Introduction by the President of the ICA

Maps and cartographic forms of expression are gaining increasing popularity currently. This can be indicated by the enormous number of map-based applications in the Internet and the mobile Internet. Maps as interfaces to abundant information systems as well as presentation forms of spatial-related information are offered ubiquitously, either through their application on mobile input- and output devices or on the Internet. Beside existing cartographic products of high quality "quick and dirty" produced cartographic forms of expression increase. These often show other models of usage and production (disposable map) and do not follow simple cartographic basic principles (readability, harmonisation).

In the context of geodata management numerous technologic developments take place and have direct or indirect impact on cartography. This involves data acquisition, data modelling and –processing as well as the presentation by cartographic forms of expression and their distribution. For example technologies in data acquisition like Laser Scanning, Range Cameras or highly resolving satellite images can initiate new developments and applications in cartography as well as new basic conditions in data modelling as for example service-oriented architecture (SOA), cloud computing or the possibility for data transfer in nearly real time (real-time data streaming).

Currently the Internet is facing a new step of development because it can become part of all-day topics. Even all-day items are able to communicate wireless by means of miniaturized sensors and processes. Though, the terms "pervasive computing" or "ubiquitous computing" describe the "holistic integration" of information technology in living spaces, processes and situations of usage. From a cartographers point of view innovative infrastructures for information transfer are of high relevance. Ubiquitous available mobile equipment that can be addressed by means of wireless communication networks can be used for supporting cartographic communication processes. The aim becomes more and more realistic that an interactive, real-time, ubiquitous, location-based and permanently available cartographic communication processes can be developed, that allow context-related and individual geo data transfer by cartographic means. That would lead into tailored individual support in the solution of spatial problems or decisions. As example a navigation scenario can be used in which the environment itself supports the user in understanding the space he is in and support him finding his route.

Pushed by the availability of always new generations computing technologies, the expanding telecommunication industry and the increasing availability of data and the access via increasing data transfer rates, especially the development of information services are of high dynamic currently. The shift to a more service-oriented architecture is of high significance in this context. SOA requires the orchestration of software functionalities. This process of orchestration allows the usage of services in a non-hierarchical arrangement using a software tool that contains a complete list of all available services, their characteristics, and the means to build an application utilizing these sources. This ar-

rangement is of high importance to cartography and to services related to map and geo-data.

The first Symposium on Service-oriented mapping is held on 22-23. November 2012 with the purpose of offering a forum for research-driven activities related to the context of service-oriented mapping. The innovative and contemporary character of the symposium leads to a great variety of contributions in terms of interdisciplinarity. Presenters representing different backgrounds varying from academia to business, from computer science to cartography covering interesting topics related to the main aim of the symposium.

While contemporary cartography examines new and efficient ways on communicating spatial information, the development and availability of technologies like service-oriented mapping lead to interesting new possibilities of achieving this aim. Cartographers and researchers from a variety of disciplines try to make use of the available technologies by looking specifically at applying results from such attempts.

The International Cartographic Association (ICA) is the world forum and society for those cartographers. As a globally well represented and internationally visible organization, ICA has a special position and role as a promoter of the development of Cartography and GI Science especially in this current dynamic situation. Topics like theoretical frameworks as well as applying new technological innovations to cartography are addressed at the main work-forums of ICA, its Commissions. At this first Service-oriented mapping Symposium six ICA commissions, namely the ICA Commission on Map Production and Geobusiness, the ICA Commission on Atlases, the ICA Commission on Map Projections, the ICA Commission on Maps and the Internet, the ICA Commission on Use and User Issues and the ICA Commission on Open Source Geospatial Technologies work together.

Under the leadership of Dr. Markus Jobst and the patronage of the Austrian Federal Office for Metrology and Surveying and the Research Group Cartography of the Vienna University of Technology the symposium and this accompanying proceedings will soon become a landmark in the landscape of modern internet cartography.

Georg Gartner, President of the International Cartographic Association