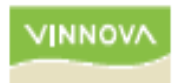


Saber project (2008 – 2010)

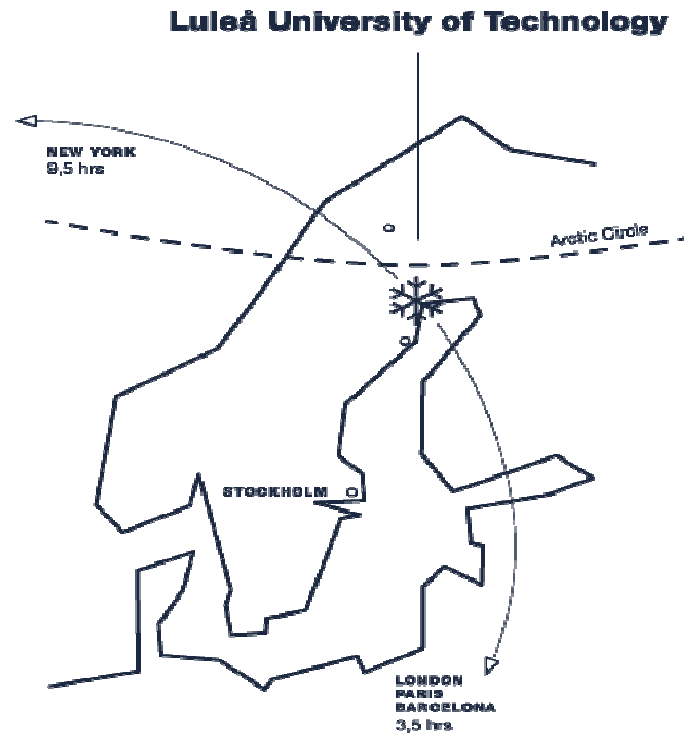
Saving energy – creating business by user centric development



Luleå Sweden February 2009 -23 C



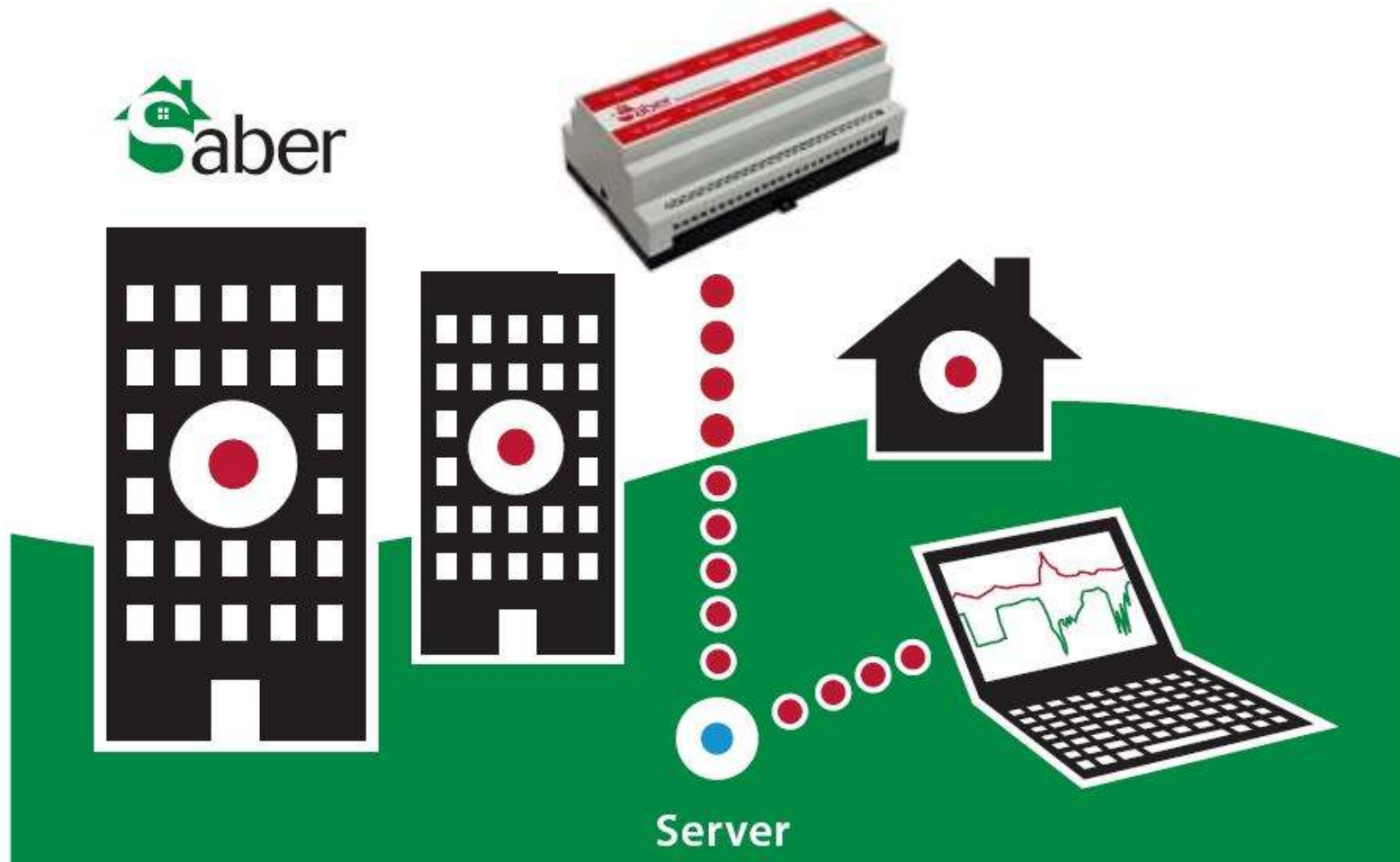
Saber project (2008 – 2010)



**Arne Gylling CDT, Centre for Distance spanning Technology
Luleå university of technology**



Saber measurement system



Saber project summary

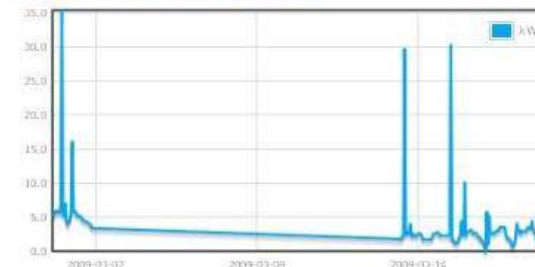
- Energy saving by user involvement (150 test pilots)
- Shows how energy is used for heating **and** hotwater production (patented algorithm)
- Supports standard energy meters (modbus etc.)
- No additional meters required
- Easy to install and use



Energiförbrukning senaste dygnet

Vatten	Värme	Total	Kostnad
17.3kWh	61kWh	78kWh	78SEK

Effektförbrukning mars



Topplistan (Energiförbrukning/m²)

	Nuvarande månad	Föregående månad
1. kyabtest	0 kWh/m ²	0 kWh/m ²
2. Arne	1562 kWh/m ²	2874 kWh/m ²

Placering

1/2

Mitt område



Inställningar

2009

jan feb mars apr maj juni juli aug sept okt nov dec

Energiförbrukning

Vatten	Värme	Total	Kostnad
79kWh	306kWh	1562kWh	1562SEK

SABER a case of Botnia Living Lab



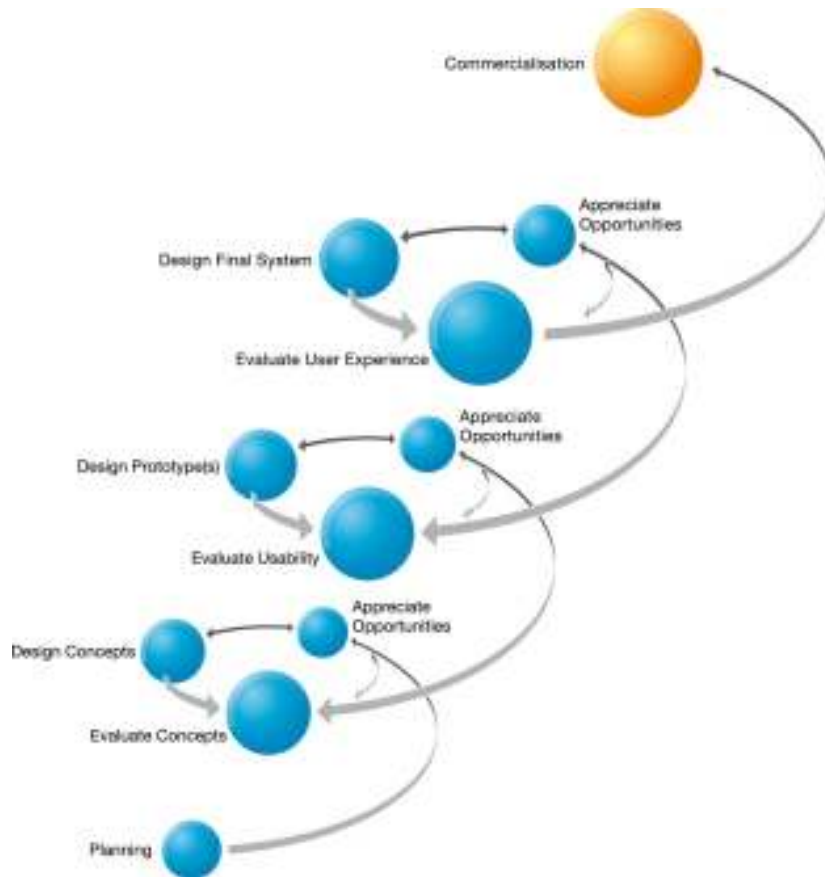
Saber and user-involvement

Why user-involvement?

1. Get feedback from users on the SABER solution
2. A source for new ideas
3. Speed up adoption
4. To improve the commercialisation-process
5. To get better hit-rate of the solution



Our methods and tools for user involvement



The Form-IT methodology

The screenshot shows the SABER customer forum interface. The header features the SABER logo and the tagline "EMPOWERING CUSTOMERS". The main content area is divided into several sections:

- Utvecklingsavdelningen**: A section for development updates, including links to "Gästboken", "Funktionsbeskrivning", and "Utvecklings sida".
- Kunskapscenter**: A section for knowledge resources, including "Instruktionsvideor", "Spårings", and "Fäktablad".
- Mötesplatsen**: A section for community events, including "Mina vänner", "Mitt område", and "Infoben".
- Diskussionsforum - senaste inlägg**: A list of recent forum posts with titles like "MinHembogubben - var hittar man den?", "Koppla ny subwoofer till Logitech X-530 datorhögtalare?", and "Kilzone 2".
- Senaste frågorna**: A list of recent questions, such as "ComHem digital TV... Samsung LE37A670" and "Brandsändablaget ADSL2+ - avgiftar 0/0/0/0".
- Expertråd**: A section for expert advice, featuring a profile for Gabriella Blomgren.
- Senast inloggade**: A grid of profile pictures for recently logged-in users.

Saber Customer fora / Brand community

Market, Saber

- District heating (from 2006)
 - Sweden (20%) 200000
 - Finland, Norway & Denmark (20%) 350000
 - Germany (12%) 650000
- And apartment buildings...
- And can be adopted to gas, electricity....

New business, Saber

- Sell/rent private users
- Sell/rent building owners
- Bundle with district heating installation
-user contribution.....

Business, IT platform

- Open source IT platform (VPX, CDT 2005)
 - Both open SW and HW
 - Rubico AB (embedded, Linux, DSP):
 - Approved by Analog Devices
 - Several products based on the technology
 - Pizza.nu
 - Saber
 - Oil analysis Outokumpu (steel work)
 -

Thank you!

Saber project and partners:

- www.cdt.ltu.se/~saber
- www.kyab.se
- www.rubico.se

Contact: PM Arne.Gyilling@cdt.ltu.se

