



KP7, Cost Management Demonstration

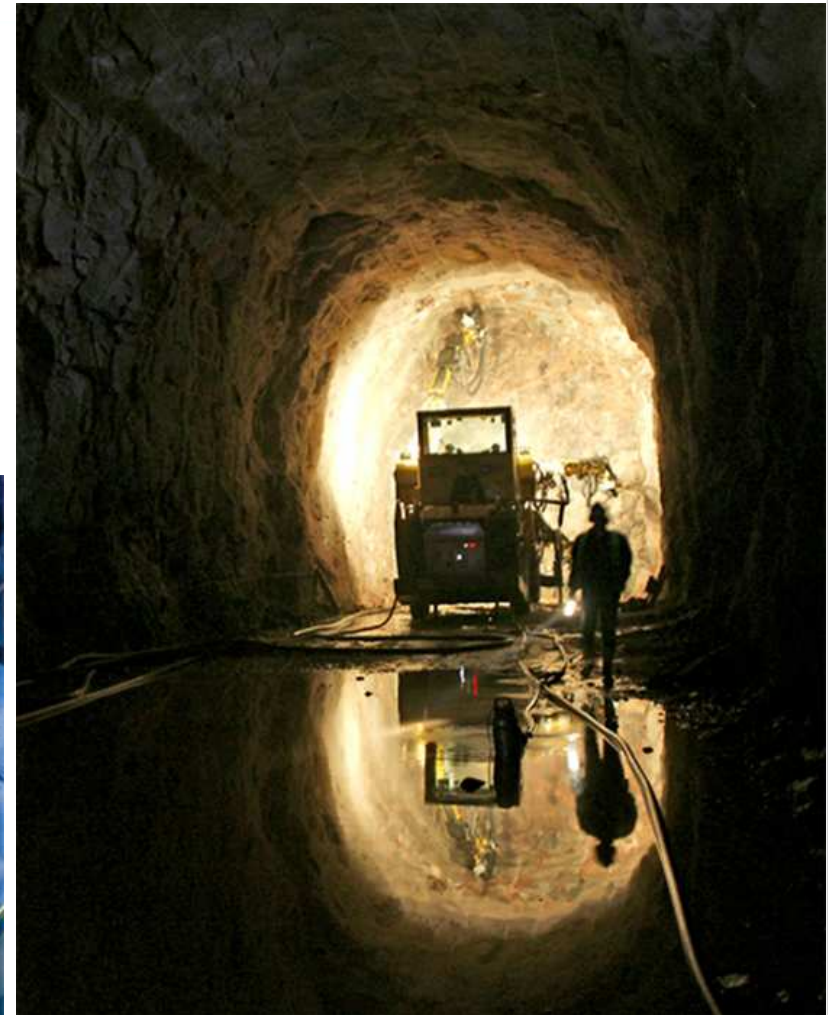
Olli Nummelin, Martti-Veikko Salo

Nyborg, September 7, 2010

Cost Management --- Content



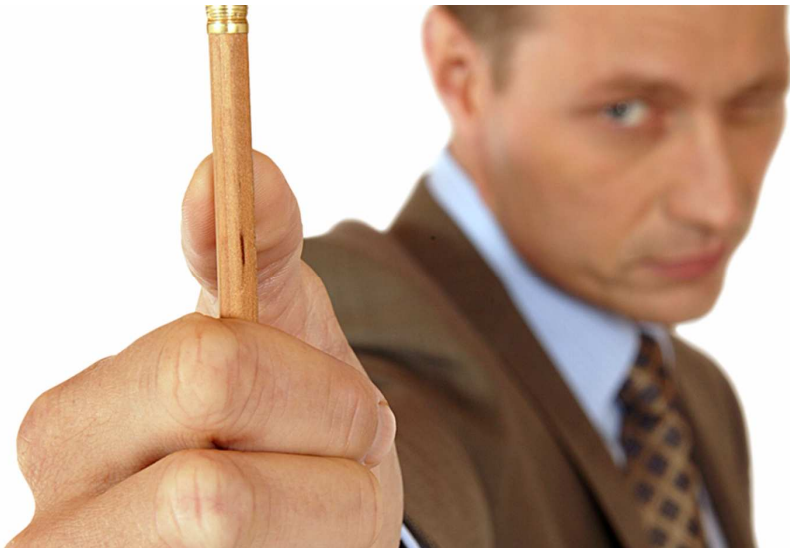
- ❑ Aim of Demo
- ❑ Actors
- ❑ Tools
- ❑ Demonstration
- ❑ Breakthroughs / Conclusions



Cost Management Aim of Demo



- ❑ Show transform towards BIM based working --- cost management during early design
 - ❑ Help customer decision making process by comparing alternative solution
 - ❑ Track Cost Changes
 - ❑ Illustrate benefits for customer
 - ❑ Get started with minimum level of details

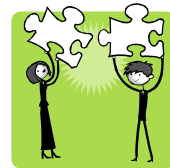


Actors & Working around



- ❑ Client
- ❑ Architect
- ❑ Construction/MEP Expert
- ❑ Energy Expert
- ❑ Cost Expert

Architect
Sketching & Design



share space

Experts
Semi-automatic mock-up



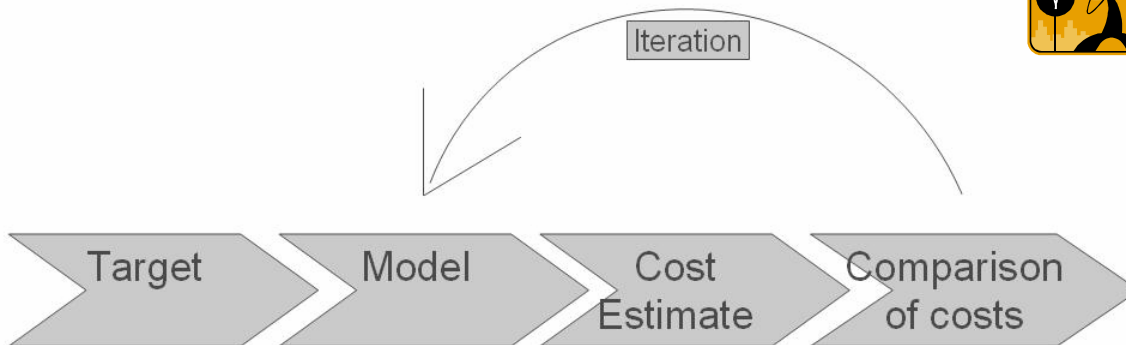
Experts
Analysis



Customer
Decision Making



Iteration



Tools



- ❑ Share-A-Space
 - ❑ Integration
- ❑ MS Office
 - ❑ Space programme
- ❑ ArchiCad
 - ❑ Space model
- ❑ Constructor + Add-On
 - ❑ Semi-automatic creation of building parts
- ❑ Estimator
 - ❑ Investment & life-cycle cost
- ❑ Cost Explorer
 - ❑ Visualisation of changes
- ❑ Ida ICE
 - ❑ Energy
- ❑ Solibri Model Checker
 - ❑ Viewing





InPro KP7 - Cost Management

Cost Management process in Early Design

Martti-Veikko Salo YIT

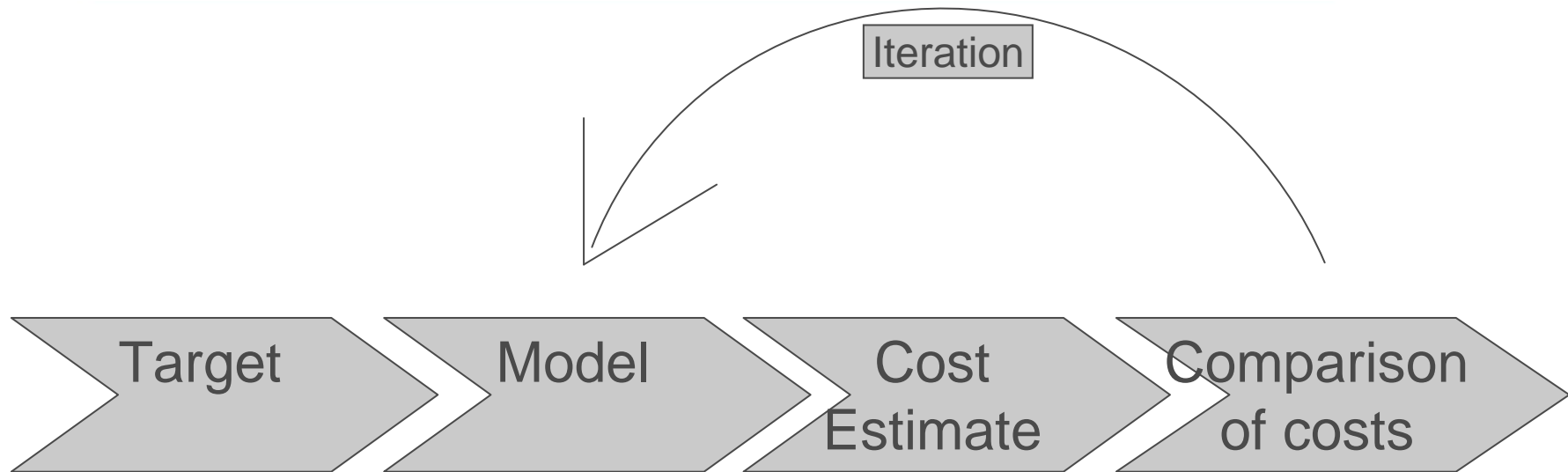
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From a target to iteration

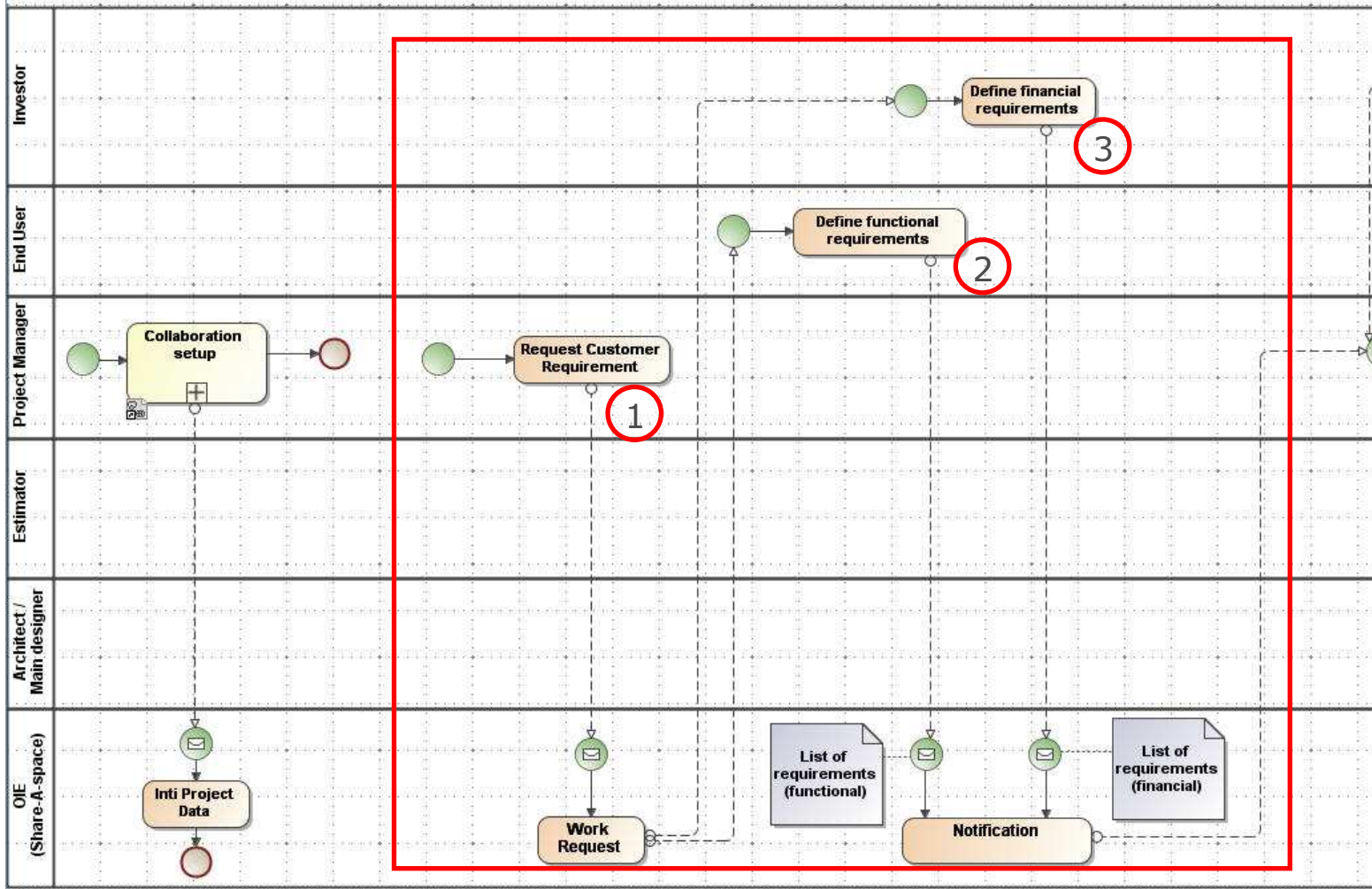


- ❑ Requirements from a client → Target
- ❑ Model based on the target
- ❑ Cost estimation is made from the model
- ❑ Costs are compared
- ❑ Model is refined and modified based on comparison
→ iteration

Cost Management process - simplified

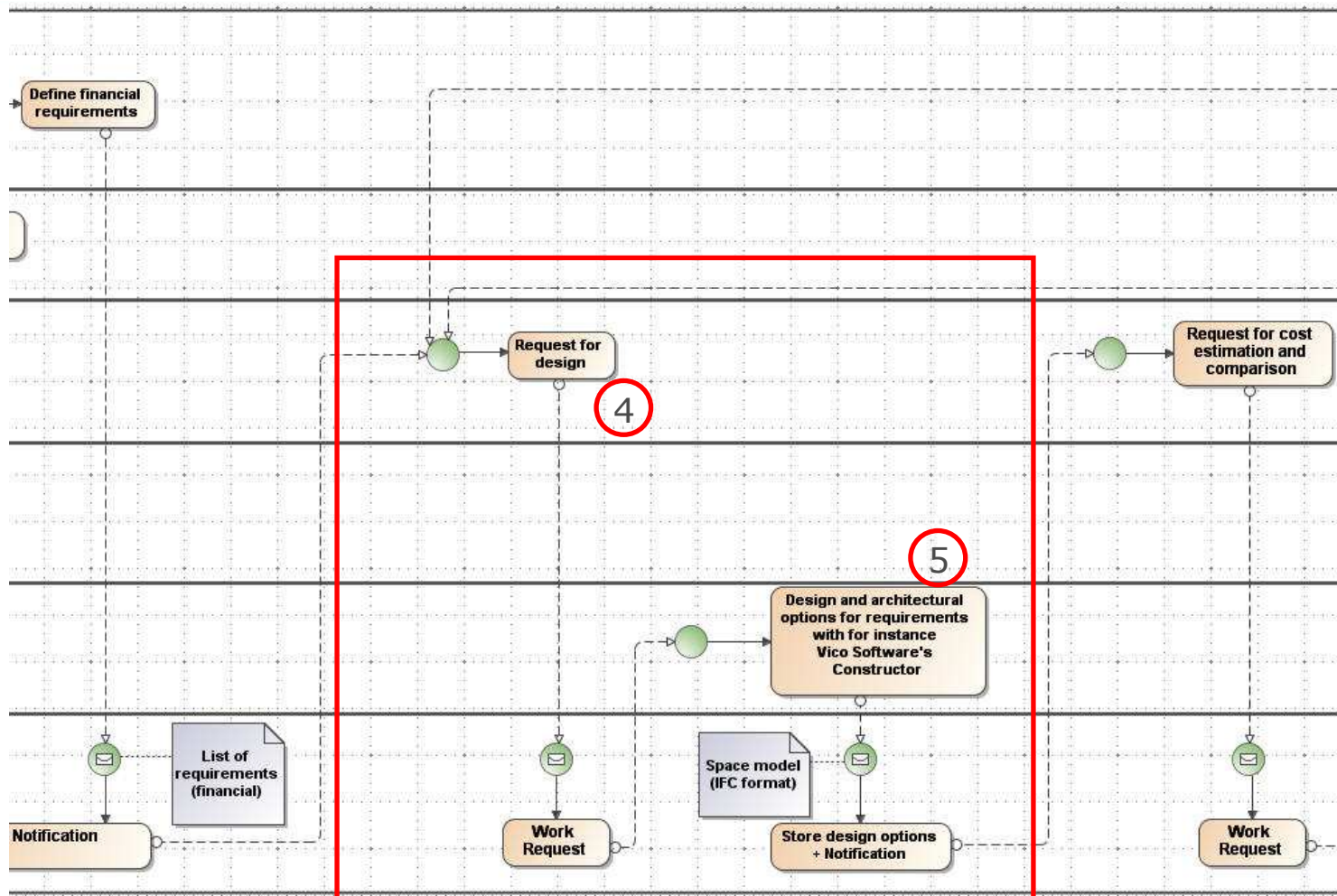


Target



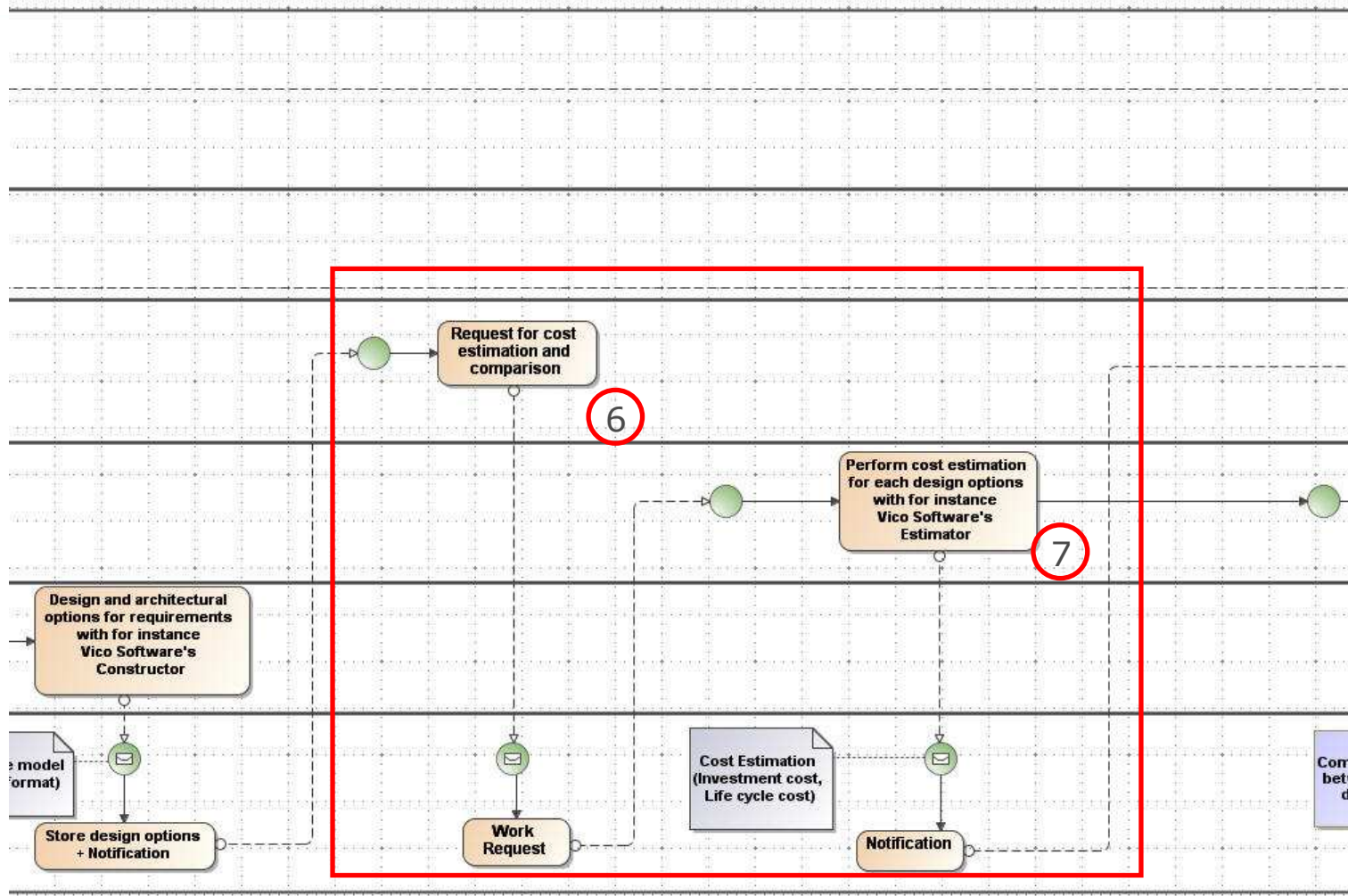
YIT (X) = Exchange requirement

Model



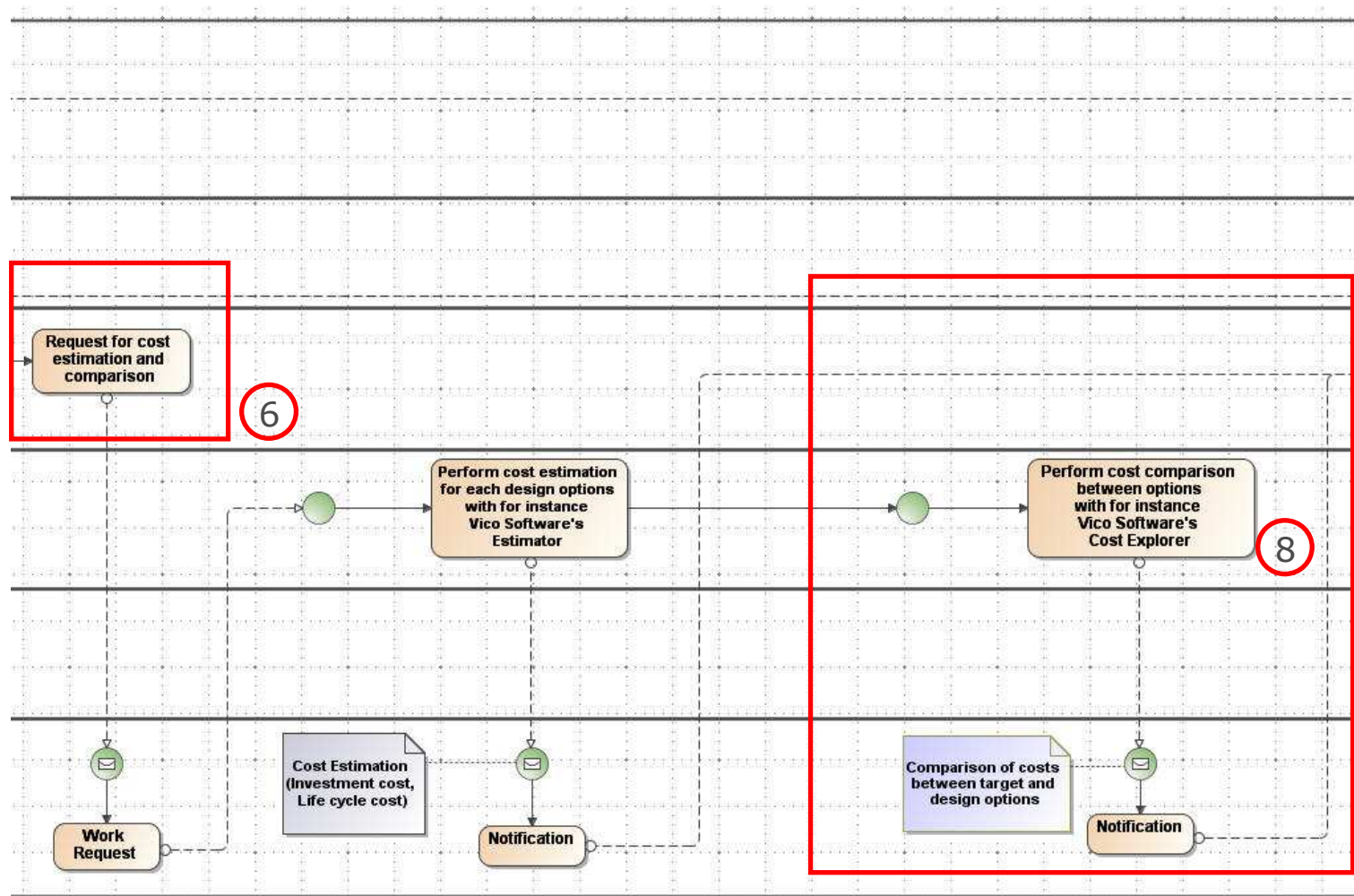
YIT (X) = Exchange requirement

Cost Estimate



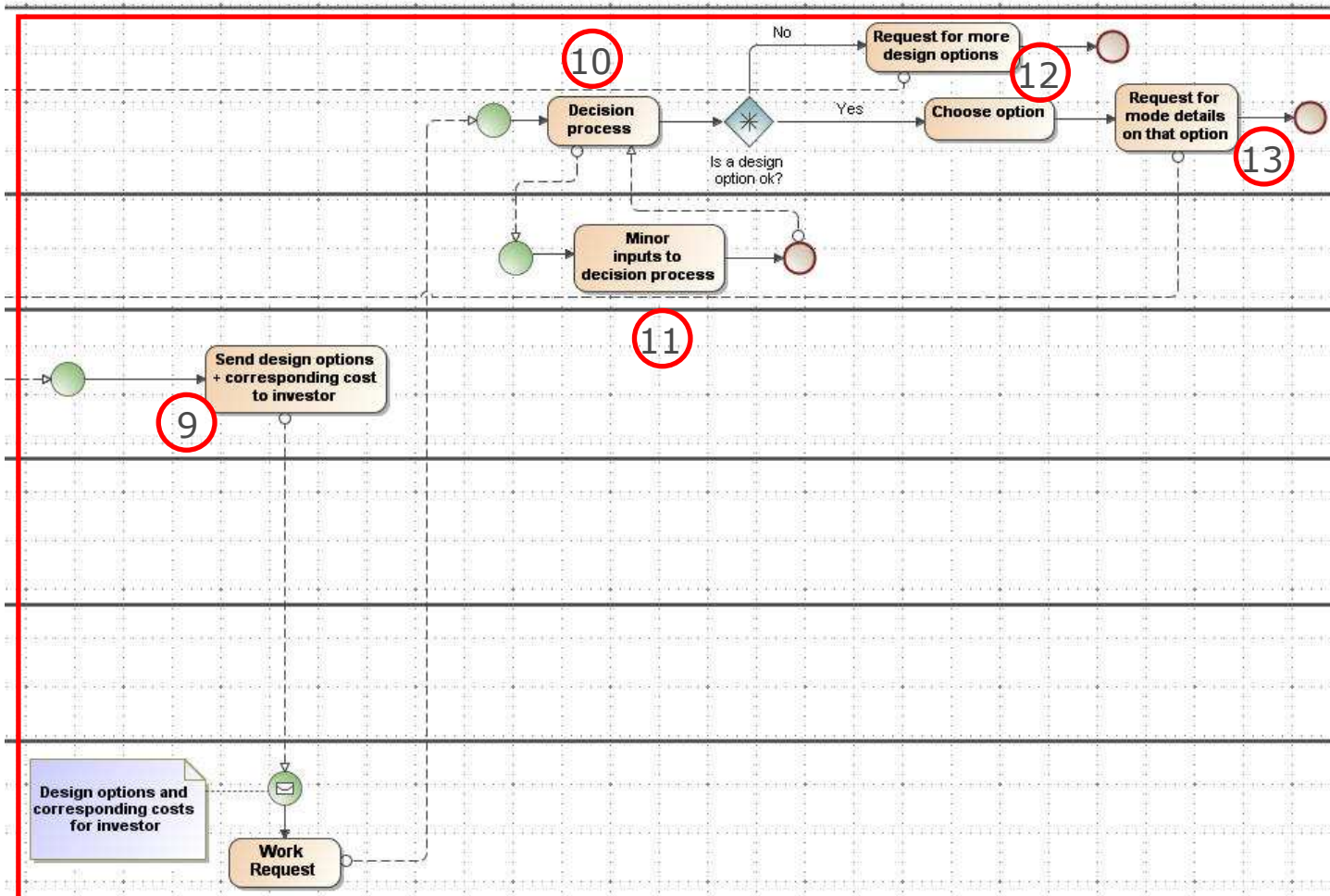
YIT (X) = Exchange requirement

Cost Comparison



YIT (X) = Exchange requirement

Iteration



YIT (X) = Exchange requirement

Part 3:

A video of the process was shown by Martti-Veikko Salo.

- process maps
- interaction with collaboration hub
- ...

Breakthroughs



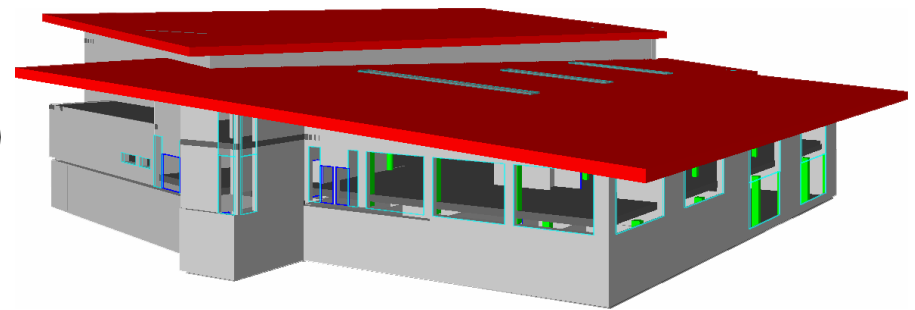
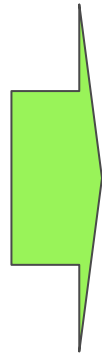
❑ Improved Collaboration

❑ Traditional way

- ❑ Phone & fax
- ❑ Emails
- ❑ Fragmented information
- ❑ Delays, like penetration drawing 1 week per designer

❑ InPro Way

- ❑ Share-A-Space
- ❑ Constant data
- ❑ No extra delays
- ❑ Communication is documented



Breakthroughs



❑ Improved Quality of Data

❑ Traditional way

- ❑ Excel --- Based on documents
- ❑ Experience --- Based on Experienced professionals
- ❑ Estimated guess --- Information fragmented and impossible to manage dependences

Re-entering -> blunders

❑ InPro Way

- ❑ Alternative solutions to compare and analyse
- ❑ Accumulation of data --- Not starting from scratch each design round
- ❑ Traceability of data and decisions



Breakthroughs



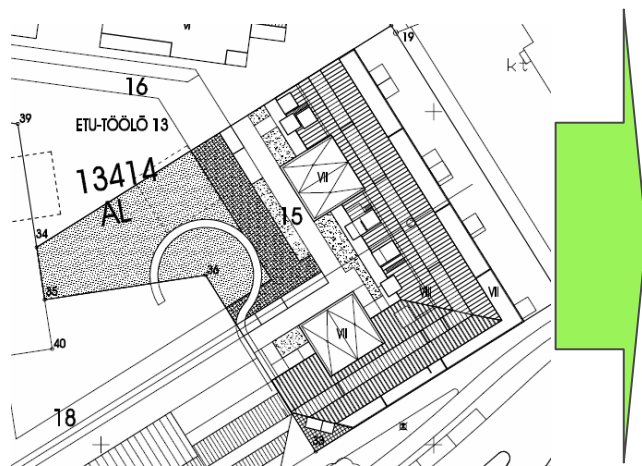
□ Better Customer Involving

□ Traditional way

- One bid "take it or leave it"
- Construction schedule and practices do not support customer involvement
- Data based on statistics -> high risk supplements

□ InPro Way

- Alternative solutions
- Viewing 3D model; WYSWYG for construction
- Visual changes
- Commenting and documenting the changes



Conclusions of the demonstration



- ❑ Demonstrated Cost Management process has a huge potential as terms of
 - ❑ Collaboration and customer involvement
 - ❑ Understand phenomenon between design and costs
 - ❑ Decision making
- ❑ We have still to do with
 - ❑ Performance
 - ❑ Reliability
 - ❑ User-friendliness



Thank you for your attention!