

Project Feedback as a tool for improving performance in construction



Sami Kärnä, Researcher
Helsinki University of Technology
27.08.2007

Aim of the research project

- 1. Explore customer satisfaction in construction
 - RALA data (Construction Quality Association) approximately 850 projects)
- 2. Create common methods and models for measuring the project participants' perceptions of a project's success
- 3. Develop multifaceted feedback system to the need of Finnish construction industry
 - Further development of RALA's (Construction Quality Association) existing feedback system
- PROPAL is carried out by CEM Facility Services Research in co-operation with RALA and industrial partners.
- The research is funded by Tekes (National Technology Agency of Finland) and several enterprises and confederations widely representing the Finnish construction industry.
- The project is scheduled to last from 09/2005 to 12/2006.

Background

- **Difficulties in measurement of customer satisfaction:**
 - complex nature of the construction process
 - changes in project organisation
 - the uniqueness of each project
- **Construction companies make customer surveys separately and their quality and exploitation is underdeveloped**
 - The utilization of the information been found to be sporadic and ineffective
 - Customer feedback is also mainly collected only late in the project
- **There is need to develop multiple customer feedback system:**
 - “Two-way” nature
 - During and after the project
 - Should be applied to whole supply chain
- **Customer feedback system is tool:**
 - For achieving successful co-operation during construction
 - For measuring the mutual performance of the project parties
 - For learning

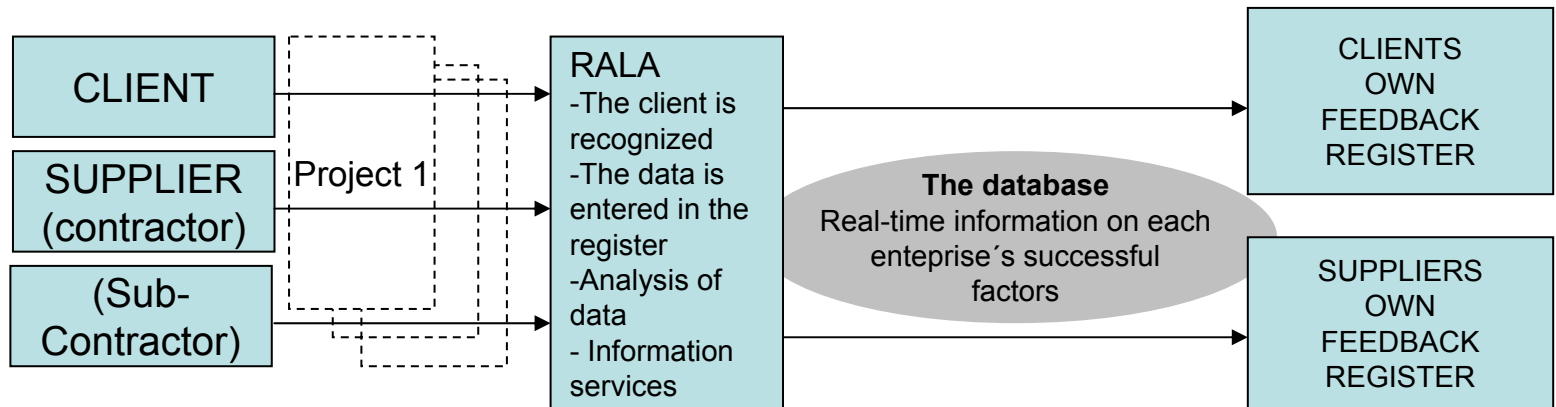
A close-up photograph of a hand making a peace sign gesture (two fingers extended, thumb tucked). The hand is illuminated with a strong blue light, creating a high-contrast, monochromatic effect. The background is dark and out of focus. The text is overlaid in the bottom left corner.

**Project feedback
is a tool for learning
and development**

RALA Feedback system (present operations model)

CLIENT FEEDBACK SYSTEM (www.rala.fi, mostly in finnish)

- The basis of the feedback system is the standard evaluation which is part of each project. In practise, the client (owner, or general contractor in the case of subcontracts) fills in a simple form (Web or paper) at project conclusion and delivers it to RALA. 22 Factors are evaluated on the scale 1 to 5 (worst to best)



- On RALA's Web pages, the parties can browse through information within limits of agreed access rights
- When a supplier's feedback on some factors is more successful than that of the others, the success is notified in the enterprise-specific data

Observations

- Each member have their own goals and have their own criteria for measuring success
- Each firm in the construction supply chain is both a customer and a supplier
 - the customer's input has considerable implications on the outcome of the construction project
- Performance of each participant in the construction project coalition is interdependent
 - when evaluating co-operation between parties in the construction supply chain, it is essential to **exploit mutual feedback**
- Feedback system is tool for achieving successful co-operation during construction and for measuring the mutual performance of the project parties

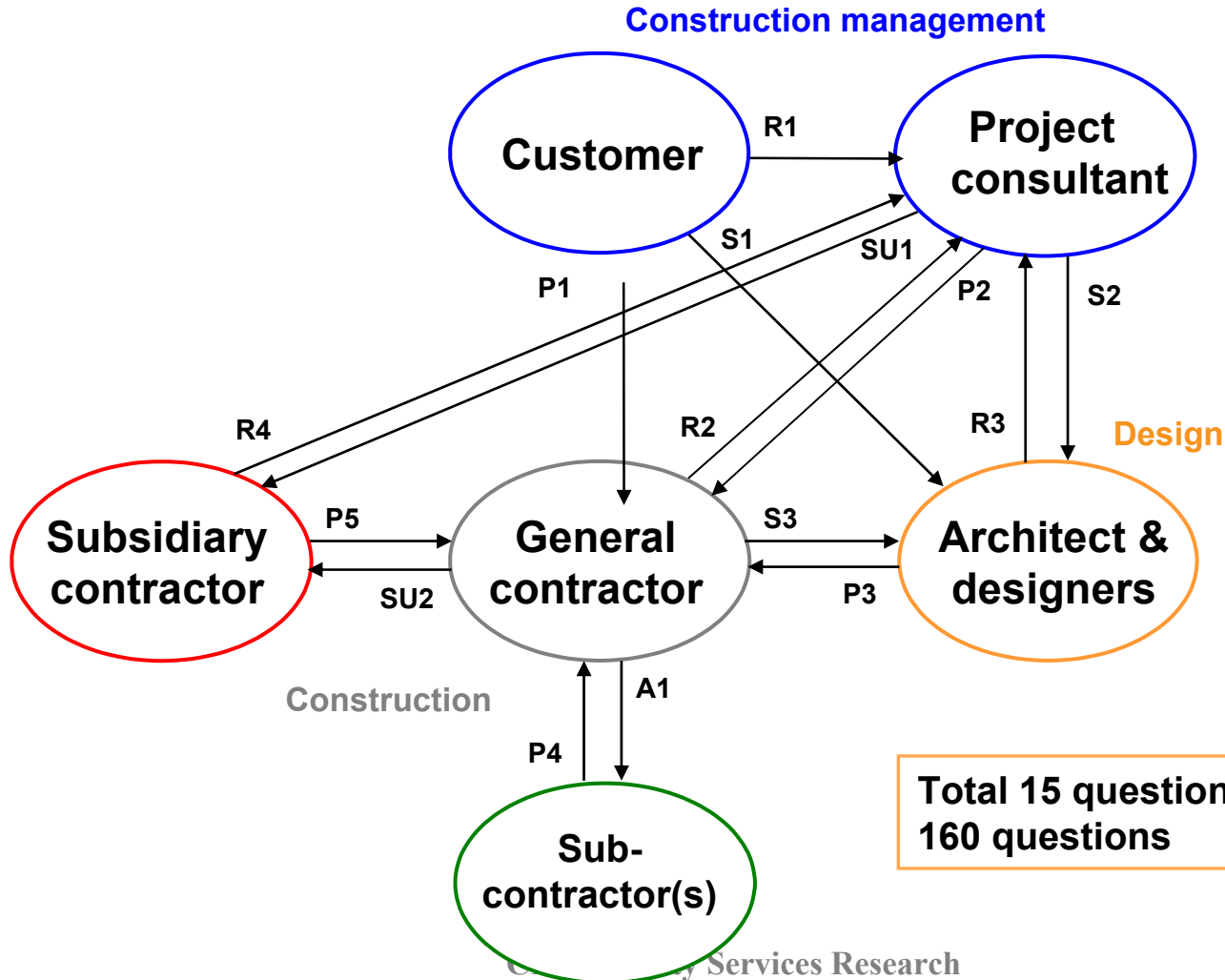
Demands and objectives of the mutual project feedback system

- Open and generally accepted in the industry
- Feedback information must be comparable – **benchmarking**
- It has to make multifaceted comparisons possible and provide well-defined summary reports and analyses
- It need to enable parties in the construction supply chain to give feedback to each other, both during the project and after the completion of the project
- User interface in the feedback system should be user-orientated and graphical -WEB -based technology

Purpose of the feedbacksystem

- The CF-system is a tool for improving service quality and competitiveness.
- Enables customers more sophisticated and diversified comparisons when preselecting partners in co-operation.
- Improves knowledge of the dynamics of customer satisfaction and service quality in the construction supply chain.
- Denotes areas in need of improvement in the whole branch of industry.
- On the project level, helps to perceive black spots in the process.
- Companies can position their performance on comparison with the competitors.
- In the long run improves the image of the company and whole construction industry

Feedback flows



Operations model

**Feedback
execution plan**



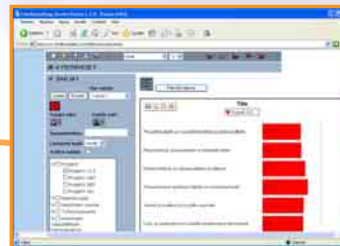
Feedback rounds



**Static
reports**



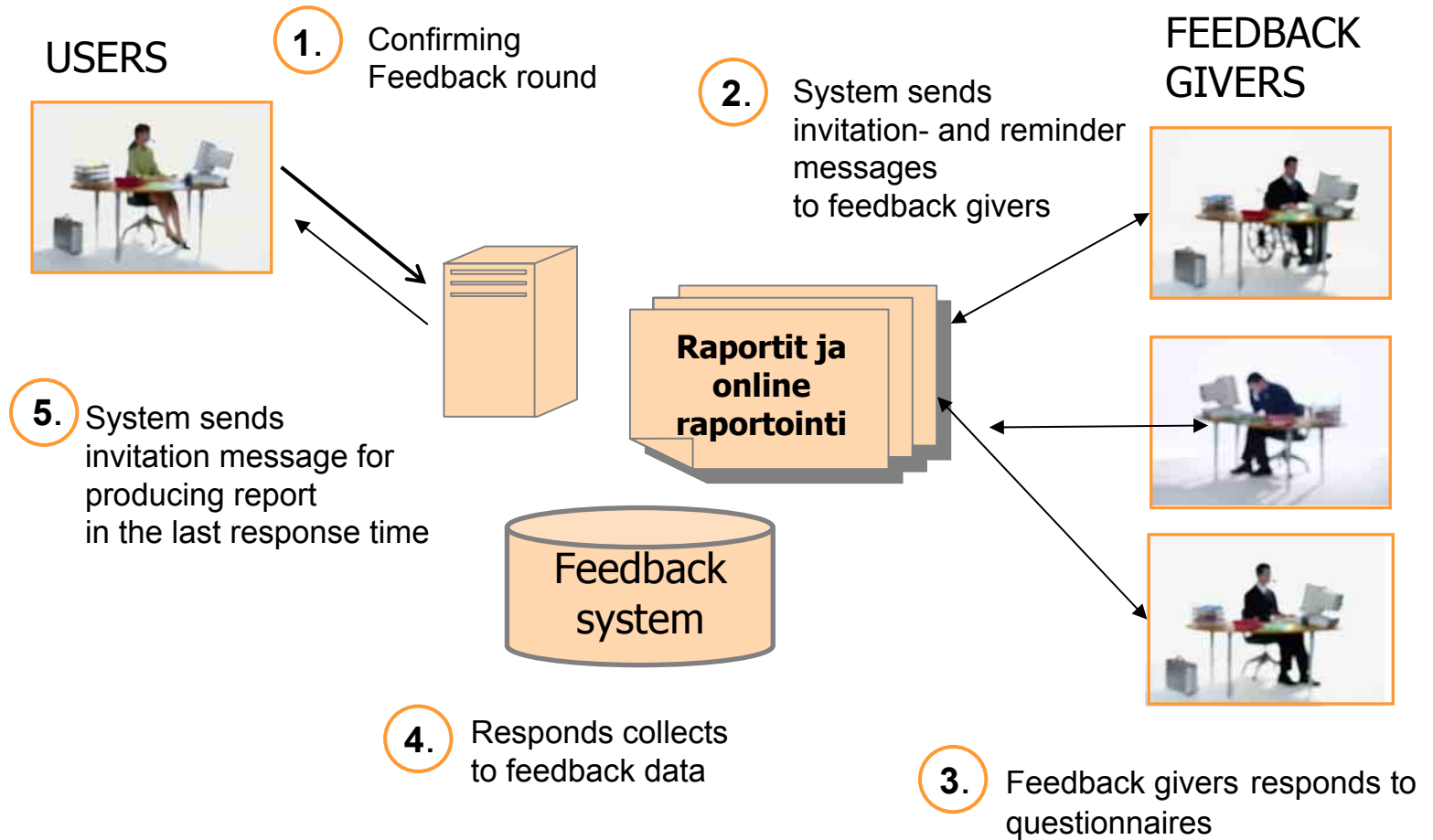
Company report



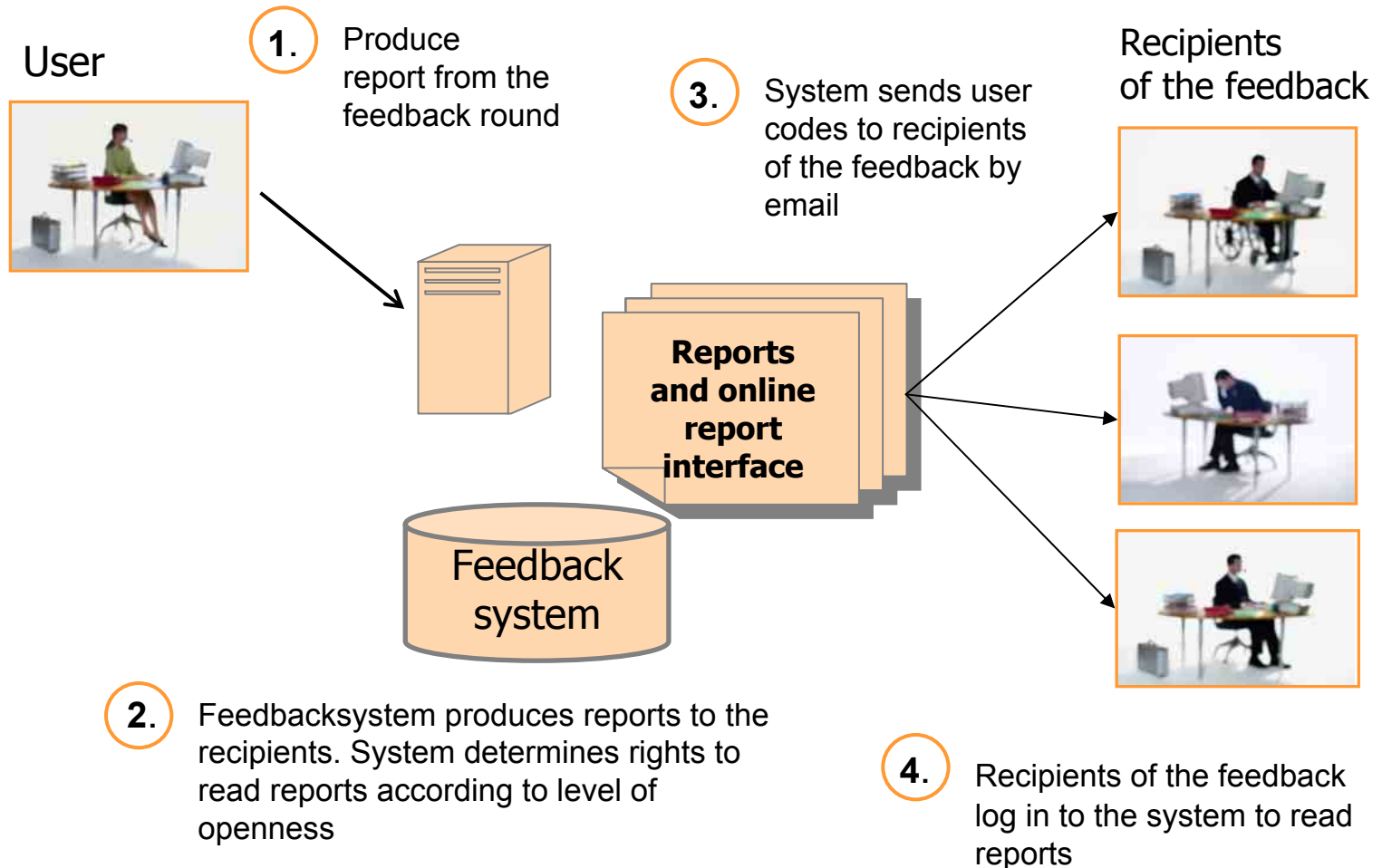
Utilisation of feedback



Reports, givers



Reports, recipients



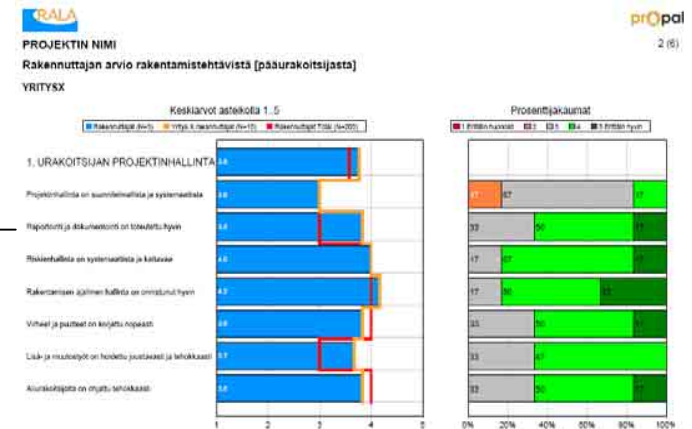
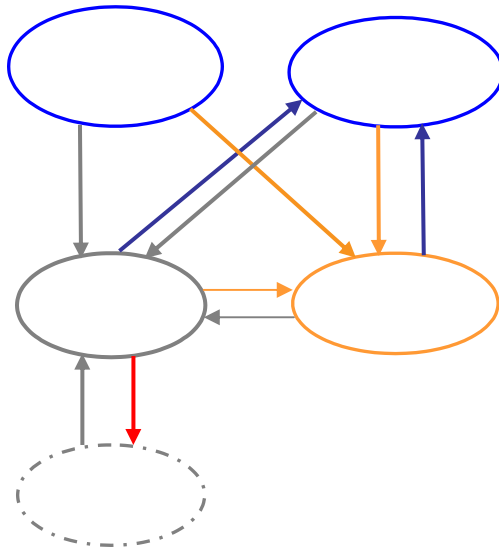
Reporting at the project level

Project participants
mutual feedback
"2-way nature"

During the project
Or

After the completion
of the project

Static Feedback
report for all project
participants

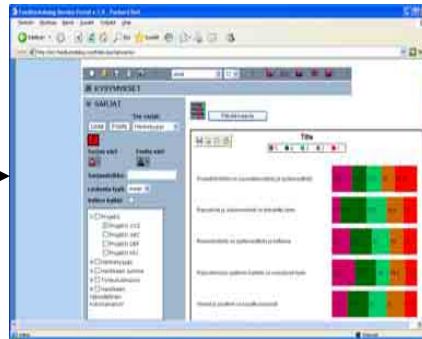
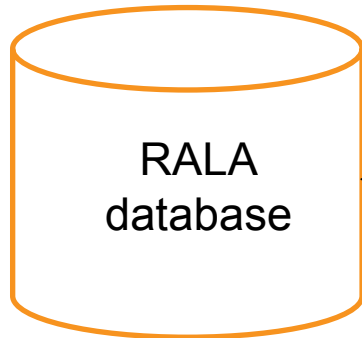


Dynamic reporting tool (company level)

**Project
feedback**

**Online dynamic
reporting interface**

**Benchmark
measures:**



- Type of the project
- Nature of the project
- Contractual relationship
- Regional comparisons
- Total value of the project

Users



Client

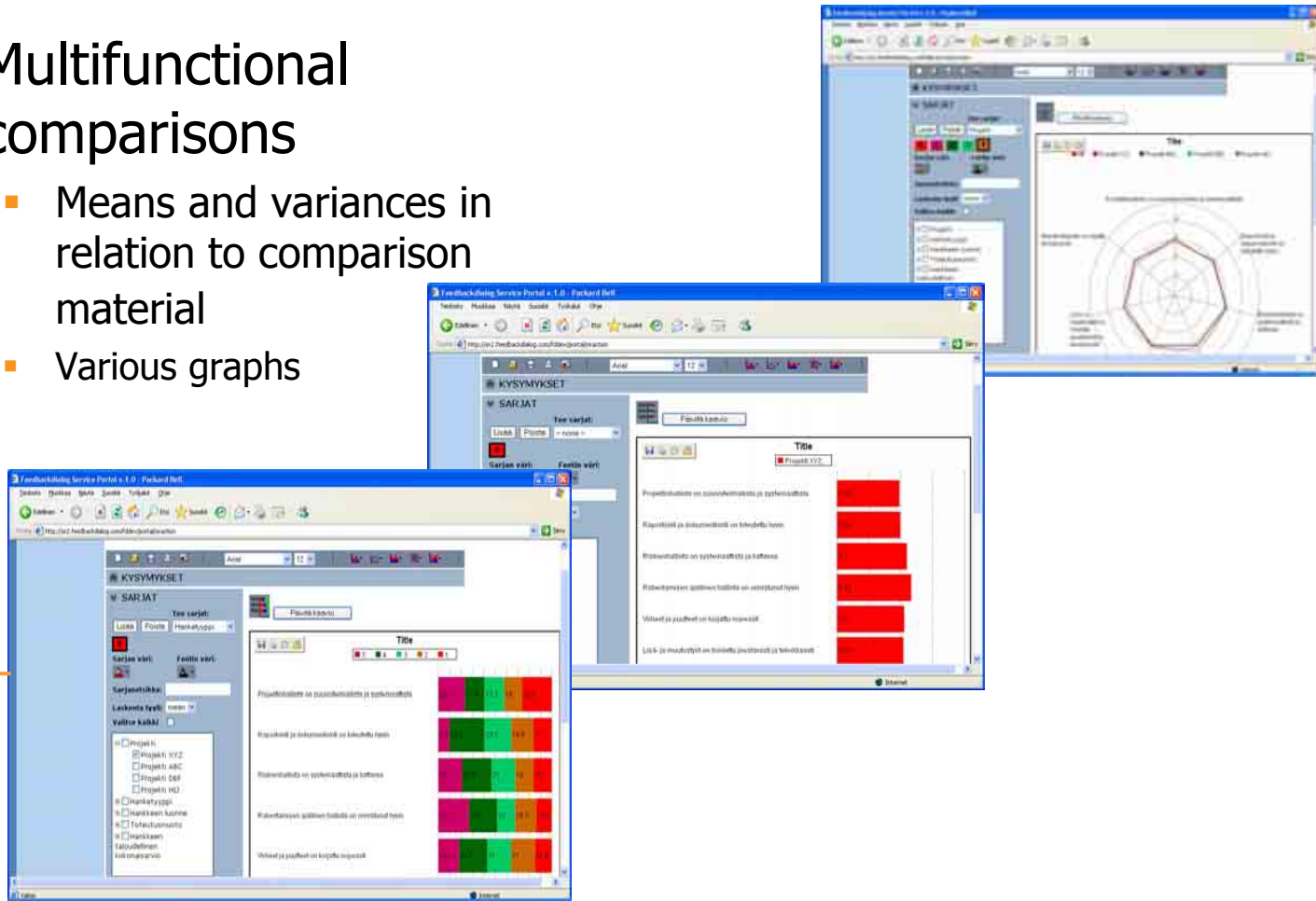
Consultant

Contractors

Designers

Multifunctional comparisons

- Means and variances in relation to comparison material
- Various graphs



Feedback execution plan
determines feedback flows and
schedules

Enables collect feedback during the project and after completion of the project for all participants

CEM Facility Services Research

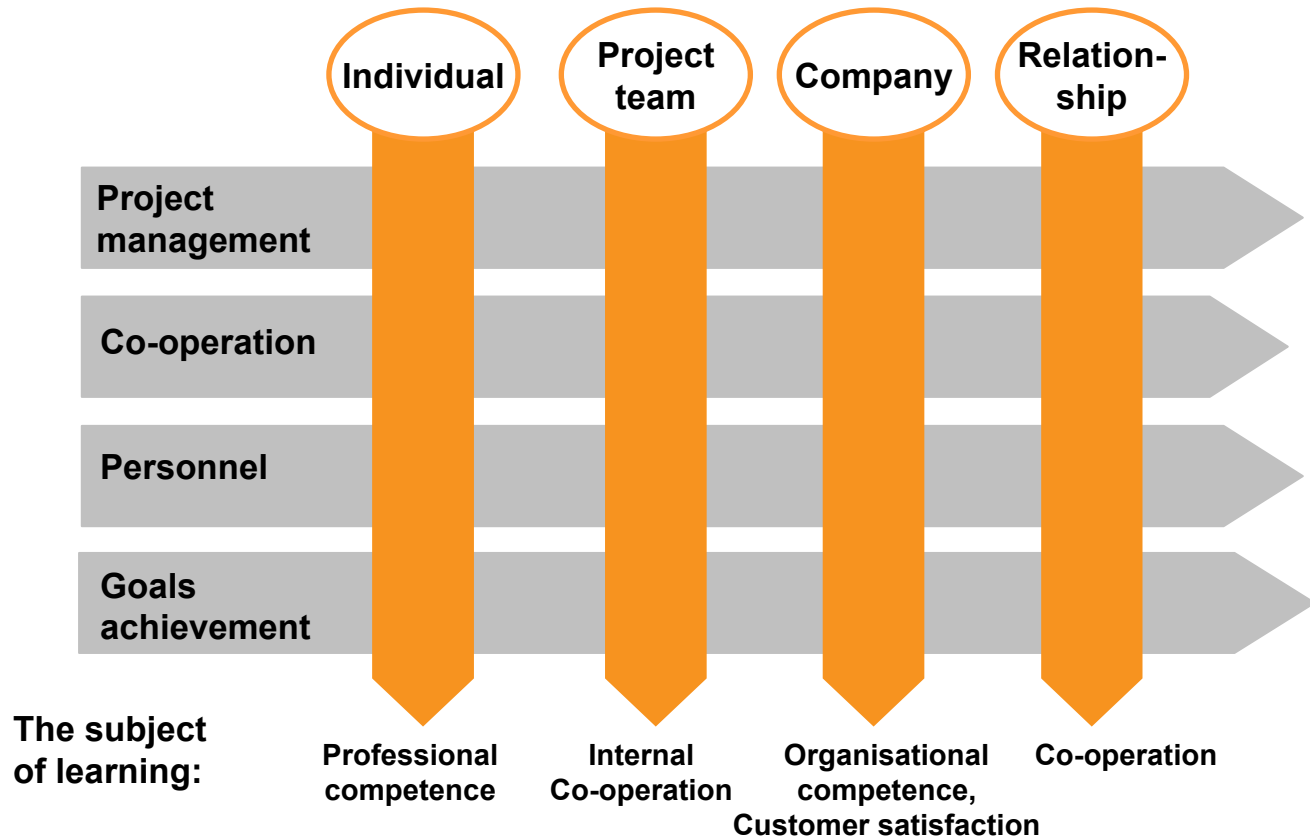


PROPAL-system sends feedback requests automatically

Enables multifaceted comparisons and benchmarking



Learning levels



Partners



Contact information

Sami Kärnä
Researcher

Cell/SMS: +358 400 484 604
Direct: +358 9 451 5365
Email: sami.karna@tkk.fi
Web: www.cem.tkk.fi/fsr

HELSINKI UNIVERSITY OF TECHNOLOGY
Construction Economics and Management
P.O.Box 9800, FIN-02015 HUT, Finland



Raimo Määttä
p. 020 595 5112

Rune Paananen
p. 020 595 5113

RAKENTAMISEN LAATU RALA RY

p. 020 595 5110, fax 020 595 5120

Tapiontori 1, 02100 Espoo

etunimi.sukunimi@rala.fi

www.rala.fi

