

The Role of Surveying and of Surveyors in Sustainable Development

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Abstract

A brief overview is given of global trends in the changing economies and markets of the world, changing societal needs and a changing technology, together with an emphasis on the important role of surveying and of surveyors.

Geospatial information is recognized as the tool to address issues like the so called “mega-topics” in order to achieve the sustainable development goals of the UN 2030 Agenda. Such “mega-topics” include population growth and the need for food and water security and poverty eradication; the rapid urbanization of the world’s cities and the need to respond rapidly and intelligently in terms of security, housing, mobility and transport, city and building modeling, energy saving, health care, water and waste management, and governance in general; the tendency of development to cluster within the coastal zones of the oceans, the seas and the major river deltas and the need for rapid response to natural disasters and to manage the impact of climate change; the interconnectivity in all areas of our economies, cultures, governmental operations and private lives and the need for harmonization, compatibility and security of procedures.

The use of new developments in technology that will allow capture, assessment, processing and management of geospatial information and the development of appropriate land tools that will allow solution functionality, reliably and affordably (i.e., fit-for-purpose processes) for a complex and rapidly changing world is of significant importance for the future of surveying and mapping. Current and future challenges in mapping include, among other important issues, the compilation of cadaster and registration of property rights for the rest of the world, the formalization of property markets and their sustainability, and the increased capacity in real-time mapping for disaster management and recovery from disasters.

In the globalization era, a globalization of the sciences is also taking place. Surveyors should be prepared to cooperate with several other disciplines and allied professions, and in some cases, there may be severe competition from neighboring disciplines. This is a challenge that surveyors must face through development of their own new skills. Surveyors should be prepared to deal with data inflation, to cope with large amounts of information; they should also maintain in-depth technical research, better education and cooperation with other professions. Today, mobile devices are available to more people, the cost of high resolution satellite imagery is coming down and there is a renewed awareness of the importance of authoritative spatial data at all levels of government. There is a fast-growing civil demand but also a changing culture for authoritative spatial information published on the web, a culture that changes the administrative concept. Authoritative data today can be provided and assured by government agencies but also by crowdsourcing with the engagement of surveyors. The relationship between quality and cost has been significantly improved today by new technologies and it will continue to improve. We need to investigate and be aware of these achievements but also of the challenge of adapting to new technologies while encouraging further improvements.

Biography:

Dr Chryssy Potsiou studied at the School for Rural & Surveying Engineering, National Technical University of Athens (NTUA), Greece. In 2005 she became a NTUA Lecturer teaching Cadastre, Land Management and Property Valuation courses. She attended the MIT (Massachusetts Institute of Technology) professional education courses on Real Estate Markets in 2006. In 2010 she was promoted to the position of Assistant Professor and in 2013 she became Associate Professor, in NTUA. She has 30-year experience in education, training and international capacity building. She was a member of the board of directors of the Hellenic Mapping and Cadastre Organization (2009-2010) and of KTIMATOLOGIO SA (2009-2013). She has been an elected member of the bureau of the Hellenic Association of Rural and Surveying Engineers (2013-2015). Since 1982 she is active in the International Federation of Surveyors (FIG) especially in the work of Commission 7 (Cadastre and Land Management) and Commission 3 (Spatial Information Management). She was the Chair of FIG Commission 3 for the period 2006-2010, the ACCO representative at the FIG Council for the periods 2006-2008 and 2008-2010, FIG Vice President (2011-2014), FIG Task Force chair on Property and Housing (2012-2014), and FIG President (2014-2018). She was the chief editor for the FIG peer reviewed papers for the period 2007-2009. Since 2001 she has been an elected UNECE WPLA bureau member. She has organized more than 25 international conferences. She has participated in more than 30 research projects as main researcher or coordinator. She has been contributor, co-author or main author of 15 international books, and she has written more than 150 scientific papers.

