



# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Commission 1 Work Plan 2011 - 14

- Working Group 1.1
  - to consider the current and future role of the surveyor
  - to review the definition of the surveyor
- Co-chairs
  - Winnie Shiu (Hong Kong)
  - Curtis Sumner (USA)
  - Brian Coutts (NZ)

Platinum sponsors:



# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Brian J Coutts (NZ) and Malcolm McCoy (Aus)

### Towards 2020 -

Critical Developments in Land Surveying in 60 years

Platinum sponsors:





# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Chickens and eggs – Question:

- Does the current role of the surveyor flow from the definition, or should a definition flow from the current role of the surveyor?
- Maybe the answer is . . . neither!
- Might the definition of the surveyor not flow from the foreseeable *future* role of the surveyor?

Platinum sponsors:



esri



Trimble



# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Implications of the answer:

- What practitioners see as their role in society
- How the current practitioners maintain their current and anticipated competencies
- What academia teaches the incoming generation of surveyors
- How the profession is marketed to society and to potential members
- The explanation of these implications is related to the perceived or claimed “crisis” in some quarters of the profession

Platinum sponsors:



esri



Trimble





# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Definition of the Surveyor

- The FIG definition of the surveyor was published in 1991
- It encompasses a broad variety of sub-disciplines and skills
- This definition includes what in some contexts (including Aust and NZ) are separate professional disciplines (eg Valuation, QS, Property Mgmt)
- Does the definition of “Surveyor” continue to withstand scrutiny 20 years later?
  
- This paper is intended only as an introduction to that question.
- Additionally, it focuses on the discipline of “Land Surveying”.

Platinum sponsors:



# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Other definitions that may be relevant

- **Profession:** An occupation in which a professional knowledge of some subject, field, or science is applied; a vocation or career, especially one that involves prolonged training and a formal qualification.”  
» (OED Online).
- **Surveying:** The determination and identification of the shape, contour, location and dimensions of land or water masses and their features, or planning and designing maps.”  
» (the gooduniversitiesguide.au.com)

Platinum sponsors:





# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Surveyors may come in 4 flavours:

- Professional general practitioners (owners or employees serving the public)
- Technician practitioners (also owners or employees serving the public)
- Surveying specialists
  - eg a hydrographic surveyor (professional/technical)
- Surveying scientists
  - eg a geodetic scientist

Platinum sponsors:



esri



Trimble



# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Advances in the past -

- Printing
- The maritime clock
- Logarithms and natural trigonometrical tables
- Mechanical calculators
- Telescopes
- The fine and accurate etching of protractors
- Measurement by (reducible) metal bands or staves

Platinum sponsors:



esri



Trimble





# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## Critical developments since the 1950s

- Electronic distance measurement
- Miniaturisation
- Electronic calculators
- Aerial photography / photogrammetry
- Satellite positioning
- Computerised databases
- Other remote sensing (infra red, Lidar)

Platinum sponsors:



esri



Trimble



# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:

Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## so where to now?

- Certain aspects of the traditional work of a land surveyor can apparently be easily achieved by a lay-person –
  - the location of a mobile phone super-imposed on a topographical map
  - a coordinated position for a land title boundary angle.

Platinum sponsors:



esri



Trimble





# FIG Working Week 2012

Rome, Italy 6–10 May

Knowing to:  
Manage the territory  
Protect the environment  
Evaluate the cultural heritage



## *The BIG question -*

- Do we need to redefine the “identity” of the professional land surveyor?

Platinum sponsors:



esri



Trimble

