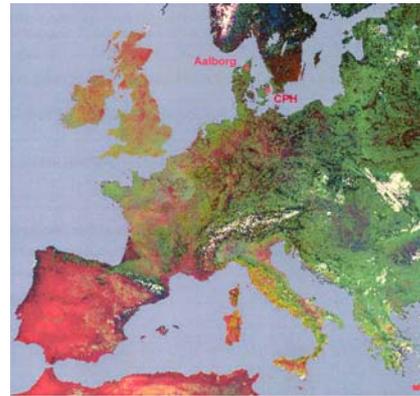


# Land Administration and Education

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## Key Points...

- **The humankind to land relationship is dynamic**  
- and so is the role of the cadastral systems
- **Cadastral systems are not end in themselves**  
- they facilitate development of efficient land markets and effective land use management from both an economic and environmental perspective towards sustainable development.
- **Surveying education must be interdisciplinary**  
- and provide skills for management and problem solving

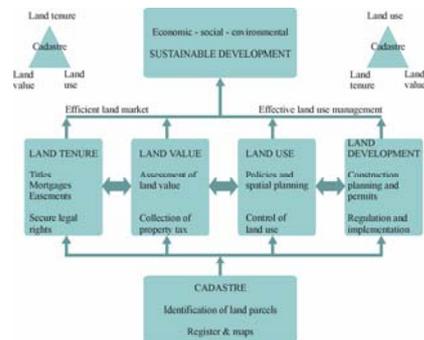
## ...Key Points

- **The only constant is change**  
- the educational base must be flexible  
- the graduates must be adaptable
- **University graduation is not the end in it self**  
- it is only the first step in a lifelong educational carrier
- **Learning to learn is a must**  
- Professional and technical skills can be acquired and updated later in ones carrier, while skills for problem solving and skills for learning to learn can only be established through the process of academic training at the universities.

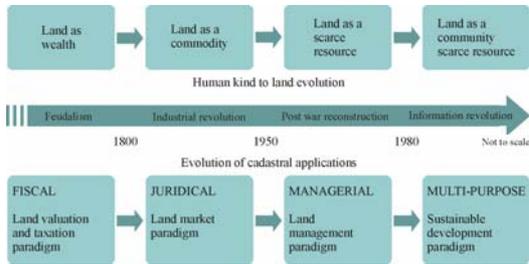
## The Global Challenges

- **Technology development**  
- GPS, GIS, Internet
- **Micro-economic reform**  
- privatisation, decentralisation, downsizing, quality assurance
- **Globalisation**  
- from local to global  
- events in one part of the world impact on people in other parts of the world
- **Sustainable development**  
- developments that effectively incorporates economic, social and environmental concerns in decision-making  
- meet the needs of the present without compromising the ability of future generations to meet their own needs

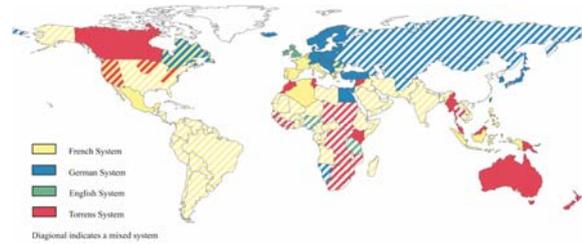
## A Global Land Administration Perspective



## Evolution of Western Land Administration Systems



## Land Registration Systems around the World



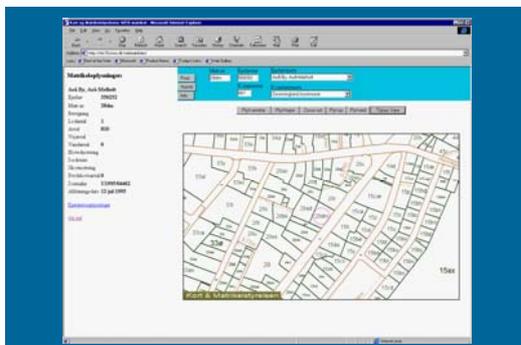
## The Nordic Way...

Country	Denmark	Norway	Sweden	Finland
<b>Area</b>	43,000 sq. Km	324,000 sq. Km	450,000 sq. km	337,000 sq. Km
<b>Area Population</b>	5.2 mill	4.2 mill	8.6 mill	5.0 mill
<b>Properties</b>	About 1.5 mill	About 2 mill	About 3 mill	about 2 mill
<b>National cadastral authority</b>	National Survey and Cadastre under the Ministry of Housing	National Mapping Authority under the Ministry of Environment	National Land Survey under the Ministry of Environment	National Land Survey under the Ministry of Agriculture
<b>Cadastral surveys</b>	Licensed surveyors in private practice	Municipal Survey Authorities; Licensed surveyors in private practice will be introduced	State Survey Authorities at county level; and some Municipal Survey Authorities	State Survey Authorities in rural districts; and some City Survey Authorities

## ...The Nordic Way

Country	Denmark	Norway	Sweden	Finland
<b>Property Register Authority (land parcels)</b>	National Survey and Cadastre maintaining the cadastral register and the digital cadastral maps	Municipal Survey Authorities; and the National Survey Authority maintaining the GAB-register	County and Municipal Survey Authorities; and the National Land Survey maintaining the Land Data Bank System	District and City Survey Authorities and the National Land Survey maintaining the Real Estate Register
<b>Land Register Authority (title and mortgage)</b>	Local district courts (Ministry of Justice)	Local district courts (Ministry of Justice)	Local district courts (Ministry of Justice)	Local district courts (Ministry of Justice)
<b>Land Information System</b>	Interactive subsystems linked together through a Cross Reference Register	GAB – register linked with the Land Book	Land Data Bank System	Central Information System on Real Estate Data

## The Web-Cadastre

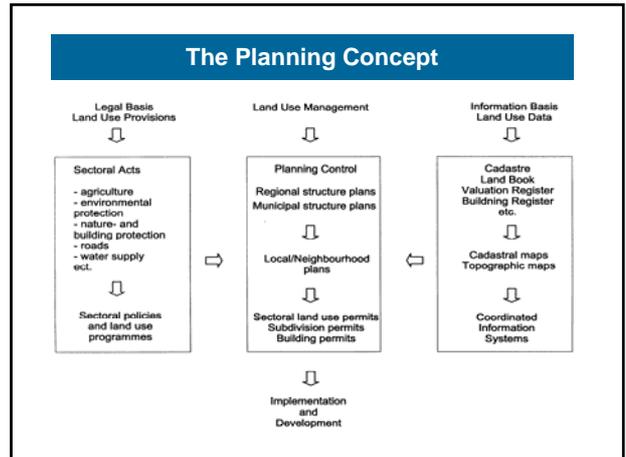
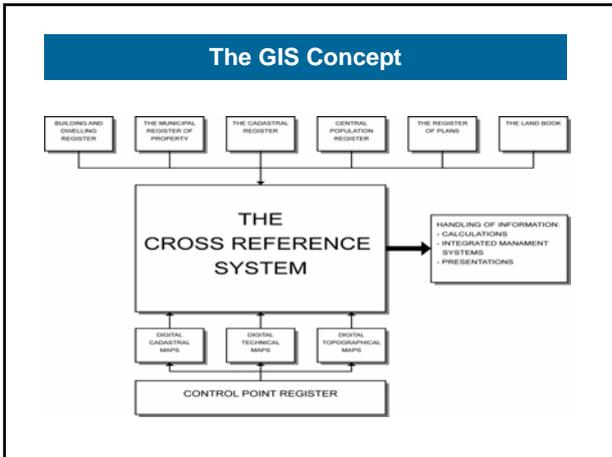


## Spatial Data Infrastructures

- provides mechanisms for sharing geo-referenced information

- Conceptual mechanisms
  - design of organisational concepts for data sharing and custodianship
- Political mechanisms
  - provision of an effective institutional framework and the distribution of power between the governmental levels.
  - policies for access to data
- Economic mechanisms
  - cost recovery policies
  - strategies for distribution and maintenance

- considerable benefits flow from a well developed Spatial Data Infrastructure

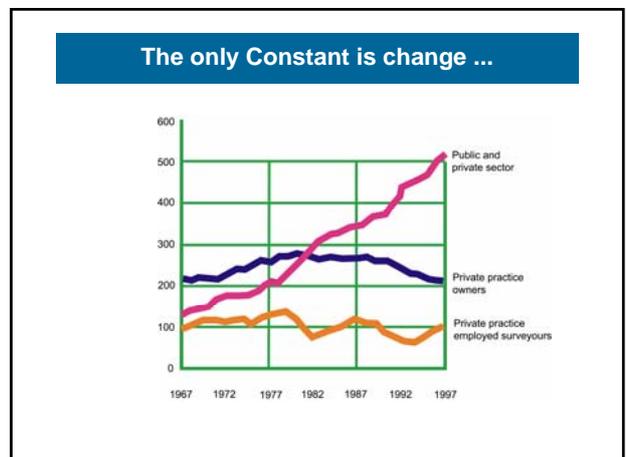
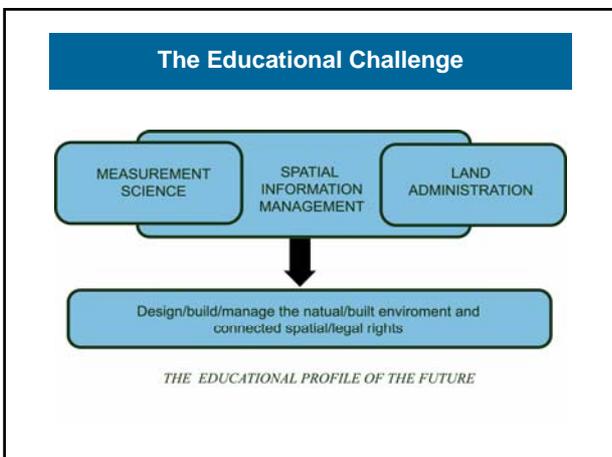


### International Trends in Surveying Education...

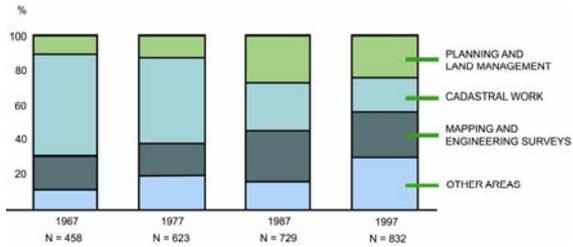
- Management Skills** - versus specialist skills  
 from traditional technical skills and push button technologies  
 to interpretation and management of data meeting the needs of the clients
- Project Organised Education** - versus subject based  
 from traditional technical skills (knowing how) add-on approach  
 to management and problem solving skills (knowing why) focus on "learning to learn"

### ...International Trends in Surveying Education

- Virtual Academy** - versus classroom lecture courses  
 from traditional on-campus activities  
 to a more open role of serving the profession and the society
- Lifelong Learning** - versus vocational training  
 from learning for life through university graduation  
 to lifelong learning through CPD-strategies and distance learning



### ... The only Constant is change



### Project-organised Education

Taught courses assisted by actual practice is replaced by project-work assisted by courses.

From description and analysing to synthesising and assessment.

### Learning to Learn

- Professional and technical skills can be acquired and updated later in ones career, while skills for problem solving and skills for learning to learn can only be established through the process of academic training at the universities.

### Group Work



### Problem-based Education

Textbook-knowledge is replaced by the necessary knowledge to solve theoretical problems.

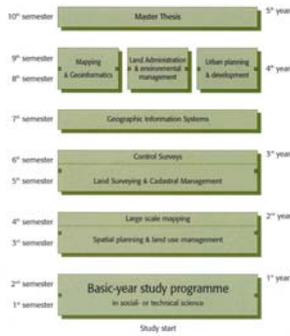
From understanding of common knowledge to ability to develop new knowledge.

### Key Philosophy

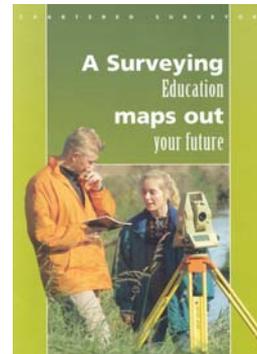
Tell me and I will forget  
Show me and I will remember  
Involve me and I will understand  
Step back and I will act

*Chinese proverb*

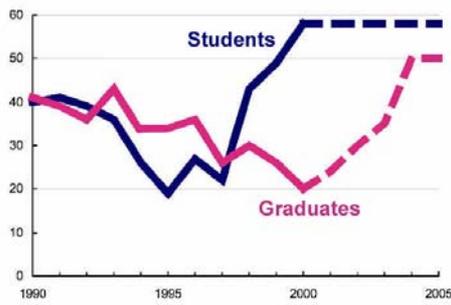
## The Curriculum



## Promotion



## Enrolment and Graduation

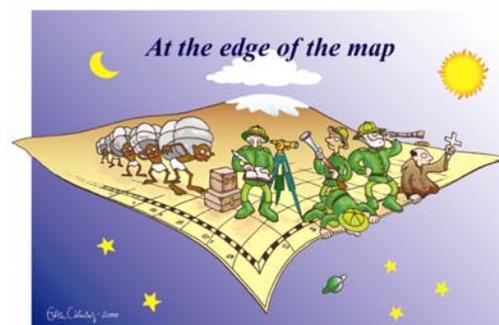


## The Educational Challenge



## University Provision of CPD

- **Short term just-in-time training**
  - all costs paid
- **Open education**
  - Graduate surveyors/engineers
  - One year course, part time (two years)
  - Distance learning + 5 week-end seminars
  - Master degree, Master of technology Management
  - subsidised by the state
- **Lifelong learning**
  - Faculty concept
  - One week programme each year (end of August)
  - Free of costs



*Facing the new world*



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