International Federation of Surveyors
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Current challenges and the urgent need for SDI

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SDI Analogous to Other Infrastructures

The spatial data infrastructure is similar to other infrastructures in many respects

A transportation infrastructure includes: roads & bridges, cars and trucks, fuel and repair systems, control systems and funding systems.

All these elements have been brought together over many years, each element being constantly upgraded to accommodate advances by other elements.

Today we live with SDI as casually as we do the highway infrastructure, taking for granted a smooth working of the elements of data collection and display, positioning and control systems, rules and specifications, pricing and responsibility.

Advanced Regional SDIs

Highway speed and safety control standards have been developed differently in different jurisdictions; nor has there always been agreement as to standards for data collection and display. As with funding for highways we do not all agree how the elements of SDI are to be paid for. But as a result of market demand and government regulation, standards are eventually developed and funding mechanisms applied.

It was years before tire manufacturers agreed on sizing terminology; fuel refineries eventually adopted consistent octane expression; highway engineering has agreed to common design standards for safety in many jurisdictions; funding has been provided through various systems of tolls and taxes.

A need for appropriate regulation

Public safety introduced an element of urgency into the development of highway design, an urgency that has not always been apparent in the development of SDI. Concern for public safety has directed the design of highways and vehicles, and has introduced a critical system of controls.

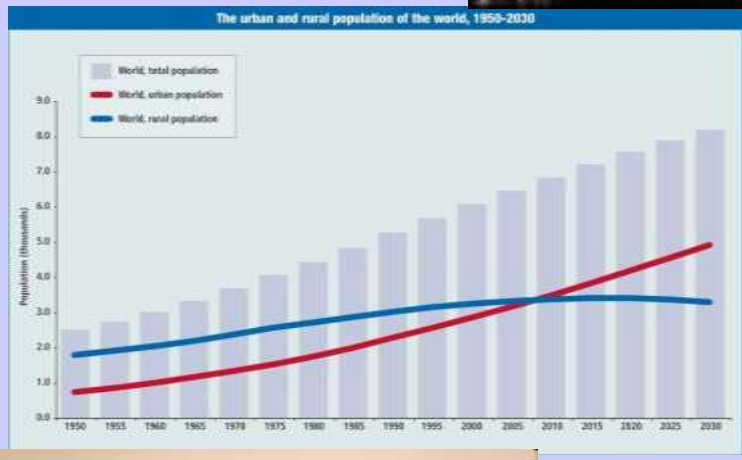
The SDI is in an on-going development process driven by need, enabled by technology, promoted by visionaries in the professions and regulated by the market *and* by public agencies.

Challenges (I)

Certain challenges characterize our era, and require **SDI**s:

1. Transition to free market economies and the need for privatization of land & real estate, housing & enterprises and the need for property registration
2. Rapid urbanization (due to political, economic & climate migration)

   Informal development and the need for good governance & formalization
3. Climate change and the need for adaptation and mitigation measures



Challenges (II)

4. Economic globalization & sustainable prosperity for all and the need for structural reforms and harmonization of policies and legislation

5. Economic crisis and the urgent need for development & poverty reduction

6. The need for more political accountability, democracy, transparency & peace and the need for citizen awareness, citizen participation and public support to the reforms

1. Transition to free market economies & SDI

Development projects, infrastructure, land-use & planning reforms require land takings and rearrangement of property rights

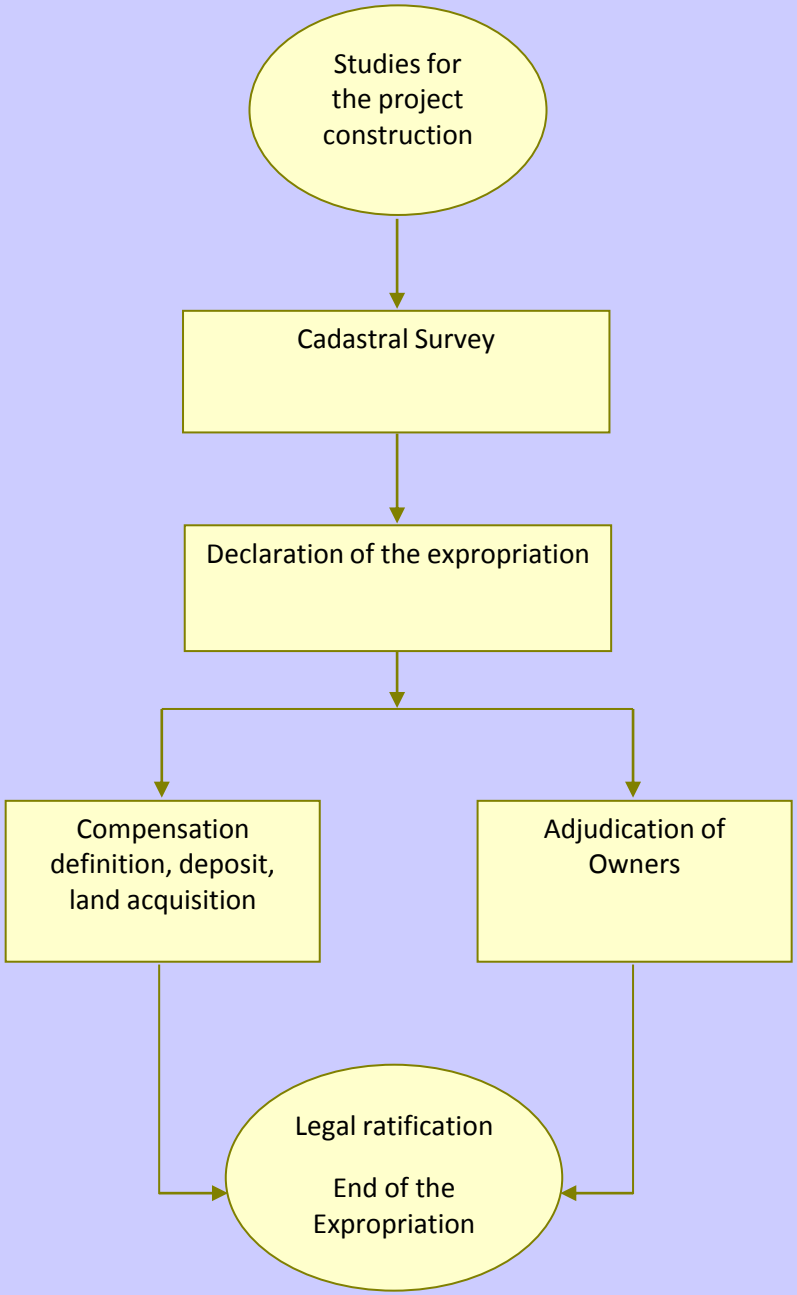
Huge reforms have huge impact

- **strengthen and protect the <u>formal and informal</u> property rights**
  (for fairness, public acceptance & peaceful reforms)
- **spatial information & cadastre**
  (for transparent decision making, management & implementation)

Greek economy is under reform

- No data (very poor data, inaccurate, incomplete)
- No SDI (not well organized- poor data management)
- No basic records (? state employees, ? Alive pensioners)
- No fairness
- No clarity
- No state revenue
- No investment
- No security
- No jobs
- No public safety

Example: compulsory land expropriation



- Lack of cadastre
- Lack of valuation data / records / education
- Lack of expropriation records
- Lack of zoning maps (forest, coastal zone, archaeological sites)
- Lack of state-owned property records
- unfair property taxation, unreliable tax values
- mistrust on both sides
- increased costs
- significant delays at the courts
- Significant delays of the major infrastructure projects
- Fraud
- Unfair and delayed compensation

39 *WB funded LAM projects in Europe and Central Asia:* The largest program of land reform the world has ever seen! 30 countries - US$ 1.1 billion in loans and grants

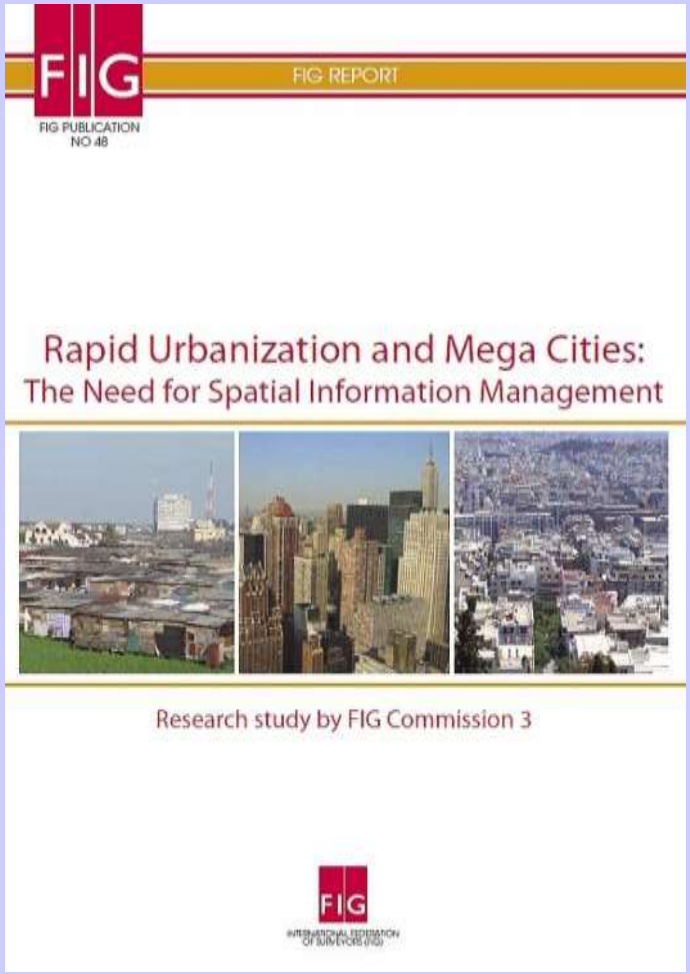
Population: ~900M Land area: 27,381,300 km^2 Properties: ~300M

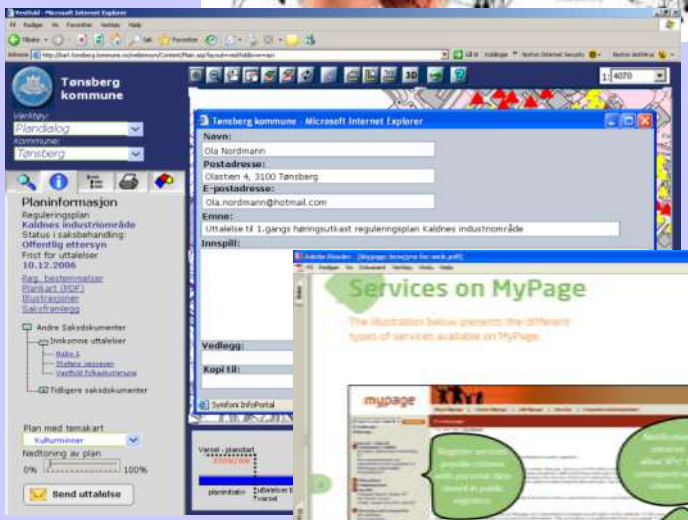
- ✓**High technical education**
- ✓**Be pragmatic & flexible**
- ✓**Meet the needs of society**
- ✓**Be confident, not conservative**

Gavin Adlington, 2011:

- ✓Embrace social media & crowd sourced technology to provide transparent land administration in places where corruption & inefficiency is endemic
- ✓With an understanding of errors, accuracies & usefulness of various forms of spatial information

2. Migration, rapid urbanization, informal development: the need for good governance





Make good use of all available information, crowd sourcing, VGI

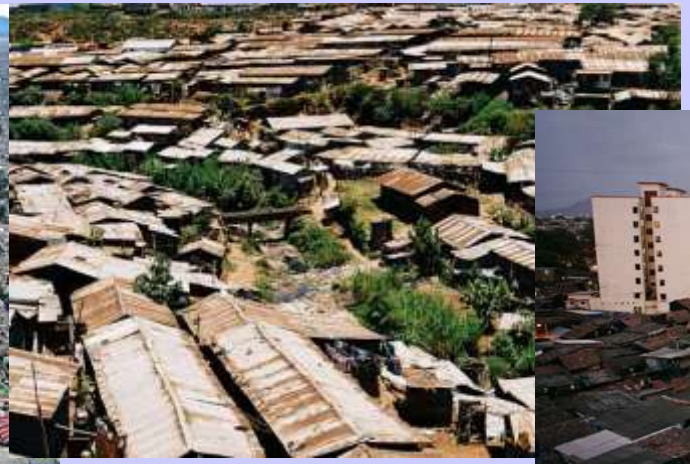
The Greek state is unprepared to cope with migration

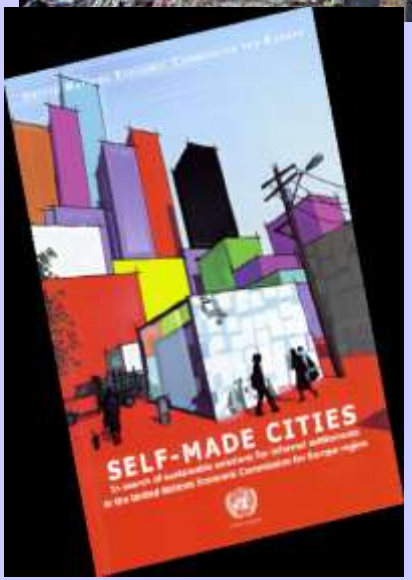





- 15% of the population
- Mainly from Eastern Europe, Asia and Africa
- ~50% of them are illegal
- According to Frontex (2010): 9 out of 10 illegal immigrants in Europe come through Greece
- Average stay in Greece>8 years; estimated rate: ~4000 newcomers / week.
- Illegal trade, undeclared jobs, housing problem, dilapidated Athens' center,…

Informal development: the missing information





- ***50M people in greater Europe live in informal settlements***
- ***on-going legalization projects-property titles ; city planning reforms***

Technology is easy ; Good Governance is difficult

Athens joint FIG/UNECE WPLA workshop on "Informal Development, Property and Housing"

Dates:10-14 December 2012

Organizers: FIG Com3, FIG Task Force, UNECE WPLA, TCG, HARSE

Objectives:

- Formalization of property markets
- Monitoring of legalization of ID projects, policies, weaknesses, progress, remaining problems, revenue, statistics
- Revision of planning tools in order to provide affordable housing
- Self-made cities II

3. Climate Change: Need for adaptation and mitigation measures

UN-HABITAT

Cities:

Sustainable ⟶ Adaptable

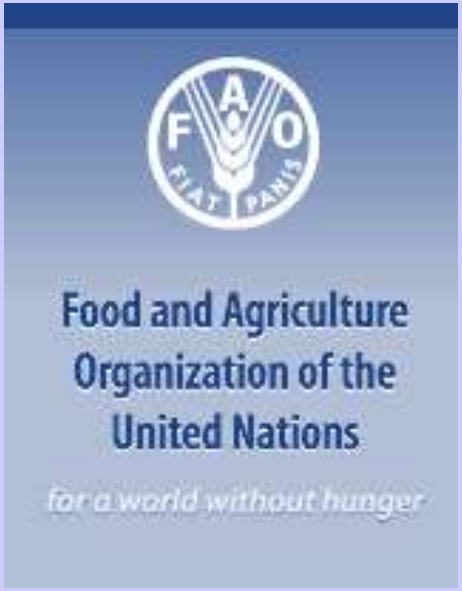
Local Authorities:

Responsible for more sustainable cities

increased urban densities

Need for revising:

- land-use plans,
- transport modalities,
- building designs



Sustainable management of **Rural** and **Forest** areas for increased emission control and productivity

Climate Change Measures should also make Economic Sense

SDI for disaster management

THE OPENSTREETMAP IN HAITI

- Haiti was dramatically affected after the earthquake hit in January 12 the capital city of Port-au-Prince.
- *48 hours* spent to get first imagery loaded on the OSM platform available for tracing. (*Maron, 2010)*
- *60 persons* were trained and more that *700 contributed in mapping*, among them people from UN agencies, NGOs, National Haitian Mapping Agency, National Center of Spatial Information and Haitian civil society. *(Waters, 2010)*

Day 0

Day 2

http://brainoff.com/weblog/2010/01/14/1518

4. Economic globalization and sustainable prosperity for all - the need for harmonization

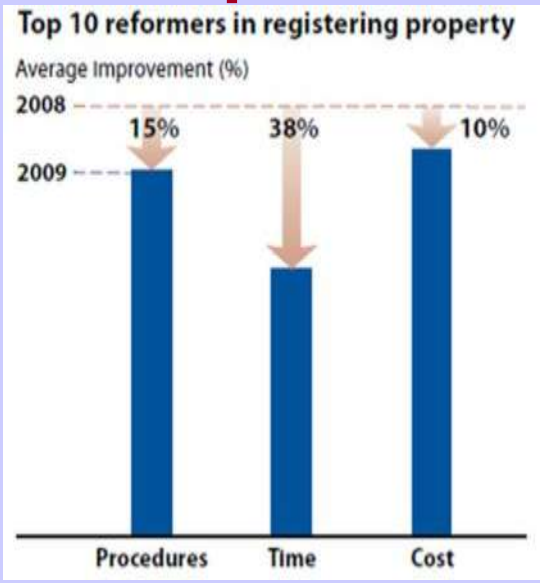
MDGs: New challenges:

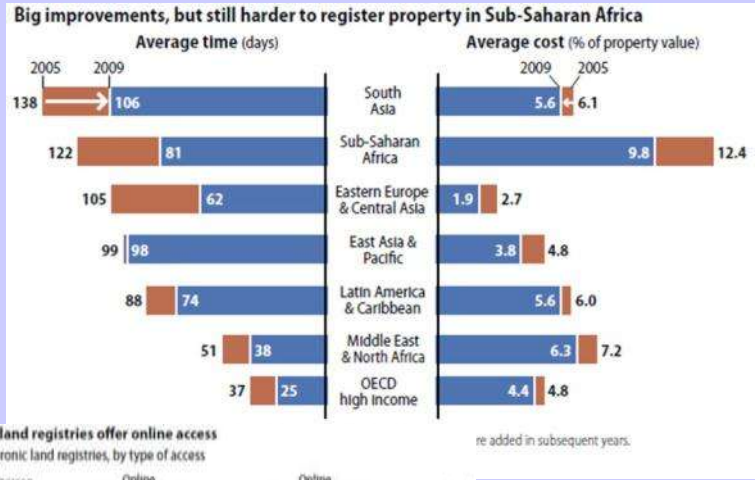
- To uncover inequalities
- To think in advance
- To engage people
- To improve accountability
- To improve clarity and fight corruption
- To enhance global cooperation

In order to achieve that we need data, we need SDI

5. The economic crisis & the need for development

- property registration
- Computerization
- Reducing bureaucratic procedures
- Easing access
- NSDIs
- Reducing labor costs





The growing affordability problem

Vulnerable groups

Refugees, Minorities

Roma

Indigenous people

Elderly individuals

Long term unemployed

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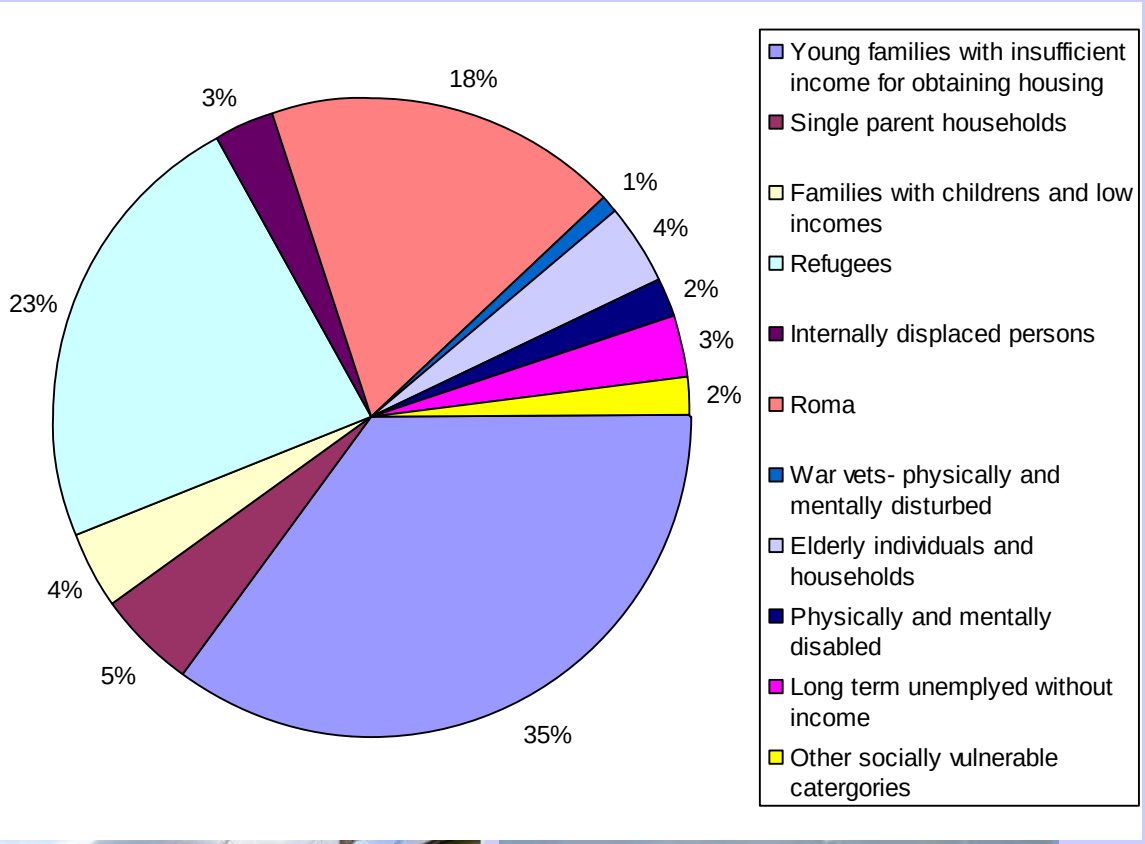


Property market in Greece

According to the Bank of Greece:

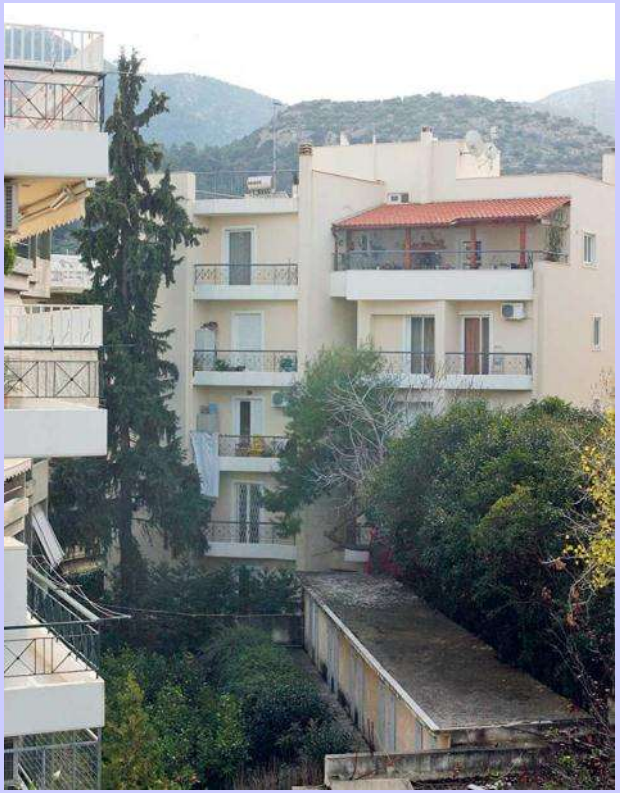
- 2010-2012: 15% depreciation of RE
- 2014: 40% depreciation

Loans: 20% in red (non paid)

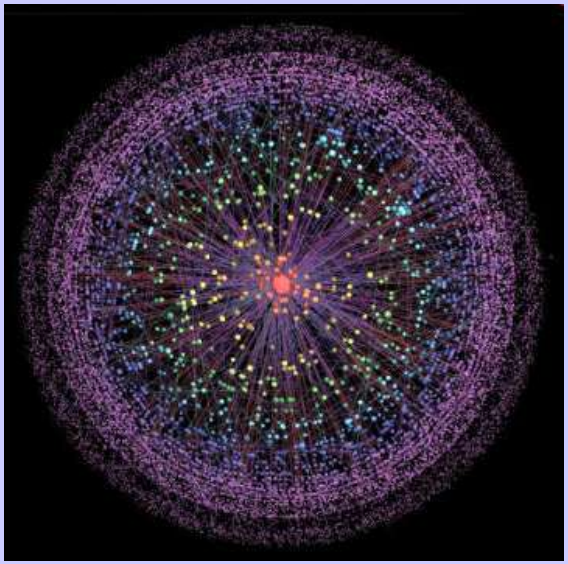
Transactions: reduction 70-90% ;

- only inheritances & small & cheap real estates are transferred.
- expensive real estate & or beach houses (if sold) in 50% of their value
- (due to maintenance costs & taxation)

Investment on RE: 2000-2012: 70% reduction



6. The need for more **democracy**, **transparency** and **peace: Creative Participation** versus **Violence**



- ✓ *How can we enhance citizen participation?*
- ✓ *Determine where SDI & land management should go with social software technologies*
- ✓ *Determine the tasks can citizen contribute/undertake?*
- ✓ *How do we take the local administration out to the community or bring the community in?*
- ✓ *Do we have a strategic plan? Appropriate policies?*
- ✓ *How will we measure our effectiveness?*

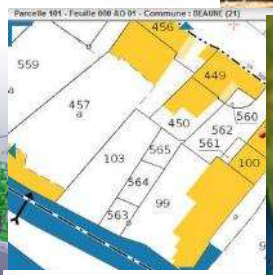
A Unified Profession: Land/waters, Property and Construction



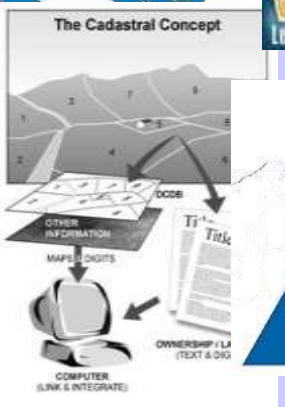








- **ensure consistency among surveying practices;**
- **promote best practice**
- **enable a strong, global voice**

Challenges?

- ✓Social resistance to change
- ✓Lack of awareness, education and training
- ✓Lack of evidence of financial benefits
- ✓Interoperability issues
- ✓Professional ethics

Thank You