1st Young Surveyors Conference

4th & 5th May, 2012

Palazzo Corrodi, Cassa Geometri

Rome, Italy

FIG YOUNG SURVEYORS

Knowing To Create The Future

FIG

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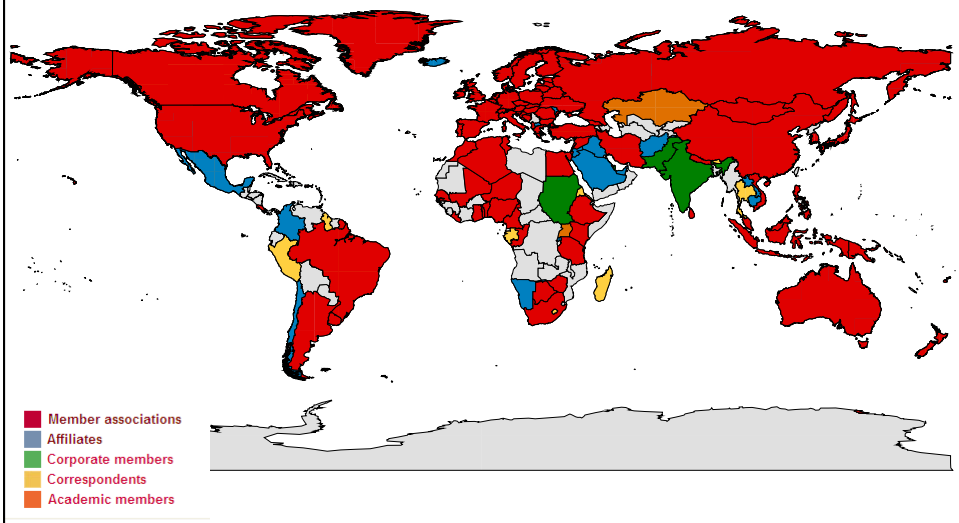
May 6–10 2012 Rome, Italy



105 Member Associations; 41 Affiliate Members; 95 Academic Members & 28 Corporate Members

130 Countries

FIG

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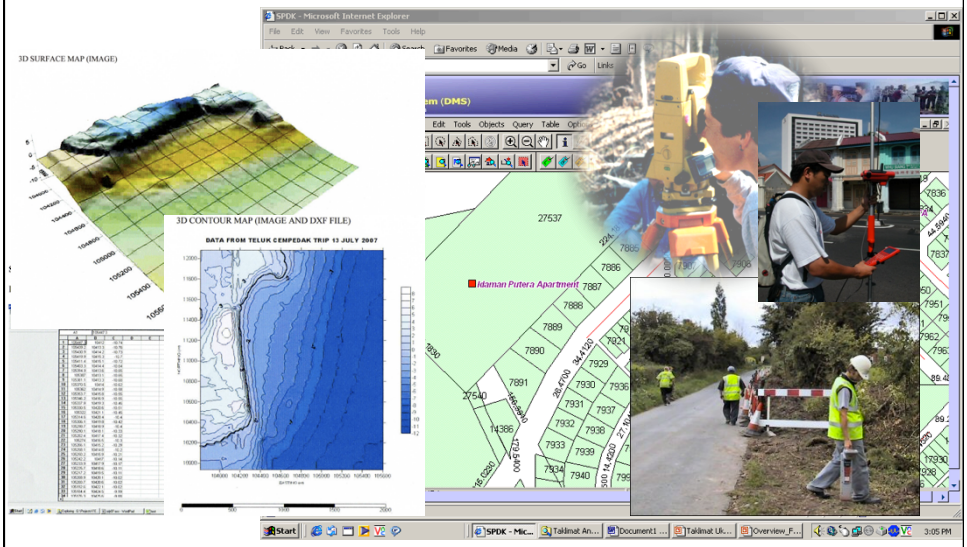
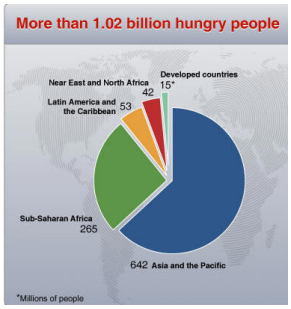
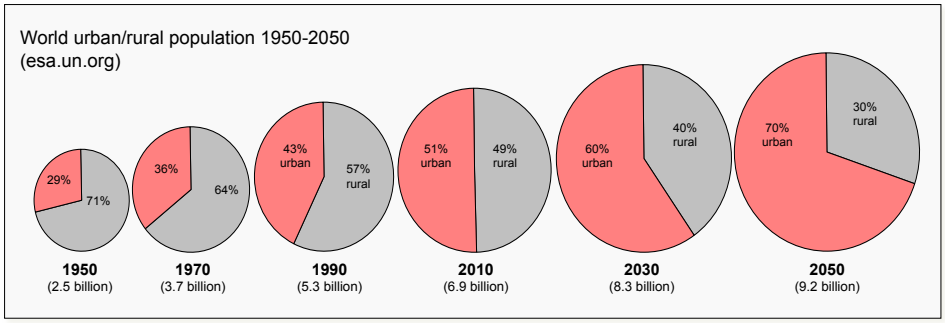




One sixth
of humanity
undernourished
(FAO, 2009)



	1950	1975	2007	2025	2050
World Urban Population (million)	737	1,518	3,294	4,584	6,398
Percentage	29.1%	37.3%	49.4%	57.2%	69.6%
More Developed Region (million)	427	702	916	995	1,071
Less Developed Region (million)	310	817	2,382	3,590	5,327

Close to 1 billion people, or 32 per cent of the world's current urban population, live in slums in inequitable and life-threatening conditions, and are directly affected by both environmental disasters and social crises, whose frequency and impacts have increased significantly during the last few decades.

(UN-Habitat, 2009)

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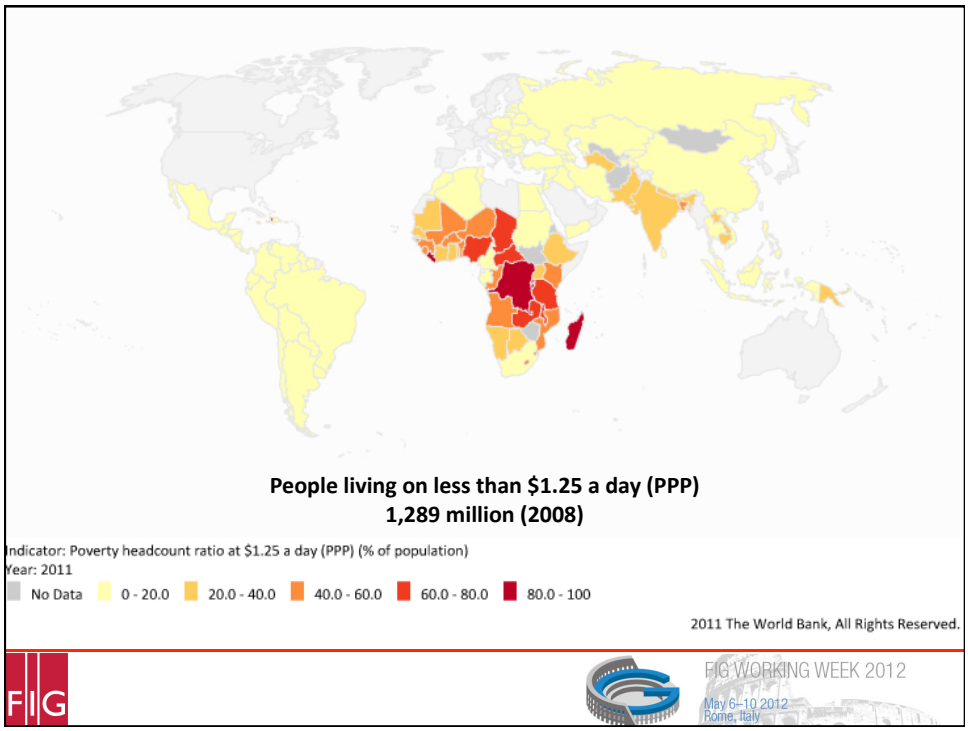
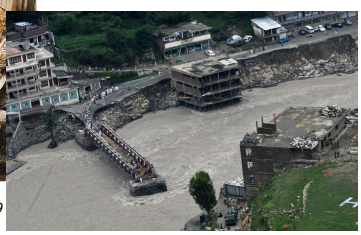
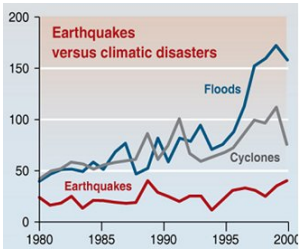


Time, 2009



A Majeed, AFP, Getty Images (2010)

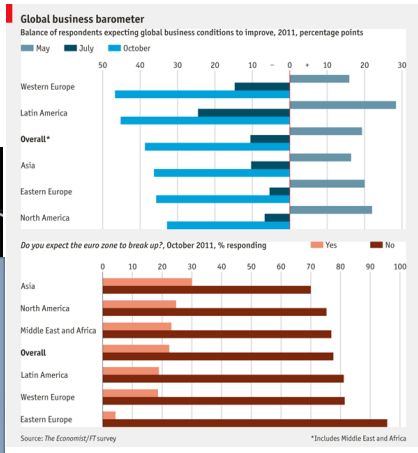


"The most important environmental concern now is climate change". The authoritative Stern Report on the economics of climate change concludes that it will 'affect the basic elements of life for people around the world – access to water, food production, health and the environment'.

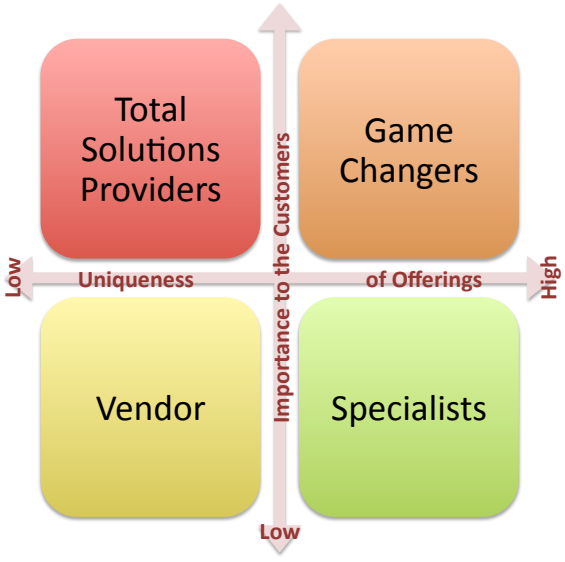
(Planning Sustainable Cities: Global Report on Human Settlement 2009 (UN-Habitat)

United Nations baseline forecast for the growth of world gross product (WGP) is 2.6 per cent for 2012 and 3.2 per cent for 2013, which is below the pre-crisis pace of global growth

Photograph: Pawel Kopczynski/Reuters



Nov 10th 2011, 17:03 by The Economist Online



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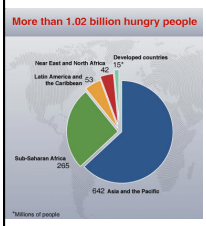
"The rapid advances in geospatial information and technologies, and their easy accessibility, have made such information an invaluable tool in research, policy and business planning and implementation. Across all sectors of society, it is increasingly recognized that the effective use of geospatial information helps address many of the current humanitarian, peace and security, environmental, and development challenges facing the world, such as climate change, natural disasters, disease pandemics, famines, population displacement, food and economic crises, which are of a cross-border nature requiring both global, regional and national policy responses."

(United Nations Secretary General's Report to the UN Economic and Social Council, 2011)



Chaiwat Subprasom, Reuters (2011)

Time, 2009

GGIM has a vision to migrate to a paradigm of ***managing all information spatially***

Cadastre 2.0

Need a shift in thinking…..

- Multipurpose
- Transparent
- Accountable
- Citizen Engagement
- Cloud Computing
- Online Data
- Improving Data Quality
- Mobile
- 3D

currency
feedback
open government
wiki
Rich Data Model
SDI
web services
LADM
speed
e-government
metadata
STDM
maps & apps
accuracy
completeness
portals
connectivity
quality data

© Brent Jones

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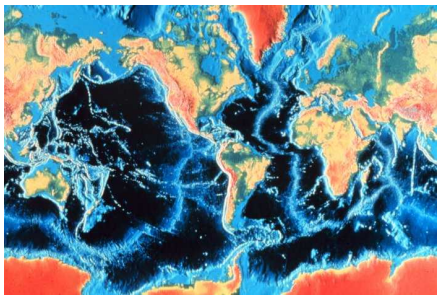
Surveyor 2.0

Surveyor 2.0

Geodesist
Co-ordinate systems
Elevation Models
GNSS Infrastructures
This is the Foundation



© US National Oceanic and Atmospheric Administration

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Geodesist

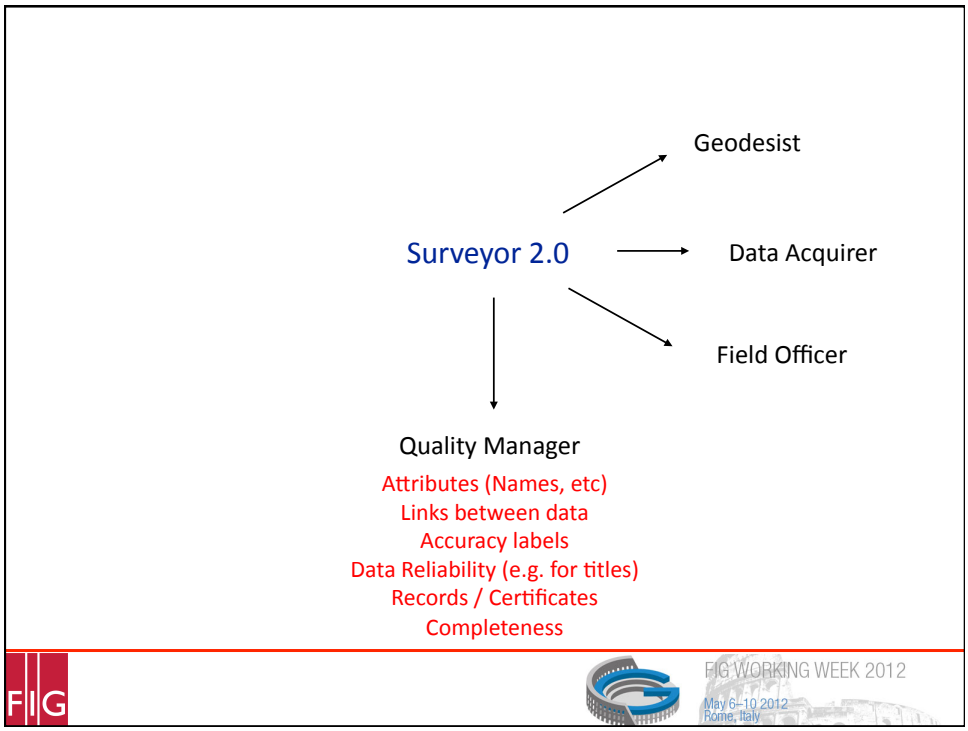
Surveyor 2.0 → Data Acquirer

Mobile Mapping
Google, OpenStreetMap, VirtualEarth
(Co-ordinator of) crowd sourcing
Aerial Photo's
Satelite Images
Pictometry
Conventional Cadastral Surveys

Geodesist

Surveyor 2.0 → Data Acquirer

Field Officer
Evidence from the field
Communicator
Front Office for the people
Participation
Citizen Centric
Management of Complaints


Geodesist
Surveyor 2.0
Data Acquirer
Field Officer
Quality Manager
Attributes (Names, etc)
Links between data
Accuracy labels
Data Reliability (e.g. for titles)
Records / Certificates
Completeness
FIG
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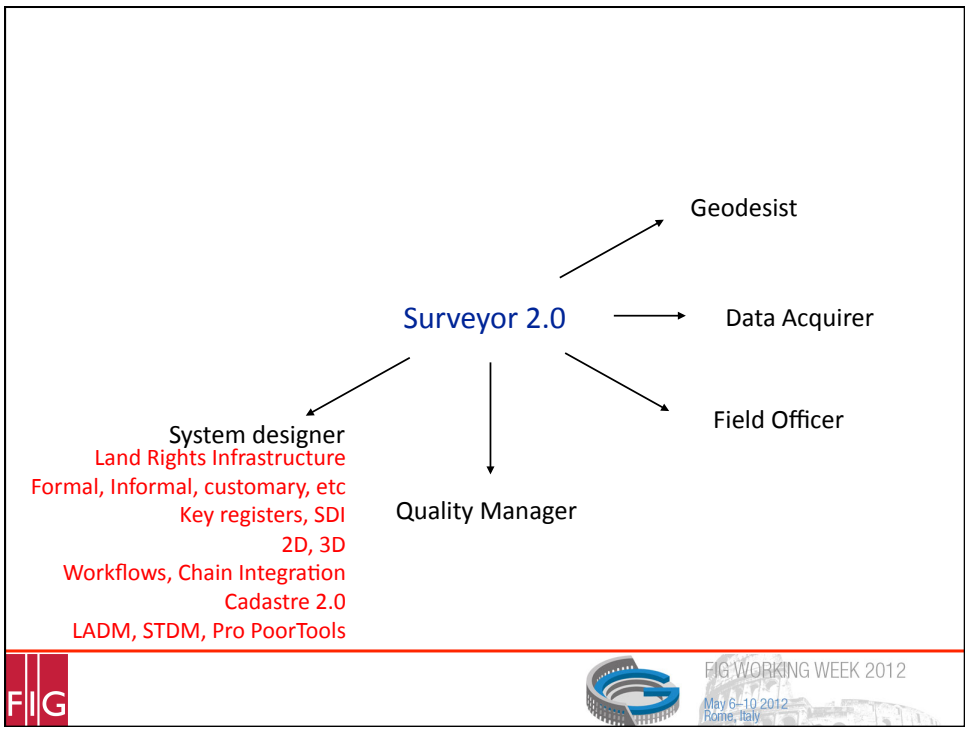
Geodesist
Surveyor 2.0
Data Acquirer
Field Officer
System designer
Land Rights Infrastructure
Formal, Informal, customary, etc
Key registers, SDI
2D, 3D
Workflows, Chain Integration
Cadastre 2.0
LADM, STDM, Pro PoorTools
Quality Manager
FIG
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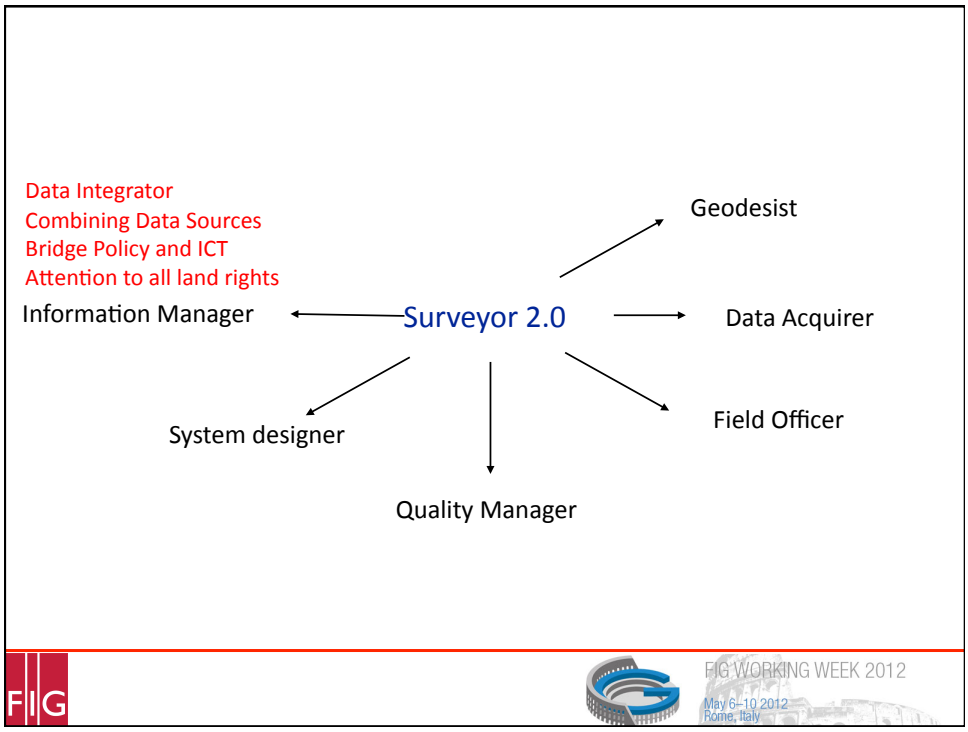
Data Integrator
Combining Data Sources
Bridge Policy and ICT
Attention to all land rights
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
System designer
Field Officer
Quality Manager
FIG
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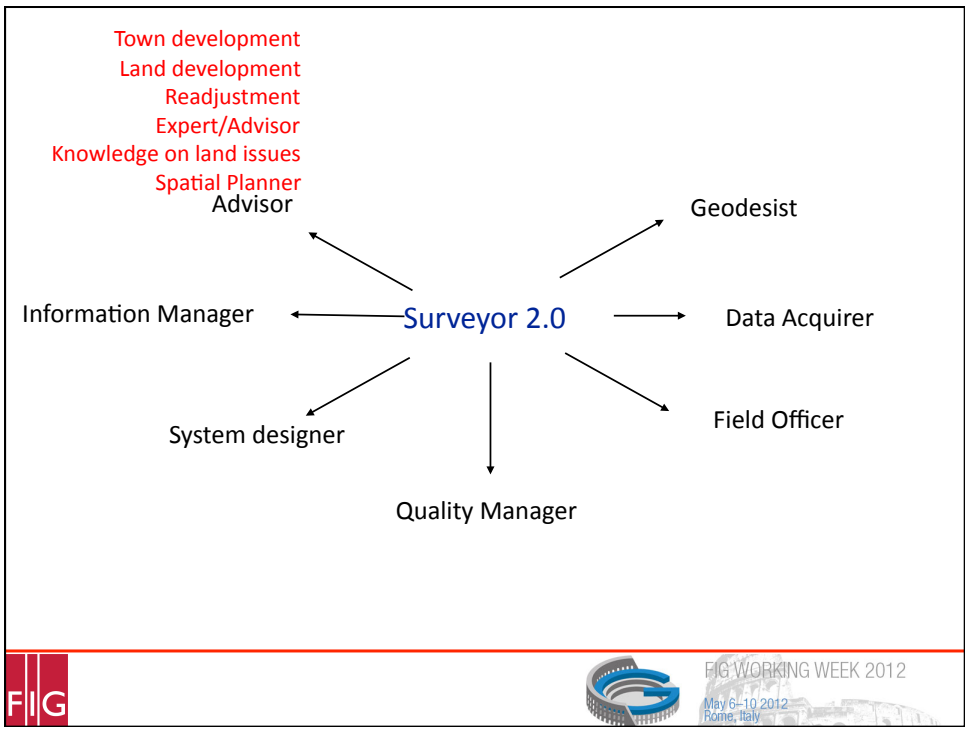
Town development
Land development
Readjustment
Expert/Advisor
Knowledge on land issues
Spatial Planner
Advisor
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
System designer
Field Officer
Quality Manager
FIG
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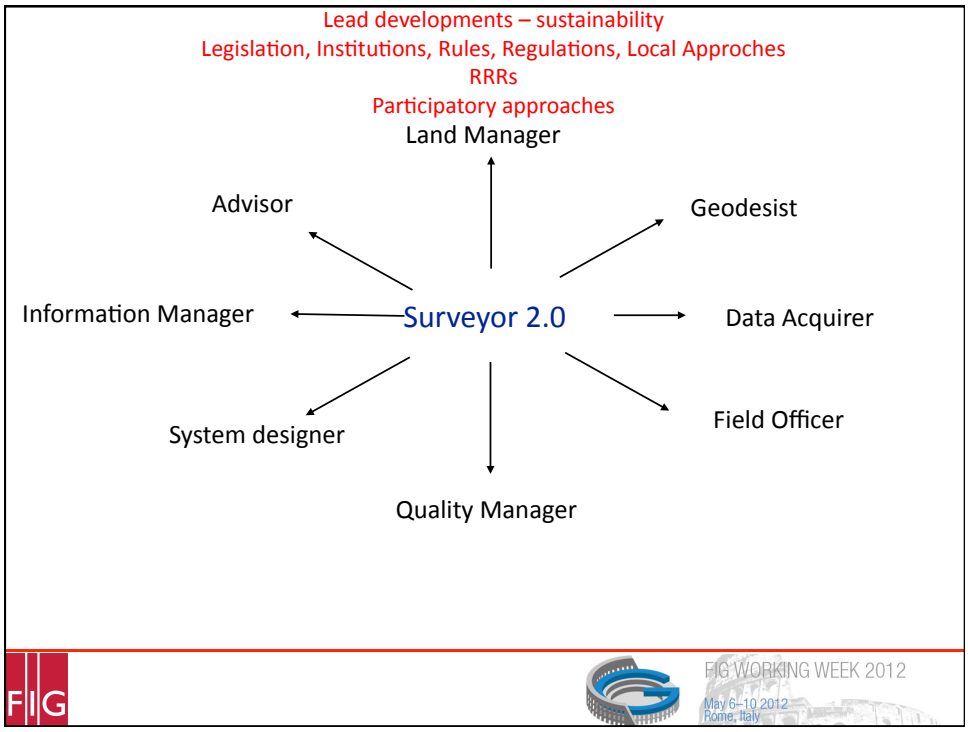
Lead developments – sustainability
Legislation, Institutions, Rules, Regulations, Local Approches
RRRs
Participatory approaches
Land Manager
Advisor
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
System designer
Field Officer
Quality Manager
FIG
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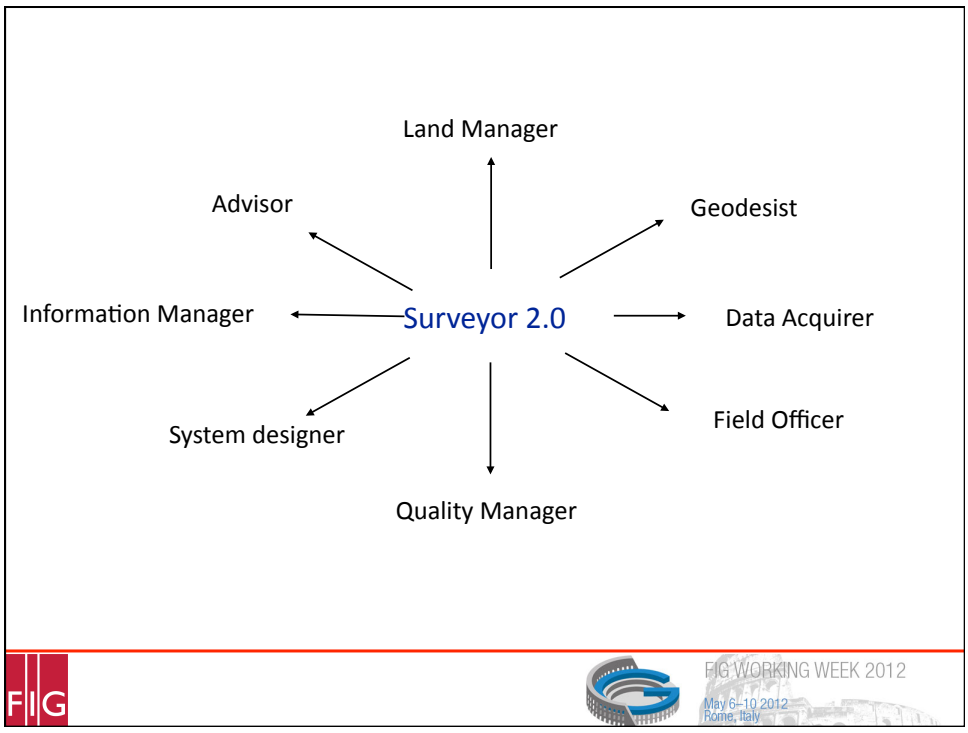
Land Manager
Advisor
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
System designer
Field Officer
Quality Manager
FIG
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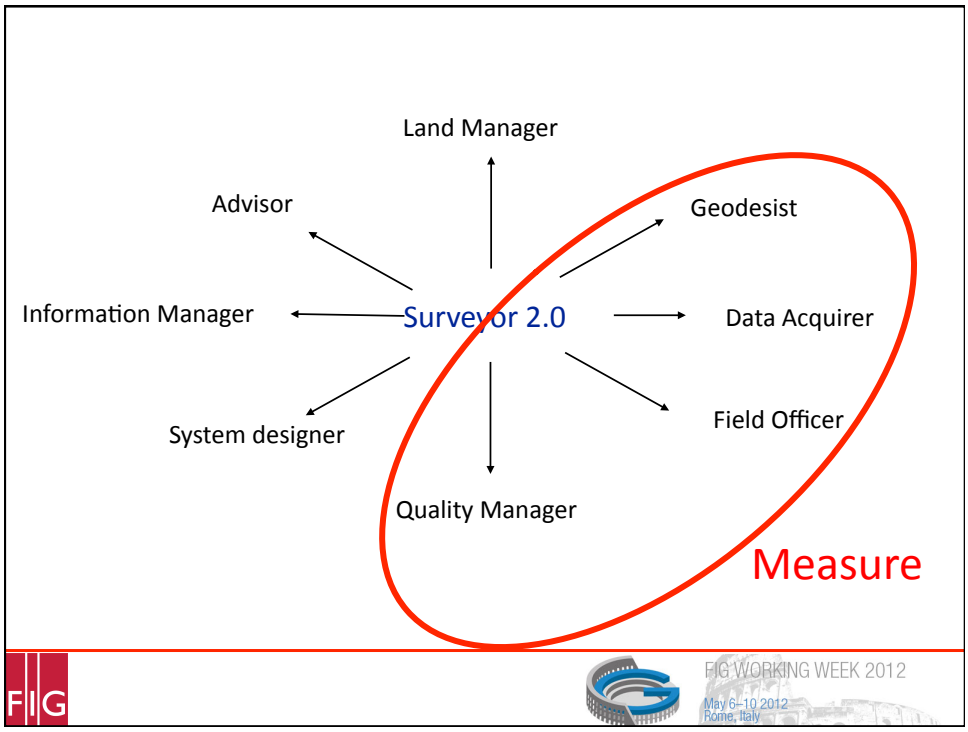
Land Manager
Advisor
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
System designer
Field Officer
Quality Manager
Measure
FIG
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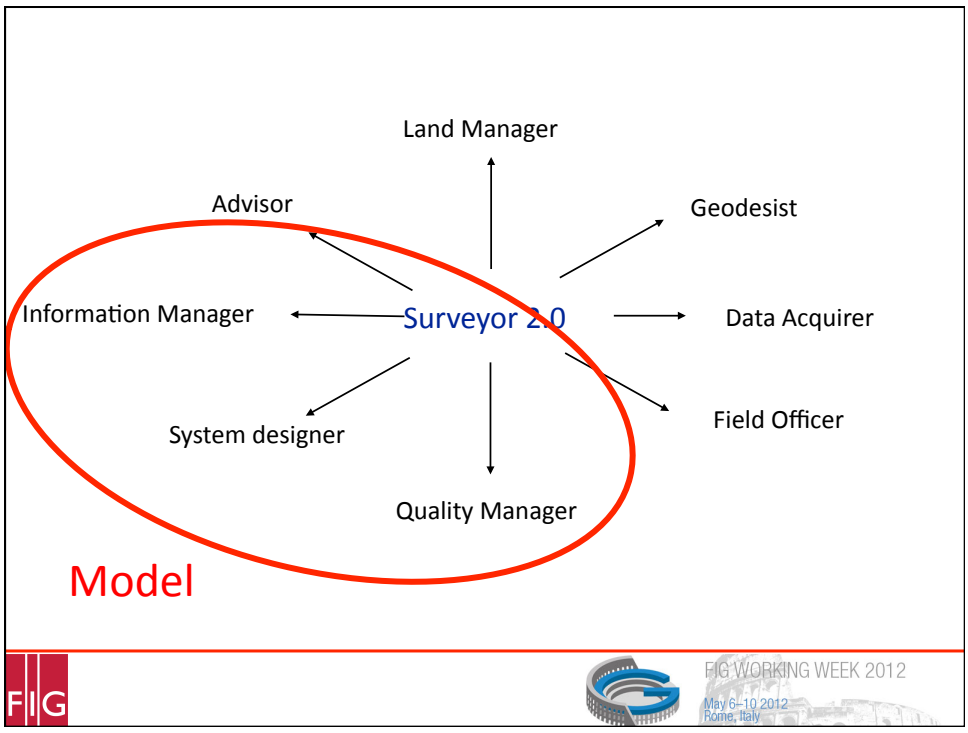
Land Manager
Advisor
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
System designer
Field Officer
Quality Manager
Model
FIG
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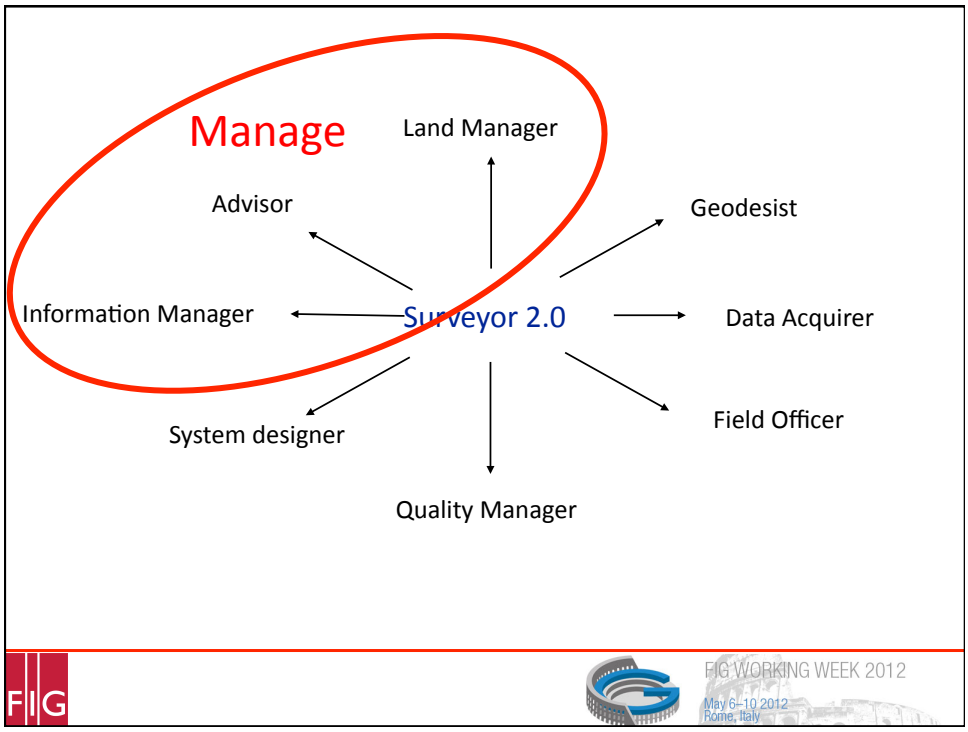
Manage
Land Manager
Advisor
Geodesist
Information Manager
Surveyor 2.0
Data Acquirer
Field Officer
System designer
Quality Manager
FIG
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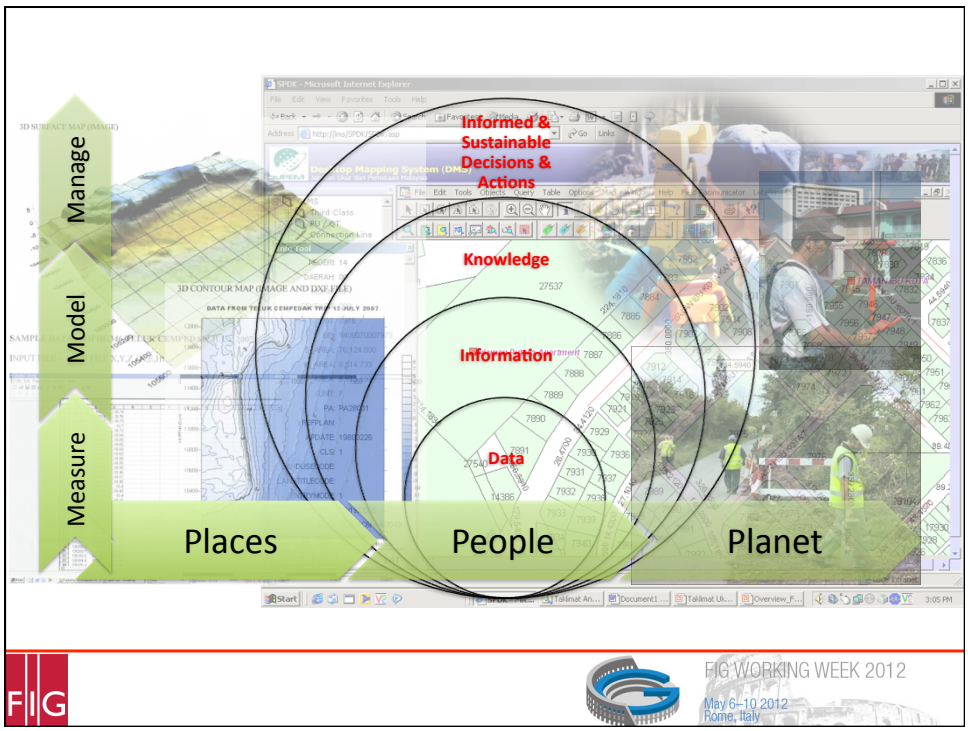
Manage
Model
Measure
Informed & Sustainable Decisions & Actions
Knowledge
Information
Data
Places
People
Planet
FIG
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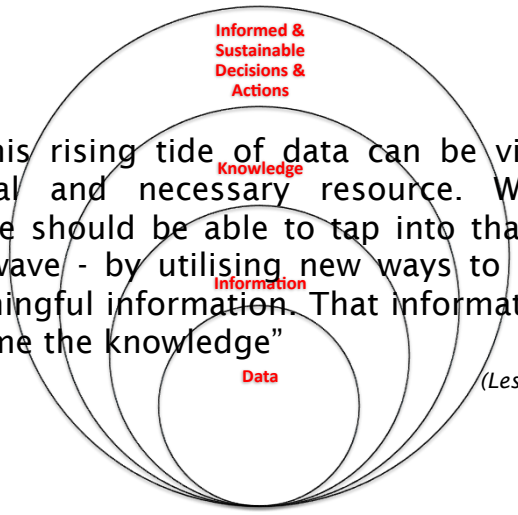
Rome, Italy



"Like water, this rising tide of data can be viewed as an abundant, vital and necessary resource. With enough preparation, we should be able to tap into that reservoir - and ride the wave - by utilising new ways to channel raw data into meaningful information. That information, in turn, can then become the knowledge"

(Les Alberthal [alb95])

There is no doubt that surveyors are critical to the future society of both developed and developing world

Clarissa Augustinus (UN-Habitat)

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