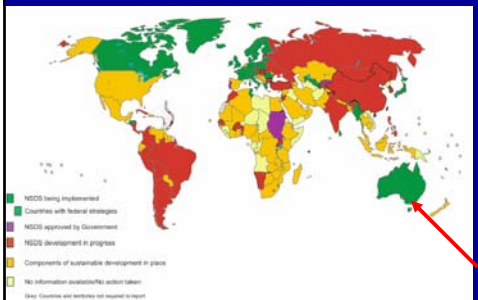




FIG WORKING WEEK 2007  
MAY 2007, HONG KONG - SAR

Leonie Newnham, Australia  
Chair Working Group 1.3, Commission 1  
John Parker, Australia

## Where is Victoria?



Here it is!

## Presentation

1. Why and how this study was created
2. What is driving change.
3. Case studies of Australian Surveyors
4. What could this mean for the changing role of Surveyors ?
5. Summary

## Globalisation – irresistible forces of change

- Technological
- International economic integration
- Changing domestic markets
- Increase in countries linked to the capitalist system
- Population profiles
- Environmental sustainability

The Winds of Change

## Land management professionals as change agents and innovators ?

Environmental sustainability

Foundation of economic life

Social capacity building

## FIG Definition of the Functions of the Surveyor

### Summary

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.

( Provides a list of detailed functions)

In the application of the foregoing activities surveyors take into account the relevant legal, economic, environmental and social aspects affecting each project.

As adopted by the General Assembly 23 May 2004

# General Definition of a Surveyor

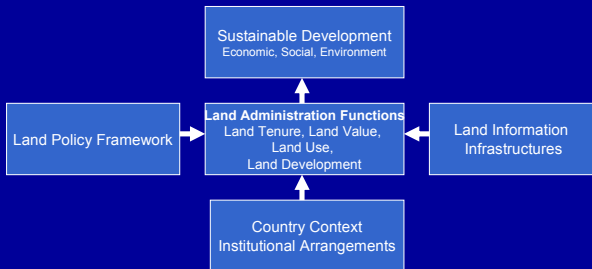


**surveyor** - an engineer who determines the boundaries and elevations of land or structures  
applied scientist, engineer, technologist - a person who uses scientific knowledge to solve practical problems  
lineman - the surveyor who marks positions with a range pole  
locater, locator - a person who fixes the boundaries of land claims

# Who would you call an Entrepreneur ?

1. Individuals who make a difference
2. People who spot and exploit opportunities
3. Those who find the resources required to exploit opportunities
4. Those who add value
5. People who are good networkers
6. Those with the "know-how" and "know-who"
7. People who create capital
8. Those with the ability to manage risk
9. Entrepreneurs are determined in the face of adversity
10. Entrepreneurship involves creativity and innovation

# Innovation and change within the context of the Land Management Paradigm



Adapted from Stig Enemark - 2004

# Don Grant – Land Professional



## Career

- Surveyor-General of New South Wales in January 1986 to 2000 and positioned this Department at the forefront of the global spatial information industry.
- He has worked in most States of Australia, in the public and private sectors and the defence forces, serving in Australia and abroad.
- Chairman of the Public Sector Mapping Agencies, he worked with others to meet national census mapping needs - a precursor to the creation of a National Spatial Data Infrastructure.
- International consultant in land administration and has consulted or advised in many countries.
- Range of honorary degrees from various academic institutions.
- Recognised by number of professional associations as a Fellow, includes Institution of Institution of Surveyors, Institution of Engineers, Chartered Surveyors, and Australia Institute of Company Directors
- Earning an international reputation as a senior administrator and scholar.
- Foundation Chairman of the Australian Institute of Spatial Information Sciences and Technology (AISIST)

# Len Beadell - Adventurer

'last of the true Australian explorers'

interest in surveying from the age of 12, mentored by surveyor scoutmaster.

**Career:**

- Military mapping - served New Guinea WW2
- First combined scientific expedition of Alligator River country in NT
- Initial Surveys Woomera Rocket Range
- Led to a lifetime of camping, surveying, exploring and road making in the vast empty areas of Central Australia, opening up for the first time more than 2.5 million square kilometres of the Great Sandy, Gibson and Great Victoria Deserts
- Supporter of other scientific endeavours
- Author

# Major Mitchell - Pioneer

**MITCHELL'S EXPLORATION**

Career

- Began as an army surveyor in British Army
- Surveyor-General of the colony of New South Wales from 1827
- Responsible for laying out roads, bridges and towns
- Surveyed much of the eastern part of Australia
- Opened up new grazing lands in southern Victoria - he named them 'Australia Felix'
- Later explored Queensland and opened up the central Qld pastoral lands
- Geologist and botanist
- Talented Artist, wrote poetry, author
- Hot tempered and liked a fight

# Ian Williamson - Entrepreneur

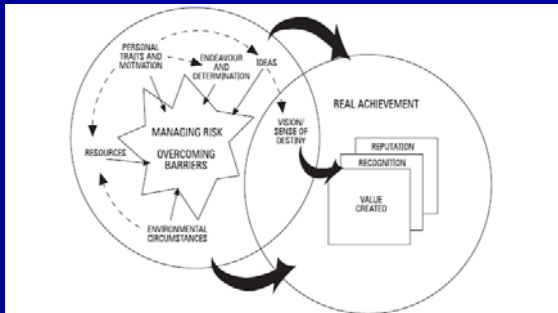


## Career

- Teaching and research - cadastral, land and geographic information systems, land administration and spatial data infrastructures
- Expertise covers both developed and developing countries
- Foundation Professor of Surveying and Land Information (1986)
- Research or consultancies world-wide including for AusAID, the United Nations and the World Bank.
- Chairperson of FIG Commission 7 (Cadastral and Land Management) 1994-98
- Fellow of a number of professional associations- Technical Sciences and Engineering, Chartered Surveyors, Mapping Sciences Institute and FIG.
- Awarded the Centenary Medal for service to Australian society in research and geomatics engineering and surveying 2003.
- UN sponsored Permanent Committee on GIS Infrastructures for Asia and the Pacific.
- Prolific author on a wide range of land management subjects.
- Advocate for the land management industry within many industry forums.

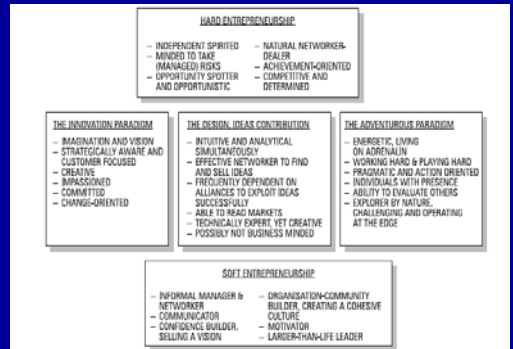
Personality Trait Index	Land Professional Don Grant	Adventurer Len Beadell	Pioneer Major Mitchell	Entrepreneur Ian Williamson
high achievement motivation	*	*	*	*
need for control			*	*
internal locus of control	*	*	*	*
autonomy	*	*	*	*
independence	*	*	*	*
assertiveness	*	*	**	*
self-confidence	*	*	*	*
initiative	*	*	*	*
optimism	*	*	*	*
imagination	*	*	*	*
persistence	*	*	*	*
single mindedness				
decisiveness	*	*	*	*
compelliveness				
risk taking	*	*	*	*

## Creative, enterprising activity



(Source: Thomson 1999)

## The dimensions of Entrepreneurship



Adapted from

## Ongoing skill development



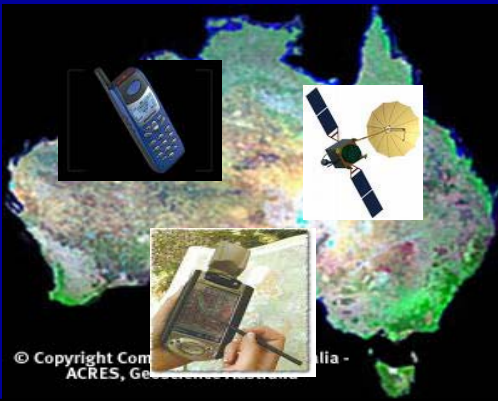
THE PROFESSIONAL COMPETENCE MODEL

Enemark, 2004

## The Anatomy of Cultural Change



## Continued Innovation



## Summary

- Reviewing Australian Surveyors from a number of dimensions has indicated that those leaders in the profession have demonstrated many entrepreneurial characteristics
- Entrepreneurial skills have been identified as many as important for success in the globalised world
- These are also success indicators for those working in the knowledge age
- You don't have to be born with these – you can develop them
- The challenge for land management professions is to clarify what is needed and provide mechanisms for building a skill set for success
- Another outcome has been the need to celebrate individuals who have contributed to a profession and suggest that these sort of reviews and analysis on what has made professional leaders successful could provide insight on the way forward and future development.

Disclaimer: The views in this article are my own and are presented for the purpose of academic and professional Research and do not necessarily reflect the policy of views of the Department of Sustainability and Environment;

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