

Lessons from the First Fifty Years, Challenges and Opportunities for the Future

Keynote Address

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INTRODUCTION

Mr. Phil Hayward, President, The Institution of Surveyors Australia, The Hon Gary Nairn, MHR for Eden-Menaro, distinguished guests, fellow surveyors, ladies and gentlemen.

Thank you Mr. Bell for your introduction. It is indeed a great pleasure to be here today at this Seminar and moreover, it is an especially exciting time to not only celebrate this occasions, but also to be able to participate in a debate and discussion about the future.

There is nothing more exciting than the future, nothing more exciting than the anticipation of events still yet to happen and of objectives still to be achieved.

Whilst today, in part, we celebrate and acknowledge the achievements and the accomplishments of the past and present, a theme of this seminar today is to encourage you to be inspired and energized by the promise of that future.

After all, fifty years and more ago, what we are in part celebrating today, was of course to all those surveyors at that time, all in the future. Despite all the problems and issues at that time there is no doubt that a sufficient body of these surveyors were excited and inspired by what they saw as the future of the profession of surveying and of the Institution of Surveyors, Australia. Somehow we forget that they also faced the uncertainty of an unknown future in a somewhat uncertain environment where further war was especially a threat.

Now, as you will know, I am from Victoria, which in some people's view might be damning enough, but on top of that I have spent most of my working life in an academic organisation. These two aspects actually colour my view of the world quite significantly. First of all, Victorians will never forget the fact that the Victorian/NSW border should have been at the Murrumbidgee, not the Murray, and the South Bank at that! Secondly, I suffer from the frequently applied observation, "Those that can, do, those that can't, teach".

Despite these obvious impediments, it has been and continues to be my great pleasure to be a member of The Institution of Surveyors, Australia, which, as you will note is fast approaching 40 years, a significant proportion of the formal life of this Institution.

The past 50 years and perhaps most notably the years since the end of the Second World War in 1945 have, in global terms as well as in national and regional terms, seen the most far reaching changes in probably any period in history. These changes have been represented and driven by industrial and technological developments and significant increases in human population. Their impact upon and interrelationship with the political, social and economic contexts has been extensive.

It has been in this environment then, that the Institution was formed and in which it has operated.

PRE-1952

At an occasion such as this and as much for the record as anything else, it is appropriate and in my view interesting to note some of the factual happenings that occurred around the formation of the Institution. So, I will provide some of that details.

Prior to the formation of The Institution of Surveyors, Australia , a number of so-called Institutes of Surveyors had already been formed in each of the States - These were formed as follows:

The Victorian Institute of Surveyors	1874	
The Queensland Institute of Surveyors	1878	
The South Australian Institute of Surveyors	1882	
Institution of Surveyors, New South Wales	1884	(1881?)
The Institute of Surveyors, Tasmania	1889	
The Institution of Surveyors, Western Australia	1910	

The Institution of Surveyors Australia Canberra Division was formed after 1952, in 1960 and The Institution of Surveyors, Australia, Northern Territory Division was formed in 1970.

Whilst ISA was formed in 1952 with the six State bodies as foundation societies, there had been before this more than 70 years of intermittent effort to create a national body. The major factors that worked against this formation were indifference and apathy, difficulties associated with interstate communication and travel as well as a few other minor events such as two world wars and a world depression.

Nonetheless, in 1881 a number of the then NSW Institute of Surveyors, Surveyor T.S. Parrott communicated with the Victorian Institute and suggested that "a conference of representatives from the various colonies, to meet either in Sydney or Melbourne, with a view to bringing about some federal action of the profession".

As a consequence, the First Intercolonial Conference of Surveyors met in Melbourne on 28 March, 1883 where it was decided that a federation of Australian surveyors should be formed and a Committee was appointed to pursue the matter. The Committee reported 2 years later than Queensland only gave qualified approval, New Zealand opposed and NSW reserved its opinion, how times have changed. Whilst the other Colonies were supportive, it was considered that further discussions should be deferred.

Significantly at this time, it was reported that a Federation of Institutes would be impossible without a common system of training and examination of surveyors and for a number of years these two issues were almost interchangeable. At the request of the Queensland Surveyor-General, McDowall a conference was arranged by the Victorian Institute on 31 October, 1892 to discuss reciprocity at which New Zealand and all Colonies except Tasmania attended. It was ultimately agreed to recommend reciprocal recognition of each other's qualifications. In 1900, the first identical examinations were held in all Australian Colonies with New Zealand joining in three years later, once again I ask, has anything changed?

During and immediately after the First World War, many surveyors from around Australia and New Zealand worked and fought alongside each other and after the war in 1919 attended the Army Education Scheme Survey Course at Southampton. These activities broke down a number of interstate business and prejudices that had existed and they resolved to "enlist the comradeship which had been created to raise the status of the professional in all States".

Once again initiated by Queensland, in about 1925, the First Interstate Conference of the Institutes of Surveying was held in Melbourne in 1927. James G Gillespie, the Victorian President was elected Chairman of the Conference. Whilst action in relation to the formation of a Federal Institute was deferred, it was decided to publish the Australian Surveyor using the

auspices of the Queensland Institute. The first issue appeared in January 1928 and in 1930 NSW assumed responsibility for its production. I think that it's still produced today?

Over the next few years, a number of subsequent Interstate Conferences were held, including in Sydney in 1928 and Brisbane in 1930. In 1928, it was agreed that the Queensland Institute take up the task of drawing up a draft federal constitution for consideration. A fourth interstate conference was held in Melbourne in 1934, a fifth in Adelaide in 1936, a sixth in Perth in 1938 and a seventh in Sydney in 1940. At these last four Conferences, Federation received little attention and especially in Sydney in 1940 which was dominated by wartime matters.

Once again, as with the First World War, the Second World War experiences of fellow surveyors from all over Australia, within an enlarged Australian Survey Corps, dissipated a lot of suspicions and concerns that had hampered federation efforts.

The Eighth Conference was held in Brisbane in 1946 and the Ninth in Melbourne in 1948. At this Ninth Conference, a scheme prepared by J G Gillespie, from Victoria, for a co-ordinating council to prepare and adopt a federal institute constitution was approved. During 1949 and subsequently a constitution and by-laws was prepared and ratified by all State Institutes.

Councillors were elected and gathered in Melbourne on 20 October, 1952 for the first Council Meeting of the Institution. J G Gillespie was elected as Foundation President, with N K Bennett (NSW) and C L Alexander (SA) elected as Vice Presidents. R D Steele and M J Lea, both from Victoria were elected Honorary Secretary and Honorary Treasurer, respectively.

The first general meeting of the Institution was held in Hobart in 1954 in conjunction with a survey congress of technical papers, discussions and social activities; a practise that continues today.

POST - 1952

Since 1952, the Institution of Surveyors Australia has played a leading role in representing the profession of surveying in the very broadest terms both within Australia and internationally. At the same time, the significant population growth in Australia, based impart on the post war immigration growth, together with an expanded national mapping program, created a significant requirement for the services of surveyors. Large scale public infrastructure projects, together with private investment and development created an environment where the demand for surveyors escalated. Membership of the Institution continued to expand and the Institution's star seemed bright in the sky. Despite the economic ups and downs, and some of these were significant surveyors and the Institution generally prospered.

As an important aside, the educational qualifications and experiences of surveyors has had, and still does have, in my view, an important effect on the membership and activities of the Institution, so it is crucial to give recognition to this particular aspect.

I know that you are probably saying to yourself, I was wondering when he would get around to education, but was I will draw out later the role of the educational models experienced by surveyors is a crucial parameter in describing and assessing future directions.

Prior to the Second World War, almost the only means, if not the only means, of qualifying as a surveyor was to undertake a period of training as an articulated survey pupil attached to a master

surveyor usually for a four year period. During this period of training pupil surveyors, engaged in a range of surveying activity, and either during the training or at the end of it presented for theoretical examinations and also submitted practical projects for assessment. Satisfactory outcomes from the assessments led to qualifications by being licensing or registering or as a cadastral surveyor.

This singular qualification model ensured a high degree of homogeneity amongst professional surveyors at all levels and in all areas. This educational foundation meant that all members of the Institution had, to a large extent, similar attitudes and common goals and even work practices. This was so even given that there were significant numbers of surveyors working in both the public and private sectors. This meant that almost irrespective of the particular area of surveying that any surveyor might have specialised in they were all similarly qualified and when they did belong, and most did, they belonged to the one professional association, the Institution.

This educational model continued on after the 2nd World War and in most states was only discontinued in the 1960s. The reason for the discontinuance can be attributed to the establishment and growth of tertiary courses in surveying at a number of universities throughout the country commencing I believe in 1949 at the University Melbourne. Students of these courses were presented with a choice after graduation - they could choose a professional career in surveying without having to be licensed or registered or they could, after a period of training, qualify in cadastral surveying. In the early days of these courses, almost all graduates went on to become licensed or registered and also most joined the Institution and so the homogeneity was more or less sustained. The transformation of the educational model was driven in part by a recognition that the articulated pupil system was not sufficiently capable of educating surveyors in a broader sense and in a way in which society then required and it was also necessary for the profession to achieve status parity with other professions especially that of engineering.

OTHER CONTEXTS

Whilst the changes in the educational model for surveyors were occurring, other contexts were also changing. These included advances in technology, including the development of computing power and particularly cheap and easily accessible computing power. Technology advances became enabling rather than replacement technology and new and easier to use forms of technology were developed.

These advances in technology enabled members of other disciplines to undertake a range of surveying related tasks formerly restricted to surveyors. In addition, areas such as photogrammetry and mapping became increasingly specialised and provided new ways of producing new products. It wasn't just technology that was driving these changes, but societal and community demands for more sophisticated and demanding outcomes. Soon, town planning also became a separate professional discipline. This was an area that had been significantly populated by surveyors.

The development of the digital revolution has also highlighted this same process, where significant opportunities for "surveying" graduates have appeared in the IT area and especially the spatial data end of IT. It is my view that surveyors who are expert in the IT end of spatial data management and applications have been competing for a place in this same part of the spectrum with IT experts derived from other disciplines for some time. It is the same process that has occurred with town planning et al - technology and community and societal needs are continuing to create new areas and are redefining existing discipline areas. This is never more evident than in the tertiary institutions where traditional courses have changed content and structure dramatically to take advantage of the changing nature of disciplines and community

demands. Names of Schools and Departments have also changed. Essentially, the contexts of diversification, integration and convergence have become predominant.

Well, let's have a look at somewhere near the end points and make some comparisons. In 1970, surveying was a still relatively homogeneous profession with seemingly readily identifiable and extensive employment outcomes well serviced by a traditionally based educational model, albeit at university-level and higher, and a professional association still fairly sure of its place in the world.

In 2002, the profession of surveying now encompasses a larger range of work areas using, in some cases, ubiquitous technology that would allow surveyors to cross over completely into what are now different disciplines altogether; it is still serviced by an educational model that is at tertiary level, but these models now provide a large choice of discipline studies of which surveying is but one and there is a range of professional and industry associations all competing for, in many cases, much the same graduate.

The Institution is just one of these latter organisations and it would seem that despite its very best efforts, its ability to attract, in a competitive environment, significant numbers of new graduates is stalling.

Despite the self acknowledgement by the Institution that it has a desire to have as its members those graduates and professionals that align with, in a range of disciplines the digital age, it is struggling to maintain its viability and perhaps relevance.

There is even further evidence that the profession of surveying is playing a changing role in today's society and that the work demographics of surveyors has changed significantly. I speak

of course about the impact of the significant change brought about by the alteration of the mix between private sector and public sector activities. We all would be aware of the major shift in the ownership and delivery of what were once public utilities and their services and products. I don't need to list them all here, but power and energy companies and transport companies now replace their respective public utilities and further these new companies often form part of international groups and cartels representing an impact of globalisation.

For surveyors, this has changed the proportion of surveyors who work in the private sector versus that proportion that work in the public sector from somewhere near 50:50 to about, as an estimate 85:15. For the Institution, on the one hand, this may have an homogenising effect, but on the other, it reduces diversity of work experiences and perhaps narrows perspectives.

A further factor for the Institution to consider is the changing nature and perception of the professional person even to the extent that in some areas the question is being asked, Why do we need professions?

Some studies in the United Kingdom reveal that there might be a certain misapprehension by the public and government as to the place and purpose of professions in contemporary society. An issue that was identified was the increasing conflict of interest between professional ethos and commercial pressures. Further, there is some thought that a two-tier system of professional services is developing where simple, relatively risk free advice or services would be offered cheaply and easily on the one hand, and for those that could afford it, opinion and interpretation based advice contained in more complex, ambiguous cases, on the other hand.

Hence, the validity of the professions' mandate resting on the perception that they are occupations driven by values rather than by more mercenary interests in being questioned and pressured.

The nature of the role of a professional in today's society. So, it may be asked, what structure and forms of organisation are needed to help professions and practitioners to respond to these challenges, to be flexible, able to innovate and modernise, and ensure that they keep up-to-date with learning and best practice?

Let me also indicate to you a further manifestation of the context, in which this profession and this Institution is existing, that demonstrates again the changing face of the surveying landscape. This issue can be generically described as surveying reform and it has its outcomes in every jurisdiction and especially, but not only, in legislative guise.

Many surveyors are cadastral surveyors and legislatively regulated surveying reform has seen changes in the way in which surveyors are regulated and the conditions under which that happens. Additionally, organisational and institutional change in government driven by policy directions has seen some dramatic changes in the relevance and positioning of surveying within government.

Some jurisdictions in Australia have removed the position of Surveyor-General from their structures others have reorganised the role of the Surveyor-General, but by and large the influence of surveyors within government has been significantly redefined.

These matters all have a strong influence on the role, sustainability and purpose of the Institution which has been, for some years, developing strategies and actions to cope and to progress in this complex environment.

From what I can deduce, the best efforts of the Institution are not going to be sufficient to ensure its medium to long-term growth, relevance and sustainability.

There are however some significant positives in the landscapes, most importantly the Spatial Information Action Agenda. This compact between government and industry acknowledges the current and future importance of spatial information and infrastructure not only as a resource but also as a basis for building a much larger, integrated and broader based spatial industry. Benefits however usually come at a cost, but here it is more as a responsibility, a responsibility on behalf of us, the Institution, to ensure that the hard work and opportunities are not lost.

THE FUTURE

So, while today we celebrate the formation of the Institution 50 years ago and acknowledge its leadership and contributions at local, national and international levels over that time, it is increasingly apparent that for the Institution to optimise its prospects of service, it must undergo some process of re-invention and revitalisation.

If we accept that this is the case, then we must do something and this is the exciting part. Just like our forebears, we have an opportunity to participate in a process and a period that will in many ways parallel those events that took place 50 years ago. My one hope however, is that it doesn't take 70 years to achieve. We certainly don't have that long and in any event, we've been dabbling for about 30 years anyway.

So, how do we go about it?

Well, the process has already well and truly begun. It began about 10 or more years ago when, as I mentioned earlier, the academic institutions started their processes of renewal and re-invention. Isn't it interesting to view the analogy between this situation and that of more than 100 years ago, where I mentioned earlier that it was considered vital to resolve the issues around the educational model for surveyors before the idea of federation could proceed. In today's environment that has now largely happened, so it should not only not be an impediment, but an incentive and a facilitation.

I would now refresh your memory about something I mentioned earlier, in relation to those changing educational models, that the contexts of diversification, integration and convergence have become predominant. In essence, these contexts show us the way.

The academic programs have diversified, much of the surveying industry has diversified its business base, but the Institution has not been successful in diversifying its membership base, although not for the want of trying. To me, this is a necessary first step and if it can't be achieved from within, then it must be achieved by other means. It is for this reason, that I believe that the creation of an organisation that consists of a number of previously separate spatially based disciplines is vital. This will provide diversification from without.

The formation of such an organisation will then provide the basis for integration to occur. This means that any overlaps can be identified and, if appropriate, accommodated or removed and in addition, integration allows the aspect of homogeneity to occur; to provide a sense of togetherness amongst all that diversity.

Finally, after diversification and integration, we will see in many areas a convergence, perhaps based on technology or product development, where discipline and activities will merge to create new disciplines and technology, some of which we don't yet foresee.

It is these three contexts that, I believe, are the vehicles and the signposts for the future directions of this Institution and suggests strongly to me that integration with other spatial discipline professionals is an overdone first step upon which what will need to follow has to be based.

I recognise that such a step will potentially bring other benefits, such as cost savings, different relationships with other organisations, increased political influence, different business models and so on, but, in many ways, these are outputs of what should be a process that keeps its eye firmly fixed on the ethos of professionalism mixed with the excitement of standing on the threshold of another exciting era for this Institution.

You are all aware of the proposals and discussions around the formation of the Spatial Sciences Coalition (SSC). These proposals are a work in progress, and, as you may have by now deduced, I see this concept being adopted as vital to our continued survival, perhaps for more abstract reasons than have already been put forward, but vital nonetheless.. Indeed this makes the "how to do" especially important and has often been said the devil is in the detail and there is great danger in establishing the SSC if the detail is not developed to high degree of accord.

My final point refers to the members themselves. In any organisational change process, it is as just mentioned, important to address how to do something as much as a matter of what to do.

This is important because if the "what to do" is agreed or at least accepted, then the "how to do" will inevitably determine the quality and effectiveness of the outcome. Put another way and

perhaps a more emotive way - no reorganisation will be successful if the hearts and minds of its members are not secured. Hence, I make a plea for any implementation process and organisational structures to intrinsically reflect this characteristic as an ongoing input. Also, do not think that re-invention is a one-off exercise, as the necessity to re-invent will come around more and more quickly.

I am excited by the prospect of the future of the Institution and I have great confidence in us, its members, that we will carry us successfully through into a new age.

Thank you.