

The e-Future Challenge

Prof. Stig Enemark

Aalborg University, Denmark

Vice-President of  FIG

Greetings from Wonderful Copenhagen



Greetings from the home base



Aalborg

A
a
l
b
o
r
g

Copenhagen

Landinspektørernes hus
The Surveyors' House



Den danske Landinspektørforening
The Danish Association of Chartered Surveyors



International Federation of Surveyors
Fédération Internationale des Géomètres
Internationale Vereinigung der Vermessungsingenieure

Greetings from Aalborg – my Home Town



Good Governance

The characteristics (adapted from UN-Habitat 2002):

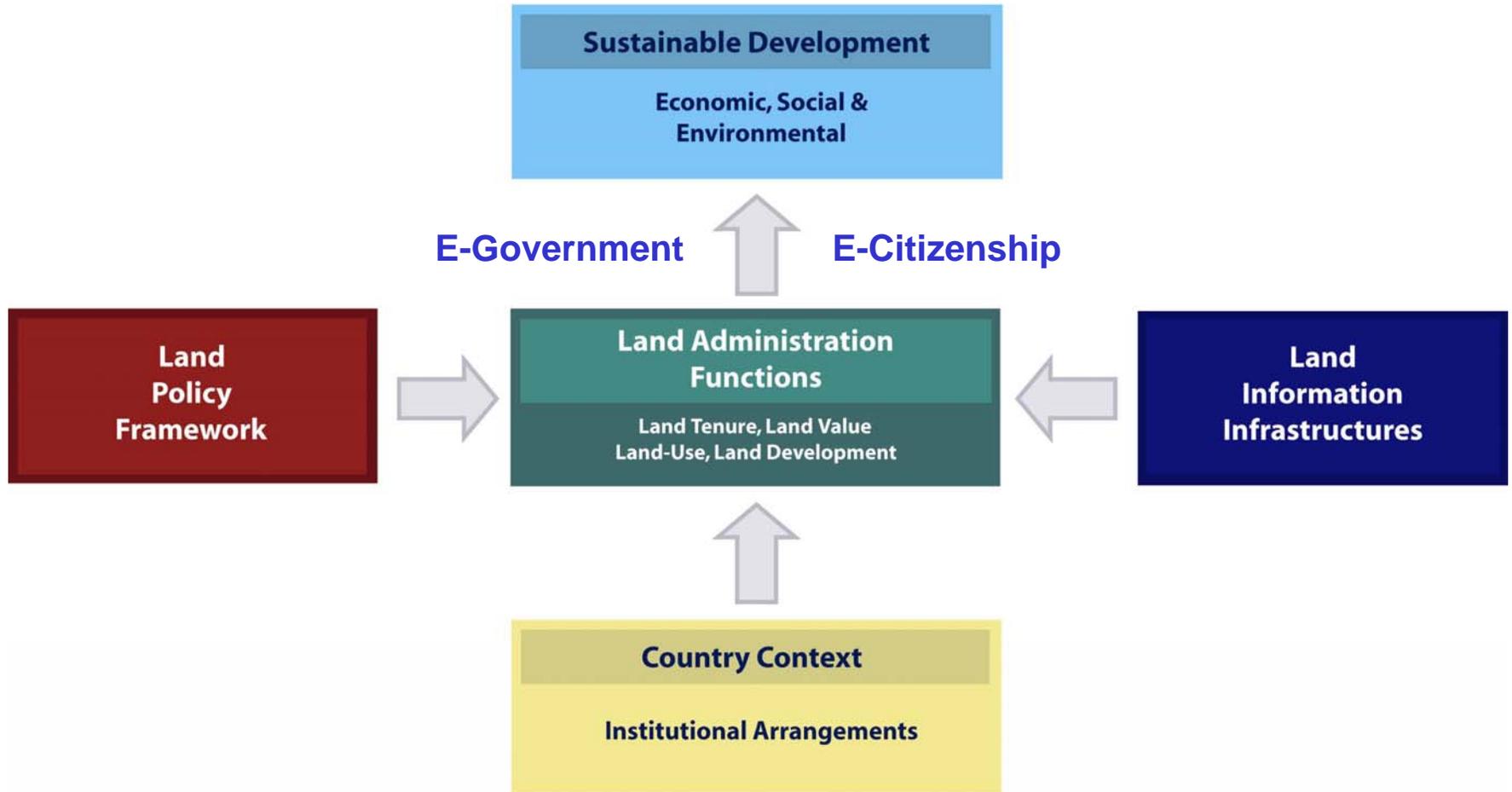
- **Sustainability:** balancing social, economic and environmental needs while being responsive to the present and future needs of society.
- **Subsidiarity:** allocation of authority at the closest appropriate level consistent with efficient and cost-effective services
- **Equity:** Women and men must participate as equals in all decision making, priority setting, and resource allocation processes
- **Efficiency:** Public services and local economic development must be financially sound and cost-effective.
- **Transparency and Accountability:** Decisions taken and their enforcement follows rules and regulations. Information must be freely available and directly accessible.
- **Civic Engagement and Citizenship:** Citizens must be empowered to participate effectively in decision-making processes.
- **Security:** All stakeholders must strive for prevention of crime and disasters. Security also implies freedom from persecution, forced evictions and provision of land tenure security.

Good e-Governance - what is it ?

- **The term “Good” involves a normative debate.**
Different people, organisations and governments authorities will define good governance according to their own experience and interests
- **The term “Governance” involves a spatial component**
All kind of government includes a spatial component

Good governance and sustainable development is not attainable without sound land administration or – more broadly - sound land management.

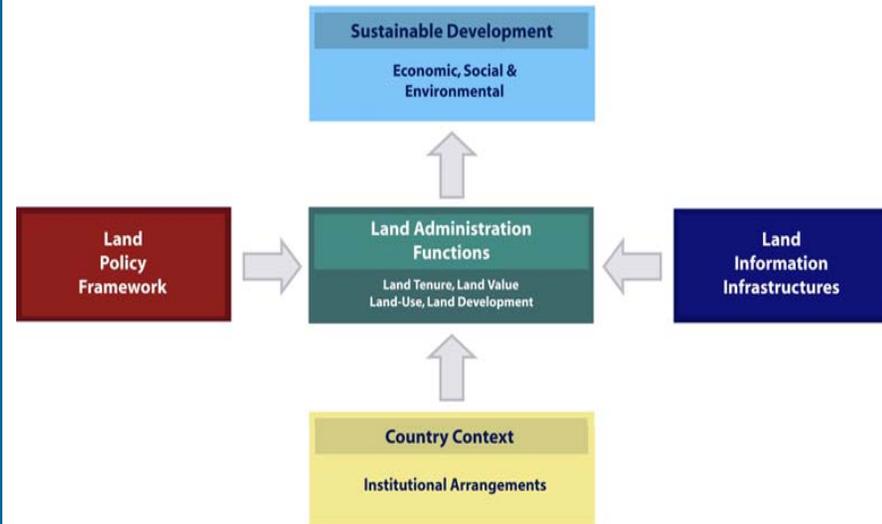
The Land Management Paradigm



Land Management is the processes by which the resources of land are put into good effect.

The Land Management Paradigm

- The organizational structures for land management differ widely between countries. Within this country context, the land management activities can be described by three components in support of sustainable development.
- Land policies are part of the national policies on promoting objectives such as economic development, social justice, equity and political stability. Relates to security of tenure, efficient land markets, real property taxation, land use control, environmental management etc.
- The operational component of the land management paradigm is the range of land administration functions that ensure proper management of rights, restrictions and responsibilities.
- The land administration functions are based on and facilitated by land information infrastructures that provide complete and up-to-date information about the built and natural environment.



Land Management is the processes by which the resources of land are put into good effect.

E-Land Management

Land management in developed economies should facilitate sustainable development – the triple bottom line of economic, social and environmental sustainability – through public participation and informed and accountable government decision-making in relation to the built and natural environments.

- **E-Government**

Involves a government putting government information and processes on-line, and using digital systems to assist public access.

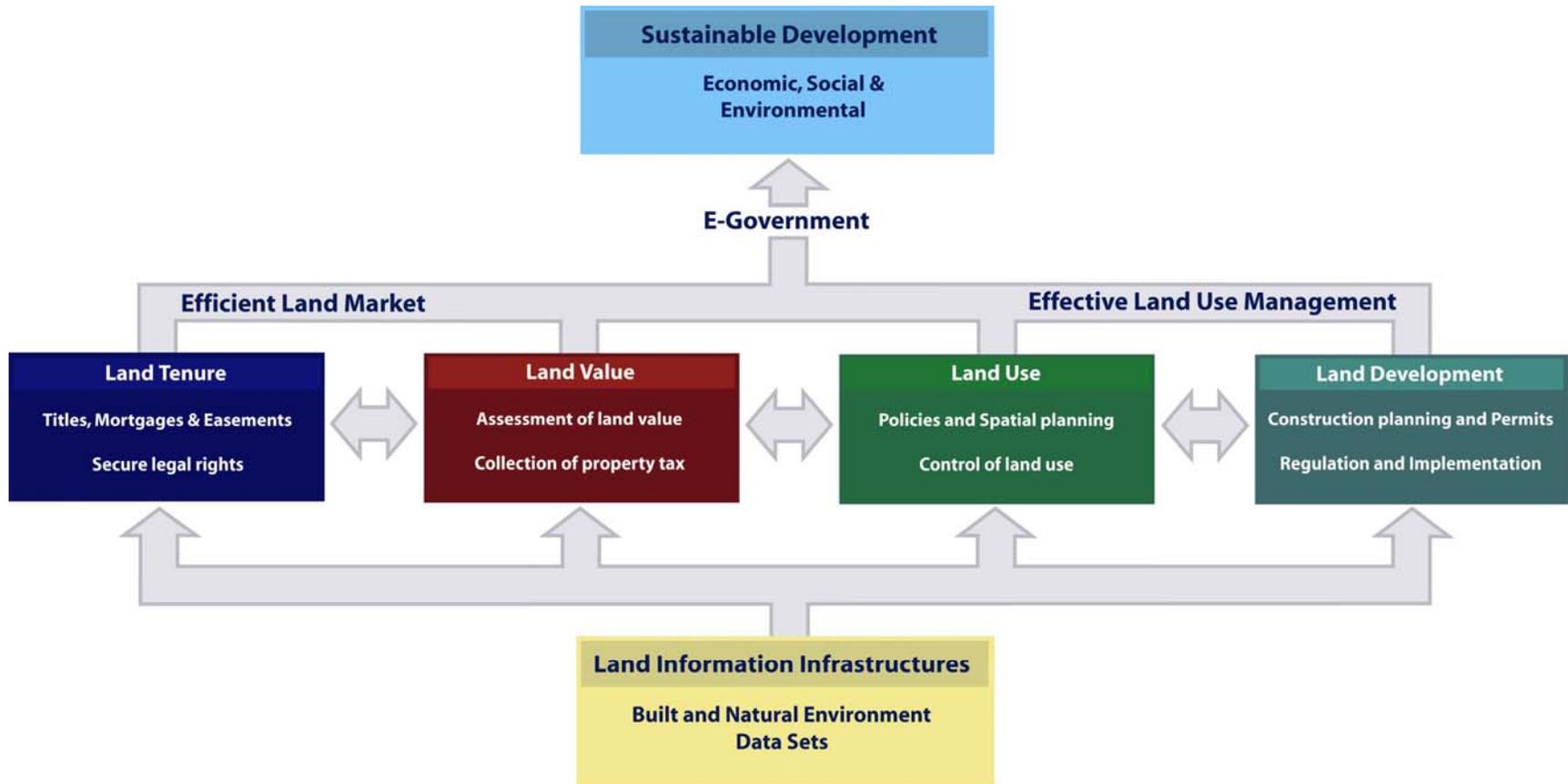
- **E-citizenship**

Is mobilization of society to engage in planning, use and allocation of resources, using technology to facilitate participatory democracy.

- **E-Governance**

Is e-Democracy – helping to govern society through the use of the web.

Land Administration Systems



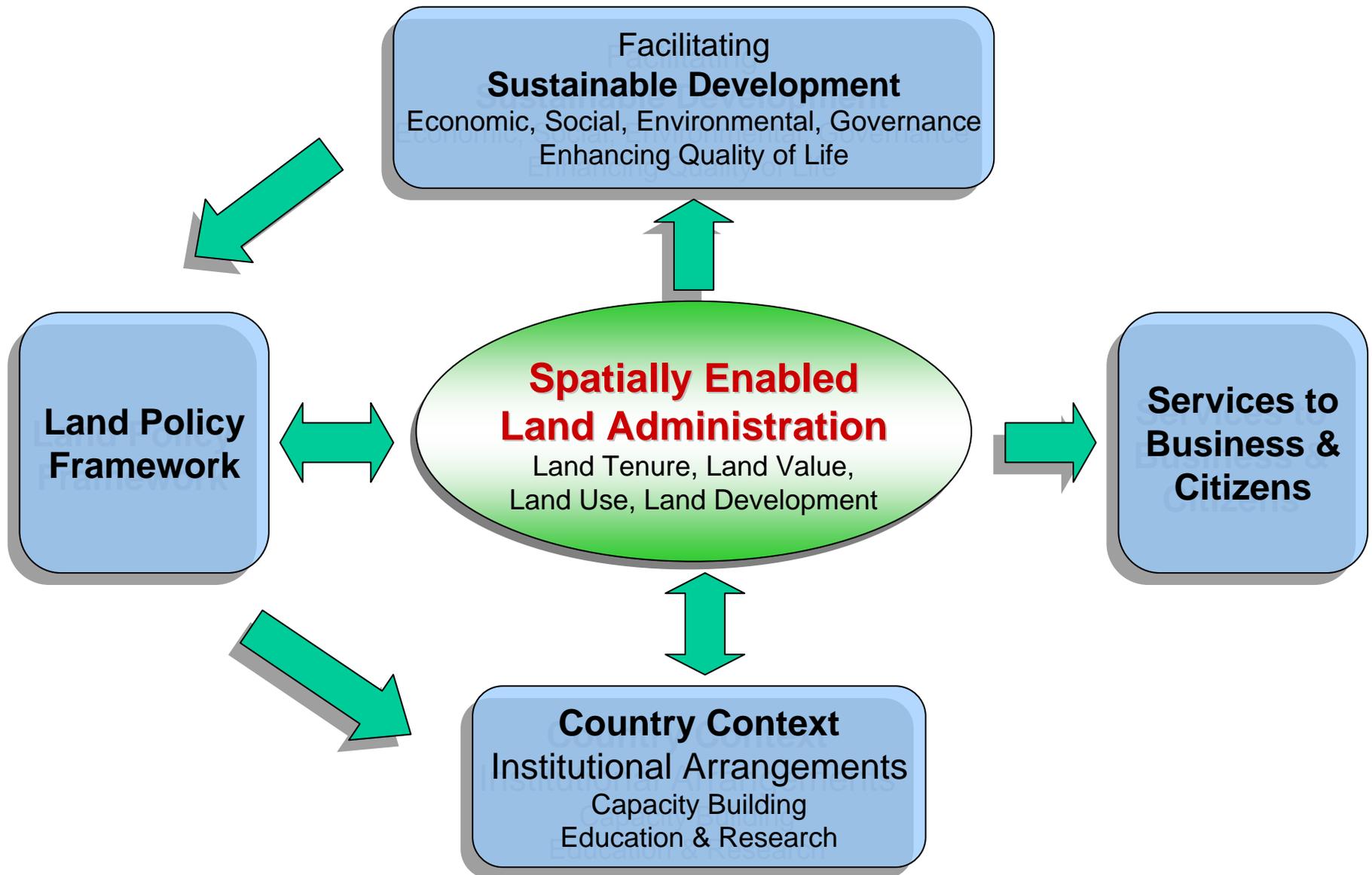
Land Administration Systems are concerned with the four land administration functions of land tenure, land value, land-use and land development. Spatial enablement offers land administration a revolution equivalent to the conversion of paper files to digital systems of twenty years ago.

Spatial Enablement

Spatial enablement is just one form of interoperability – the capacity for a computer to identify “where” something is. It is, however, far more energetic and offers opportunities for visualisation, scalability, and user functionalities. The benefits of spatial enablement of the core cadastral layer is:

- **Attachment of information to images of the parcel and property**
- **Identification of “the place” in ways that are understandable by non-technical people**
- **Capacity of businesses and citizens to manipulate the information.**
- **Inclusion of various layers of geo-referenced information**
- **Integration of government information systems and provision of seamless information to institutions and government**
- **Ultimately managing information through spatially enabled systems, rather than databases.**
- **Sharing of the core spatial information layer**

A Land Management Vision



Knowledge Management in e-Government

Knowledge management is about optimising the use of the basic asset of any organisation namely knowledge.

Knowledge management is an integrated approach to managing the information assets of an organisation/enterprise

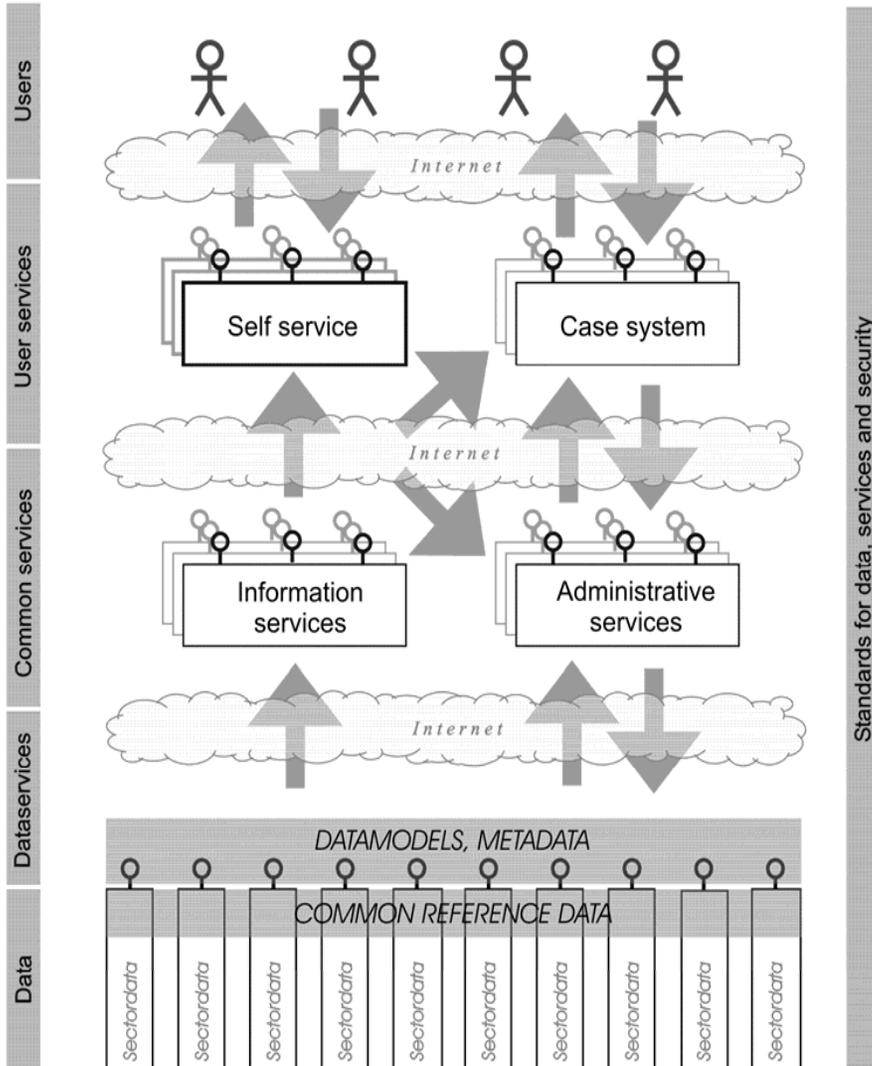
Knowledge management is – in fact – just common sense.

- **Knowledge Management in e-Government**

Is about the sharing and organising of knowledge just like spatial information management is about organising and sharing of data.

It is about designing and implementing a suitable IT-architecture for organising spatial information that can improve the communication between administrative systems and also establish more reliable data due to the use of the original data instead of copies.

The Service –Oriented IT Architecture



Users: All kind

User services:

Self services collect and organise data from different sources for specific purposes
 Case systems design and support the processes in government administration

Common services:

Information services support the distribution of data
 Administrative services secure the process of access to and updating of the data

Data services: Provide functionality for distribution and administration

Data: Official (authentic) governmental Registers and map databases

- Quality, authenticity, and actuality
- Flexibility and accessibility
- Standardisation

Knowledge Management in e-Learning

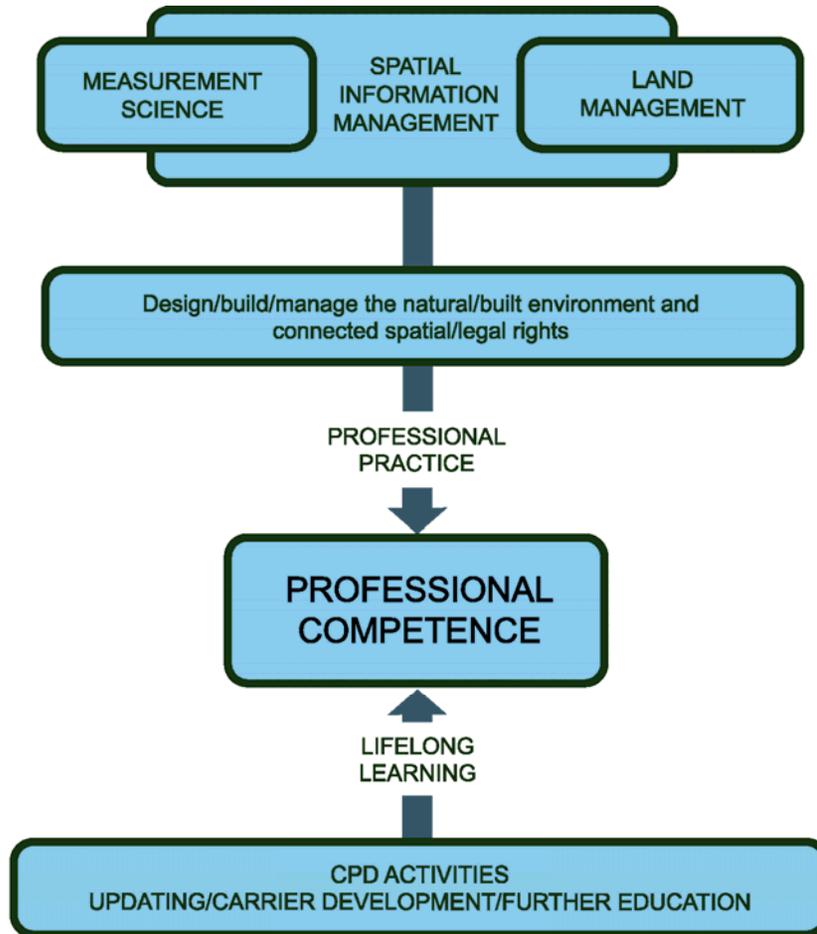
The surveying community around the world is a combination of academia and practice. The profile of the community is changing rapidly due to the global drivers such as technology development and globalization.

To face this challenge a possible way forward is to foster a cross-functional collaboration through setting up virtual learning organizations and facilities which can benefit both partners. Learning Lab Geomatics can be seen as such an organization.

- **Learning Lab Geomatics at Aalborg University**

- A problem-based and project organised approach
- The learning process will reflect the ICT opportunities
- Lecture courses will be designed as hypertext on the web for self-studies
- The project work will be developed on the web and be accessible to all
- Course material, research results, and journal articles are available on the web and tailored for use in the different areas of professional practice.
- The graduates will then have access to the newest knowledge throughout their professional life
- Learning Lab Geomatics is – this way – designed to provide a new and flexible learning environment based on the knowledge management concept.

Educational Innovation



THE PROFESSIONAL COMPETANCE MODEL

Professional competence relates to the status as an expert.

This status cannot be achieved only through university graduation and it cannot be achieved solely through professional practice.

The idea of “learning for life” is replaced by the concept of lifelong learning.

All graduates must have access to the newest knowledge throughout their professional life.

E-Learning and innovative interaction between education, research and professional practice is essential in this regard

The Role of

The three areas of e-Governance, Knowledge Management, and e-Learning are interdependent and constitute the key challenge of the future: “the e-Future Challenge”.

 should develop ways and means to face this challenge.

The efforts of Commission 2, 3 and 7 in this area are very timely and most welcome.



**Thanks
for your
attention**