Facing the Challenges - Building the Capacity

"I have been increasingly interested in and appreciative of the contribution of surveyors — the modest and often unsung heroes of civilisation."

The words of Marie Bashir, Governor of New South Wales, Australia, during her opening address to the FIG world congress held from 11th to 16th April 2010 at the Sydney Convention and Exhibition Centre SCEC in Australia. What a welcome! All honour to the profession; but also, as Ms Bashir went on to say, to the aboriginal peoples whose land this once was.

Ms Bashir continued, "I wish to record my respect for the traditional owners of this land upon which we gather: the Gadigal people of the Eora nation, their ancestors and descendants; indeed, for all aboriginal Australians who have nurtured our great continent for tens of thousands of years". So all honour due too to the aboriginal people already living on the continent before it was colonised; an act supported by surveyors. An impressive ‘Welcome to the Country’ was offered by members of the Cadigal tribe, including a reference to the ‘songlines’ that connect people and land and mark routes. "Surveyors are the custodians of an enabling technology that is critically important to our future. Surveyors should take a leading role, not only in monitoring climate change, but in explaining it to the broader public. You operate well in harsh conditions." This from Tim Flannery, one of Australia’s leading thinkers and writers, and chairman of the Copenhagen Climate Council; an internationally acclaimed scientist, explorer and conservationist, and keynote speaker at the FIG Congress in Sydney. President Stig Enemark and congress director Paul Harcombe had concocted a very good start for this congress.

Biggest Ever
The 24th International FIG International Congress drew more than two thousand participants from more than a hundred countries to the SCEC. This event was the biggest FIG Congress ever, and a truly global event. More than eight hundred papers were presented in four plenary and a range of parallel technical sessions, the latter organised corresponding to the ten FIG Commissions, or combinations thereof. There were sometimes twelve parallel sessions running simultaneously on equally interesting topics, which made selection difficult. There were also around 48 exhibitors displaying their latest products and services. Exhibitors were well organised to explain their products and services during the four days of congress.

UN Partnership
Stig Enemark’s presidency has seen the FIG further evolve from being a land surveyor/technical/data acquisition professional organisation to a land governance/capacity building/data management organisation focused on key twenty-first-century challenges: climate change, natural disaster, environmental degradation, rapid urban growth and eradicating poverty. The FIG has thus extended its partnership arrangements with various UN agencies, especially in developing pro-poor land administration
and related land governance. The theme of this year's Congress, 'Facing the Challenges - Building the Capacity', was clearly reflected in the key (plenary) sessions on land governance in support of the MDGs, spatially-enabled society, land governance for sustainable development, and 'the big challenges', but also in sessions relating to Commission 2 (professional education) and Commission 7 (cadastre and land management) that addressed respectively:

- changes in land-survey education (from acquisition to management and use of data) and developments in e-learning and
- development of new concepts and corresponding low-cost and flexible alternatives to establishing land administration systems, in particular in developing countries; an example was given in Sydney with the launch of a so-called Social Tenure Domain Model.

**World Bank**

It was impressive to see how successful FIG has been in terms of its society-benefit-orientation and involvement/association with United Nations and World Bank activities. This was confirmed by the World Bank representative, who complimented Stig Enemark for having been instrumental in this respect. The more technically-oriented sessions made clear that the technical translation of social aspects in land administration alone constitute a challenge.

One plenary session addressed Land Governance in Support of the Millennium Development Goals by Keith Bell, and subsequently Tony Burns of Land Equity International on the World Bank / Land Equity International Manual for assessing land governance: Land Governance Assessment Framework - LGAF released in March 2010. LGAF is based on the Public Expenditure and Financial Accountability Framework (PEFA) and defined by five themes: Legal and Institutional; Land Use Planning, Management and Taxation; Management of Public Land; and Public Provision of Land Information; Dispute Resolution and Conflict Management. LGAF has been tested in five countries: Indonesia, Tanzania, Ethiopia, Kirgizstan and Peru. The new FIG Publication No. 45 is a result of the joint FIG-World Bank Conference on Land Governance in Support of the Millennium Development Goals: Respecting New Challenges held at World Bank Headquarters in Washington DC in March 2009. It includes a report identifying the highlights of the conference, the ways forward, and a declaration produced as a conclusion of the conference and presented by President Enemark in Sydney.

**Spatially-enabled Society**

The road ahead leading to a spatially-enabled society was a big topic for this congress. Prof Abbas Rajabifard identifies a Spatially Enabled Society as one in which a society manages its information "spatially" using a spatial component. The creation of economic wealth, social stability and environmental protection in line with MDGs could be achieved through the development of products and services based on spatial information collected by all levels of government. This required data and services to be accessible and accurate, well-maintained and sufficiently reliable for use by the majority of society which is not spatially aware. Prof Rajabifard talked about a transition from Spatial Information Management to Managing Information Spatially. In support of this, Santiago Borerro described a need for strong links between politics and the numerous disciplines of the surveying profession to enable better land governance. And FIG needed to play a leading role in relation to this.

Warwick Watkin (together with Pedro Harris) presented a practical approach in the State of New South Wales in Australia, referring to Location Intelligence (LI) extending traditional Business Intelligence (BI) through the use of GIS technology. There were interdependencies between the fundamental principles of surveying, namely measurement and position, and the empowerment that technology has lent to the interpretation and application of SDI elements inextricably linked to position. The first results of a Short-term Task Force on 'Spatially Enabled Society' were also presented in Sydney, chaired by Daniel Stuedler. Daniel, together with Jürg Kaufmann, co-authored the famous FIG 'Cadastre 2014' concept, which has been elaborated by FIG into the Land Administration Domain Model in ISO Technical Committee 211 on Geographic Information. A specialisation of this, the Social Tenure Domain Model, was presented in Sydney.

**The Big Challenges**

A plenary session on 'The Big Challenges' featured an excellent presentation on climate change and land governance, with a case in Aceh, Indonesia. There are five million new urban residents every month in the developing world. Rising sea level threatens hundreds of millions of people living in deltas. Cities have a key role in adaptation to climate change. UN-Habitat's Global Land Tool Network is a key resource in relation to this, as stated by Mohamed El-Sioufi from this organisation. The impact of climate change was very well illustrated in Sydney during a special seminar looking at issues confronting so-called 'Small Island Developing States'. These island nations face special challenges as they struggle with land-governance issues associated with achieving the Millennium Development Goals. The tsunami that hit Samoa and other Pacific island countries in September 2009 produced graphic evidence of the vulnerability of coastal communities.

Another important presentation by Paul Munro-Faure (FAO) on Good Land Governance gave exciting views on global pressure on natural resources, a transparency international corruption barometer, the importance of governance of tenure, emphasis on land policy with partnership, large-scale agricultural investment, and voluntary guidelines. Daniel Fitzpatrick gave a most interesting presentation on the 2010 United Nations Guidelines on addressing land issues after natural disasters. The tsunami that hit Samoa and other Pacific island countries in September 2009 produced graphic evidence of the vulnerability of coastal communities.

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Matt Higgins described how a positioning infrastructure across Australia will deliver productivity gains with potential cumulative benefit of USD67 to USD124 billion over the next twenty years in agriculture, construction and mining alone. This could be in support of future cadastres with global coverage, object-oriented (as stated in Cadastre 2014) with survey accuracy and 3D/4D.

**Networking**

There was a successful forum involving forty chief executive officers of national mapping and cadastral agencies from around the world, calling on FIG: to promote the documentation and identification of the value of spatial information for social and economic development; and to encourage its Commissions to include this activity as a key aspect of their work programmes. A meeting also took place of the Joint Board of Geo-Information Societies, the FIG Young Surveyors network, and the FIG...
standards network, among others. Visits to the homes of colleagues in Australia fostered good feeling, and the gala dinner was in straightforward Australian style.

Concluding Remarks
The FIG is primarily a professional organisation although, especially in relation to land administration, it has become the key international platform for the exchange of information and knowledge. The eight new publications launched in Sydney are of great interest to the profession and have received wide recognition. They once more illustrate FIG’s position in innovation and development of the profession, showing continuing alignment with developments in other professions, the environment and society. The congress in Sydney was a big success - for the profession, for the Federation and especially for its president, Stig Enemark, who has promoted FIG globally and achieved clear recognition for the profession. The congress attracted top world experts and eminent persons.

As the president remarked in his closing speech, land professionals need to increase their role in developing sustainable cities. They need to adopt a more engaged and leadership role in the area of climate change. And the partnership with UN agencies is the key to recognition and enhancing the status of the global surveying community, which will in turn lead to more effective solutions to global land issues.