




## Land Consolidation strategy

- The Ministry of Agriculture and Forestry and the National Land Survey (NLS) have approved the LC strategy for 2007 – 2013
  - ☞ The priority of tasks is the following:
    - LC surveys on arable land
    - LC project surveys (traffic safety and nature reserve)
    - LC surveys on forest land
  - ☞ It is essential to follow the plans as well as the changes in society
  - ☞ It is also very important to actively cooperate with interested parties and to keep them informed



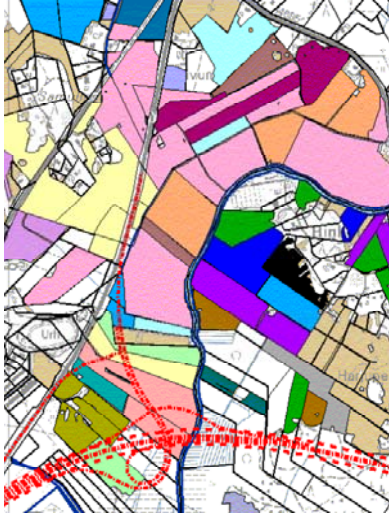
### *Land consolidation provide vitality to rural areas*

- **Land consolidation is used to improve the location of land**
  - ☞ The farmers' small and fragmented blocks of arable land are assembled to form coherent units closer to homesteads, at the same time crisscross traffic is reduced.
  - ☞ The road network and the drainage facilities in the area to be rearranged are renewed to correspond with the needs of the farmers.
- Land consolidation is carried out in areas where the property structure is fragmented.



  
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## KIVA survey in Hamina Bypass

- **Demand for land consolidation**
  - ☞ land consolidation/  
private road survey
  - ☞ fragmentation of field parcels
  - ☞ closing of plantation connections




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## Number of land consolidations

- **In Finland rearrangements of arable land are carried out every year for approximately 10 000 – 15 000 hectares of land**
  - ☞ The need for such rearrangements is as high as 700 000 hectares
- **Ongoing rearrangements of arable land cover an area of 80 000 hectares**
  - ☞ The need for land rearrangements is being assessed for an arable land area covering 40 000 hectares
- **The number of forest land rearrangements is increasing considerably in the near future**
- **Positive experiences have been obtained from project-related land consolidations carried out in connection with traffic projects**
  - ☞ The current study is an example of this


  
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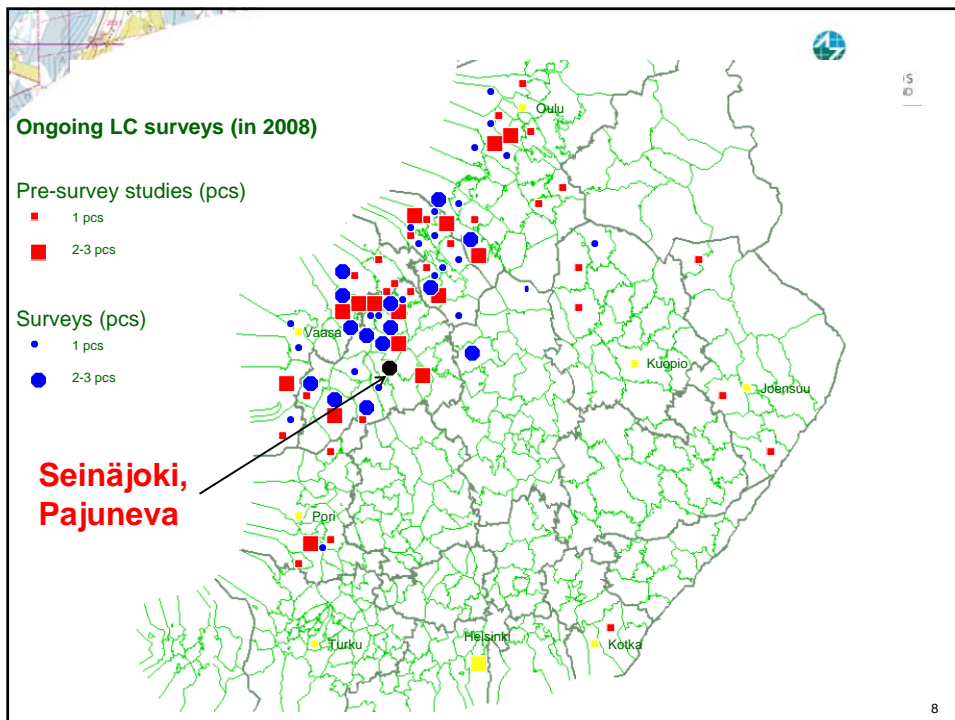
## Structural change of rural areas

- **A considerable structural change is taking place in rural areas of Finland**
  - ⌘ The most drastic changes concern agriculture
  - ⌘ Forestry and the settlement of rural areas are also subjected to change
- **The size of farms is increasing and the number is decreasing**
  - ⌘ The old property structure dates back to the horse-carriage age
- **Long-distance transportation on roads and rail is separated from local traffic**
- **Similarly fast traffic is separated from slow local traffic**
  - ⌘ It is important to follow the plans as well as the changes in society
  - ⌘ Active information and cooperation with interesting parties is also very important

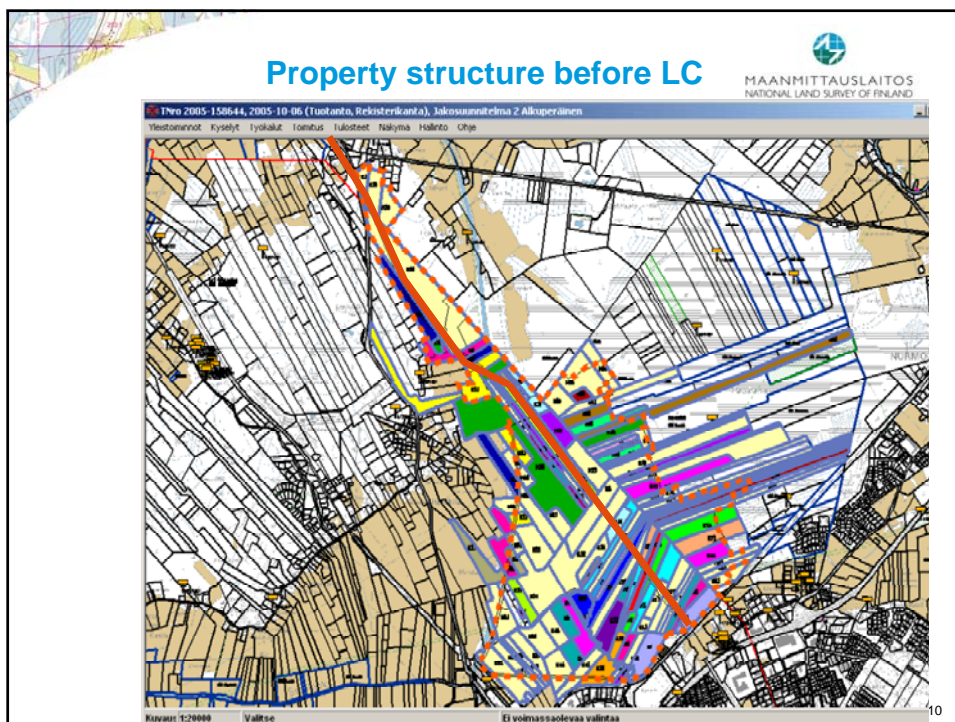
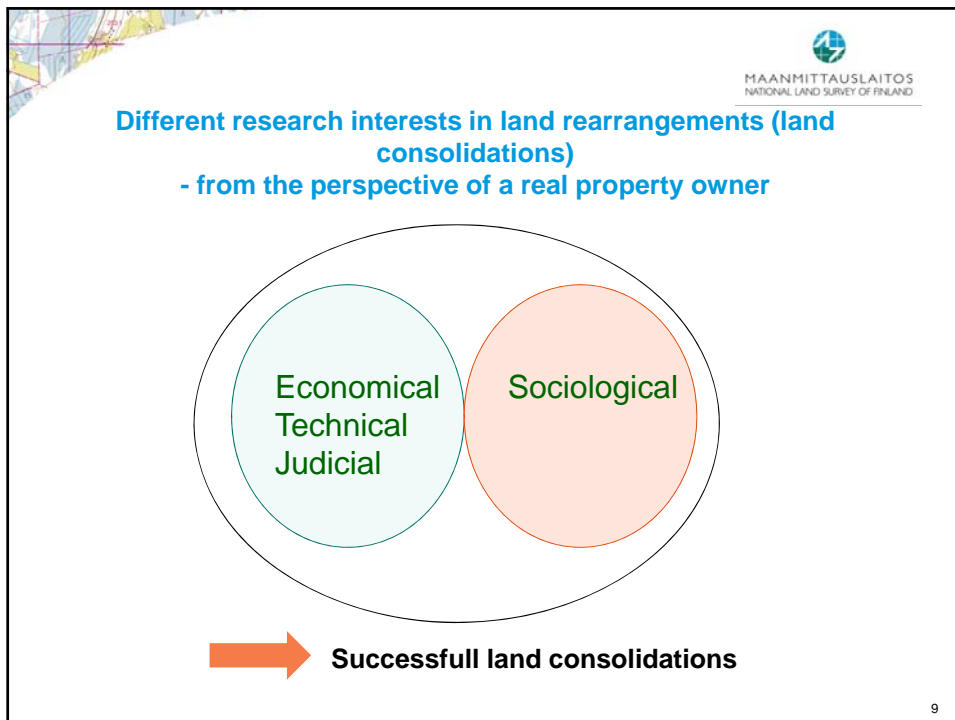



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### Initial and technical data

- The length of a new road was about 5 km
- Arable land about 400 hectares and forest about 100 hectares
- Approximately 80 units of use
- In the beginning the number of arable parcels was 126, the average size being 3,4 hectares/parcel
- The number of parcels could have been increased with 25 (totalling 151) but their average size would have fallen below 3 hectares
- After LC survey; 56 parcels, average size 5,84 hectares/parcel

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### Different processes overlap one another


**Schedule of the final engineering plan process**

<p>15.4.2005 Public notice in the newspaper, start of technical work in the terrain</p>	<p>31.8.2005 The road district sends the plan for approval</p>	<p><b>18.7.2006</b> <b>The Finnish Road administration (Finnra) approves the plan</b></p>
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**Schedule of the land rearrangement process**

<p>23.6.2005 The road district applies for a survey</p>	<p><b>9.11.2005</b> <b>The initial meeting/ needs assessment (KIVA)</b></p>	<p><b>3-26.2 and 2-9.6.2006</b> <b>one-to-one discussions with property owners</b></p>	<p>10.10 and 3.11.2006 allotment plan meetings</p>	<p>16.9.2008 Accounts/ final meeting</p>	<p>17.10.2008 The survey is legalized (no appeals)</p>
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## Finnish Road Administration purchased land

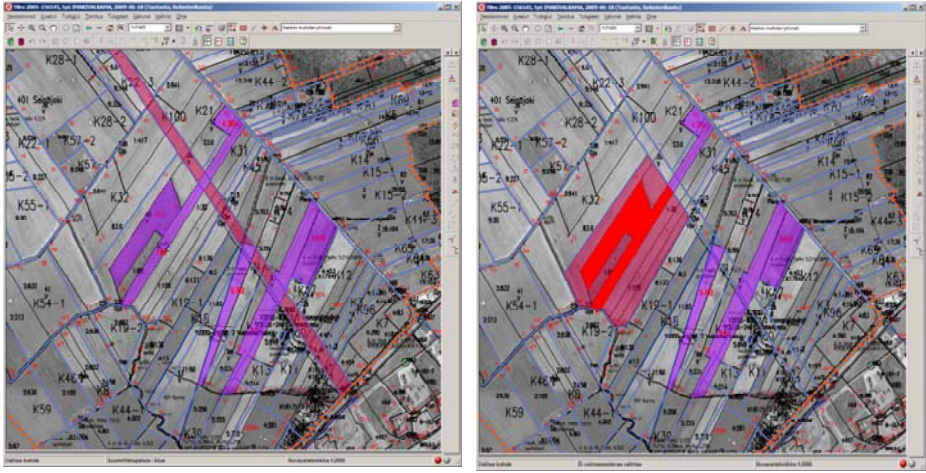
- ➔ **Finra purchased arable land, which was intended to be allocated in a land rearrangement procedure on the road line.**

- ➔ **The whole road could be built on state-owned land because of LC.**
- ➔ **Some of the land was also sold as additional land to arable land owners.**

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## Example of property structure changes



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**Costs and benefits , euros €**



  
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Implementation alternative	Expropriation (Public road survey)	Project-related land consolidation and public road survey	Difference
Survey and adaptation costs	30 000 €	280 000 €	- 250 000 €
Other costs		67 000 €	- 67 000 €
Building costs for parallel road network	580 000 €	260 000 €	320 000 €
Maintenance costs of private roads	50 000 €		50 000 €
Indemnifications	71 000 €		71 000 €
Agricultural benefits		194 000 €	194 000 €
Impact on traffic safety		16 000 €	16 000 €
Impact on traffic flow		61 000 €	61 000 €
Savings in need for building an underpass		408 000 €	408 000 €
TOTAL savings			803 000 €

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- Experiences, theoretical background**
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- **Satisfaction of the people is largely based on fairness evaluations of processes, not on outcome (research concerning cases of judicial authorities)**
  - **Tyler's (1988; 1997) components of fairness were tested:**
    - ☞ **Possibility to participate**
    - ☞ **Trustworthiness of the authorities**
    - ☞ **Ethicality of the authorities**
    - ☞ **Neutrality of the authorities**
    - ☞ **Outcome quality/accuracy and**
    - ☞ **(Possibility to appeal)**
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## Theoretical background: Neutrality-based/Trust-based concept of authorities

- In district courts of Finland the neutrality-based concept of authorities is changing towards a trust-based one,
- meaning:
  - ☞ More informal dialogues
  - ☞ Confidential discussions
  - ☞ More customer initiatives
  - ☞ The use of mediation

➔ People pay attention to the morality of authorities, not on signs of professionalism

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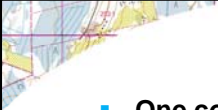
## Research and Results


- Questionnaire to arable land owners; 40 responses, response rate 87 %
- Quantitative (regressio analysis) and
- qualitative (material-oriented text analysis) research methods in use

*The study provided new scientific information.*

*Part of the components of subjective experience of fairness introduced by the American Tyler explained the arable land owner's satisfaction.*

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## Results

- **One component of satisfaction was the possibility to participate**
  - ☞ Which meant sufficient acquisition of information.
  - ☞ It had a positive effect on how arable land owners experienced both the outcome of land rearrangement and the land rearrangement process.
- **The fast schedule of the reparation works had a positive effect on satisfaction with the outcome.**
  - ☞ The reparation timetables should have been suitable also for arable land owners.
- **Trust-based course of action increased satisfaction.**
  - ☞ It meant that the relations were confidential and fair discussions were held during the rearrangement process. The mode of action focused on facts.

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## Conclusions

- The arable land owners were satisfied with the land rearrangement process used.
- Common in Finland: expropriation proceedings with road projects should be completed with need assessment phases (KIVA) and land rearrangements. At present this new mode of action is only partly used.
- In Finland, legislation provides satisfactory grounds to utilise land rearrangements already at present.
- The study indicates that the results could apply to arable land owners in Southern and Western Finland. The concepts of practicing experts strengthen this interpretation.

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Thank you for your interest!

