

## Professions:

### Knowledge, responsibility, self-government

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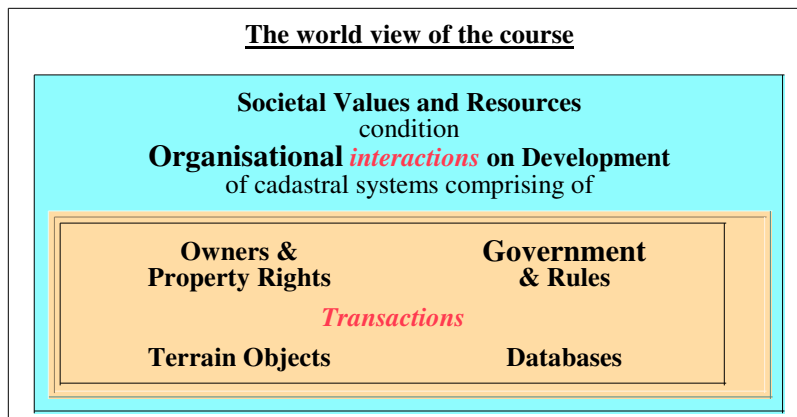
#### Overview: Professions: Knowledge, responsibility, self-government

1. Components of Cadastral System, ..again
2. What is a professional: Criteria for the surveyor
3. Intellectual criteria: CLGE-definitions
4. Ethical criteria: The FIG Model Code of Conduct
5. D C North again: Institutions and institutional change

#### The Cadastral (Information) System and its Environment

Wider cultural and global context: History on territorial identity, elite career values, and religion				
	Stakeholders' power	Land tenure	Government	Legislation
	<b>User categories</b>	<b>Cadastral system</b>	<b>Supported functions</b>	
Civil society, local community	<ul style="list-style-type: none"><li>● Agencies</li><li>● Municipalities</li></ul>	<ul style="list-style-type: none"><li>● Land registry</li><li>● Cadastre</li></ul>	<ul style="list-style-type: none"><li>● Inheritance, market and mortgage</li><li>● Title and boundary dispute settling, execution of forced sales, adjudication</li><li>● Valuation and property taxation</li><li>● Spatial planning, land readjustment</li><li>● Environmental protection</li><li>● and ..Construction, Statistics</li></ul>	
<b>Education</b>	<ul style="list-style-type: none"><li>● <b>Professionals</b></li><li>● Financial institutions</li></ul>	<b>Tasks</b> <ul style="list-style-type: none"><li>● Register documents</li><li>● Define property units</li><li>● Categorize rights</li><li>● Identify spatial units</li></ul>		
<b>Technology</b>	<ul style="list-style-type: none"><li>● Engineering comp.s</li><li>● Owners, end-users</li></ul>	<b>Function</b> <ul style="list-style-type: none"><li>● Testify rights in land</li></ul>		
<b>Natural resources</b> (minerals); <b>Population</b> (spatial distribution of settlement; ownership of productive assets)				

### The world view of the course



### CLGE: Definition of a Geodetic Surveyor

A European Geodetic Surveyor

- is a person who practises a minimum of one or more of the functions listed below within the EU, Norway or Switzerland, and
- with professional knowledge of the majority of the remainder of those functions, and
- who has an academic qualification in geodetic surveying of at least BAC + 3 plus 2 years professional experience.  
(BAC = *Baccalauréat*)

### Functions carried out by Geodetic Surveyors:

- Land and Geodetic Surveying
- Hydrography
- Photogrammetry and Remote Sensing
- Cadastral and Boundary Surveying
- Land and Geographical Information Systems
- Minerals and Mining Surveying
- Engineering Surveying and Metrology
- Cartography

### Land and Geodetic Surveying

Measuring, defining and portraying the physical features of and on the earth. (Geodetic networks, controls networks and geodetic reference systems in 2, 3 and 4 dimensions)

**Cadastral and Boundary Surveying**

The determination and interpretation of boundaries and demarcations on the surface, or in space, from or into verbal, cartographic or mathematical description together with the abstract legal concept thereof.

**Land and Geographical Information Systems**

The capture, compilation and manipulation of land and geographical information in a system usually computer based and the presentation of that data in ways and formats specifically required.

**Other functions carried out by Geodetic Surveyors:****Hydrography**

The measurement, portrayal and representation in three dimensions of the earth's surface covered by water including the provision of dynamic measurement, delineation and definition of water and its movement in, on or under the land.

**Photogrammetry and Remote Sensing**

The art, science and technology of obtaining reliable information about physical objects and the environment through processes of recording, interpreting and measuring photographic and digital images.

**Minerals and Mining Surveying**

The survey practises involved in the discovery, identification and location of minerals including operations involving geophysical, remote sensing, and such-like techniques; together with the accurate portrayal and three dimensional representation of mineral extraction and related works and operations.

**Engineering Surveying and Metrology**

The application of all or any of the above listed survey techniques to enable and facilitate civil or other engineering projects together with the application of diagnostic or other measurement techniques and methods, their analysis, compilation and presentation combined with spatial referencing; the application of specialised measurement techniques and equipment for precise lineal and angular determinations and location.

**Cartography**

The art or technique of making maps or charts accurately and precisely, and representing three dimensions on various media of two dimensions.

### **Neighbouring professions**

- Civil/ Construction engineers
- Lawyers
- Real Estate brokers / Valuers
- Notaries (in some countries)
- Accountants / Consultants

### **Professional code of conduct**

A professional is distinguished by certain characteristics including:

- mastery of a particular intellectual skill, acquired by education and training;
- acceptance of duties to society in addition to duties to clients and employers;
- an outlook that is essentially objective; and
- the rendering of personal service to a high standard of conduct and performance.

FIG PUBLICATION No 17 Statement of Ethical Principles and Model Code of Professional Conduct

### **ESt interpretation:**

"acceptance of duties to society in addition to duties to clients and employers" implies:

- being member of a professional association
- with liability insurance (~= profession takes economic responsibility)
- with explicit code of conduct (expressing a vocational attitude?), and
- with instruments to enforce compliance by its members

### **FIG 17 on Ethical responsibilities**

Professional surveyors recognise that their ethical responsibilities extend to the public, to their clients and employers, to their peers and to their employees. Accordingly they acknowledge the need for integrity, independence, care and competence, and a sense of duty. They uphold and advance these values by:

- supporting and participating in the continuing development of the surveying profession;
- serving with honesty and forthrightness and within areas of their competence; and
- using their expertise for the enhancement of society and the stewardship of resources.

### **Development of professional liability in DK**

- 1926 Land Registry Act: Surveyors requested to assist Registry Officer in allocating easements ->
- 1930s: Association establishes professional liability insurance
- 1960s: Surveyor ignored easement that prohibited subdivision ->
- in 1970s: Association declares the 'standard' service
- Since ? 1960s: At yearly convention, insurance cases are presented in anonymous form ->
- since 1980s: Case information is feed-back into surveying education to prevent repetitions

### **Douglas C North on (development of) economic performance**

- Institutions are the humanly devised constraints that structure human interaction.
- They are made up of formal constraints (rules, laws, constitutions),
- informal constraints (norms of behavior, conventions, and self imposed codes of conduct),
- and their enforcement characteristics.

"structure .. interaction" ~= "enable and restrict human behaviour"

North (1993) Nobel Prize Lecture  
<http://nobelprize.org/economics/laureates/1993/north-lecture.html>

### **Douglas C North on (development of) economic performance**

- Together [the formal and informal constraints] define the incentive structure of societies and specifically economies.
- Institutions and the technology employed determine the transaction and transformation costs that add up to the costs of production.

### **Institutions, which change institutions**

Constitutions (from 1800s)

- establishes Parliaments, with governmental election and decision rules
- allows citizens to establish Associations and Companies (both examples of Organisations)

but guilds and professions have (from 1100s ?) exercised self government through self imposed codes of conduct

cf. <http://en.wikipedia.org/wiki/Guild>

**Summary: Professions and professionals**

- European Geodetic Surveyor, defined in the context of single market
- Role of profession: Carrying liability (economic responsibility)
- Self-government of professions, cf. guilds, was related to institutional change

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