



New Technology for Cadastral Systems

Brent Jones, PE, PLS

Benefits of Good Land Administration

Key to addressing global challenges.....

- Secure Tenure
- Equitable Land and Property Taxation
- Support for Government and Rule of Law
- Manage Land Disputes
- Protect State Lands
- Poverty Alleviation
- Support for Land Markets
- Improved Land Planning



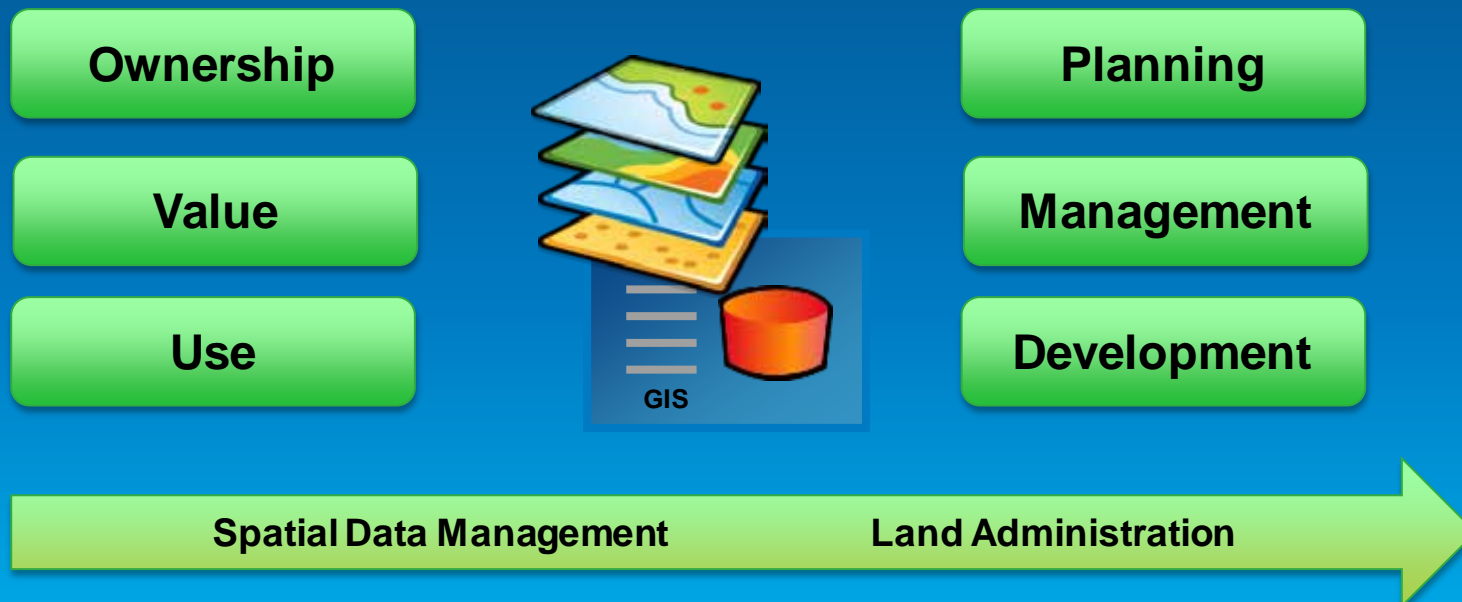
Leveraging the capabilities in ArcGIS.....

Land Administration

GIS is the platform for land administration

Land administration is the process of determining, recording, and disseminating of information about ownership, value and use of land when implementing land management policies.

Source: UN/ECE Land Administration Guidelines 1996



GIS is key to good Land Administration.....

Trends in Land Administration

GIS Technology is the Platform for the Solutions

- Implementing Cadastre is the basis of SDI
- Information infrastructure maturing
- Faster data updating
- Fully connected data workers
- Community driven cadastral mapping
- Sharing data
- Faster implementations

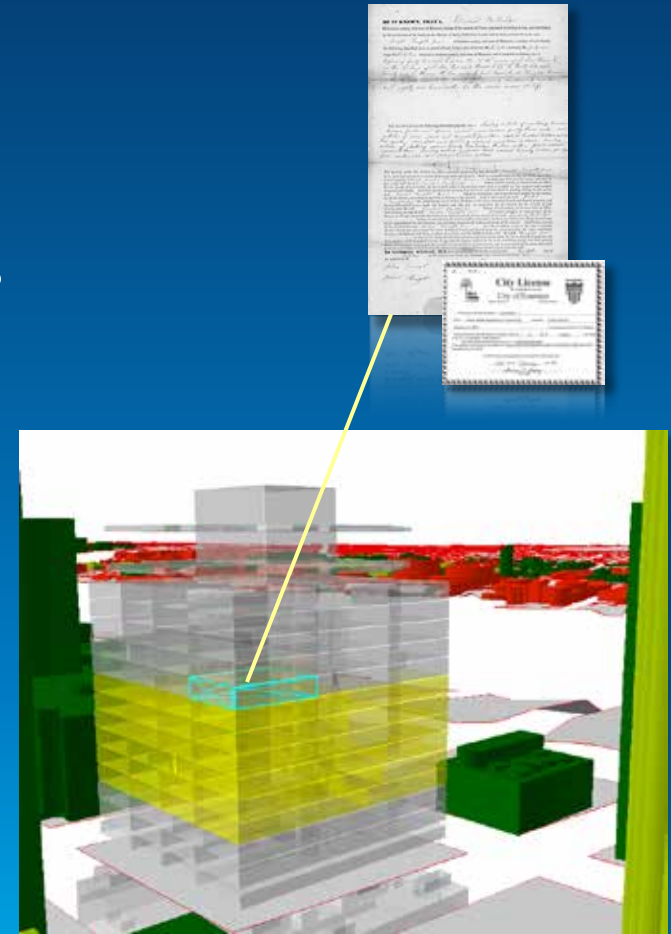


Powering Cadastre 2.0

Trends - Cadastre 2.0

Applying GIS Technology to Meet Current Challenges

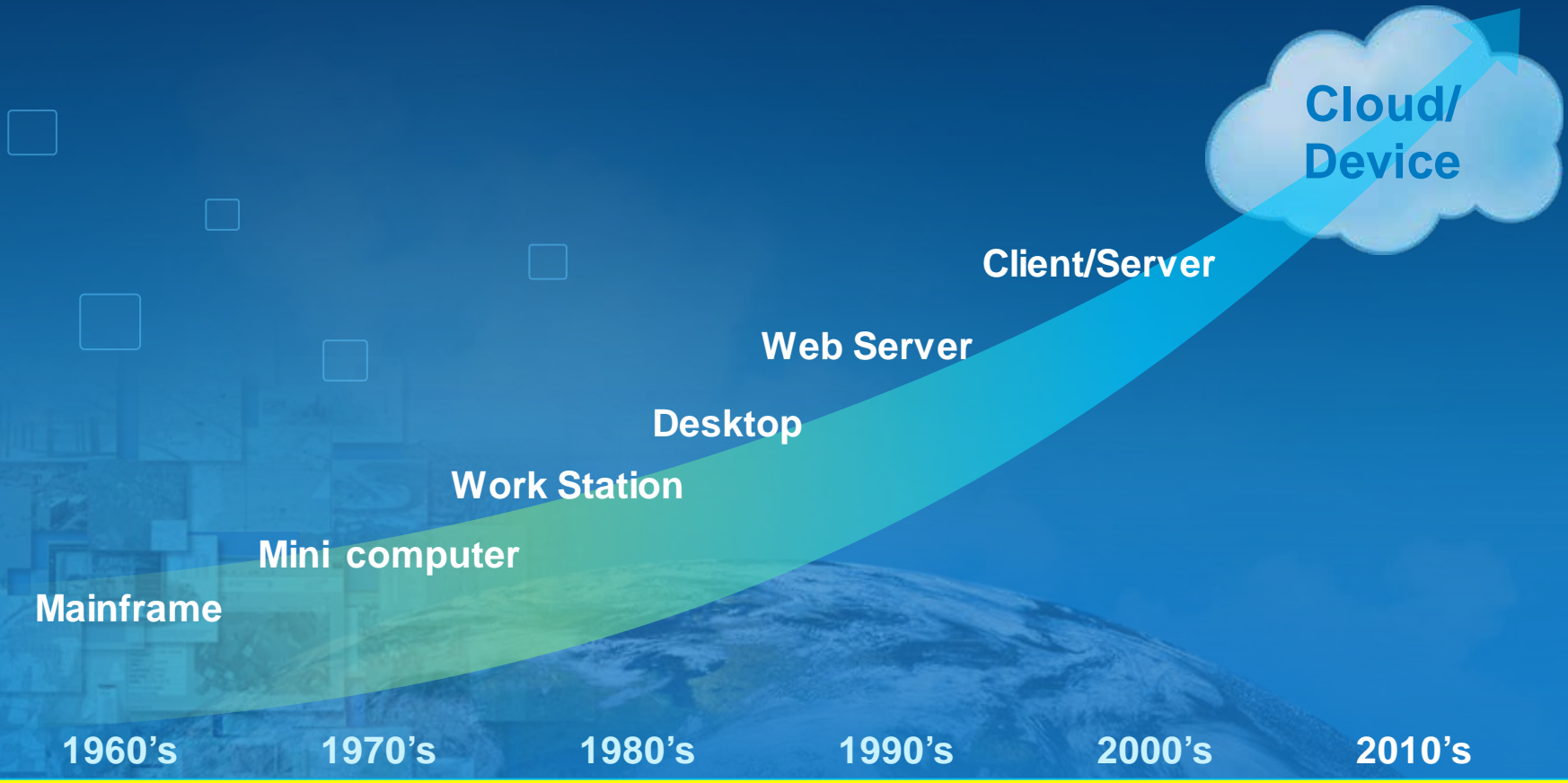
- Multipurpose
- Transparent/Accountable
- 3D/4D Parcel management applications
- COTS – Commercial Off-the-Shelf
- Engaged citizens
- Fully connected data workers
- Cloud Computing
- Online Data
- Ongoing Data Quality Improvement



GIS is the Platform for Cadastre 2.0

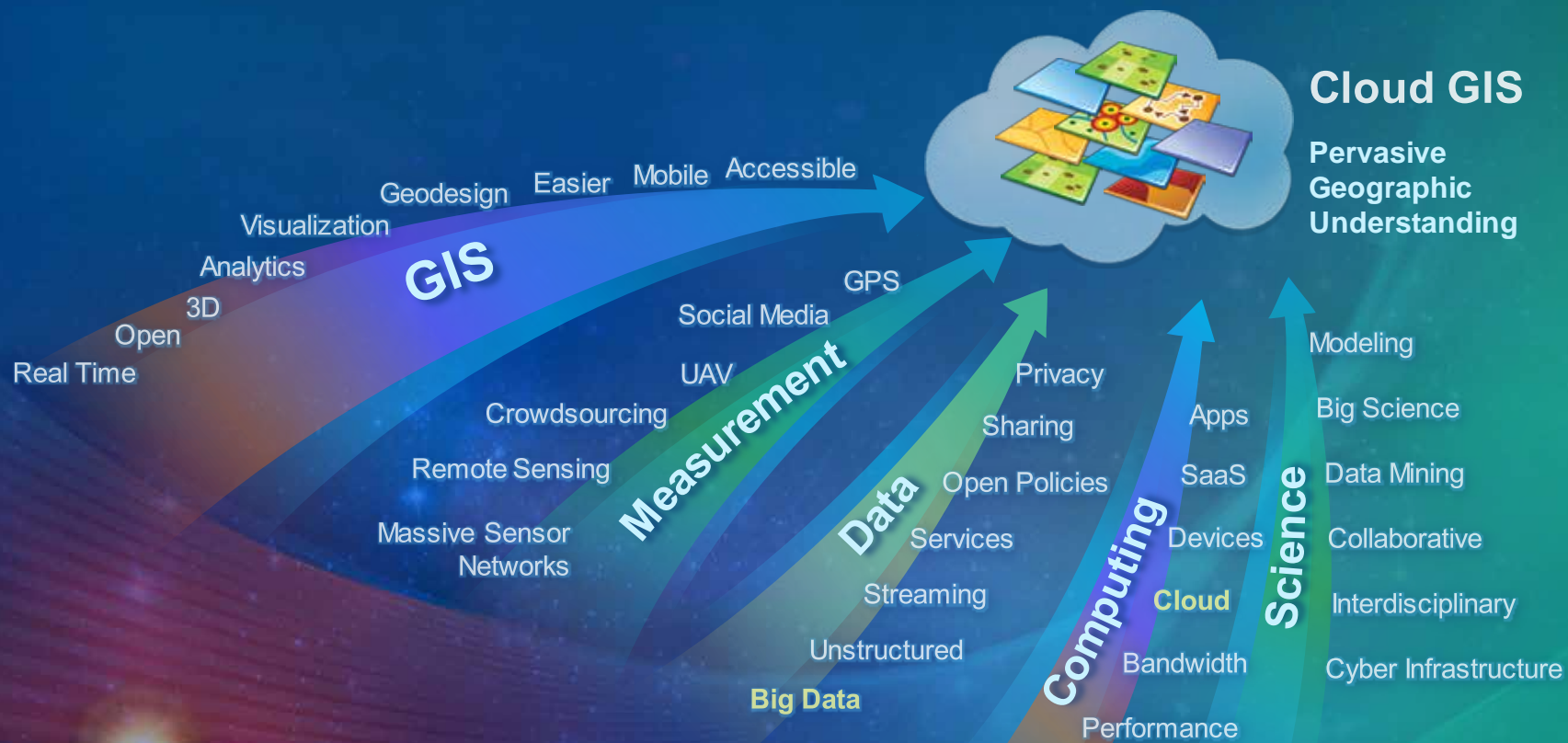
Platforms Evolve

A New Architecture



New platforms, new opportunities....

This Platform Leverages Many Trends



2.0

Leveraging the new Platform....

Web 1.0

“the mostly read-only Web”



45 million global users

1996

Web 2.0

“the wildly read-write Web”



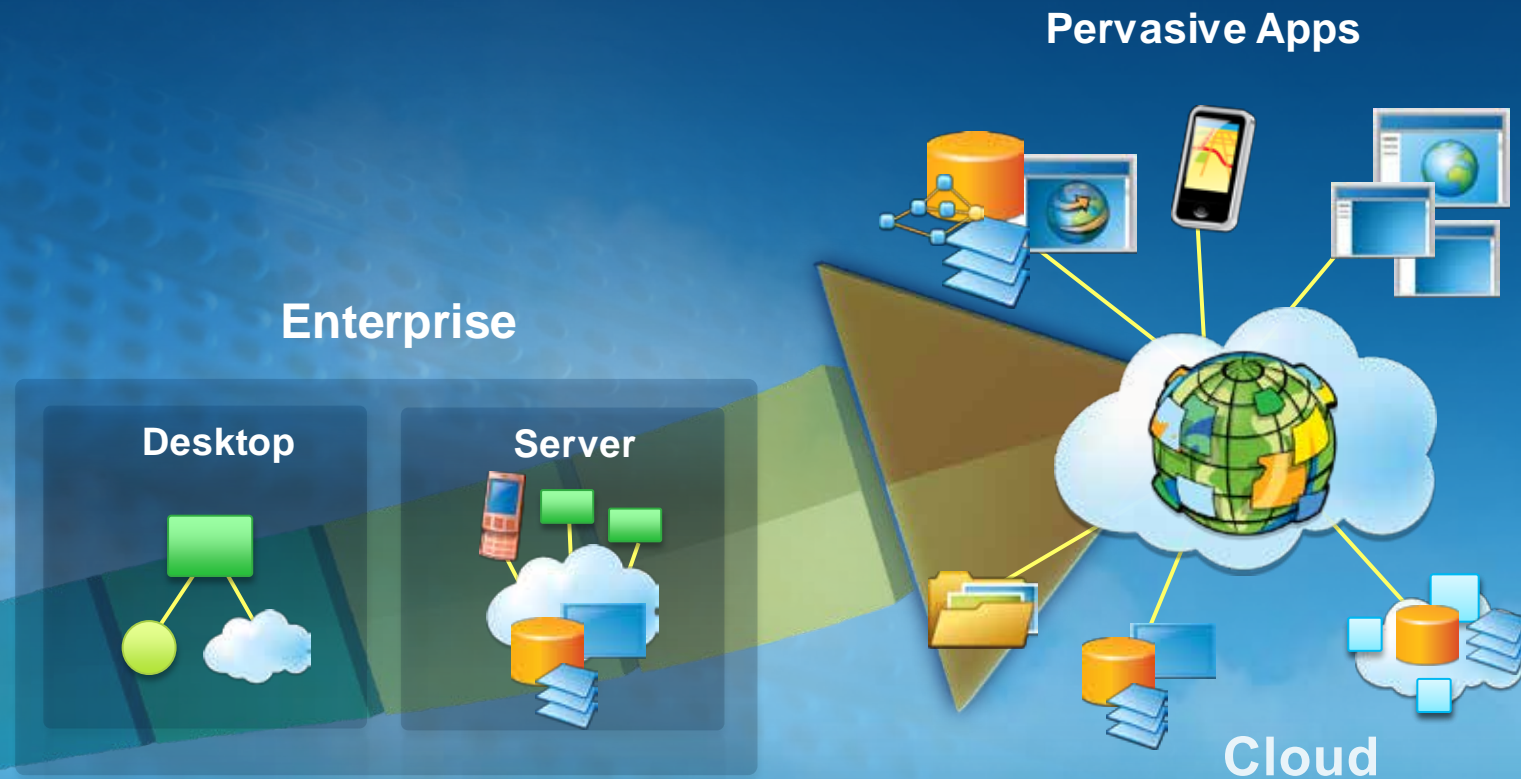
2.51 billion+ global users

2013 (April)

6 billion cell phones worldwide (20% smartphones).....

GIS as a Platform

Connects and Leverages



Providing Webmaps and Tools. . . .

Enabling New User Experiences



This Platform Integrates All Types of Information



*Web Maps Normalize The Information . . .
... And Make It Accessible Widely*

Web Services

Quick, but very important definition

WFS – Web Feature Service

WMS – Web Mapping Service

Geoprocessing Services

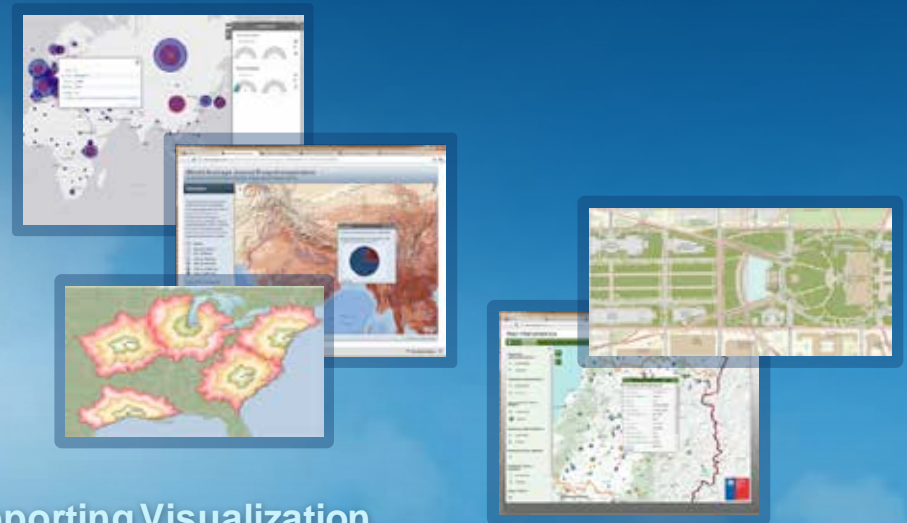
- are application components
- communicate using open protocols
- are self-contained and self-describing
- can be used by other applications

Web services power web maps, open standards.....

Web Maps are the New Medium

Providing Intelligent Maps to Everyone

Any Device



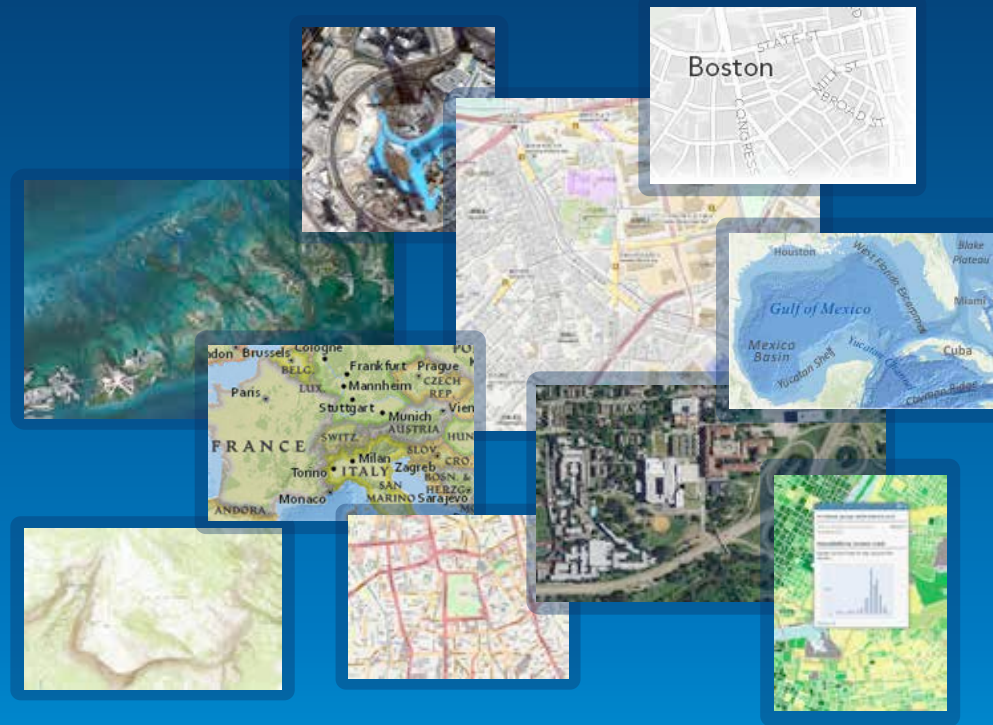
Supporting Visualization,
Query, Editing, and Analysis

Dynamic

Making Dynamic Geographic Information Available Anywhere

Global Basemaps and Data are Part of the Platform

Normalized Commercial and Government Sources



Geocoding
Streets
Oceans
Places
Routing
Imagery
Terrain
Topographic
Demographics

Available on the Web and as an Appliance

... Providing a Foundation for Your Work

Your Data/Maps On Any Device

Apps - Changing the way we think about computing



GIS as a Platform

A Complete Cadastre Platform

**Apps &
Applications**



Cloud/Server

Content & Services

Easy, Open and Cloud Enabled . . .

. . . Providing Transformational Opportunities

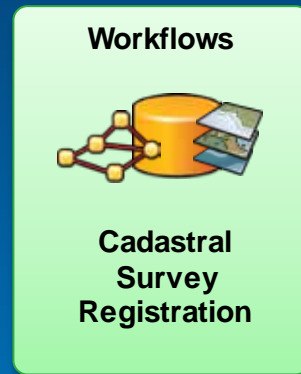
GIS – the Platform for Land Administration

Device – Desktop – Server – Cloud - Web

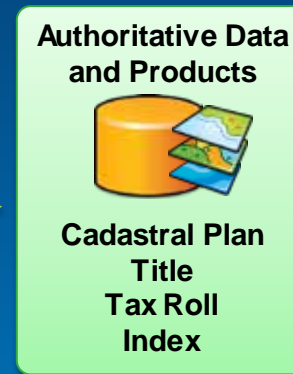
Collect



Process



Produce



Share



Specifications

Data Models

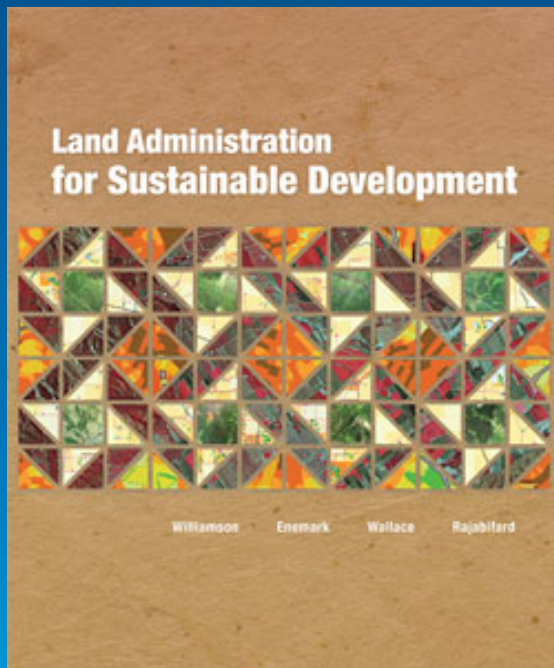
IT Strategy

Workflows

Land Administration for Sustainable Development

Free eBook Download

<http://esriurl.com/SusDev>



Ian Williamson

Jude Wallace

Stig Enemark

Abbas Rajabifard





New Technology for Cadastral Systems

Brent Jones, PE, PLS