

# Cost estimation in software development projects

- A case study at Volvo Cars Corporation

## Research question

- ” What are the underlying factors that affect cost estimation in system development projects in automotive industry? “

## The data

*”Why do you need my opinion?”*



## The results

- Methodology issues
- Management issues
- Politic issues
- User communication issues

## Methodology issues

- The opinions on what template there is for the purpose of cost estimation differ.
- There is a lack of coordination between the functional and project parts of the organization during the early development phases with respect to the estimates
- The existing estimation competence is not used by the company
- There are problems estimating new technology

## Management issues

- There are problems with comparing estimates and results
- The estimates are affected by other projects scheduling
- The opinions on time spent on estimates vary from *too much* to *too little*
- Management estimation goals are not taken seriously

## Politic issues (1/2)

- Late changes
- The padding is removed from the estimates when discovered by the management
- Optimistic estimates are presented at the gates, in order to be able to continue with the project

## Politic issues (2/2)

- The estimates are affected by the budget and the management goals
- Different company cultures lead to difficulties when communicating estimates to the owner of VCC, FMC
- There is a lack of competence in assessing suppliers' estimates and resources

## User communication issues

- Unclear requirements

## Comparing the results with the literature

- Lederer and Prasad study involving 112 software managers and other professionals

## Issues not earlier mentioned in the literature

- The estimates are affected by other projects scheduling
- The opinions on time spent on estimates vary from *too much* to *too little*
- Management estimation goals are not taken seriously
- Different company cultures lead to difficulties when communicating estimates to the owner of VCC, FMC
- There is a lack of competence in assessing suppliers' estimates and resources

## Future work

- Case study at Volvo Trucks (in progress)
- Case study at Volvo Construction Equipment (spring 2008)

Questions?