

Investing in energy efficiency

-New insights from the Swedish pulp and
paper industry

Josefine Rasmussen, PhD Candidate
josefine.rasmussen@liu.se

Aim

To analyse the investment process for energy-efficiency investments, and how and when non-energy benefits are acknowledged in the process.

Method

- Single case study at a pulp and paper firm in Sweden.
- One major investment case studied more closely.
- Interviews on group level and at one of the mills.
 - Interviewees with different roles in the investment process and varying responsibilities.
- Additional data sources: documentation, reports, investment manuals, etc.

Results

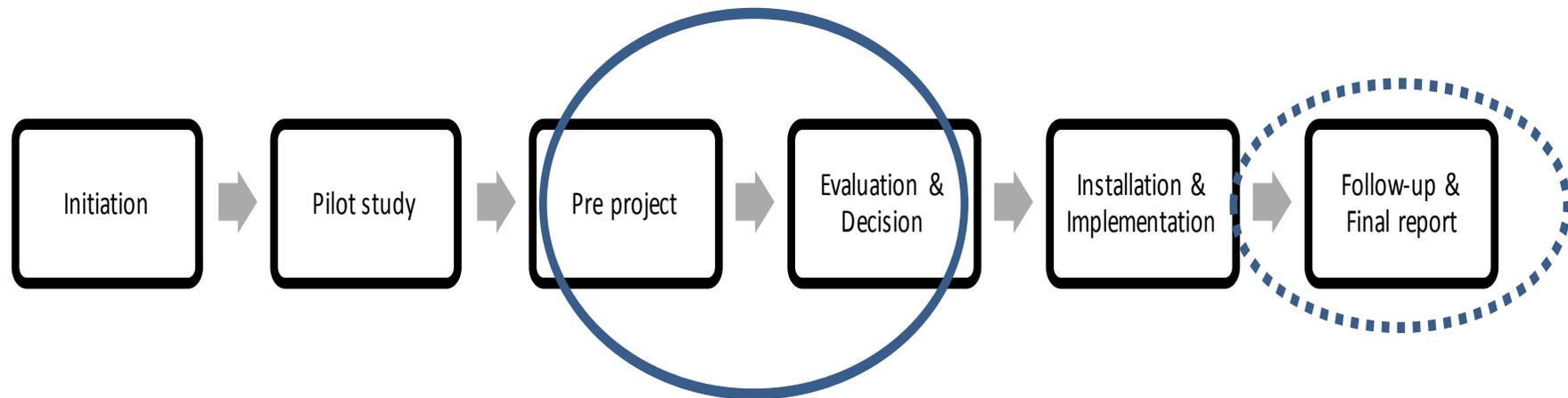
- The investment process is a multistage process:

1. Initiation	2. Pilot Study	3. Pre project	4. Evaluation & Decision	5. Installation & Implementation	6. Follow-up & Final report
Identified need.	Evaluating possible solutions.	Detailed evaluation of one solution. Negotiations with suppliers. Results in project report & investment application.	Investment application evaluated at the mill or on group level, depending on investment size.	Investment is installed & implemented.	Investment follow-up. Results in a final report of the investment outcome.

- A process consistent for different categories but dependent on investment size.

Results

- The investment manual plays a vital role.
- If non-energy benefits are considered, it takes place early on in the process and with emphasis on a limited number of main effects.
 - Non-energy benefits such as improved public image, effects on the external environment, availability, quality, production and work environment are considered to be of higher importance.
- Cost-savings paradox.



Conclusions and implications for future research

- The investment manual.
- Assigning non-energy benefits to specific measures.
- Emphasis on non-energy benefits related to prioritised issues.
- Suppliers

Thank you!
Questions?

www.liu.se