

About Surveyors' Commitment, Role and Education for Society and Sustainable Development¹

FIG President Univ. Professor Dr.-Ing. Holger MAGEL

1. BRUNEI DARUSSALAM – A MODEL OF GLOBAL SURVEYORS COMMUNITY AND ITS CHALLENGES

Honourable Minister of Development Pehin Dato Paduka Abdullah bin Begawan, Honourable Deputy Minister, Minister Surveyor General and President of the 8th SEASC 2005, Pg. Matusin Matasan, Excellencies, Distinguished Delegates, Colleagues and Guests, Ladies and Gentlemen

It is my real honour and great pleasure to convey to you the warmest greetings of FIG and congratulations for organizing this important conference with a very actual topic "*Geomatics and the Community: Spatial Way to Sustainable Development*". It is an actual topic everywhere! In the last two weeks having visited first Australia and then, due to the wonderful hospitality of our Brunei host member association, having visited some characteristic places in this paradise or 'abode of peace' I have already been confronted with essential parts of the congress motto and of our FIG mission: "Serving society and sustainable development by contributing e.g. to build modern land administration systems" (this was the topic at a meeting in Melbourne with leading experts!), by contributing to sustain natural resources like the unspoilt rainforest in Temburong National Park or to keep the balance between economic and environmental aspects like it happens with domestic oil and gas industry in the Belait District or to contribute to development and resettlement measures e.g. for water villagers and indigenous poor people. Finally, I have noted by reading the daily newspapers and watching TV: The world is at home everywhere, all what happens on the globe is well-known nearly everywhere either it is the news on the WSIS in Tunis, which is of special interest for our surveyors' community, or whether it is what His Majesty, the Sultan of Brunei, and his ministers are enhancing on the field of the growing role of NGO's or on the field of bottom-up development and civic engagement in rural areas.

This is why I am deeply convinced of that this international conference can benefit of the so-called 'genius loci' or 'spirit of place', that is why I strongly believe that this event will bring very valuable outputs and incentives for the work of our global family of surveyors, i.e. for FIG. The more the world and its societies are changing, the more the professions of surveying and survey professionals have to be able to change. That is the reason why for my four-year's presidency I have chosen the motto "Shaping the Change".

¹ Keynote Address at the Opening Ceremony of the 8th SEASC 2005 on 22 November 2005 in Bandar Seri Begawan, Brunei Darussalam

2. ABOUT SURVEYORS' COMMITMENT AND ROLE FOR SOCIETY AND SUSTAINABLE DEVELOPMENT

Ladies and Gentlemen, it is a very simple and right truth: You only can shape the change proactively instead of waiting passively what will happen, if you are prepared for it. Prepared means to me that you first should know your identity and commitment and that you have the ability or knowledge, competence and skills to face the challenges and fulfil your role, all based on solid education, CPD and values!

“Without knowledge, an organisation will face obstacles, remain static and be incapable to bring about dynamic change...The needed changes involve attitude, mindset, leadership, administration and management.” This quotation was not an address to surveyors and their institutions, but it was the keynote speech of the Brunei Minister of Home Affairs at the national level seminar for village leaders and long house heads last week.

Honourable Minister of Development, Pehin Abdullah, during my courtesy call to you, which I was very impressed, we both agreed on the importance of the right mindset mainly based on values, ethics and attitudes. One of the most successful, highly acknowledged German ‘global players’, the international consultant Prof. Roland Berger even said: *“Values, ethics and paradigms of commitments and achievements are one of the seven key factors of growing economy and wealth and a basis for innovation and new ideas and products.”*

FIG as a global umbrella organisation and ‘*mother of all surveying and surveyors*’ has no and can not have personal values and ethics. But its members and member organisations do have their individual or common values and ethics based on religious, historic and cultural context, aspects and habits.

But FIG has a clear mission and commitment! FIG and its members want to serve society and to contribute building a more just, a more peaceful and more sustainable world.

This means that FIG and its partners like IAG, ISPRS, ICA, IHO etc. on a global stage as well as its members on local stage try to contribute to the implementation of UNMDG, especially on the fields of property rights, secure tenure, access to land, water and natural resources, on data management, urban and rural resettlement and infrastructure development or try to prove reliable and real time data from space by GNSS, remote sensing etc., that means furthermore e.g. that FIG wants to support reducing the so-called ‘digital divide’ as it was recently mentioned again by UN Secretary General Kofi Annan at the Information Society Summit in Tunis. Surveyors have extraordinary skills in the field of SDI and GIS, they are part and partner of the Information Society and they can provide for each country the geo-referenced framework for NSDI and other applications. I am very happy that this year at the FIG Working Week 2005 in Cairo all sister organisations and related spatial information associations like GSDI or the Global Mapping have established and joined the Joint Board of Geospatial Information Societies (JBGIS), which I am currently honoured to chair. JBGIS and all its members are committed to find solutions to use IC technologies for building bridges for a better life, especially in poor and developing countries like it was the hope in Tunis! But ICT is a key for each country and economy – SDI and GIS are essential parts as well as our daily produced survey data and information.

I spoke about values, ethics and attitudes. One decisive attitude to reach our commitment and roles is to remove ‘silo’ thinking and acting of disciplines and governmental institutions. Instead of ‘silos’ we need interdisciplinary approaches especially by building and using geo-referenced data base infrastructures thus achieving more comprehensive and sustainable impact, i.e. well-balanced solutions. The reason for it is very simple and a way of best convincing politicians and decision makers. About 80 % of daily decisions on national or local level, either in economy, finances/taxation, demography, spatial planning, environment, hazard areas, security, infrastructure, housing, cultural heritage, sustain geographical names, etc. is spatially or - like we say - geo-referenced!

That demonstrates clearly, surveying is a central pillar of each country and its economy!

I am deeply convinced that we still have not reached the utmost of all possibilities of especially GIS and SDI technologies managed by surveyors in order to serve society and SD. To use all possibilities surveyors should not be excellent technicians, producers and managers of data only but also excellent ‘Managers of Property, Land, Marine and Construction’ according to the motto ‘From Surveying to Serve Society’. The famous Spanish writer Ortega y Gasset once said: *“To be a good technician it is not enough to be a good technician only.”* What does this mean in my context? Surveyors should play a visible role in society, and then should try to become actively and additionally involved in fields of spatial planning, urban and rural development, valuation, real estate management and decision making! In fields which are traditionally not regarded as surveyors’ domains!

I know that this is not easy to reach. It is a question of attitude and mindset again but it should be attempted – one reason is thus to better understand the needs of society and institutions, e.g. for spatially enabled LIS! My experience is more or less disappointing: If GIS people do not get involved enough in local policy or spatial planning and land management etc., a lot of their work remains a nice theory or model without much practical use!

Let me end this chapter with a very clear statement: Depending on the history, tradition and other country context surveyors still play different roles around the world. There is on one side the classical role of being ‘guarantees and custodians of property and precise survey engineering’ and on the other side a more and more integrated and active role in decision making on natural resources and environmental protection, in serving changing social and economic needs of urban and rural societies, in disaster and risk management, e.g. by using GPS and satellite positioning or imagery and gravity field measurements, etc.

3. ABOUT MODERN FUTURE ORIENTED EDUCATION AND CPD

FIG’s role is to enhance all of these changing roles and especially to support the different approaches to new activities due to changing technologies and new chances for or threats to profession.

A main focus of FIG’s work lies on education and CPD as you can prove it by reading a lot of specific FIG publications. The reason is very clear and brings us back to the speech of Brunei minister to village heads: it is the knowledge and resulting competence.

Besides of the right values and commitment besides of technologies and of institutional framework, whose importance was recently underlined again by the World Bank in its report *'Doing Business in 2005: Removing obstacles to growth'*, besides of these three aspects, one of the most decisive or even the most important factor for shaping the change of our profession and for serving community and sustainable development is education and – as a twin brother/sister – CPD! All UN reports and national governments show and know it: Education is the crucial key for and access to innovation, wealth, better environment, poverty reduction and finally to more peace and equity.

Once again, I have to say that there exist different university education models within FIG depending either on a more central European, Spanish-Latin-American or Anglo-Saxon philosophy. According to this situation one will meet different names (and contents) like Land Survey, agrimensura, Geomatics, Geo-informatics and / or Geodesy!

One common truth must prevail in all models: The education should be future oriented and comprehensive enough. It should not only be focussed on modern survey technologies and techniques or on data gathering and modelling, but also on the whole environment of neighbour disciplines and on networking and collaboration with them.

Survey / Geomatics / Geodesy education should comprise at least and in any case mathematics, physics, legal, socio-cultural, survey and some civil engineering aspects, planning and information science, some economics and skills in geo-basis data management, valuation, mapping and cartography. At my Technical University of Munich we even have the ambitious goal to cover the range *'from the single parcel to the planet Mars'*.

As a second goal we aim at the education of *'well-grounded specialized generalists'*, who have got additionally a lot of social or soft skills thus being better able to later play in the first rows! Specialization is needed only for a few! A too early specialization is in my opinion contra productive to our goal of playing a more important role in society.

To avoid being a study (and profession) of *'second choice'*, we should address to and attract the best students. We should more offensively convince them of a study (and profession) which is surely one of the most interesting studies because it provides chances for each talent: for the mathematical, analytically thinking, measuring and counting talent as well as for more legal – administratively or for more creatively and holistically planning, valuing, weighing and arguing people.

Let me very clearly say: Survey / Geodesy / Geomatics education should everywhere aim at excellence both at study including curricula and students! Otherwise I am afraid that other disciplines will abolish and force out us. FIG Commission 2 provides a lot of information and conference proceedings on education and even e-learning models! Education must be followed by a life-long CPD (continuous professional development). FIG has spent much effort on this topic too!

In a more and more globalized world there will be, at the end, no closed markets anymore. More and more single markets will arise. We need technical standards like ISO etc. as well as

frameworks and rules on mutual recognition of education and qualification. Under the chair of our Malaysian representative Teo Hee Chai, FIG is working in this very important field thus trying to get more equality amongst professionals!

Universities must also be aware of changing technologies, of changing markets but especially also of changing society and global and national challenges! This happens sometimes but still in too few universities! I appreciate it very much that more and more universities have joined FIG as an academic member. Thus they are members of the community of surveyors and get worldwide information about what is happening within and around our widespread and manifold profession.

4. FIG – A GLOBAL EARLY WARNING SYSTEM OR SEISMOMETER FOR SURVEY PROFESSION

Let me come to the end and to my final statement: Each profession needs permanent information about the changing world. FIG and especially its ten commissions can serve as a global early warning system because of being represented in more than 110 countries and getting input from there. After seven years of function in the FIG Council I can really say and confirm what my SWOT analysis of FIG clearly shows: FIG is irrespective of some weaknesses probably the most professionally managed umbrella organisation of surveyors! Therefore I invite all countries and professionals who still are not member to join FIG, which is highly appreciated and acknowledged by the United Nations, the World Bank and by other global institutions.

I congratulate our new member association BIG again for having joined FIG and having followed the affiliate member Department of Surveying Brunei Darussalam. I am very sure that Brunei surveyors will enrich FIG with their high expertise and specific experience, especially our commissions! I hope that FIG and all of its members – of whom some are here – can give you same valuable and needed advice too, especially about how Brunei can manage to keep the balance within the triangle of sustainability!

Against the background of growing civil society and increasing decentralization and subsidiarity all surveyors should proceed to play manifold roles as ‘*experts for low land realities*’, whether as global and local NGO’s like FIG and BIG or as officials and institutions like Survey Department and Surveyor General: It is perhaps still my personal vision that we should share and reach to become

- enablers for local people, CBO’s and NGO’s
- mediators between citizens and authorities
- advisors to politicians and state institutions.

I am confident that according to the UN Secretary General’s request ‘*In larger freedom ...*’ FIG will transform this vision to reality!

The 8th SEASC may hopefully be one of the first steps for the transformation from vision to reality.

Finally I would like to acknowledge that this conference is an important initiative to strengthen the profession in this booming region and that it fits perfectly in our FIG policy of regionalization!

I wish you all best success!

See you again in Munich 2006!

BIOGRAPHICAL NOTES

Biographical information about President Magel on the FIG web site: Meet the President at: <http://www.fig.net/council/president-magel.htm>

CONTACTS

Univ. Prof. Dr.-Ing. Holger Magel
FIG President
Director of Institute of Geodesy, GIS and Land Management
Technische Universität München
Institute of Geodesy, GIS and Land Management
Arcisstrasse 21
D-80290 München
GERMANY
Tel: + 49 89 289 22535
Fax: + 49 89 289 23933
Email: magel@landentwicklung-muenchen.de