Identity Crisis:
Challenges and Capacity Building for Next Generation Surveyors

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SUMMARY

The surveying and spatial industry internationally is suffering from an identity crisis. Whilst the FIG definition of a surveyor has been oft-quoted, the reality remains that the profession varies across spatial-boundaries and across changing technologies. The surveyors themselves often struggle to define their role to the public, particularly at national and global scales. This is further complicated with the perceived value of studying a spatial science coming under attack from the availability and public uptake of surveying technologies, such as GNSS and online GIS.

Further, from a specific FIG Young Surveyors Network marketing perspective, international variations in the usage of and identification with such terms as 'surveyor', 'spatial' and 'geospatial' adversely impact efforts to create a global network of young professionals across surveying, land and geospatial disciplines.

This paper explores the surveying/spatial identity crisis from an education perspective. We examine the education and marketing programs designed to attract students to the industry, their value creation and effectiveness to date. Subsequently we intend to determine how graduates are involved and supported by their professional bodies – and the potential links between such initiatives.

Efforts have been made by educational institutes, as well as a number of professional bodies, including the Australian Surveying and Spatial Sciences Institute (SSSI), to develop educational and marketing programs to attract student and graduates. To date this has been done at a regional/state level with low to medium success, and no combined approach to targeting students and graduates has been taken at a National level. The involvement of the SSSI Young Professionals with the FIG Young Surveyors Network (YSN) in Australia has prompted further investigation into how education and marketing programs can be evaluated and evolved to ensure State efforts are not duplicated, and that there is a consistent national message to avoid confusing the public market.

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1. INTRODUCTION

This paper looks at two case studies, Australia and Turkey, and how the Surveying and Spatial industries are represented. The first components of the case studies analyse and evaluate the education and marketing programs and their effectiveness to date, and the role of the professional bodies and their volunteers in attracting new students. The second component examines the role of professional bodies, and in particular the role of young professionals, in attracting graduates to the professional body. It also looks at the potential role of the FIG Young Surveyors Network internationally to facilitate this role through its international experience and contacts. It concludes by proposing how a national strategy may be of more benefit in promoting the Surveying and Spatial community than the current scheme.

2. AUSTRALIAN CASE

Australia has a large number of Surveyors and Spatial professional, and the spatial industry contributes heavily to the GDP. A number of universities and training institutes offer courses in the spatial sphere, and these courses are outlined further below. The peak professional body, and FIG member is the Surveying and Spatial Sciences Institute (SSSI).

2.1 The spatial sector

To realise the potential of a thriving spatial industry, most states within Australia are forming or have formed a representative council or working office to detail the interests of the Spatial Industry and to coordinate the spatial information collection and use within their states.

The Western Australia Land Information System (WALIS) office[1] has a long history for the spatial sector, dating back 30 years. This office manages a network of government department, private sector and academia members in the effort to maintain standards, policies and cooperative arrangements to allow the sharing and integration of a wide range of land and geographic information held by individual government agencies.

Within South Australia the Spatial Information Committee[2] has been in operation for a number of years and acts as a forum for the exchange of information relating to spatial activities within the state. The committee is tasked with increasing awareness of the spatial industry and provide input into the spatial directions at a federal level.

Victoria has also formed a Spatial Council[3] which was formed under the Spatial Information Strategy of 2004 and sits as a branch of the Department of Sustainability of Environment. As

with Western Australia and South Australia, the council membership is made up of government, private industry and academia representatives to form policy and provide direction for the spatial industry within the state.

Queensland's Spatial Information Council was formed in 1991 and has undergone a number of name changes starting as a Land Information council to spatial infrastructure to as it stands now a Spatial Information council.[4] A highly proactive council, QSIC has membership from a wide range of participatory agencies, private sector and academia with the aims of managing and promoting the spatial information infrastructure and representing Queensland's interests at a federal level.

New South Wales is the latest state to endorse and support a collaborative focused office for the interests of the spatial industry. The NSW Spatial Council was formed within the Common Spatial Information Initiative (CS2i)[5] office to consult and provide the means to collaborate with a number of industries and academic professionals. As with many states the goals are to foster a broader understanding of the spatial industry and promote the interests of the state at a federal level.

Tasmania[6] and the Northern Territory[7] also have working groups designed to promote and manage the spatial information use within government and report at a federal level, mainly to ANZLIC.

Within each state the promotion and guidance that each office provides allows for new entrants into the spatial industry to understand the collaboration that occurs between organisations and link into a network of contacts. The Australian New Zealand Land Information Council (ANZLIC) operates at a national level and coordinates the individual spatial strategies to ensure collaboration can occur at a national level. ANZLIC sets and governs policy relating to licensing and data access which eases the understanding, use and distribution of spatial information to the wider community[8.] Made up of senior members of each state in Australia and a working office, the ANZLIC strategic direction looks to ensure that Spatial information is ubiquitous, access to data is easy, public confidence is location services is recognised and the spatial industry as a whole is healthy.

ANZLIC provides a backbone to the spatial industry and with a close working relationship with the Surveying and Spatial Sciences Institute the organisations are sounding boards to represent the industry on national agendas. Awareness raising and recognition of the industry within the national business industries is a priority to increase the potential for new entrants into the industry.

The next generation Surveyors and Spatial professionals will potentially come from a merging of complementary industries. Gartner estimates that the number of consumer location-based service subscribers globally will grow from 41 million in 2008 to 95 million in 2009. This number will exceed 836 million in 2013. Revenue from user spend on location-based services is expected to increase from US$998.3 million in 2008 to US$2.2 billion in 2009 and will exceed US$12.6 billion in 2013[9].

In Australia alone, the spatial information industry contributed to a cumulative gain of between $6.4 billion and $12.5 billion in gross domestic product (GDP) in 2006/07, which is equivalent to 0.6 per cent and 1.2 per cent of GDP respectively[10]. This growth in location services is in part due to the ease of identifying location to a service or asset. The skilled surveyor will be required to govern the wealth of information that is now flooding into the industry, which remains a large task to manage. For an industry that doesn't rate on the Australian Bureau of Statistics business industry profile this is a significant hurdle to overcome if we are to find the next generation surveyor.

2.2 The professional organisation

The recognition of the surveying and spatial industries within Australia has suffered from a lack of focus and a division between a strict surveying profession and a GIS/Cartographic profession. The Institute of Surveyors Australia was up until recently the representative of Australia to FIG and through a recent merger with the Spatial Sciences Institute to form the Surveying and Spatial Sciences Institute (SSSI), Australia now has a unified organisation to represent all aspects of land information use and surveying sciences. As FIG is the peak global body for geomatics of all kinds it was timely for Australia to be represented through a single and focused organisation.

According to FIG[11] a surveyor is a professional person with the academic qualifications and technical expertise to conduct one, or more, of the following activities;

- To determine, measure and represent land, three-dimensional objects, point-fields and trajectories;
- To assemble and interpret land and geographically related information,
- To use that information for the planning and efficient administration of the land, the sea and any structures thereon; and,
- To conduct research into the above practices and to develop them.

2.3 Surveying and Spatial Education offerings

Surveying and Spatial Sciences courses are offered at a tertiary level through 2 main mechanisms in Australia. The first is through the Universities, and the second through the State Government run vocational and education providers, TAFE (Technical and Further Education). Transition from the TAFE courses to University is possible in some instances, with the most common method of transition being through course credits for University.

The Surveying/Spatial Sciences courses offered for tertiary entrance within Australia are generally found to be broken into two broad areas within a university faculty. These faculties are either a Bachelor of Science or a Bachelor of Engineering. (GIS, Surveying and Mine/Engineering Surveying). The Bachelor of Surveying is categorised as a "specialist

discipline" providing a focused land surveying qualification whereas a Geographic Information Sciences degree touches on a number of areas such as photogrammetry, cartography, remote sensing and GIS.

TAFE courses are specific to each State or Territory, and are not run in every state. NSW and SA currently have the strongest programs, with a high level of attendance and graduates. A significant number of graduates also transition into the Universities to complete Bachelor degrees. Like the university programs, TAFE diploma courses tend to focus on either Surveying or a more general Spatial focus.

This strict separation of the disciplines has lead to a distinction between a surveyor and a GIS/spatial professional within Australia. International courses tend to establish a good general knowledge of surveying and spatial for the first year or two before separating into specialist streams. The following Table (Table 1) highlights this, and demonstrates a need for future streamlining of terminology.

Table 1: List of Australian Undergraduate Courses. ***Note that Building Surveying, Planning, Construction and Property courses have been omitted*****.**

STATE	UNIVERSITY	UNDERGRADUATE	Postgraduate Available?	Professional Courses Available?
New South Wales	University of New South Wales (UNSW)	Bachelor of Engineering (Surveying) Bachelor of Engineering (Geoinformation Systems)	Yes	Continuing Professional Development courses are available through many universities in Australia, and often accredited by the SSSI.
	University of Newcastle	Bachelor of Surveying	Yes	
Queensland	Queensland University of Technology	Bachelor of Urban Development (Surveying)		
	University of Southern Queensland	Associate Degree in Spatial Science (Surveying) Bachelor of Spatial Science Technology (Surveying) Bachelor of Spatial Science (Surveying)	Yes	
South Australia	University of South Australia	Bachelor of Sustainable Environments (Geospatial Information Systems) *can lead to a Master of Surveying*	Yes	
Tasmania	University of Tasmania	Bachelor of Surveying and Spatial Sciences	Yes	
Victoria	Royal Melbourne Institute of Technology (RMIT)	Bachelor of Applied Science (Surveying) Bachelor of Applied Science (Geomatics)	Yes	
	University of Melbourne	Bachelor of Engineering or Bachelor of Environments (leading to the Master of Engineering (Geomatics))	Yes	
Western Australia	Curtin University	Bachelor of Surveying Bachelor of Science (GIS) Bachelor of Science (Mine and Engineering Surveying)	Yes	

2.4 The Young Professionals

The SSSI (and previously the ISA and SSI) have a special interest group, the 'Young Professionals' (YP)[12]. This group has a similar goals and focus as that of the FIG YSN. It is restricted to SSSI members under the age of 35, and each state has it's own YP group, with a National YP committee being made up of representatives from each of the State groups.

The main role of the group is to:

- Foster membership and growth of the Institute through service delivery to young surveying and spatial professionals;
- Represent young surveying and spatial professionals in the Institute;
- Provide leadership to young professionals in the profession;
- Engender the community awareness of the surveying and spatial sciences and the Institute.

The first three roles are undertaken through regular meetings and professional development events, including mentoring schemes and networking opportunities. The last role is possibly the most important in the context of this paper, and the YP groups play a pivotal role in the promotion and marketing of the Surveying and Spatial professions, as they are seen to being able to relate to the target market more readily.

YP groups are currently only engaged at a state level in marketing Surveying and Spatial, and this is a legacy dating prior to the combining of SSI and ISA. Major marketing programs exist in Victoria, NSW and Queensland, and each focuses on the target market of High School students. Each program varies in approach and context, and has been varying degrees of successful. The formation of the SSSI has given rise to the process of combining, integrating and improving the programs to form a more cohesive National marketing program, but this is still in the early stages of development. It is likely that a individual marketing approach will still need to be taken in each state due to the differences in University and TAFE offerings, but a national approach will help provide a cohesive approach that will raise the profile of Surveying and Spatial in the broader community. The YPs will play an integral role in this process, as they are seen as the enthusiastic, youthful, charismatic and active face of the SSSI, and are most likely to have a positive impact on the younger target market.

There is also a subtler role of the YP groups in redefining our identity, as they are the products of a more integrated education. Often they are multi skilled within the Surveying and Spatial disciplines, and it is not uncommon to find someone who identifies as a land surveyor who also has a broad range of GIS skills. This 'multiskilling' provides an excellent opportunity to rebrand ourselves with one brush, along the lines of the FIG definition of a surveyor. Whether the term 'surveyor' is the term that will be ultimately used or not, by providing an unified identity for our Young Professionals, we will take a positive step in establishing our new identity and 'brand' in the public eye.

2.5 Building Capacity

A workshop was conducted in 2006 that looked at the Education and Skills Development for the Spatial industry in Australia[13]. This workshop was conducted as a result of the Spatial Information Industry Action Agenda tabled in 2001 outlining an important need for a capacity building element in the spatial sciences.[14]

Definition of the Spatial/Surveying industry remains a key challenge to the uptake and general awareness of the industry. Recognising a need to build a 'brand' that easily defines what we do and the value to the overall Australian economy is critical to marketing the industry to potential new entrants. [15]

With the need to provide 'identity' to the industry the fact remains that the spatial/surveying sector does contribute heavily to Australia's GDP. As spatial information becomes increasingly integrated into business and society, the demand for value-added location-based data grows[16]. This growth and the new technologies that allow location information to be captured and accessed from almost any medium will be a task that the industry and future entrants to the survey/spatial disciplines will need to manage efficiently.

Professor Michael Goodchild recently wrote about the nature of geographic expertise and how the term 'neogeographer' would categorise the rise in the interest by individuals into the surveying and spatial disciplines.[17] This paper summed up that through the explosion of new technologies allowing the common person to capture and map objects that relate to the earth surface that this volunteered geographic intelligence would provide the backbone the information we use within the profession.

We have seen through the rise of Web 2.0 technologies such as Open Street Map[18] and Google Map Mashups that geographic intelligence is on the rise. The next generation surveyor could quite possibly be one who sparked an interest in technology and followed the path of the neogeographer. The task is to ensure that these technologies point to career paths within the surveying and spatial sciences field and the entry points are clearly articulated and easy to access.

2.6 The Future

The role of the Surveyor and Spatial professional in the Australian economy cannot be understated, and the declining number of spatial professionals will become a serious issue in years to come. The marketing and branding of the industry will need to be a cohesive national effort, that will in essence provide Surveyors and Spatial Professionals with a new 'identity' to make them identifiable in the public eye. This new identity is necessary to increase public awareness, and thus increasing the number of people working in our industry.

3. TURKISH CASE

3.1 The spatial sector

The conventional land surveying profession in Turkey goes back to the time of the Ottoman Empire. Since land surveying is the key for the development of a modern country, a number of high schools, vocational schools, universities and institutional departments had been established with the beginning of modern Turkish Republic. The first civil surveying education in Turkey was established in the year of 1949 at Yildiz Technical University in Istanbul to the efforts of General Directorate of Land Registration and Cadastre. Today all the higher institutions of Turkey are with centralized governmental unit, Yüksek Öğrenim Kurumu- YÖK Council of Higher Education. The department names were changed to Geodesy and Photogrammetry Engineering in 1981 by a law.

A recent document indicates some major changes and increase of numbers in the professional education. As with the most of the world, the surveying profession in Turkey has been suffering an identity crisis, with the name change from surveying to Geodesy and Photogrammetry. This issue even reflected on a popular TV series of the Turkish Radio and Television Broadcast 1st National Channel where one of the main characters of the series was a stammering BSc. Student of geodesy and photogrammetry engineering. The department name was pronounced by the character for several episodes in the parodies.

In 2008 after several meetings, and subsequent surveys among academics, students and professionals it was not possible to agree on one name for the profession. With an application to Turkish Council for Higher Education three different names were proposed and officially approved by the departments. Geomatics, geodesy and photogrammetry engineering and surveying engineering titles have been named for the same departments in the different universities. With the governmental move to increase the general quota of university students, in 2009 approximately 11% of the current registered member number of the professional body, Turkish Union of Architects and Engineers, Chamber of Surveying and Cadastre Engineering enrolled to the mentioned departments.

In the year of 2005, a detailed study of the national geomatics education situation from various aspects was already done by Köktürk E. Et al, 2005.[19] The research shows and evaluates several critical points and highlights the possible difficulties within the education of geomatics and the continuous development in the professional life. It describes the gaps between different educational steps, policy of government; generating new departments with lack of physical infrastructure and academicians. It also points out the role of foreign language in education, proposes the continuous professional learning projects, certification of successful professionals under specific application topics, the unification role of Chamber of Surveying and Cadastre Engineering.

In addition to BSc there are 38 vocational high schools where technicians graduate. By the year of 2009, 16 departments exist in different universities at 10 provinces, 11 of them active

and accepting students to at least in Bachelor studies. Also, there are 4 more universities offering only Master and PhD in the fields of Geomatics.

Table 2: Universities offering Geomatics in Turkey

No	University
1	Yıldız Technical University
2	Karadeniz Technical University
3	Istanbul Technical University
4	Selçuk University
5	Zonguldak Karaelmas University
6	Ondokuz Mayıs University
7	Afyon Kocatepe University
8	Erciyes University
9	Kocaeli University
10	Gümüşhane University
11	Aksaray University
12	Hacettepe University
13	Cumhuriyet University
14	Niğde University
15	Gediz University
16	Okan University
17	Harran University
18	Gaziosmanpaşa University
19	Fırat University
20	Korkut Ata University
21	Çanakkale Onsekiz Mart University

In addition to the issues raised by the Tunalıoğlu and Öcalan report, accreditation studies were conducted in national and international areas in some departments, with generally positive results. There are several forms of accreditation that Turkish universities can undertake:

- International accreditation
- ABET (Accreditation Board for Engineering and Technology)
- EUR-ACE (European System for Accreditation of Engineering Education),
- The National MUDEK (Engineering Education Program Evaluation and Accreditation Association)

ITU (Istanbul Technical University) which is one of the universities that teaches surveying engineering education, has obtained the ABET accreditation, and the other two universities; YTU and University of Selc¸uk has obtained MUDEK accreditation. At the same time, MUDEK conducts accreditation studies with EUR-ACE (European Accreditation of Engineering Programs). Although some surveying departments have finished or are still

conduct accreditation studies in Turkey, some of them have not commenced any form of accreditation yet.

3.2 The professional organisation & Young Surveyors

The Turkish Chamber of Surveyors and Cadastre Engineers is accepted as the main organization for the unification of the professionals, as well as the students. In recent years, several technical and social activities were organized by the Chamber of Surveying and Cadastre Engineers and its branches. The vision to involve the next generation of professionals has significant importance; hence the Chamber usually provides low or free registration for students, accommodation and other expenses to attend major events. Among the activities is the Genç Haritacılar Günleri (Young Surveyors' Days), which is a national event, held biannually for surveyors from across the country, but is also open for international participation. Students play important roles in the organizational works, but the event is open for all geomatics, including those who feel young at heart. It includes technical and scientific discussions of students-academics and professionals, as well as discussing problems of the profession and education. The social activities and games are also part of the event and is an excellent place for networking.

The chamber also holds an technical social summer school for a limited number of students and a social event where students are also encouraged to develop their social skills. The variety of activities dedicated to the students and Young Professionals has provided a positive link beween students and the Chamber. Within a few years, the fruits of these events have been that there is a significant number of students and Young Professionals involved, who are actively participating in the Chamber. The committee of Young Surveyors and Students is similar to others across Europe, and in May 2009 they held a meeting state the Geomatics' student problems in Turkey.

3.3 The future

The outputs of the various studies conducted can be summarised as follows;

- Education in Geomatics is a vital key for the development and continuum of a modern society. Although the number of graduate Geomatics in Turkey can be increased with new educational facilities, the general governmental policy of establishing new departments without adequate infrastructure should be seriously considered.
- The accreditation works are well on the way in some of the departments, however the content of the lectures and trainings should be reorganized logically.
- The international cooperation and participation should be increased among the young surveyors. This would not be possible without a full support of students from departments and HKMO.

4. THE FIG YOUNG SURVEYORS NETWORK 2010-2014

4.1 FIG Young Surveyors Network – Background

The history of the FIG Young Surveyors Network (formally a working group of Commission 1) has been outlined in Kivilcim & McAlister[20]. The initial vision and goals of the (then) Young Surveyor Working Group are outlined below:

Vision: *"To make FIG known to Young Surveyors and increase the participation of young surveyors in FIG events"(FIG YS Workplan).*

Goals:

- *Promote the benefits of participating in FIG events to young surveyors for professional development.*
- *Attract young surveyors with simple activities that allow delegates to specifically build useful networks.*
- *Provide opportunities for delegates to obtain advices on getting funding and sponsorship (external to FIG) that will allow them to participate in FIG events - in particular, congresses and working weeks.*
- *Promote and encourage the production and presentation of technical papers by Young Surveyors at FIG events.*

Whilst these will ostensibly remain the same throughout the 2010-2014 period, a new committee will be formed during the FIG 2010 Congress in Sydney, and the goals revised to direct new strategic directions. The committee roles, as outlined in Kivilcim and McAlister, will change slightly to better address these strategic directions, specifically to embrace the neogeographers key tools: to harness technology, social media platforms and e-initiatives.

4.2 FIG YSN Plan 2010-2014

The FIG Young Surveyors Network has achieved considerable notoriety with FIG working week and congress attendees. With ever increasing young professional and student attendees at FIG events, we are not only realising our vision, but importantly we have achieved visibility. Our speed mentoring initiative is now a mainstay of major FIG events and our input into marketing and education initiatives is regularly sought. However, we are limited by the same limitations of the FIG – our outreach beyond European centres and working week/congress host cities; and the limited ability of individuals, underrepresented groups in particular, to regularly attend and maintain networks created in FIG events. To maintain our momentum, and to achieve our vision of increasing young professional participation, we need to ensure ongoing outreach to young professionals internationally, irrespective of the timing or location of FIG events.

Key to this is our ability to harness multimedia technologies, facilitating networking and learning through strategic and targeted use. To date the YSN has a facebook page,

Yahoo!Group, LinkedIn group, Twitter account and a limited FIG webpage. With the FIG webpage undergoing a revamp, other social media avenues need to be assessed for their effectiveness, and a strategy developed for their use in the future.

Guiding this will be the goals from 2010-2014:

- **Continue visibility**
    - Continue strong presence at major FIG events;
    - Improve communication networks online
- **Strengthen networks**
    - *Between young professionals:* facilitate communication across local, regional, national and global scales
    - *Across disciplines:* facilitate young surveyor involvement in FIG commissions
- **Document and share**
    - Document and distribute successful practices which address marketing, education and professional development *in conjunction with FIG Commissions*

E-learning technologies present many opportunities – video conferencing is already extensively used by YSN committee members, and audio and video technologies can be harnessed to involve a wider young professional audience in FIG events, and to facilitate the network that ultimately makes FIG attendance so enjoyable for participants.

Finally, the YSN also has much to give back to the FIG, and the 2010-2014 period is when this can really being to happen, by strategically facilitating and encouraging young surveyor involvement across FIG commissions and local endeavours. To achieve this, we will begin small, and document successful initiatives that can be replicated – for example, opportunities exist to better share teaching/learning techniques and student opportunities, and pushing the boundaries of the surveying remit and technology application.

4.3 Uniting the FIG YSN agenda with the local perspectives

The Australian & Turkish cases above demonstrates the growing unity between surveying, geospatial and land management disciplines, but still discrepancies remain in terms of terminology and national/regional/local interpretations.

What does this mean for the FIG Young Surveyors Network?

- FIG YSN needs to streamline 'image' such that
    - Young professionals identify with us, no matter which discipline they belong to
    - This image is aligned with our goals, and is maintained across communication methods and cultures

- Young professional may be limited to <30years of age or within 5 years of graduating, but we require all generations to form a fruitful and sustainable network for information and experience sharing

It has been demonstrated that technology is a driving force in the growth of surveying as a discipline, and the perceptions that members of the public have of our profession.

What does this mean for the FIG Young Surveyors Network?

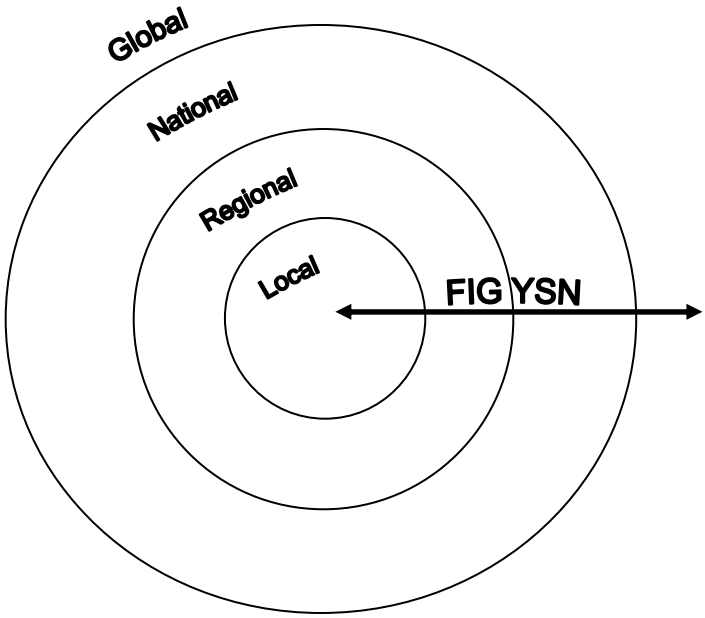
- FIG YSN can use this as a key motivator for young professional involvement, and to drive events and engage industry and employer support

Australia and Turkey, alongside many other nations, are moving ever closer to achieving a unified national spatial strategy.

Will this extend to Young Surveyors, and what how will such achievements affect the FIG Young Surveyors Network?

- The challenge is the facilitation of networks that interact across local, regional, national and global scales, sharing best practice and knowledge.

Figure 1: The ideal role of FIG YSN to facilitate communication across professional bodies at all scales.



5. CONCLUSION

There is an identity crisis that is facing surveyors and spatial professionals across the globe. The two case studies highlighted in the paper, that of Australia and Turkey show that there are many approaches that need to be taken, but no one solution is the Holy Grail. There needs to be cooperation between the Surveying and Spatial Industry, Government, Professional bodies and Educational Institutes to provide a unified National identity, which can be to present to the public. This identity may simply be developed by public education, or may need to be a more radical approach, like a rethink of which term is used to describe all the spatial professions. Once an identity has been established, then it is a case of developing marketing programs and material specific to target markets, which will improve the profile of the industry, while hopefully attracting new people.

Undertaking this type of program on a National level will provide a more cohesive, cost effective and targeted approach, which will in turn ensure that the public's understanding of the surveying and spatial industries is more comprehensive. A national approach also has the added benefit of targeting National governments. While often it is a regional or state government that is responsible for the provision of the surveying and spatial industry, a better understanding at a National level will provide more opportunities for funding, educational institutes, and spatial infrastructure development.

The role of the Young Surveyor in defining our new identity, and subsequently helping to sell it cannot be underestimated, as the enthusiasm, vibrancy, knowledge and participation they can bring will be invaluable. Whether it is on a global, national or regional basis, they will play a large part. The FIG YSN already provides support to young surveyors across the globe, and their role in the promotion of surveying through those same young people will be paramount in defining and promoting our new identity, what ever it may be.

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BIOGRAPHICAL NOTES

Kate FAIRLIE is a recent graduate of the University of New South Wales (UNSW) and admits to being a Gen Y'er. She has a Bachelor of Engineering (Surveying and Spatial Information Systems) and is one year into a PhD with the University of Technology (UTS, Sydney), researching property rights in greenhouse gas emission reduction schemes. Most recently, Kate has worked as a GeoInformation Analyst with Shell UK Exploration and Production, and is currently an Environmental Officer with the NSW Department of Climate Change, Environment and Water and casual lecturer at UTS. Kate has been involved in a number of young surveyor and young engineer activities, including a role as Engineering Ambassador for UNSW – promoting engineering as a career to high school students in Australia. She is Regional Coordinator for the Young Surveyors Network and a Young Ambassador for FIG2010.

Chris MCALISTER graduated from the University of New South Wales in 2005 with a Bachelor of Engineering in Surveying and Spatial Information Systems and Master of Engineering Science in Surveying and Spatial Information Systems. She has worked in both surveying and GIS roles in Government and private industry. Chris is actively involved with the SSSI Australia, and is the chair of the Queensland Young Professionals group. Chris is the marketing coordinator for the FIG Young Surveyors Network, and is a Young Ambassador for FIG2010.

Darren MOTTOLINI works for the Western Australian government company Landgate in as Manager in Business Development / Spatial. Best described as is a neogeographer, Darren holds an MBA. Darren is actively involved with the SSSI Australia, and is a member of the WA Young Professionals group. Darren is a Young Ambassador for FIG2010.

Cemal Ozgur KIVILCIM is a PhD Student at Istanbul Technical University Geomatics Program. He is currently an engineer Geodesy and Photogrammetry Engineer at Istanbul Metropolitan Municipality, Directorate of Historical Sites Protection. During the recent years he participated and was member of organizing comitees of student related national and international organizations for Surveyors. He is a participant of some recent IGSO, ARGEOS, Young Surveyors' Days meetings, He is one of the founder members of ISPRS Student Consortium, IAESTE-Turkey Student Association, FIG Young Surveyors and worked as an Erasmus student assistant during his studies. He is an active member of FIG Young Surveyors, ISPRS Student Consortium and Turkish Chamber of Surveyors and Cadastre Engineers

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