

FIG President Univ.-Prof. Dr.-Ing. Holger Magel  
on:

### ABOUT THE IDENTITY, SOCIOPOLITICAL ROLE AND TECHNICAL TASKS OF SURVEYORS ON THE NATIONAL AND INTERNATIONAL STAGE

at 43rd Congresso Nazionale Geometri  
„New horizons of the profession: Guarantees for the society in evolution“  
17 – 22 October 2005 in Palermo

1. International and national challenges and chances to professions and Non-Governmental-Organisations (NGO)
2. Can the globally acting NGO International Federation of Surveyors (FIG) represent surveyors identity, sociopolitical role and technical contributions and meet the hopes and demands of politics and society?
3. About the role of national FIG member associations like CNG on global, regional and national stage

### 1. International and national challenges and chances

- MDG (esp. poverty reduction; see Melilla!)
- increasing migration and rapid urbanization all over the world
- economic and cultural globalisation / europeanisation
- ageing population, empty European city centers and empty rural areas
- structural changes, financial crisis of states and municipalities, endangered infrastructure and environment
- increasing demand for integrated urban – rural – (development / relationship) concepts and programmes
- growing role of secure tenurity, land administration incl. land management for functioning land markets

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### 1. International and national challenges and chances

- emerging civil societies, participatory planning and decision, sustainability and good (urban and rural) governance principles, esp. subsidiarity, transparency, accountability...
- withdrawal of state and governments from „father state and full services providing model“ to a merely „activating state“
- More decentralization, regionalisation and localisation
- changing markets and education systems
- new ICT technologies, „black box“ surveying
- increasing importance of GSDI / NSDI
- blurring borders of disciplines, loss of monopoly (also in our survey profession)
- increasing role of NGO's as „salt in the soup“ (Prof. F. Nuschele)
- outstanding importance of disaster and risk management

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### Sustainable „inclusive City“

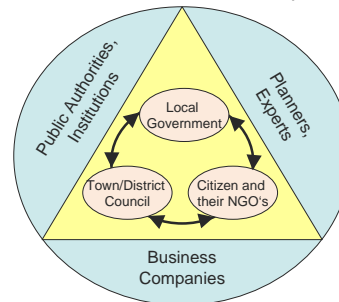


Fig.: The growing importance of the local level against increasing civil society and activating state

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### About the role and consequences of NGOs against the global challenges

The example MDG:

„One can praise the MDG-declaration of the year 2000 because it flushes billions of dollars into the development accounts. But you can read the document also from a different view. It produces the suggestion to the world that in principle it is like a child's play to reduce global poverty as long as you put much money enough into the misery regions of the world. In only 15 years – so the MDG's hope five years ago! – should have been healed the global disease, which was at least for more than 50 years nearly resistant to all therapies.“

Arne Perres in Süddeutsche Zeitung 15.09.2005

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„It is very dangerous or even contraproductive if the engagement of the global community is limited to naive optimism and a pure belief in dollars. This can be called an ‚utopian nightmare‘. Poverty can be fought successfully only by a long-term therapy. Besides of more money, all states both in the north and in the south should move from the summits into the ‚low lands of reality‘ and practice.....“

Arne Perres in Süddeutsche Zeitung 15.09.2005

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## What does this mean for professions like surveying and for NGO?

- Professions and professionals are more familiar with the 'lowlands of reality', they are closer to local problems and people and have the skills to help
- The sometimes overestimated and very often themselves overestimating NGO should try to become a relevant part and vital partner of public – private – partnership by reliable attitudes and high competence in theory and practice. But: they should keep their character of a critical main actor of civil society.

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## Conclusion

- NGO should urge the states and national and international donors to help implementing the MDG. The current problem in the Spanish enclave Melilla and the former ones in Italy show very clearly that it is in the urgent interest of all!
- Above that especially NGO and their members who are professionals in different fields should increase their engagement of social and technical contributions to the fields of
  - networking and crossing the borders of minds and interests
  - civil society and 'inclusive' or participatory regional, urban and rural planning and development

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... to the fields of

- subsidiarity and strengthening the local level, ie. municipalities and villages
- secure tenure and access to land and natural resources
- sustainable development
- sound land administration, functioning land markets and respective reliable institutions (new institutional aspect)
- education, capacity building and CPD incl. standards and mutual recognition
- many other activities like agriculture and forestry management, nutrition, health care, HIV / Aids precaution, gender issues espec. women etc.

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Then NGO and the professionals behind it will get high reputation and an influential role in politics and society independent of their not always much estimated and welcomed lobbying!

The engagement is for human being, for environment, for sustainable development, for „building a better, for building our **one world**“!

The profession of survey and surveyors should feel and act as guarantees and as custodians of democracy, secure property rights and of sustainable development!

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## 2. Can FIG represent surveyors identity, sociopolitical role and technical tasks on the one hand and meet the hopes and demands of politics and society on the other hand?

A SWOT-analysis (S = strength, W = weakness, O = options and T = threats) is the best approach for finding the right answer. Each member from time to time and each applicant for FIG-membership should try to do this analysis as well – and also each FIG-council and the FIG-commissions have to give an answer to these questions.

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## FIG SWOT-analysis

<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>- high engagement of functioners and members</li> <li>- high reputation and attractivity</li> <li>- present in more than 100 countries</li> <li>- leading survey representative (incl. business sector)</li> <li>- representation of all branches (state, private...)</li> <li>- providing standards and guidelines for quality of education and professional ethics etc.</li> <li>- contributions to good governance and institutional framework</li> <li>- .....</li> </ul>	<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>- not everywhere adequate education level</li> <li>- weak representation in planning activities</li> <li>- not enough geodetic university level and no/less tradition and not enough evidence of surveyors in some countries</li> <li>- due to honorary posts and lack of money there is no quick „business like-handling“ possible</li> <li>- still too European and too much northern hemisphere</li> <li>- different sizes and activities of commissions</li> </ul>
<p><b>Options</b></p> <ul style="list-style-type: none"> <li>- high competence in GIS for enlarging activities</li> <li>- bridging the fields and getting win-win-aspects (e.g. GIS + land management etc.)</li> <li>- influencing political decisions on national aspects of surveying</li> <li>- patronages of rich members for poor member applicants</li> <li>- .....</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>- closing of geodesy at universities</li> <li>- not enough students in Western Europe</li> <li>- study of „second choice“ (minor quality of students?)</li> <li>- financial weakness of esp. African members</li> <li>- instable or weak conditions for regional events in many countries</li> <li>- language problems and language proud</li> </ul>

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Irrespective of still some deficits and weaknesses in e.g. geographical and representation in technical fields or on educational level my answer after seven years of prominent functions and responsibilities in the FIG-council and after many visits, discussions and meetings is very clear:

1. FIG can and does represent the identity, sociopolitical role and the importance of technical contributions in a special visible and both politically and technically efficient way. This is clearly demonstrated by the output of our work like WW, conferences, publications and by the attendance of outstanding speakers from UN or science communities and politicians or by the strong support of national governments as we can experience it at the moment for the FIG Congress 2006 in Bavaria.

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The best answer for surveyors are the not ending applications of member associations as it had just happened with the big country and new member IRAN or with academic, affiliate and corporate members.

2. Obviously FIG can meet the demands of international or national communities / state agencies / universities etc. because FIG expertise and experts are not only asked for by several UN-agencies but also by a lot of national institutions and offices in the wide range of surveyors functions as they are described in the annual review 2003 – 2005 of FIG. FIG additionally plays a crucial role within the sister organisations and the geospatial information societies: FIG is chairing both the Joint Board of Geospatial Information Societies and the UN Habitat Professionals Forum!

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One really can say:

**„FIG is the mother of all surveying and surveyors!“**

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My goal and philosophy as the current FIG president are:

„Against the above mentioned global, continental and national challenges, threats and chances and the aimed role for professions, professionals and NGO in general and for surveyors in special we should aim in our education and practice at **„well grounded specialized generalists“** with skills in theory and practice.

### 3. What's the role of CNG?

Against the background of FIG-Community activities and referring to the global ‚state of art‘ and according to its strong and comfortable condition and committed to FIG ideals as **founding member** CNG should

- represent and strengthen the profession in Italy in a wide range of activities (education level, capacity building, technical fields, legal, business and organisational / institutional aspects...) including showing commitment to sociopolitical and environmental challenges
- inform its members on global and esp. professions trends
- demonstrate surveying and surveyors being pillars and indispensable parts and partners of democratic and sustainable societies and states

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- cooperate and communicate within FIG and with all FIG members thus supporting the „spirit of FIG“ as a family and helping others
- send representatives to FIG-commissions and offer being host of FIG events
- help increase FIG memberships by encouraging professional associations to join FIG or by supporting to build up professional organisations before
- spread over the idea of a well educated surveyor who is capable to play a crucial role in society
- As I have understood this is the main idea and objective of the establishment of the Mediterranean Association! I welcome this establishment and expect that this informal regional body will give important incentives to its members and to FIG and will possibly even bring new members to FIG

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President Holger Magel, FIG, and President Piero Panunzi at the CNG Headquarters in Rome during the visit of FIG President in February 2005

### FIG Members (May 2005)

**Member associations**

Country	Member Association
Algeria	Association Algérienne de Géomètres
Argentina	Asociación Argentina de Ingenieros Topógrafos
Australia	The Institute of Surveyors, Australia / The Australasian Institute of Surveying and Mapping
Belgium	Association Belge des Géomètres / Belgische Vereniging van Landmeter en Verrekening
Bolivia	Asociación Boliviana de Ingenieros Topógrafos
Brazil	Associação Brasileira de Engenharia e Topografia
Canada	Association of Professional Surveyors of Canada
Chile	Asociación Chilena de Ingenieros Topógrafos
China	China Association of Geomatics Engineering
Colombia	Asociación Colombiana de Ingenieros Topógrafos
Costa Rica	Asociación Costarricense de Ingenieros Topógrafos
Cuba	Asociación Cubana de Ingenieros Topógrafos
Ecuador	Asociación Ecuatoriana de Ingenieros Topógrafos
France	Association Française des Géomètres
Germany	Deutscher Ingenieurverband für Vermessungswesen
Greece	Ελληνική Ένωση Τοπογράφων Μηχανικών
Hong Kong	The Hong Kong Institute of Surveying Engineers
Hungary	Hungarian Association of Surveyors
India	Indian Association of Surveyors
Indonesia	Asosiasi Geomatika Indonesia
Italy	Consiglio Nazionale Geometri
Japan	Association of Surveyors of Japan
Korea	Korean Association of Surveyors
Latvia	Latvian Association of Surveyors
Lithuania	Lithuanian Association of Surveyors
Malaysia	Malaysian Association of Surveyors
Netherlands	Netherlands Association of Surveyors
Norway	Norwegian Association of Surveyors
Poland	Polish Association of Surveyors
Portugal	Associação Portuguesa de Engenharia e Topografia
Romania	Romanian Association of Surveyors
Russia	Russian Association of Surveyors
Slovakia	Slovak Association of Surveyors
Slovenia	Slovenian Association of Surveyors
Spain	Asociación Española de Ingenieros Topógrafos
Sweden	Swedish Association of Surveyors
Switzerland	Association of Swiss Surveyors
Taiwan	Association of Surveyors of Taiwan
Turkey	Turkish Association of Surveyors
USA	Surveying and Mapping Society of America
Vietnam	Vietnam Association of Surveyors
Yugoslavia	Association of Surveyors of Yugoslavia

### Activities 2003-2005

**Commission activities**

The new members of the Commission for the Education of the Surveying Profession (CEP) met in Rome, Italy, on 25-26 October 2003. The Commission agreed to hold its first meeting in Rome, Italy, on 25-26 October 2003. The Commission agreed to hold its first meeting in Rome, Italy, on 25-26 October 2003. The Commission agreed to hold its first meeting in Rome, Italy, on 25-26 October 2003.

**Commission 1 Annual Meeting 2004**

The Commission 1 Annual Meeting 2004 was held in the Hotel Concordia in Palermo, Sicily, Italy, on 14-15 September 2004.

**Commission 2 Annual Meeting 2004**

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**Commission 3 Annual Meeting 2004**

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**Commission 4 Annual Meeting 2004**

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### FIG Definition of the Functions of the Surveyor

The new definition of the functions of the surveyor was adopted by the FIG General Assembly in Athens in May 2004.

**Summary**

A surveyor is a professional person with the academic qualifications and technical training to conduct one or more of the following activities:

- 1. To determine, measure and improve land, three-dimensional objects, points, lines and trajectories.
- 2. To provide and manage land and geographically related information.
- 3. To use that information for the planning and efficient administration of the land, the sea and air, distribution of resources, and to conduct research into the above activities and to develop them.

**Detailed Functions**

The surveyor's professional tasks may include one or more of the following activities which occur either on, above or below the surface of the land or the sea and may be carried out in association with other professionals:

1. The determination of the size and shape of the earth and the measurement of all data needed to define the land, position, shape and extent of the part of the earth and measuring any change therein.
2. The establishment of a datum or base and the use of the datum for the measurement of physical features, structures and engineering works on, above or below the surface of the earth.
3. The development, testing and calibration of sensors, instruments and systems for the above-mentioned purposes and for other surveying purposes.
4. The application and use of spatial information from other sources.
5. The determination of the position of the boundaries of public or private land including national and international boundaries, and the application of these tasks with the appropriate authorities.
6. The design, implementation and administration of geomatics information systems (GIS) and the collection, storage, analysis, presentation and dissemination of data.
7. The application of GIS, including the identification and measurement of land and marine resources and the use of such data in the planning of development in urban, rural and regional areas.
8. The planning, identification and implementation of property, whether urban or rural and whether land or buildings.
9. The assessment of value and the management of property, whether urban or rural and whether land or buildings.
10. The planning, implementation and management of vaccination systems, including the administration of such.
11. The application of the foregoing activities to various projects which may include the relevant legal, economic, environmental and social aspects affecting each project.

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