concerning utility (infrastructure) achieved by the use of mobile application integrating GNSS, Earth Observation and Augmented Reality. The combined components of the mentioned technologies in the service are to enable simplification of gathering and proper interpretation of dispersed information about utility (infrastructure) in real time at current location of its user.

The main solutions within the involve:

- 1. mobile access to the infrastructure information in the real time and current geolocation with GNSS positioning accuracy.
- 2. cost estimation of utility connection for particular investments.
- 3. level risk decrease of utility damage in construction processes.

The elaboration fulfils the scope within "Geospatial information for a smarter life and environmental resilience", by the increasing readability, usability and eliminate one of the key barriers of providing comprehensive information on technical infrastructure by combining the newest technologies.

Modern Geospatial Technologies in Infrastructure Information Uncertainty Decrease (9918) Artur Janowski, Malgorzata Renigier and Marek Walacik (Poland)