

O. Univ. Professor Dr.-Ing. Holger Magel
President of FIG
at DdL Annual professional Meeting 2004 in Nyborg, 30 January



The FIG Agenda

- some remarks and insights

“The overview of current surveyors activities and tasks is sufficient but the prospect of future is even more exciting with regard to the incoming variety and area of tasks and new chances. The ways of surveying will change. A lot of measurements will in future be carried out by machines or people with lower education. But at every time new methods and technologies must be developed, commanded and used ...

The education must consider and provide more theory and more general fundamentals ...”

Prof. Karl Rinner, Austria
one of the last universal
surveyors and geodesists
on 8 Nov. 1968* at
University Bonn, Germany

* K. Rinner: Stand und Ausblick in der geodätischen Forschung und Lehre. ZfV 1969/ Heft 6

The Professional Challenges



The spatial information revolution and the evolving land management paradigm in support of sustainable development have had many influences on education and professional structures over the last two decades. Professions such as surveying are being re-engineered and re-invented to accommodate the spatial information revolution, while endeavouring to maintain traditional services. ...

The profile of the surveying profession in the third millennium will include a mix of technical surveying and mapping professionals, business practitioners, spatial data managers, land and environmental resource managers (in public as well as private sector), and legal and financial consultants on land management matters.

“SHAPING THE CHANGE”: IMPACTS ON SURVEYING AND SURVEYORS



UN Millennium Development Goals, Rio, Istanbul and Johannesburg Declarations
Agenda 21, Secure Tenure, Access to Land, Gender Issue, Civil Society, Good Governance, Poverty Reduction
Globalisation - New Technologies – New Networks
UN- and FIG-topics: urban-rural interrelationships (for) sustainable development,
Spatial Information Management, Land Management etc.
National politics and policy

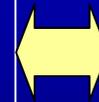
main fields of challenges to surveyors

Property (classical survey activities)	≅	Definition and Identification of physical, legal, economic rights and of their changes, land laws and policy, tenure systems, land reform, land market
Land incl. water (≅ scarce common resource)	≅	sustainability, natural environment and entity (land, water, marine, mineral resources, fauna, flora, aesthetical beauty), earth’s shape and atmosphere
Construction (liveable and just world)	≅	housing policy, sustainable human settlements, urban and rural development and infrastructure, economic, ecological and social growth

surveyors responses by

land and resource management, land administration, spatial and land use planning, land registration and recording (cadastre), engineering survey, (mobile) GPS and GIS-technologies, 3-D measurements, LIS, SDI, NSDI (“digital earth”) photogrammetry, remote sensing, cartography, hydrography, satellite imaging systems and mobile mapping, measurement of gravity field, atmosphere and shape of earth, village, landscape and town planning, urban and rural land readjustment and land consolidation, land markets, land banking, land valuation, taxation, real estate management, construction economics and management, environmental impact assessment, construction procurement, cost and project management, disaster management, monitoring, public-private-partnership and entrepreneurship, participatory planning, conflict solution, education, capacity building,

**FIG-Vision:
Managing of**



Conclusion:

FIG-Motto 2003 – 2006 “Shaping the Change”
„Shaping the change“ only possible by changing and broadening surveyors profession, activities and capacities

**“SHAPING THE CHANGE”:
IMPACTS ON SURVEYING AND SURVEYORS**



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“SHAPING THE CHANGE”: IMPACTS ON SURVEYING AND SURVEYORS



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“SHAPING THE CHANGE”: IMPACTS ON SURVEYING AND SURVEYORS



surveyors responses by

FIG-Vision: Managing of Property Land Construction

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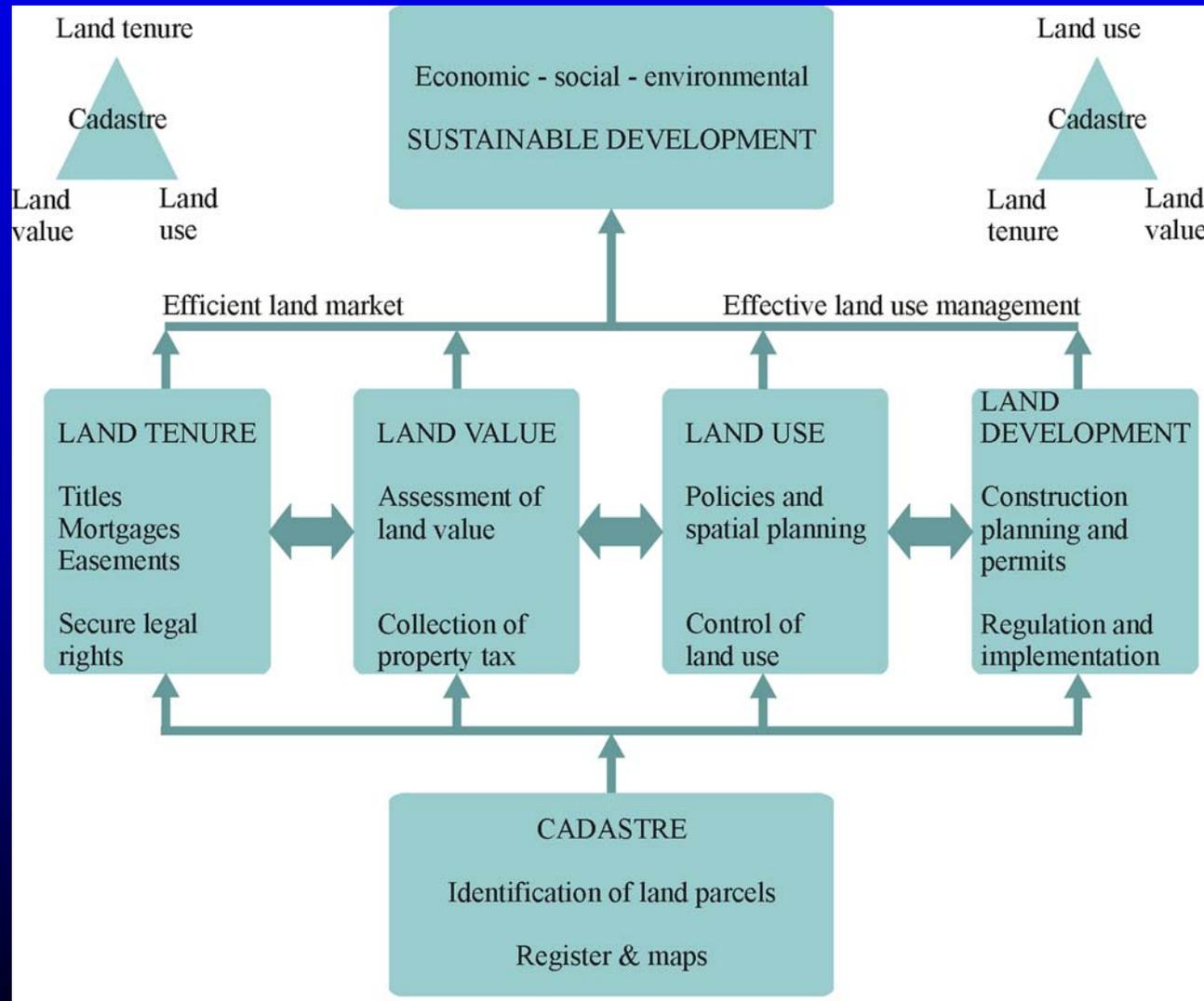
Sustainability and the status of geomatics



Since the Rio Conference in 1992, **sustainability has been the central principle of international development**. In August 2002 the World summit on sustainable Development (WSSD) was held in Johannesburg and **geomatics** was unconditionally recognised as a **significant part of the solution to making the world more sustainable**. In the final WSSD Plan for Implementation there are many references, which will need geomatics input, including need for:

- Land reform;
- Land management;
- Monitoring the environment;
- Planning for sustainable developments;

A Global Land Administration Perspective



Source: Prof. Stig Enemark, Head of School of Surveying and Planning Aalborg University, Denmark, Intergeo, Hamburg, 12 September 2003

FIG Commissions



Commission 1 – Professional Standards & Practice

Commission 2 – Professional Education

Commission 3 – Spatial Information Management

Commission 4 – Hydrography

Commission 5 – Positioning and Measurement

Commission 6 – Engineering Surveys

Commission 7 – Cadastre & Land Management

Commission 8 – Spatial Planning & Development*

Commission 9 – Valuation and the Management of Real Estate

Commission 10 - Construction Economics and Management

* The very latest challenge for Commission 8 and others:
"Partnership with the UNEP on risk management for preventing environmental catastrophes and especially in post-conflict areas"

FIG Responses to the needs of practice and politics



- Continuing Professional Development, 1996 (FIG-Publication no. 15)
- Statement of Ethical Principles and Model Code of Professional Conduct, 1998 (FIG-Publication no. 17)
- The Bathurst Declaration on Land Administration for Sustainable Development, 1999 (FIG-Publication no. 21)
- FIG Agenda 21, 2001 (FIG-Publication no. 23)
- Mutual Recognition of Professional Qualifications, 2002 (FIG-Publication no. 27)
- Business Matters for Professionals, 2002 (FIG-Publication no. 29)
- The Nairobi Statement on Spatial Information for Sustainable Development, 2002 (FIG-Publication no. 30)
- Land Information Management for Sustainable Development of Cities. Best Practice Guidelines in City-wide Land Information Management, 2002 (FIG-Publication no. 31)

FIG Responses to global mainstreams



- Professionalization of FIG (FIG office, better PR, updated definitions, new corporate members, ...)
- Annual Working Weeks with full range of surveyors' activities and responsibilities
- Regional Conferences with special topics:
 - 2001: Nairobi: Spatial Information for Sustainable Development
 - 2003: Marrakech: Urban-Rural Interrelationship for Sustainable Environment
 - 2004: Jakarta: Surveying the Future – Contributions to Economic, Environment and Social Development
 - 2005: South or Central America
- Strengthening the Cooperation with UN-Authorities
- Cooperation with Sister Organisations

Five Guiding Principles for Securing the Future of Surveying and Surveyors



in the point of view of a World Bank Manager

1. Strengthening of self confidence. Surveyors are the obstetrician of geodetic referenced data and points!
2. Better information policy, public relations and marketing strategy. Especially the political decision makers must be contacted and informed about the needs and benefits of surveyors work like Geoinformation systems.
3. Extension of surveyors networking by a rich variety of partnerships
4. Smooth start of international activities backed by the public authorities
5. Broadening of the range of activities with new strategies, products, services and business plans; excellent education; use of modern technologies and finally: **Be courageous and open to the change and the future**

Prof. Reinhold Wessely, World Bank
on 8 April 2003 at 8th Austrian Geodetic Days in Wels/Austria



The International Federation of Surveyors and its current council and commissions are strongly underlining these aforementioned Guiding principles. The principles are an integrated part of FIG's philosophy, strategy and work plans. All surveyors and surveyor associations of the world, either practitioners, business men or academics, can therefore trust in, that their global organisation FIG is a reliable and very competent partner in shaping and thus securing the future of surveying and surveyors.

FIG President Prof. Magel on occasion
of the DdL Annual Conference

January 2004