

TECHNICAL CHAMBER OF GREECE: HIGH LEVEL INTERNATIONAL INTER-DISCIPLINARY CONFERENCE: INTERNATIONAL FEDERATION OF SURVEYORS 140 YEAR ANNIVERSARY AND HAND OVER EVENT

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Working with FIG from 1993-2018 on socio-economic innovations as an academic, public figure and a partner

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It is a great honor to be invited to speak at this important event. I am not a land surveyor, I am a social scientist, but 25 years ago land surveyors invited me into their world and I am still part of it. Thank you. I had no idea 25 years ago that one day I would be awarded the title of FIG Honorary Ambassador, by FIG President Chryssy Postiou, during the 2015 FIG Working Week in Sofia, Bulgaria. I was the first-ever person to receive the title. It was given because of my contribution to the global land surveying industry while leading the United Nations UN-Habitat facilitated Global Land Tool Network. Partners in the work of the network, with FIG playing a prominent role from the beginning in 2006, jointly developed innovative land tools. Receiving such an honor from FIG was a personal highlight in my career. In this speech I will describe some of the details as to why FIG honored me in this way.

The opening session of this conference set the bar high for us. We all have a role working out how to address climate change in our generation. I am going to talk about how professionals can collaborate to address this issue. This presentation will hopefully give some ideas on how to bring about change through collaboration at national and global levels.

The story I am going to describe is about how pro poor land administration was not on the global agenda 25 years ago – but it is now front and center. How fit for purpose land administration is now a common agenda and we are starting to cover the 70 percent of people in developing countries who are without land documents. And FIG was key to making this happen.

The story of my work with FIG over the last 25 years shows you how FIG leaders all stand on the shoulders of the giants of their predecessors and hand on the baton. However, it is also the story of how global socio-economic innovation can take place using soft systems thinking based on Checkland (1981) and Ortiz (2013) about organizational theories of change. This approach emerged over time as the change model used by the Global Land Tool Network (GLTN) partners, including FIG, to catalyze change and develop new tools. The story starts before GLTN and then blossoms and becomes stronger and stronger as GLTN matures.

The GLTN change model was all about catalytic levers of change that can be used to influence complex situations such as global history and land. These catalytic levers include: ‘moments’ or events where ‘shared meaning’ is created iteratively through a contested or uncontested re-patterning of conversational themes

between increasingly diverse actors; 'champions' to engage in and lead debates; 'communicative interaction' where dialogue and re-negotiation between different parties takes place and 'shared messages' are created; and 'capacity building' as a catalytic activity to solve problems. Finally, there is the creation of specific 'intellectual devices' such as the land tools, which are catalytic levers for the conscious exploration and understanding of a situation and as part of the way to solve problems. As you listen to my history as an academic, a public figure and a partner you should hear all these catalytic levers at play and how they were part of the GLTN-FIG history of engagement.

In 1993 South Africa became a majority ruled country. I was awarded a survey industry grant, by the South African land surveyors, to investigate the kind of changes in the land registration system that the new majority government would want. I had met Professor John McLaughlin, a leading land administration thinker, when he was a visiting professor to the Land Surveying Department, University of KwaZulu-Natal in the 1980s. In 1993 he advised Professor Herman van Gysen of the KwaZulu-Natal Land Surveying Department that I might be able to help support the industry during a time of large-scale social change in South Africa. These are examples of how leaders, champions and thinkers in land administration can play a critical role in supporting the industry to move an agenda forwards.

My research, to assess the range of options for the industry, was done working with the South African and Namibian land surveyors. Namibian land surveyors were still part of the South African Council at that time. It also involved holding closed workshops for land surveyors to re-think their options. This was my first exposure to land surveying and it was a huge learning curve for me – it's a complex subject. We contacted the FIG office, and Peter Dale who was President at that time, to ask for support. In a pre-Google age with no access to international land administration documents, Peter Dales GUIDELINES FOR THE IMPROVEMENT OF LAND REGISTRATION AND LAND INFORMATION SYSTEMS IN DEVELOPING COUNTRIES, produced under the auspices of UN-Habitat in 1990, was a goldmine. I learned so much from it. I read about the work that had been done around the globe to fix land administration systems in developing countries.

It was during this work for the industry that we first developed a socio-economic innovation and new way of approaching land administration. In simple terms, we found that the South African cadastre set up during apartheid was not fit for purpose and it could not serve the majority of the population. I worked with the industry to find solutions to make land administration pro poor yet inter-operable with the national system. Approaches included adapting the land information system, moving away from freehold as the only option to a continuum of land rights, upgrading informal settlements and bringing them incrementally into the land administration system, and the development of new approaches to decentralized land registration among other things. As you can imagine many of the South African land surveyors were quite uncomfortable with the new ideas but some of them supported the ideas.

However people felt about the ideas, the solutions we developed were very robust. The work went into law. In South Africa it underpinned the Development Facilitation

Act of 1995 to deliver a million houses. In Namibia it underpinned the Flexible Land Tenure Act of 2012 for formalizing land rights in informal settlement. This demonstrates the importance of innovative approaches to land administration for newly emerging democracies.

I presented my findings to the global land industry at a FIG meeting and international conference in Fredericton, New Brunswick, Canada. There I met some of the global FIG leadership for the first time. And I met with John McLaughlin again – the man that who had kick started my career in land administration. The FIG leadership gave me extremely positive feedback on my presentation about how land administration needed to serve the majority. This was my very first opportunity to be part of an international conversation about land administration with people from all over the world. I can really say that it was FIG that launched my international career.

I was later privileged to go to the Cambridge National Mapping conference where I heard Peter Dale speak. I remember being inspired about the role of the land surveying industry and the historical role of FIG as global leaders. I also remember him saying that he as President was “standing on the shoulders of giants”. Over the next 25 years I came to understand just what that meant in terms of the way FIG mentors and elects giants and that they build on the foundations laid by their predecessors. I also came to value this behavior in a GLTN partner.

I was privileged to meet and have informative discussions with other FIG global leaders in the 1990s, people like Don Grant, Ian Williamson, Dick Groot, Bill Robertson, Paul van der Molen, Paul Munro-Faure, Jaap Zeverbergen, Chrit Lemmen, Peter Byrne and others. Later in my academic career I even got to write academic peer reviewed journal papers with some of them and they all listened to my ideas about the need for pro poor land administration approaches.

As an academic I attended many FIG meetings and in the pre google age I would carry home papers by the suit-case load for myself and my students to study and try and work out how to fix our land administration systems.

At a FIG meeting in Harare in the early 1990s FIG brought together the head of land in FAO, Jim Riddell and my predecessor in UN-Habitat, Sylvie Lacroux. These are the 2 major UN agencies in the UN system dealing with land. Jim was the rural focal point for land in the UN system and Sylvie the urban focal point. Yet, this was the first time they had ever met or even had a conversation. FIG by bringing them together was certainly ahead of its time in terms of building partnerships. I was fascinated to hear for the first time in a conference about land and human rights, particularly housing rights and women’s land rights.

At the FIG meeting in Buenos Aires in 1996 – where I was promoting Ikusasa, an international land conference being held in Durban, South Africa, I met all the chairs of the different commissions for the first time. I was struck by the depth and range of technical knowledge linked to land and their passion for their subjects as I met each in turn.

At Sun City, South Africa, in 1998, Chrit Lemmen and I connected. He shared with me recently that Sun City was the light bulb moment for him when he started to understand that pro poor land administration approaches were needed. When I joined the UN, he and I worked extensively over the next 20 years on the Social Tenure Domain Model – but more about that later.

All the FIG leaders I had been meeting were men. At that point FIG was working hard to get connected with the UN and Ian Williamson's paper on the Bogor Declaration tells that history. FIG wanted to hold a joint meeting with the UN. The UN wanted FIG to have women in their delegation. FIG invited me to be part of their delegation giving me an opportunity of a life-time to join global inter-governmental discussions. I was invited to the UN-FIG Inter-Regional Meeting of Experts on the Cadastre, which developed the Bogor Declaration in 1996. This was my first exposure to land departments from Asia, including China. I began to have an increasing understanding of the importance of global meetings and the issue of land administration and this would lay a foundation for my own work once I joined the UN. We all take these global meetings on land administration for granted now because of the foundations FIG laid then. The Bogor meeting was also the foundation stone of what became the much bigger UN-FIG Bathurst meeting but more about that later.

As an academic in a land surveying department I participated in the major changes that happened in South Africa, with all the new thinking, challenges and opportunities of a country freed from apartheid. I was running an Msc program for mature surveyors from sub Saharan Africa. We used the many FIG and other papers I had brought home from conferences to try and work out how to make cadastral systems in Africa more effective and efficient. We identified key gaps in the land tools needed to deliver land administration for the majority of the population and the poor. These became the initial list of GLTN land tools and agenda when GLTN was started.

Also, out of these discussions emerged new thinking about what were better options for sub-Saharan Africa. In 1998 I was asked by the UN Economic Commission for Africa to produce a background paper for an Expert Group Meeting on the cadastre and GIS/LIS and the creation of geo-information for decision-makers. My paper challenged the use of unique parcels as the basic unit of data collection and proposed that a range of spatial units should be used as identifiers. The Surveyor General's at the meeting were not happy with the idea and one of them called me a revolutionary. Essentially that document became a foundational framework for what is known today as the Social Tenure Domain Model, a pro-poor GIS for all different types of tenures, which FIG has been deeply engaged with developing starting from 2006 up to today. But more about that later.

Using this thinking about moving away from parcels as the only option, I attended the meeting that created the UN-FIG Bathurst Declaration on Land Administration and Sustainable Development in 1999. FIG had called together the top thinkers from the global land industry to work out a way forward for effective and efficient land administration that would underpin sustainable development and serve a

wider group of people. Here I spoke passionately about how we had to move away from unique parcels as the only option for land administration systems and the needs of the poor and introduce pro poor land administration approaches. Professor Stig Enemark, who was later to become FIG President, told me a few years ago that this was the light bulb moment for him, when he realized that new approaches to land administration that could accommodate the poor were needed.

In 2003 I joined the United Nations. I became the Chief of the Land Tenure Section. After a while it became clear to me that most developing countries were struggling with their land administration systems. It was not just an African phenomena, it was a global phenomena. I took out the agenda of land tools that we had identified as gaps in my Master classes and started talking to partners about it round the world. The gaps were all large-scale land administration tools. I remember Klaus Deininger at the World Bank arranging for me to talk to the Land Thematic Group of the World Bank probably in 2005. Gaps they identified became incorporated in the GLTN agenda. Swedish Aid had found the gaps and were prepared, with Norway, to put in funds towards tool development.

Also as part of the preparation for the start of the Global Land Tool Network, FIG Paul van der Molen, as Chair of Commission 7 on Cadastre and Land Management, with UN-Habitat held two critical events, one in Asia and the other in Africa in 2005. The meetings promoted to potential GLTN partners the emerging thinking around the fact that we needed to develop a network of partners working on creating these 18 missing tools. Potential partners talked about the tool agenda and how partners were working in silos – with a major division between technical people on the one hand and the policy people on the other hand and that we needed to work together to develop optimal solutions

The Global Land Tool Network was officially launched at the World Urban Forum in Vancouver in 2006. And FIG was there at the outset. Professor Holger Magel was on the panel of partners at the very first GLTN networking event in Vancouver in 2006. The first partner meeting was held in Bergen in Norway in 2007 and Stig Enemark was present along with other global land partners such as the Huairou Commission, the Norwegian Refugee Council, organizations that FIG had never met with before. This is an example of how FIG Presidents hand on the baton to each other as Stig had taken over partnering with GLTN from Holger Magel – this is so important to stable partnerships. We got agreement that as partners we were going to work on the 18 GLTN land tools that were missing which would make land administration able to reach the majority of people in the world. A huge ambition. I privately thought it would take us 40 years but miraculously most of them have been completed by 2018 – 12 years - because of the dedication and hard work of partners over many years and donors predictably putting money on the table.

The next watershed moment was a speech-cum-debate I gave at a FIG meeting in Accra, Ghana in 2006. One of the 18 missing GLTN tools was a pro poor GIS which was not based on unique parcels alone but which was to be inter-operable with national systems. The Accra meeting included a plenary session that was a set of

speeches and a debate between myself and Chrit Lemmen about this issue. At that time he was starting his thinking about the Land Administration Domain Model and trying to decide if it could accommodate the whole range of land tenure types found. I used all the thinking that I had done 9 years previously for the UNECA paper on GIS/LIS and argued that unique polygons or parcels were not sufficient on their own and that additional forms of spatial units had to be introduced into LIS/GIS systems also to accommodate the different tenure types. I think Chrit was convinced, and certainly many Africans in the audience were convinced.

The next step along the road was a UN-Habitat Governing Council meeting in 2007 in Nairobi and Stig Enemark, now FIG President, and Chris Paresi of ITC attended. The three of us sat down and we said OK we are going to develop this pro poor GIS, we do not know how, but we have the vision. GLTN would put up the funds, ITC would ask Chrit Lemmen to do the job as part of his Ph.D and FIG would lend their brand, leadership and their intellectual capacity. Well it took us at least 5 years, if not more, to get to a public product. That is, 14 years from conceptualization to the first proto type.

Solomon Haile, and then Danilo Antonio, both land surveyors, led on the development of STDM from GLTN side. John Gitau and Solomon Njogu, Kenyan land surveyors and coders, who became part of GLTN, ultimately built the STDM software we know today. These are the people that made it happen and scale up. The Social Tenure Domain Model or STDM, as it became known, was initially only a model. Chrit developed the Land Administration Domain Model and the Social Tenure Domain Model (STDM) in tandem. These were registered with ISO in I think 2012. The STDM was also then developed into a software and a concept for participatory engagement and use by local communities. FIG undertook a number of reviews of the products and gave space for STDM presentation in many FIG forums. We need to celebrate this work. I must tell you that today it is being used all over the world by local communities. It is being used for managing disaster relief after earth quakes; for giving informal settlement residents land certificates, for supporting people to return to their homes in Iraq, to help manage palm oil plantations, for managing illegal high rise buildings, by chiefs managing peri-urban extensions into their customary areas, for monitoring the growth of land value in Congo, for mapping for physical planning by municipalities in Uganda – and even more.

During Stig's presidency we also saw serious support by FIG for the development of what became known as the Gender Evaluation Criteria (GEC). These can be used to assess the gender responsiveness of an existing large-scale land tool or to design one. This tool has been implemented by GLTN partners in over 30 countries, and FIG also participated in the design of the manual on how land professionals can use the GEC. Stig also made space for GLTN and STDM in FIG events – and this has become a tradition of partnership between GLTN and FIG to this day. I remember speaking at Stig's Presidents Session on STDM with Chrit Lemmen at the FIG Congress in Sydney in 2010.

Remember I said earlier about FIG presidents standing on the shoulders of giants and handing on the baton to each other. When Teo Cheehai took over from Stig in

2011, on the day of his election he said to me that he would make STDM a key part of his work program and he did. Teo finished what Stig had begun. This is exactly the kind of solid predictable partnership that is needed to engage in the long term. Tool development cannot happen over night – 2, 4, and in the case of STDM, 6-8 years is needed to get a robust product. FIG was there at the beginning of the STDM vision and has been on the road every step of the way right up till today under Chryssy.

Under Teo's presidency FIG was also a key partner along with a number of governments in the development of what became known the Costing and Financing of Land Administration Services (CoFLAS). He also made space for high level speeches to the plenary of the FIG Congress in Kuala Lumpur – I remember in a FIG plenary 2014 talking about how land administration is in the critical path of the sustainability of the planet and that we need to continue to innovate and develop new large scale land tools.

Teo also decided to support and push another important GLTN tool – the valuation of unregistered land for developing countries. I remember FIG working week in Rome in 2012 as a watershed moment when FIG stepped into the leadership on this one and said lets make it happen. FIG's brand, intellectual capacity and the support of professionals in FIG Commission 9 on valuation and real estate management, was key to getting other partners to buy into the process of developing the tool and for creating a product that the valuation profession considers credible. The chair of this commission, Steve Nystrom, was a key supporter of this work. When we started the work in 2012 some people thought it could not be done but Teo believed it was important. He handed on the baton to Chryssy and it was during her presidency this year – 7 years after we started - that the guidelines on the valuation of unregistered land for developing countries was launched by UN-Habitat, GLTN, FIG and RICS at the FIG Congress in Turkey. At this event Chryssy gave a key note speech drawing from her experience on this issue in developed and emerging countries, emphasizing how important valuation of unregistered land is for countries for economic growth, market development, and urban development.

This is an example of how handing on the baton between presidents and champions is vital for the successful completion of socio-economic innovations which require years of development. When Chryssy Postiou became FIG President in 2015 she oversaw a range of GLTN tools being further developed and finalized, aside from the valuation of unregistered land. Chryssy Potsiou and Gerda Schennach and I saw STDM being used in a slum in Nairobi where teenage girls with babies on their hips were using it, and moving the GIS and its satellite imagery backdrop around with complete ease. They were living in an old quarry and using it to negotiate their land rights with the state. During Chryssy's presidency FIG has continued to play a major role in the STDM board that runs it today and STDM is a key tool that is used to inspire FIG young surveyors. Also, during Chryssy's presidency the GLTN guidelines on Fit-for-purpose land administration was launched and has become widely discussed and implemented in a number of countries. Importantly during Chryssy's Presidency the leadership of GLTN was passed from me to Oumar Sylla and the FIG-GLTN partnership was

unbroken and got stronger. Of course all leaders have people that make things happen and Louise Frits Hansen played a key role for GLTN's work with FIG.

During my ten years as the head of the GLTN Secretariat I was privileged to also work with numerous academics and consultants associated with FIG who supported partners to develop tools. I am thinking of Chrit Lemmen who developed STDM as part of his PhD and worked with Stig Enemark and Robin McLaren on fit for purpose; Jaap Zeverbergen who developed the pro poor land registration approach and worked on land and conflict; Mike Barry who developed the underlying theory for the continuum of land rights and an evaluation framework for the continuum; Diane Dumashie who was key in the development of the Gender Evaluation Criteria; Tony Burns who developed the Costing and Financing of Land Administration Services; Mike McDermott and Matt Myers who developed the valuation of unregistered land; and Rafic Khouri on Muslim women's land rights.

And because this is a very special occasion for Chryssy at the end of her presidency; and because we are here once again being hosted by the Technical Chamber of Greece, I will describe in a bit more detail how Chryssy as an academic linked to FIG helped GLTN to develop an innovative land tool working with FIG as a partner during Stig's Presidency. In 2009 Chryssy worked on giving GLTN direction on how to upgrade informal settlements by undertaking case studies of Greece and Albania. As part of the work an Expert Group Meeting of officials from Greece and Albania was hosted here by the Technical Chamber of Greece. Many countries learnt a lot from Chryssy's UN-Habitat/GLTN publication on this work. For example it described how Greece has developed large-scale solutions to address informality and informal development in regard to non-compliance with spatial and urban planning regulations, or building permits. It also showed how the role of the private sector in Greece is key in making land management happen in terms of spatial and urban planning, cadastral surveys, rural land consolidation, environmental impact studies and the compilation of general urban plans and urban regeneration studies. Private sector lawyers, notaries, engineers, developers and real estate agents are a critical part of keeping the system moving and working with their government counterparts. Also, I found it very positive that even where spatial plans have not been regularized the municipalities still supply basic services like roads, electricity, telecommunications and water. In many countries I have visited people whose buildings do not fit the plan live in appalling circumstances without basic services. Also, Greece has shown us that land readjustment, termed urban regeneration here in Greece, is a critical tool to manage sustainable urban development. The engagement of the Technical Chamber of Greece in developing facts and figures and a robust understanding and options on urban development shows significant leadership and vision.

To conclude, I hope that this story has shown you how socio-economic innovation has taken place using a soft systems change management approach to solution development using catalytic levers as entry points. Many pro poor land tools were developed because of FIG, its leaders who became champions, its thinkers who developed 'intellectual devices' to solve problems, the many FIG events where we discussed and debated issues and created shared meaning and messages; and the

knowledge development and capacity development which was shared by FIG with other GLTN partners so that they would become comfortable with land administration. Thank you for listening to my story as an academic, public figure and partner of FIG. It has been a great privilege to have been part of the FIG history for 25 years.