

**INSTITUTT FOR BYGGFAG**  
DEPARTMENT OF CIVIL ENGINEERING

**LEIV BJARTE MJØS**  
Associate professor dr. philos

## Cadastral development and need for reforms (in Norway)

Coimbra, Portugal, 26.10.2016



### Contents

- Background – cadastral development in Norway in short
- The present system – characteristics and needs for reforms



## My background

- Engineering surveying
- Cadastral surveying
- Norwegian Mapping Authority
- Teaching and research at Bergen University College since 2004

[https://www.researchgate.net/publication/303405186\\_Matrikulaer\\_utvikling\\_i\\_Norge\\_Cadastral\\_development\\_in\\_Norway](https://www.researchgate.net/publication/303405186_Matrikulaer_utvikling_i_Norge_Cadastral_development_in_Norway) *Pages 33 – 88 in English*



3

## Cadastral mapping in Denmark–Norway

- Started 1804-1805
- Denmark: completed in 1821 and in force from 1844
- Norway: from 1814 in union with Sweden, the first cadastral mapping was stopped in 1815-1816, due to poor economy and resistance from the farmers



## Cadastral mapping in Denmark–Norway

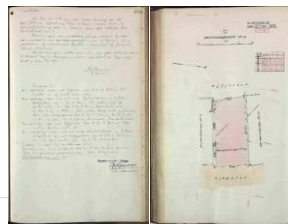
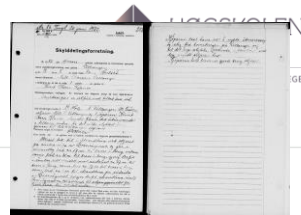


- Started 1804-1805
- Denmark: completed in 1821 and in force from 1844
- Norway: from 1814 in union with Sweden, the first cadastral mapping was stopped in 1815-1816, due to poor economy and resistance from the farmers



## Development up to 1980 (1)

- In rural areas land subdivisions were to be carried out by laymen up to 1980
- Land consolidation courts established in 1859
- Cadastral surveying and mapping developed in cities and towns



## Development up to 1980 (2)

- Coordination of the tax cadastre and land register from 1848
  - › Based on the identification numbers of the tax cadastre
  
- After WW2 increased focus on land use planning and control, and the lack of large scale maps in rural areas becomes apparent

7

## Development up to 1980 (3)

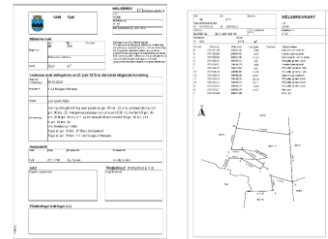
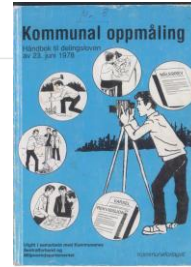
- Cadastral mapping from 1960
  
- Photogrammetricm
  
- Poor quality control
  - › Initially only properties larger than 0,5 ha are to be mapped
  
- No approval of the registered boundaries from the land owners
  
- 32.000 maps produced, mostly in 1:5.000



8

## Cadastral reform in 1980

- Triggered by the need to update the new economic maps
- Nationwide surveying and cadastral mapping is introduced
- Municipal surveying (monopoly)
- New multipurpose cadastre (the GAB system), but no nationwide cadastral map
- No strengthening of education nor research
- No authorization of surveyors



9

## Attempts for renewal after 1980

- Digital cadastral maps from mid 1980s
- Quality problems becomes apparent from early 1990s
- Cadastral law renewal from mid 1990s
  - › Proposal for national cadastral map
  - › Proposal for privatization of cadastral surveying
- National cadastral map implemented from 2010
- Introduction of private authorized surveyors rejected



10

## Characteristics of the present system

- Poor quality in the cadastral map (and in the cadastre in general)
- No education requirements nor authorization of persons undertaking cadastral surveying
- High number of boundary disputes



11

## Proposed measures for improvement (my thesis)

- Stronger focus on the functionality of the cadastral system
- Clarify responsibilities of the land information system
- Strengthen education and establish a profession of cadastral surveying experts
- Strengthen quality control and improve the boundary determination system



12

## “Lessons learnt”

---

- A cadastral system is conserving
- The Norwegian cadastral system is built on pragmatic strategic choices rather than research and in-depth knowledge
- Changing «the route» is difficult
- A well functioning central body for governance is needed
- Research is important for modernization
- Is “the system” willing to change?



13



*Thank You!*