

# Environment and Land Administration

Focus on

## Rights, Restrictions and Responsibilities

**Prof. Stig Enemark**



President

Aalborg University, Denmark

**FIG COMMISSION 7 OPEN SYMPOSIUM  
VERONA, ITALY, 14 SEPTEMBER 2008**

# Beautiful Verona







# Greetings from Copenhagen



# Greetings from the Home Base





# Aalborg – my home town





# Outline of Presentation

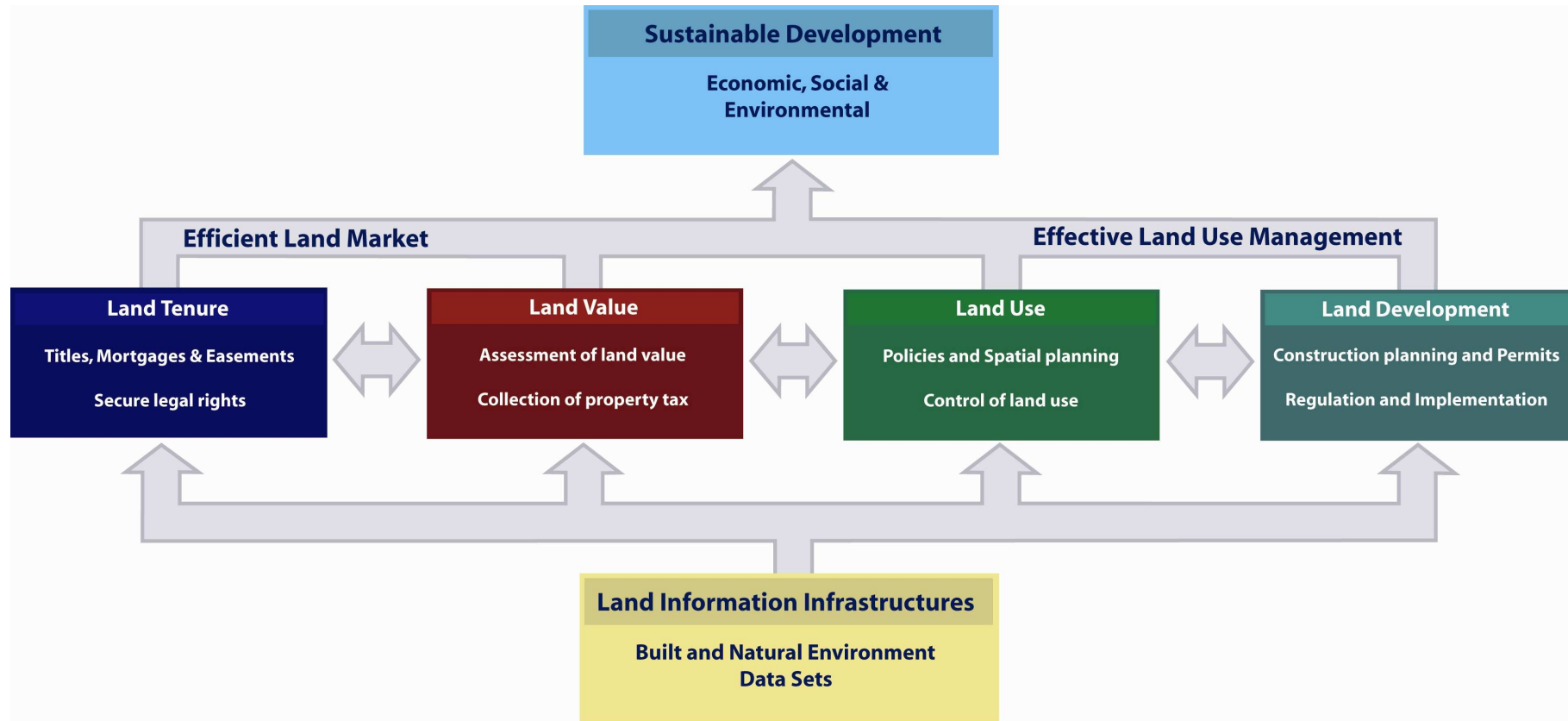
## Environment and Land Administration

- Rights – Restrictions – Responsibilities
- Spatially Enabled Government

## The Challenge for the Global Surveying Profession

- The Millennium Development Goals
- The Role of FIG and the Global Surveying Community

# LAS provide the infrastructure for implementation of land policies and land management strategies in support of sustainable development.



**Land Tenure:** the allocation and security of rights in lands; the legal surveys of boundaries; the transfer of property through sale or lease; and the management; adjudication of disputes regarding rights and boundaries.

**Land Value:** the assessment of the value of land and properties; the gathering of revenues through taxation; and the management and adjudication of land valuation and taxation disputes.

**Land-Use:** the control of land-use through adoption of planning policies and land-use regulations at various levels; the enforcement of land-use regulations; and the management and adjudication of land-use conflicts.

**Land Development:** the building of new infrastructure; the implementation of construction planning; and the change of land-use through planning permission and granting of permits.

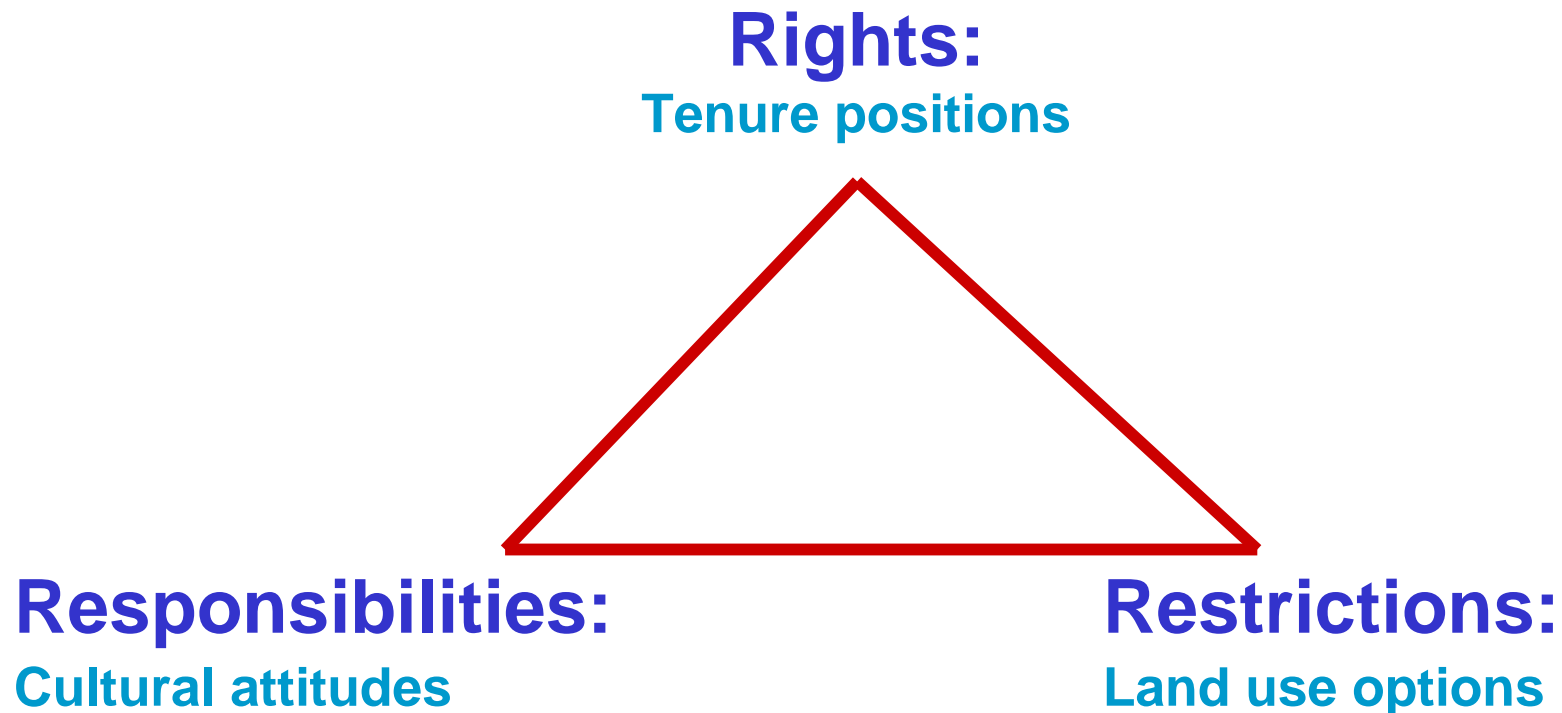


## The value to society

12.5% of Britain's GDP is based on the activity of Ordnance Survey of Great Britain - £100 billion  
(one thousand times the turnover of OSGB)

# Interests in land

Land administration systems are the basis for conceptualising rights, restrictions and responsibilities related to people, policies and places.



# The RRR's

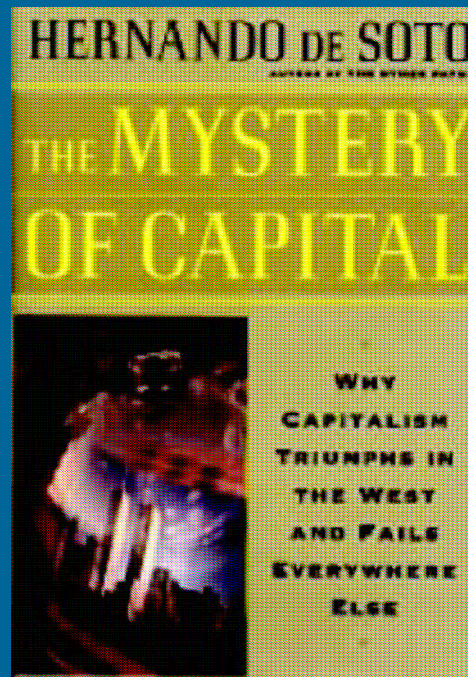
- **Property Rights**
  - Are concerned with ownership and tenure
  - Are normally available in the Land Registry
- **Property Restrictions**
  - Are concerned with controlling use and activities on land
  - Are normally available through planning documents or general land use provisions
- **Property Responsibilities**
  - Relate a more social, ethical commitment or attitude to environmental sustainability and good husbandry.
  - The human kind to land relationship is dynamic.



# The increasing role of property rights

”Civilised living in market Economies is not simply due to greater prosperity but to the order that formalised property rights bring”

*Hernando de Soto – 1993*



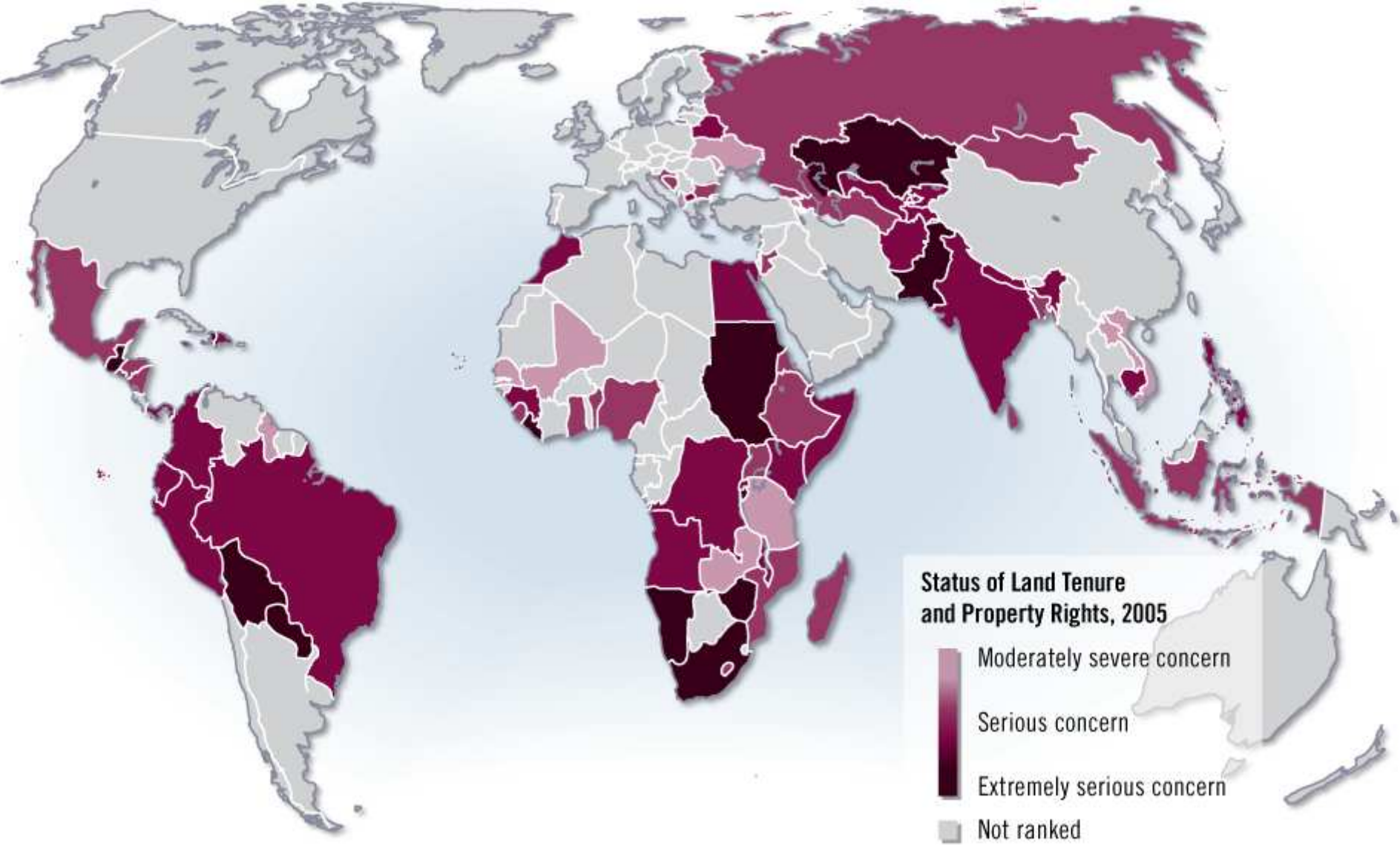
Continuum of rights  
(GLTN-agenda)

From: illegal or informal rights

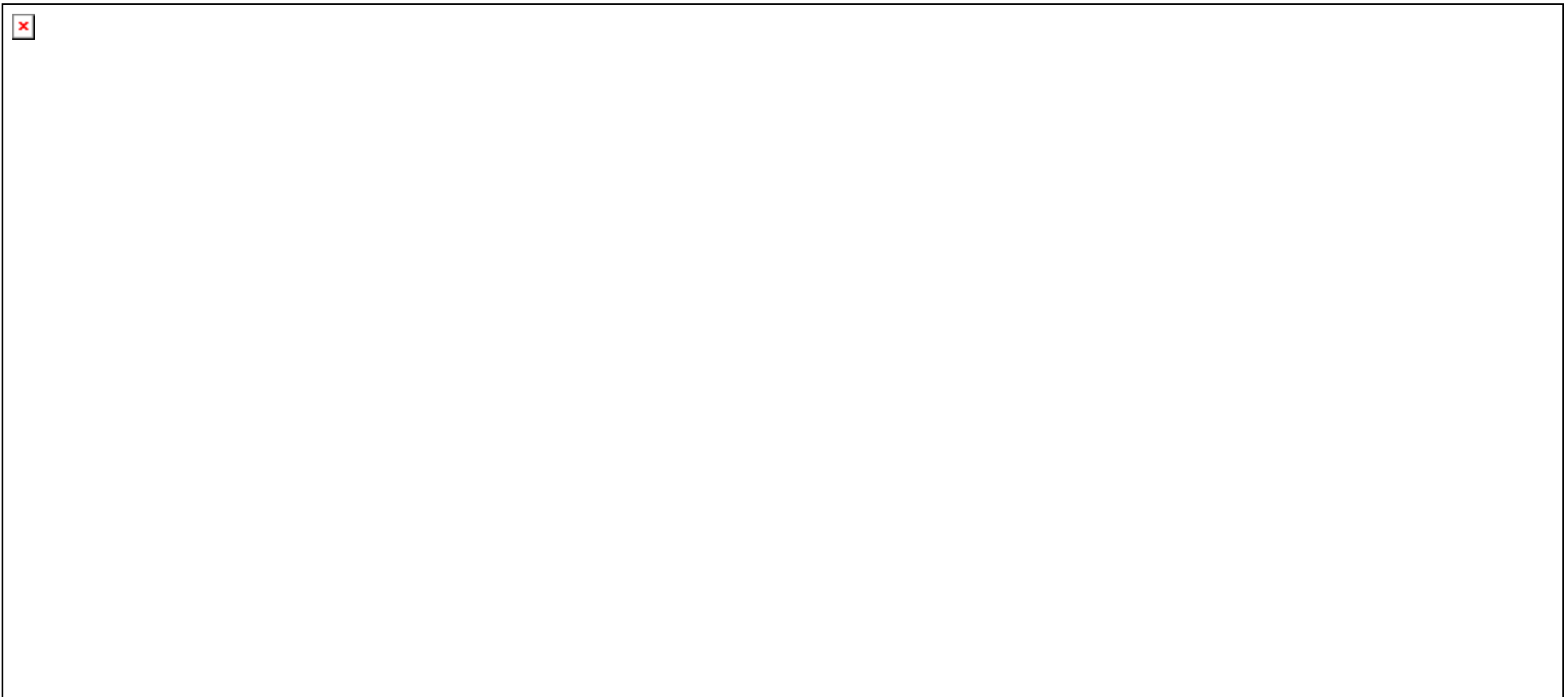
To: legal or formal rights



# World Status of Land Tenure and Property Rights



# Land Registration Systems around the World



Deeds System (French/Latin/USA style): A register of owners; the transaction is recorded – not the title.

Title System (German, Torrens/English style): A register of properties; the title is recorded and guaranteed.



## What is a good property system ?

- People in general can participate in the land market; widespread ownership; everybody can make transactions and have access to registration
- The infrastructure supporting transactions must be simple, fast, cheap, reliable, and free of corruption.
- The system provides safety for housing and business, and for capital formation

**Only 25-30 countries in the world  
apply to these criteria.**

# A worldwide Comparison of Cadastral Systems

Cadastral Template - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address <http://www.cadastraltemplate.org/> Go Links

[www.cadastraltemplate.org](http://www.cadastraltemplate.org)  
**Cadastral Template**  
*A Worldwide Comparison of Cadastral Systems*

Cadastral country reports based on a jointly developed PCGIAP/FIG template.  
Established under UN mandate by Resolution 4 of the 16th UNRCC-AP in Okinawa, Japan in July 2003.  
UN endorsement for cooperation with UN-ECE WPLA, UN-ECA CODI, and PCIDEA.

**Data per Country**  
(last update: 7 Jun. 2004, 35 countries)  
as .htm   
as .pdf

**Field Definitions**

**I. Data per Data Fields**  
(last update: 7 Nov. 2003, 30 countries)

**II. Principles and Statistics**  
(last update: 18 Apr. 2004, 33 countries)  
1.1 Cadastral Principles  
2.1 Population  
2.3 Parcels  
2.7 Professionals

**Documents**

- Questionnaires for Download (English, Español, Portugues).
- Publications
- Administrative Documents

**Latest Updates**

- Country report of Namibia as 35th country (7 Jun. 2004)
- Country report of Venezuela (in Spanish) as 34th country (28 May 2004)
- Country report of Mexico (also in English) (26 Apr. 2004)
- Country report of Mexico (in Spanish) as 33rd country (18 Apr. 2004)
- Publication in the Hong Kong Journal of Geospatial Engineering (3 Mar. 2004)
- Questionnaires available also in Spanish and Portuguese (6 Feb. 2004)

The "Cadastral Template" has been developed by a research group at the Department of Geomatics of the University of Melbourne. It consisted of Prof. Ian Williamson, Dr. Abbas Rajabifard, and Daniel Steudler, supported by Prof. Stig Enemark

[www.cadstraltemplate.org](http://www.cadstraltemplate.org)

Internet

# Property Restrictions

## - two conflicting approaches

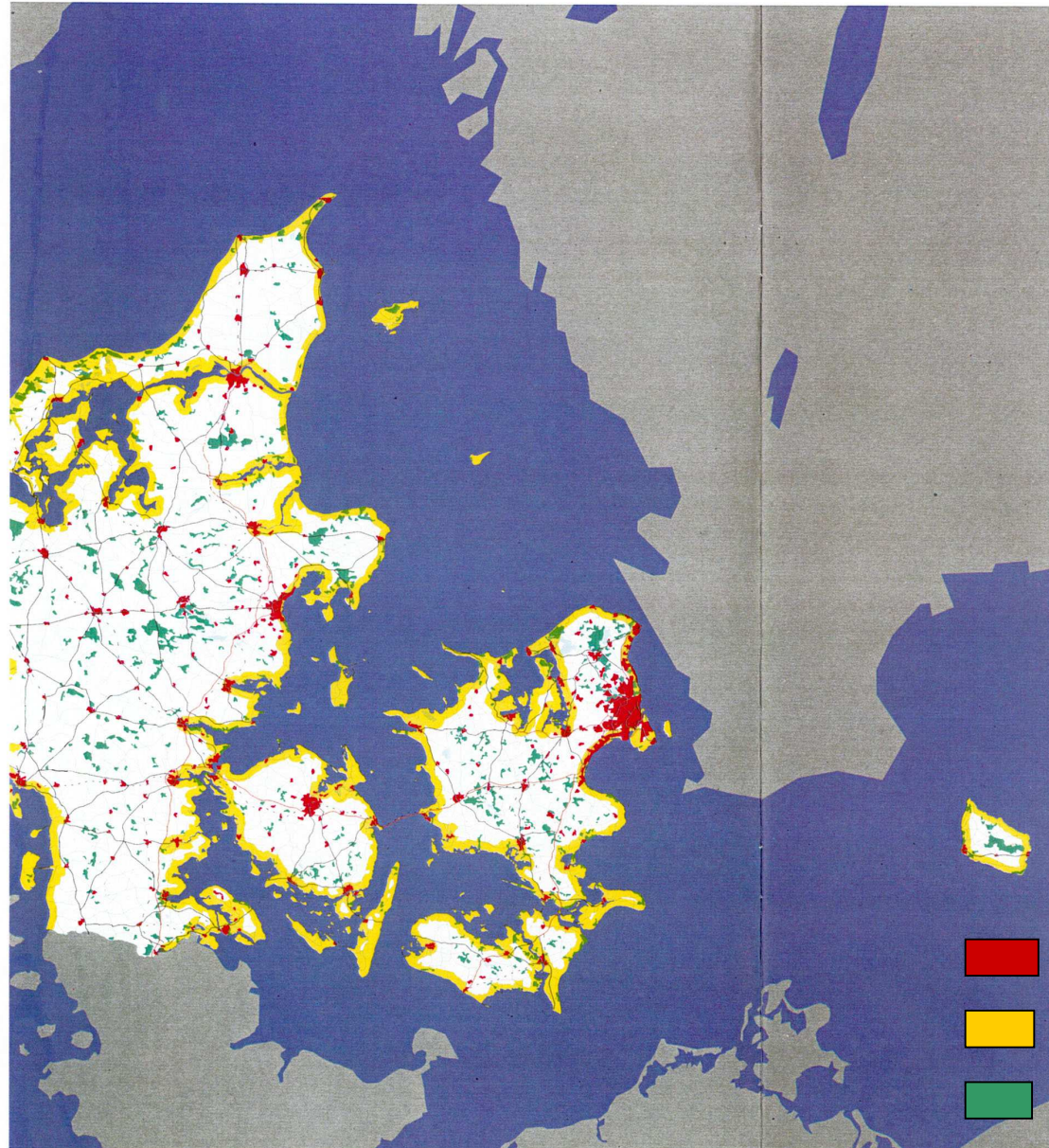
- **The free market approach** (current debate in the US)
  - Land owners should be obligated to no one and should have complete domain over their land.
  - The role of government to take over, restrict, or even regulate its use should be non-existent or highly limited.
  - Planning restrictions should only be imposed after compensation for lost land development opportunities
- **The central planning approach** (European perspective)
  - The role of democratic government include planning and regulating land systematically for public good purposes.
  - A move **from** every kind of land use being allowed unless it was forbidden **to** every change of land use is forbidden unless it is permitted and consistent with adopted planning regulations and restrictions.



# Integrated land-use management



# General Zoning

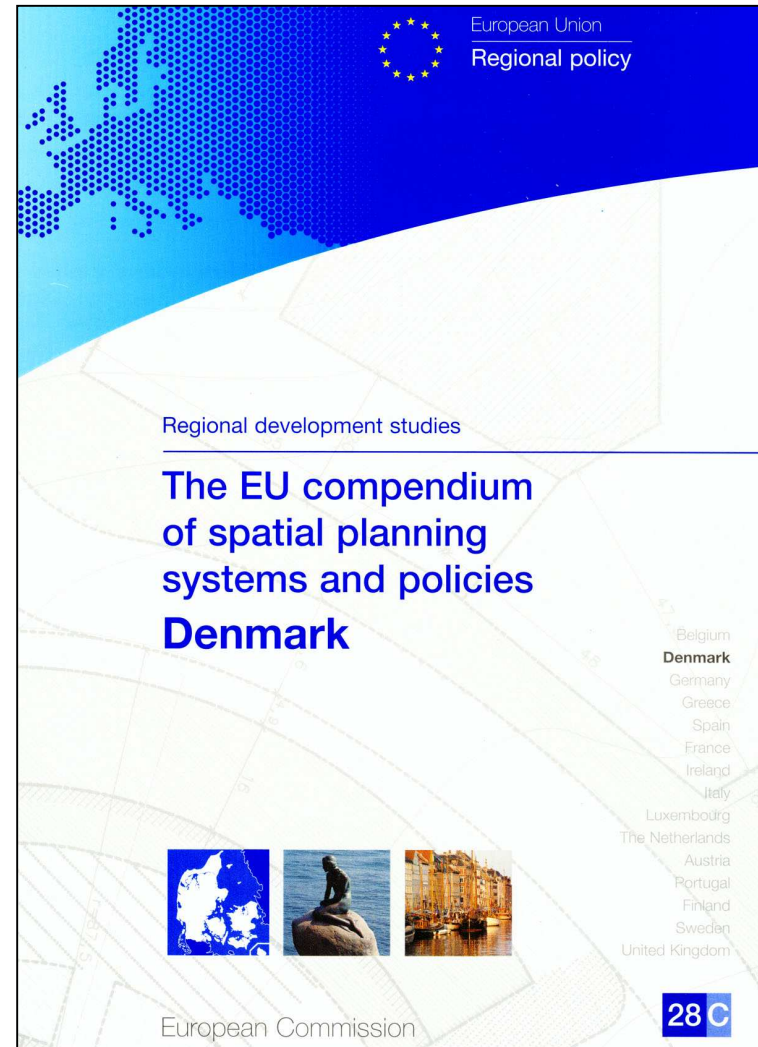




# The European Perspective

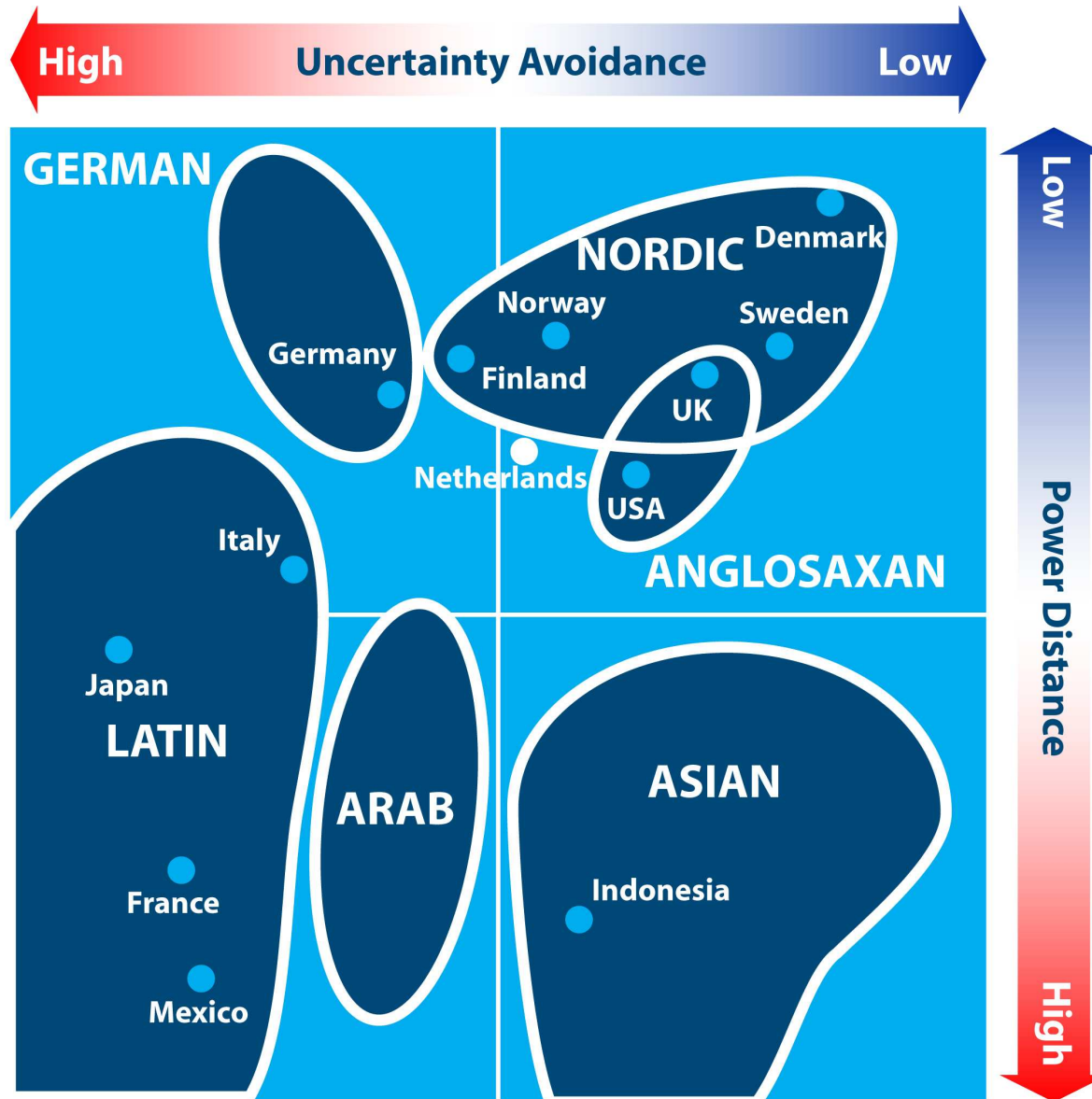


A joint vision for development of the European territory



A compendium comparing the systems of planning control

# Responsibilities: A cultural map of the world



## Uncertainty avoidance:

The preference of structured situations over unstructured or flexible ones

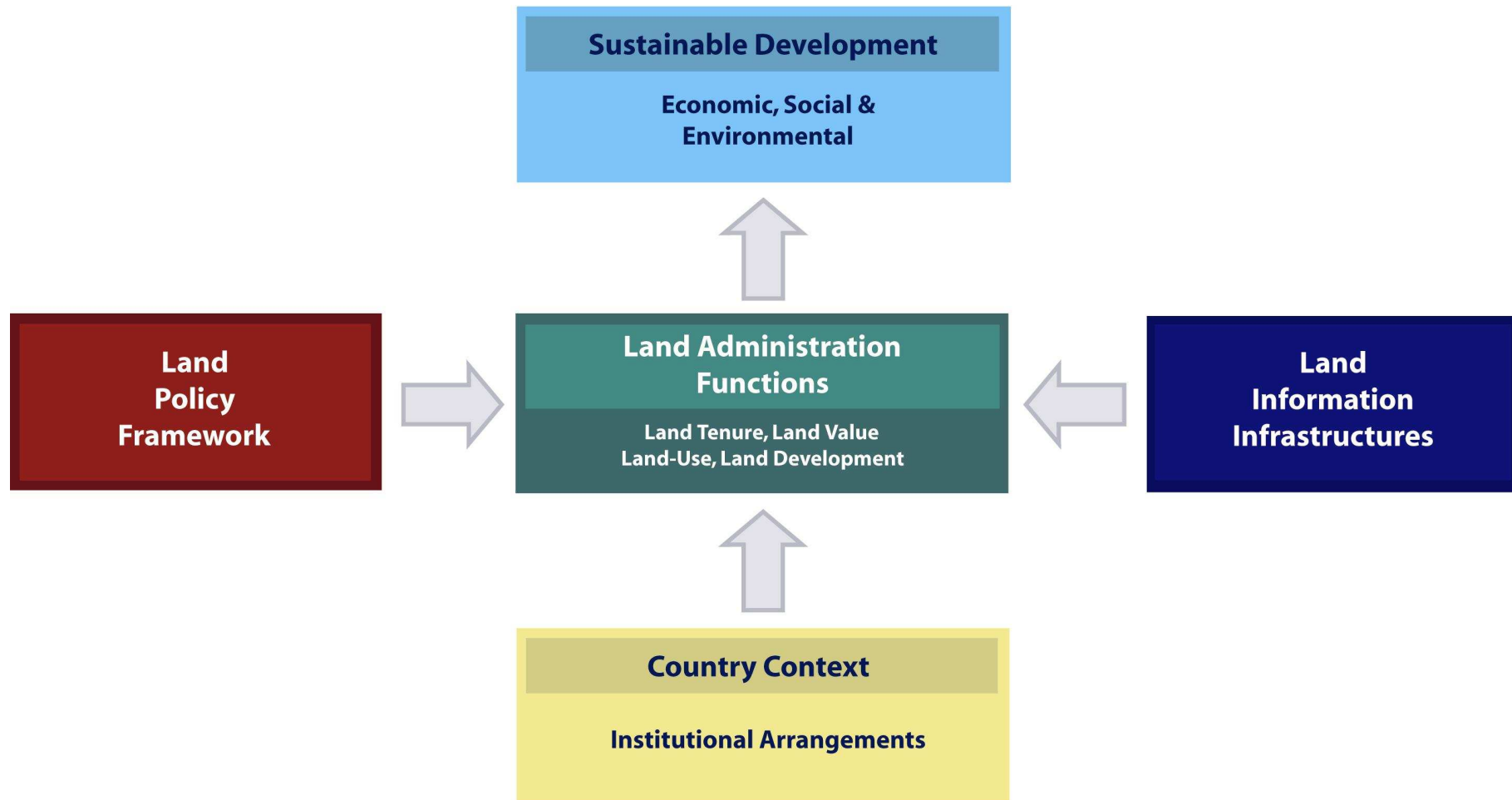
## Power distance:

The degree of inequality among people accepted by the population

Geert Hofstede (2001).

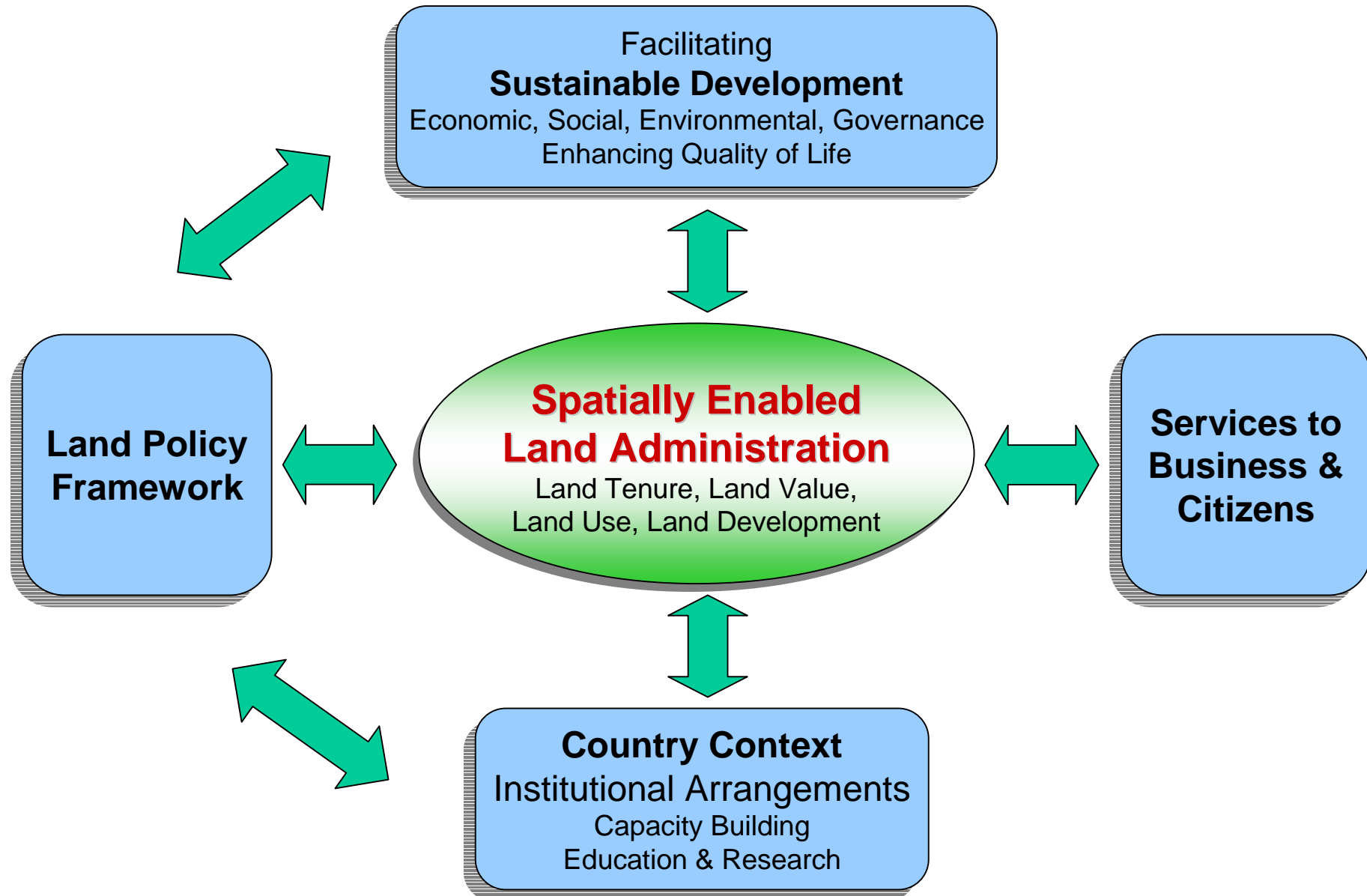


# Understanding the Land Management Paradigm



**Land Management includes all activities associated with the management of land and natural resources that are required to fulfill political objectives and achieve sustainable development.**

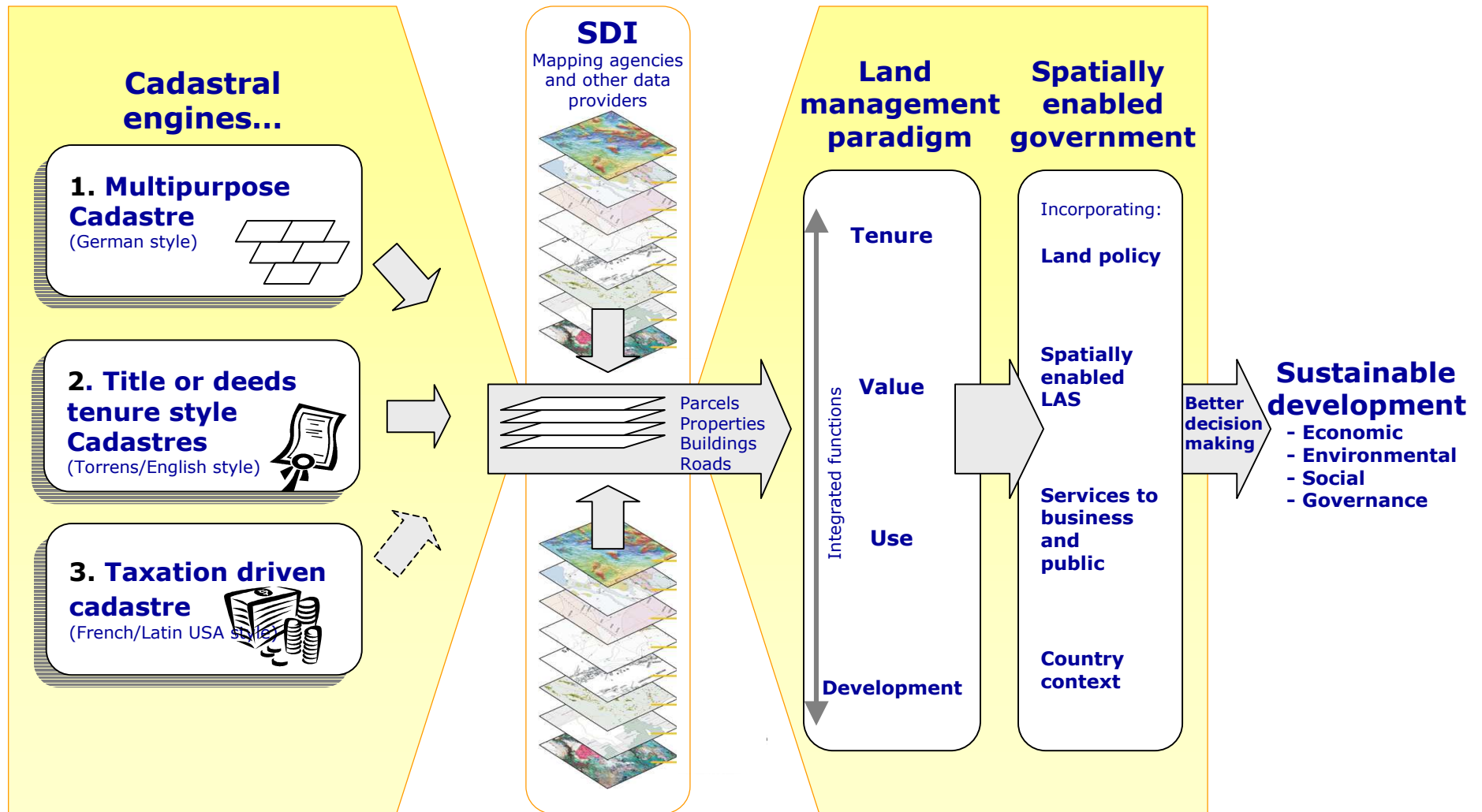
# A Land Management Vision



# Spatially Enabled Government

- A spatially enabled government organises its business and processes around “**place**” based technologies, as distinct from using maps, visuals, and web-enablement.
- Identification of “**the place**” in ways that are understandable by non-technical people (Google Earth)
- Capacity of businesses and citizens to manipulate the information should be organised through the use of **service oriented IT- architecture**.
- The technical core of Spatially Enabling Government is the **spatially enabled cadastre**.

# Significance of the Cadastre



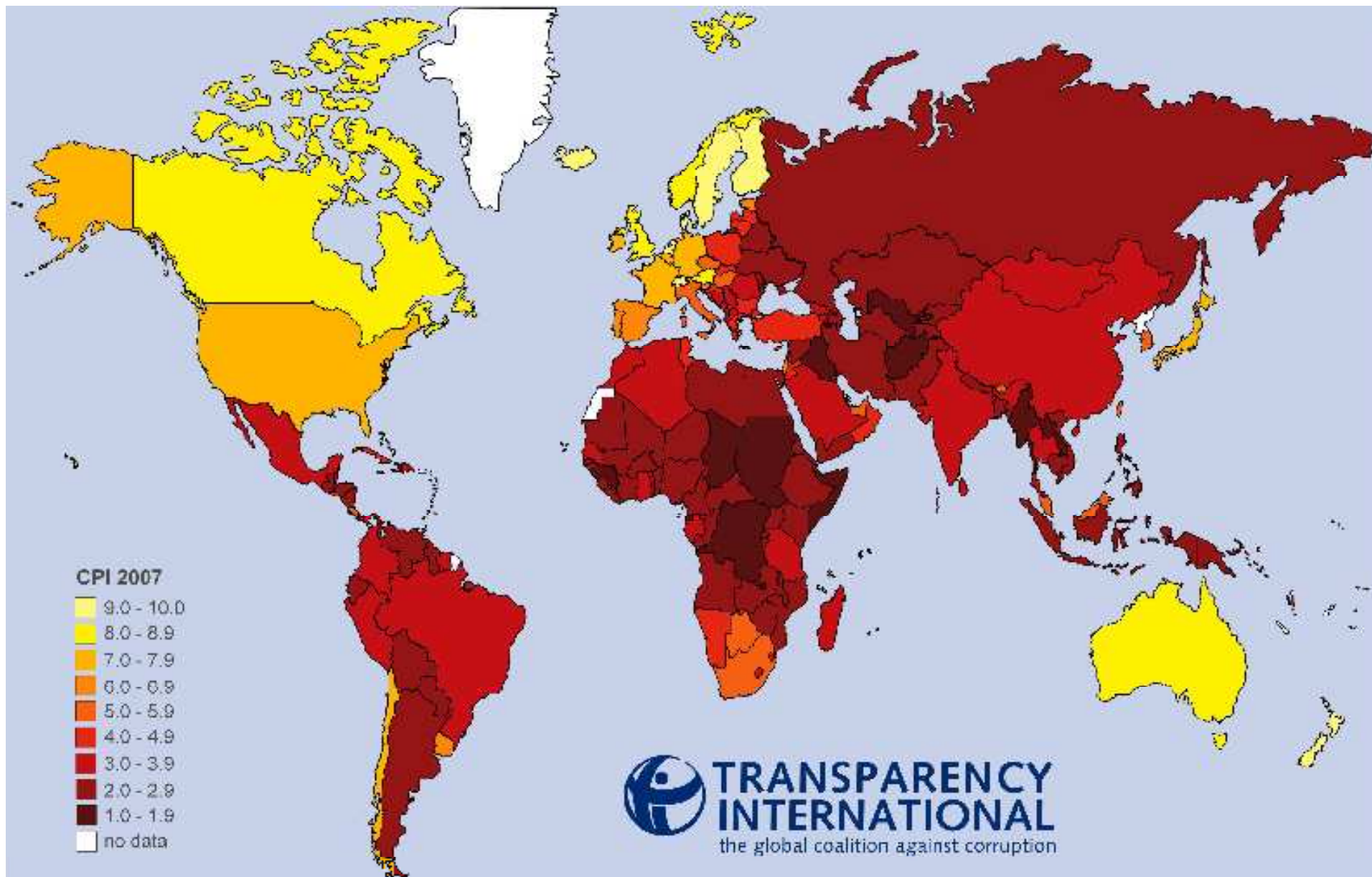


# Good Governance is:

- **Sustainable and locally responsive:** It balances the economic, social, and environmental needs of present and future generations, and locates its service provision at the closest level to citizens.
- **Legitimate and equitable:** It has been endorsed by society through democratic processes and deals fairly and impartially with individuals and groups providing non-discriminatory access to services.
- **Efficient, effective and competent:** It formulates policy and implements it efficiently by delivering services of high quality
- **Transparent, accountable and predictable:** It is open and demonstrates stewardship by responding to questioning and providing decisions in accordance with rules and regulations.
- **Participatory and providing security and stability:** It enables citizens to participate in government and provides security of livelihoods, freedom from crime and intolerance.
- **Dedicated to integrity:** Officials perform their duties without bribe and give independent advice and judgements, and respects confidentiality. There is a clear separation between private interests of officials and politicians and the affairs of government.

Adapted from FAO, 2007

# Good governance



# Outline of Presentation

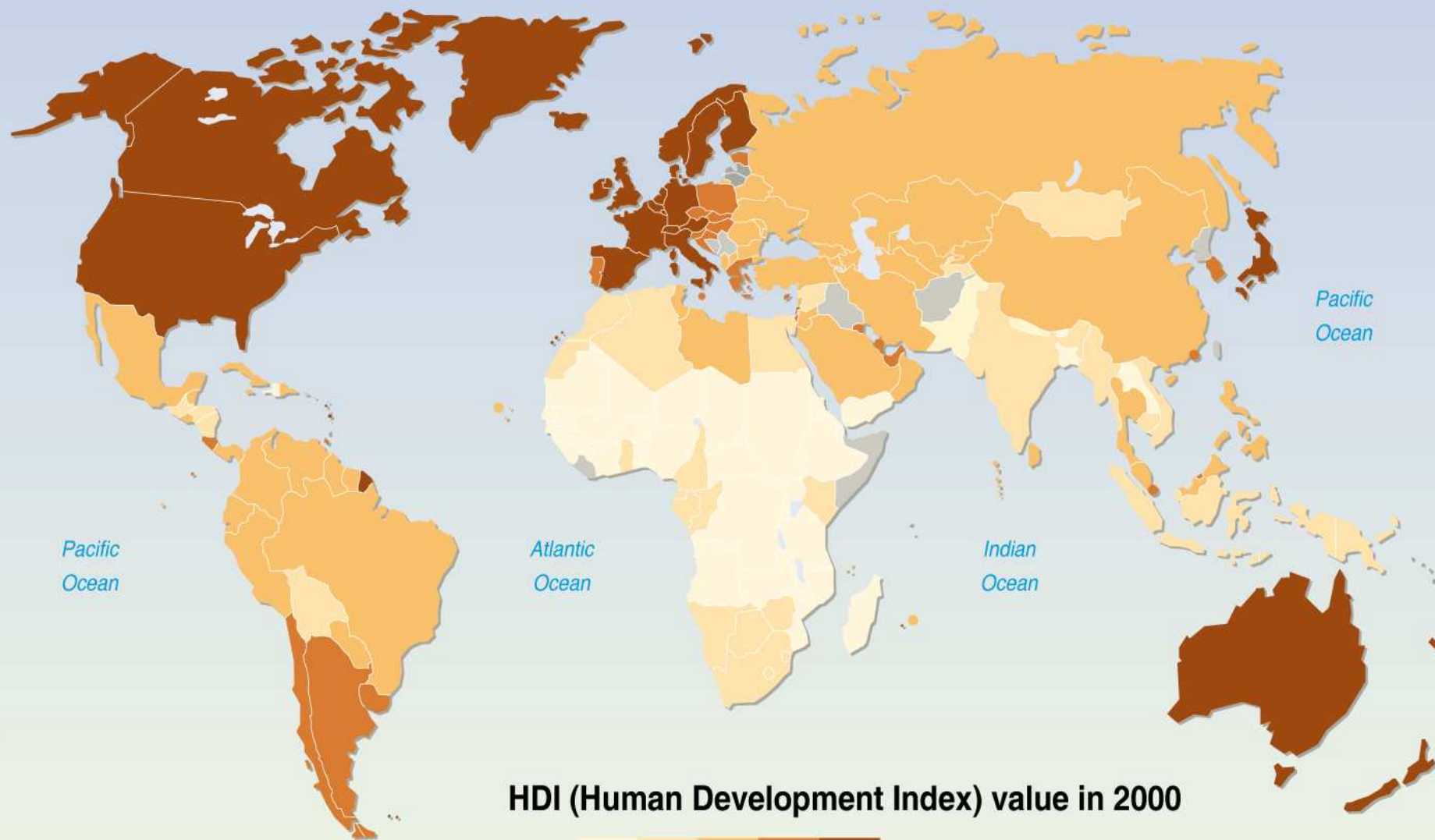
## Environment and Land Administration

- Rights – Restrictions – Responsibilities
- Spatially Enabled Government

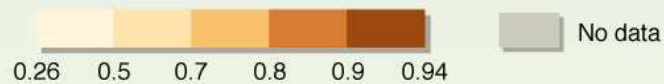
## The Challenge for the Global Surveying Profession

- The Millennium Development Goals
- The Role of FIG and the Global Surveying Community

# GLOBAL HUMAN DEVELOPMENT INDICATORS



**HDI (Human Development Index) value in 2000**



The HDI is a measure of human development and represents an average of indices on life expectancy, education and GDP.



# The UN Millennium Development Goals

Goal 1: Eradicate extreme poverty and hunger

Goal 2: Achieve universal primary education

Goal 3: Promote gender equality and empower women

Goal 4: Reduce child mortality

Goal 5: Improve maternal health

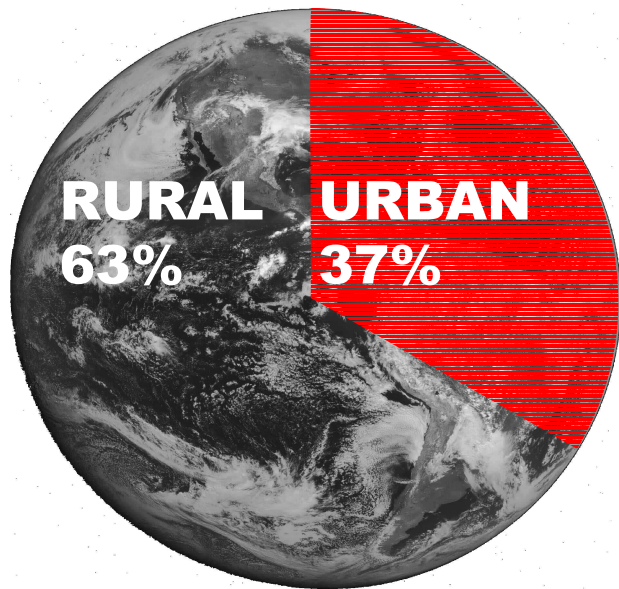
Goal 6: Combat HIV/AIDS, malaria and other diseases

Goal 7: Ensure environmental sustainability

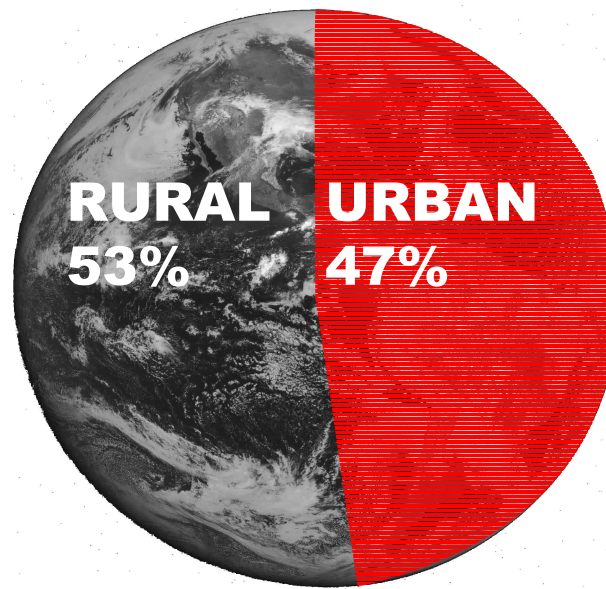
**Goal 8: Develop a Global Partnership for Development**

The framework includes 18 targets and  
48 indicators enabling the ongoing  
monitoring of annual progress

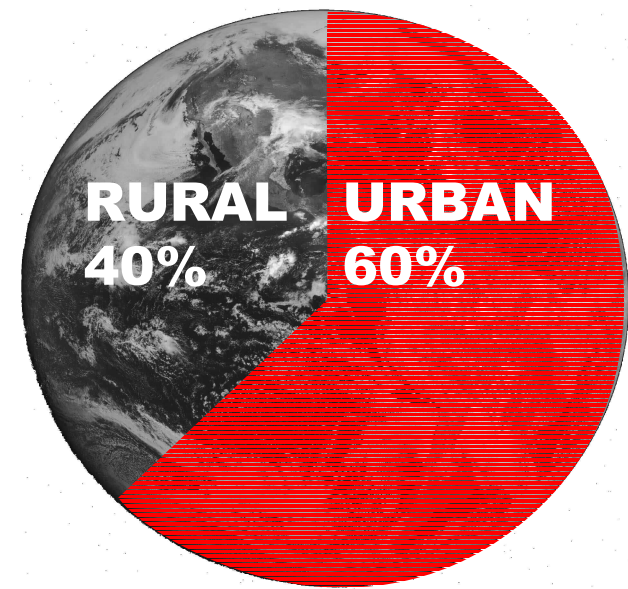
# Urban population growth



**1970**



**2000**



**2030**

2007:

Total world population :	6.5 billion
Total urban population:	3.3 billion
Total slum dwellers:	1.1 billion

# Mega cities of the world 2015







Hong Kong





Northern Ghana





Kibera, Nairobi



# Pace of Change in Land Administration in the Third World

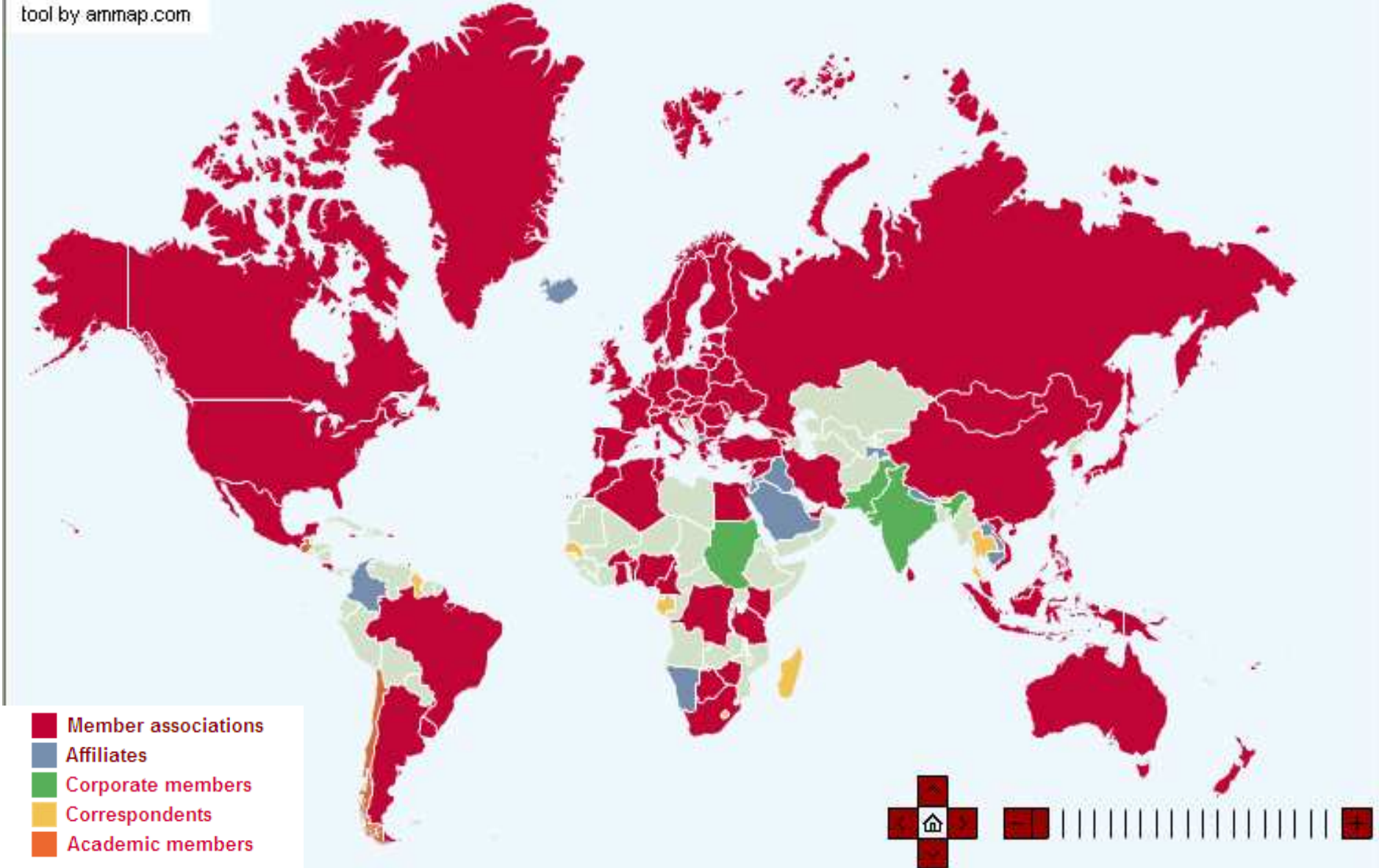
- Pace of Change is so important to successful interventions
- Speed is relative
- Lands agencies conservative



# 98 FIG Member Associations from 80 Countries

28 affiliates, 34 corporate, 15 correspondents, 80 academic members

tool by ammap.com

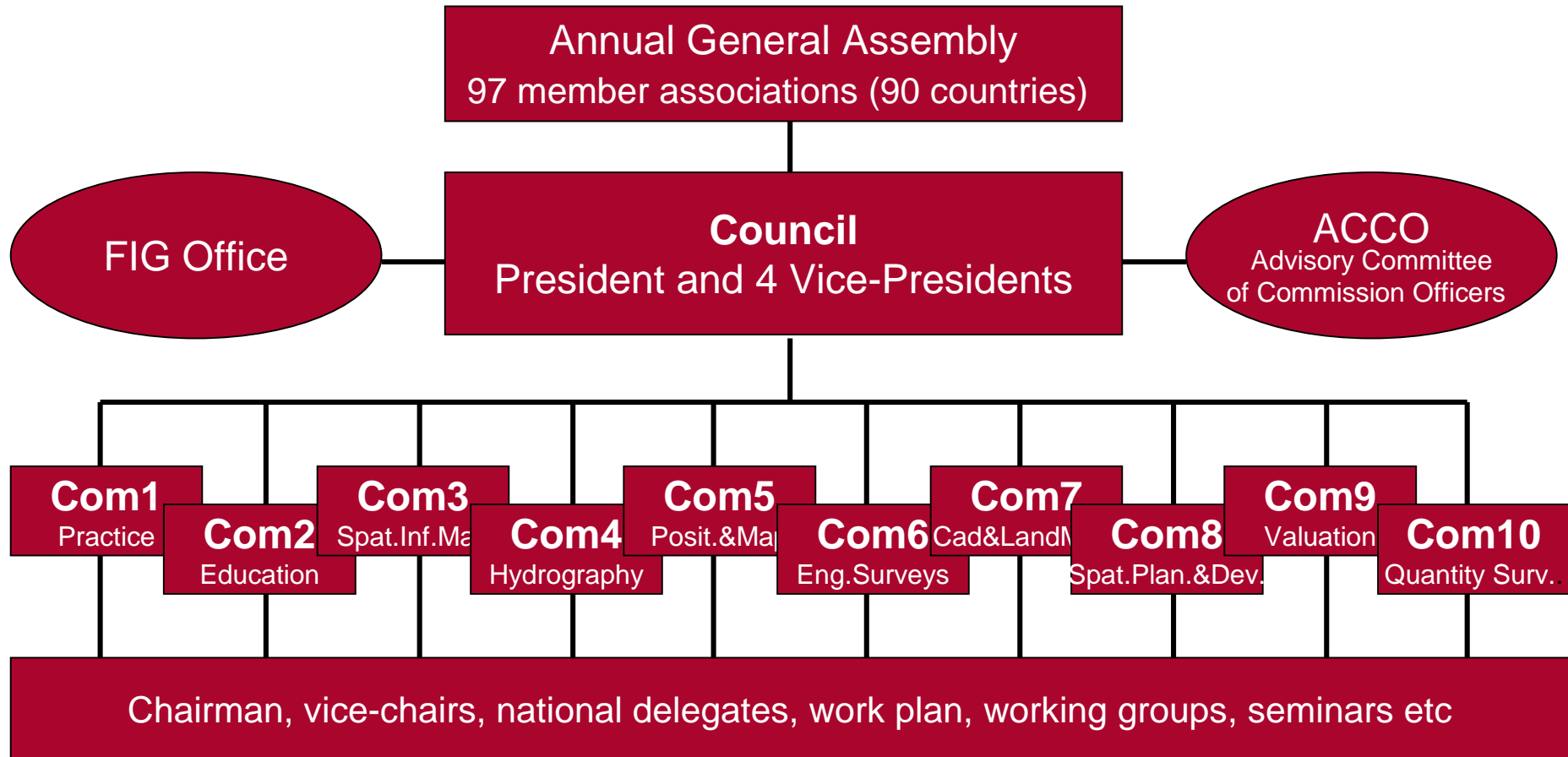


- Member associations
- Affiliates
- Corporate members
- Correspondents
- Academic members





# The International Federation of Surveyors Organizational Structure



[www.FIG.net](http://www.FIG.net)

# The Role of

- **Professional Development**
  - Global forum for professional discussions and interactions
  - Conferences, symposia, commission working groups, .....
- **Institutional Development**
  - Institutional support for educational and professional development at national and international level
- **Global Development**
  - Cooperation with international NGO's such as the UN agencies, World Bank, and sister organisations
  - Joint activities and common policy-making to reduce poverty and enforce sustainable development

# The Role of Surveying Profession

- **Professional Skills**
  - High level education and training
  - CPD opportunities and requirements.
- **Professional Responsibilities**
  - Toward the clients
  - Toward society
  - Strong professional organisations
- **Professional and Ethical Codes of Conduct**
  - Providing common values of honesty, integrity, responsibility
  - Standards for delivery of professional services
  - Indemnity insurance

## The Role of

FIG, this way, intend to play a strong role in building the capacity to design, build and manage national surveying and land administration systems that facilitates sustainable Land Governance.



Thank you for your attention

