Awareness
– A Tool for Investigating Inter-Organizational Collaboration in Land Administration Systems?

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Inter-organizational collaboration is demanded in land administration systems

- From a single-purpose to a multi-purpose perspective
- Spatially enabling of government
- Technology push and market pull
But barriers exist…

“There exist just as many reasons for not engaging in inter-organizational collaboration, than for doing it”

Awareness as a foundation for inter-organizational collaboration

**Internal awareness** involves the phases of recognition that allows organizations to make sound decisions in solving problems or developing solutions regarding handling of spatial information, expertise and services between the organizations.
Awareness as a foundation for inter-organizational collaboration

External awareness involves the phases of recognition that makes organizations recognize why and how they alone and together can make their spatial information, expertise and services available to society in order to support a social, economic and sustainable development.

Stages of awareness

Internal Awareness
- Motivation
- Coordination
- Outcome

External Awareness
- Motivation
- Coordination
- Outcome
Stages of awareness – Internal awareness

Motivation awareness
Awareness of other organizations in the inter-organizational network

Collaboration awareness
Awareness of shared role in the inter-organizational network

Cooperation awareness
Awareness of capabilities, resources, visions, and a need for partnership in the inter-organizational network

Stages of awareness – External awareness

Need defining awareness
Awareness of society’s needs and interests of the organization’s information, expertise and services

Collaboration awareness
Awareness of the role of the inter-organizational network in society, and of the interdependency in the network in order of fulfilling the demands in society
Stages of awareness

Coordination awareness
Awareness of shared problems and new possibilities

Implementation awareness
Awareness on how to solve problems and develop new possibilities

Evolution awareness
Awareness of success and need for further collaboration to maintain established relations
Four case studies on cadastral systems

- Denmark
- The Netherlands
- Western Australia
- Victoria

Evaluation Factors

- Overall characteristics
  - Communication
  - Importance

- Coordination bodies
- Internal and external awareness
- Willingness
- Trust
- Management communication
- Visions
- Network structures

- Attitude to data sharing
  - Social pressure
  - Technical knowledge

Social system of inter-organizational domain
History of inter-organizational domain
Social system of society
Danish cadastral system as a case

A separated cadastral system

- Cadastral mapping

Ministry of Environment

- National Survey and Cadastre

Ministry of Justice

- Court Administration
  - Titles
  - Mortgages
  - Easements
Denmark as a case

- High focus on other organizations and its own role and position in society (coordinator for SDI)
- Numerous links exist to the Court Administration
- Highly developed communication strategies
- High level of willingness to share data
- High level of technical knowledge

National Survey and Cadastre

Court Administration

Denmark as a case

- Other organizations not mentioned in strategies
- Only a few links exist to the National Survey and cadastre
- Individual courts call for collaborative constraints
- Limited willingness to share data (political constraints)
- Limited technical knowledge

National Survey and Cadastre

Court Administration
Case study results

### External Awareness

<table>
<thead>
<tr>
<th>Overall step</th>
<th>Stages of awareness</th>
<th>Description</th>
<th>The National Survey and Cadastre</th>
<th>The Court Admin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activation</td>
<td>Need defining awareness</td>
<td>Awareness of society’s need and interest of the spatial information, expertise and services that the organizations in the cadastral system posses and/or can deliver.</td>
<td></td>
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<tr>
<td></td>
<td>Collaboration</td>
<td>Awareness of the role of the cadastral system in society</td>
<td>X</td>
<td>X</td>
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<tr>
<td></td>
<td>Awareness Problem-setting</td>
<td>Awareness of organizational interdependency in order to reach shared goals and visions</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Transition</td>
<td>Coordination awareness</td>
<td>Awareness of shared problems and/or new possibilities</td>
<td>X</td>
<td>X</td>
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<tr>
<td></td>
<td>Structuring</td>
<td></td>
<td>X</td>
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</tbody>
</table>

Conclusion

- Awareness is an important foundation for inter-organizational collaboration in LAS
- Awareness can be separated into stages
- Awareness can be investigated through a number of associated factors
- It is not possible to measure awareness precisely
- Instead, the methodology provides a helpful tool in pointing out general collaborative problems in inter-organizational relationships in LAS
Thank you for your attention

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