A PURCHASER NETWORK FOR INCREASED ENERGY EFFICIENCY IN SUPERMARKETS

• **Ulla Lindberg** (Presenter)
  SP Technical Research Institute of Sweden
  University of Borås

10th of November 2015, Köln, Germany
Energiemanagement im Einzelhandel 2015
We are making a difference!

Core expertise paired with broad Technical knowhow

- We offer the combined expertise of the group in six business areas - efficiently and matched to our customers’ needs.

- Innovation process – we assist you every step of the way, from initial idea to marketplace.

- SP has its origins in a Swedish weights & measures ordinance issued in 1665.
- National Testing and Research Institute was founded in 1920 in Stockholm.
- Operations moved to Borås in 1975.
- A government authority until 1993, when it became a government company.
- We became SP Technical Research Institute of Sweden in 2007.
- The Swedish government owns all shares in SP through RISE AB.
The network BeLivs since 2011 by

- the Swedish Energy Agency
- the BeLivs Purchaser group
Introduction

- Supermarkets are commercial buildings and large users of energy
- Half of the electricity used is employed to display refrigerated food
- Potential to improve the efficiency 30-50%
Refrigerated and frozen food

- Sales of refrigerated and frozen foods is steadily increasing.
- For food premises within the cold chain, and especially for the retail, there is a great need to develop and demonstrate a new cooling technology.
Energy usage in supermarkets

Cooling demand depends on interactions between:
• Performance of cabinets
• Ambient climate
• Customers and personnel

in the building are complex control systems for Refrigeration, ventilation and lighting
What is BeLivs?

• A purchaser network with the aim of increasing energy efficiency in food premises through demonstrations, installations and better knowledge....

“food is stored, cooked, eaten or sold”

The Purchaser group;
• major Swedish retail associations in Sweden
• municipal caterers with professional kitchens
• shop owner
• petrol station
• fast food chain
The Network BeLivs

Consist of:

• The purchaser group and its members
• The board of Directors

A high collective expertise
The Network arena

Enable all members of the network:

- to inform each other
- exchange experiences
- present and discuss results

The demonstrations are conventional commercial installations. Huge potential, without delay, to improve energy efficiency, simple by copying the solutions demonstrated in the project.
BeLivs Communication

• Communication links
  – Internal website
  – External website

All communication sharing the same aim

Create and share knowledge between the different partners and demonstrate new energy efficient strategies, both within and outside of the BeLivs network.
Challenges

- Abandon known solutions; Dare to use “new” technology
- Introduce trust; A higher initial cost, will return on lower operating cost
- Tackle costly problems; Ownership
- Provide confidence/input; For the decisionmakers and stakeholder
- Involve and create engagement; Share the same aim, win-win
Results 1(2)

With a structure for the whole network the BeLivs network has:

• developed forms of collaboration between industry, government and academia focusing on the refrigeration and interaction with technical installations

• performed more over 10 different good projects/ installations / demonstrations

• shown big energy and financial savings with minor improvements to supermarkets

• established, measured and monitored dissemination of results

• initiated feasibility study for technology procurement competitions
Results 2(2)

With a structure for the whole network the BeLivs network has:

• participated in seminars / conference

• held seminar / workshop to share knowledge of energy efficiency improvement and BeLivs

• published several articles in trade and association magazines to spread the knowledge

Measurement of performance and key indicators for monitoring the energy usage of supermarkets has been discussed, and several proposals for indicators have been put forward.
Future work

- Continue to develop and evaluate retailers needs, providing an effective link between research and commercialisation
- BeLivs is now continuing its work in order to increase the number of more energy-efficient supermarkets, to provide benefits and incentives for a sustainable cold chain
- Facilitate interaction and knowledge flow to promote partnerships, networking and learning
- Drive the trend towards an increased uptake of energy efficient food premises
More innovations
Are there any similar networks or other networks, with the aim of exchanging knowledge and experience?

Thank you for your attention!

Contact: Ulla Lindberg
E-post: ulla.lindberg@sp.se
Web: www.sp.se
www.belivs.se