INSERO HORSENS

INSERO SOFTWARE

RWTH

SEnerCon

DEVELCO PRODUCTS

EC Network

FUTURE INTERNET SMART UTILITY SERVICES

FINESCE

FINESCE FINAL EVENT
"Smart buildings, smart customers"

Berlin,15-16 September 2015

Prosumer interaction:

CO_2 reductions from smart charging in

20 private households

Horsens trial site, Denmark

Speakers:
Thomas Hune, Insero Software
Christina Jørgensen, Insero Business Services

SEVENTH FRAMEWORK PROGRAMME

FIWARE

OPEN APIs FOR OPEN MINDS

In the first Insero Live Lab project,
20 families in and around the village
of Stenderup south of Horsens are participating

INSERO
LIVE LAB
TESTZONE # STENDERUP

Results – EV charging

FUTURE INTERNET SMART UTILITY SERVICES

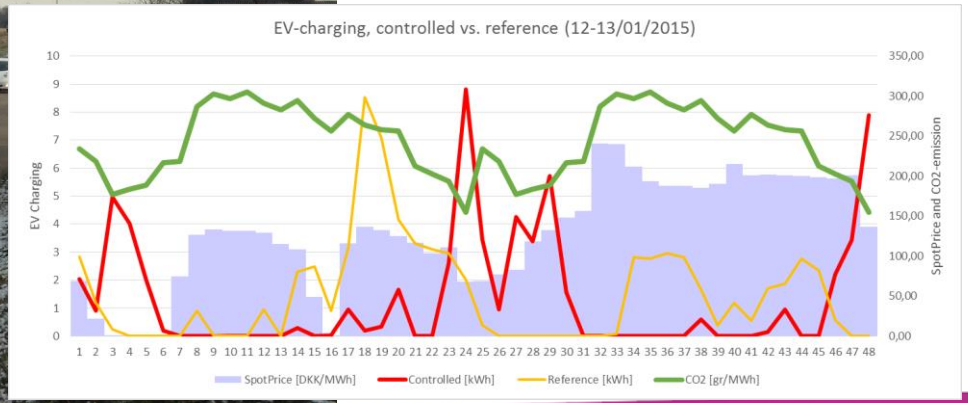
FINESCE

Overall results

1. Reduced load by 62% during peak hours
2. Reduced CO_2 emission by 17%
3. Reduced spot price by 29%

Control strategy

1. User comfort settings and "Charge now"
2. Maximum 25% of cars charging 17-20
3. Move charging to periods with minimum CO_2 emission according to energinet.dk



Demonstration with human interaction

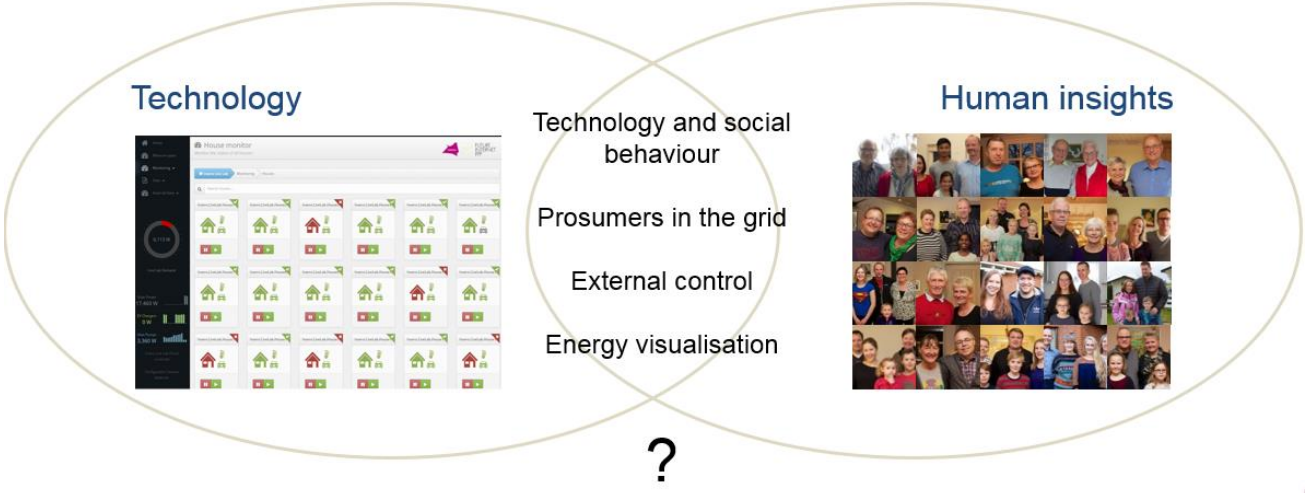
FUTURE INTERNET SMART UTILITY SERVICES

FINESCE

- 20 single-family households in Danish village
- User involvement program – methods and research developed and executed by trained sociologist
- A smart energy solution exists in theory and should be demonstrated in practice – motivations and incentives reflect users' willingness to change routines and behaviour

FUTURE INTERNET SMART UTILITY SERVICES

FINESCE



Human factors of reducing CO2 level:

Users accept external control, when comfort settings – temperature (heat pump) and distance (EV) – are respected

Users adapt to new technology, when benefits are clear (e.g. money saved, functionality improved)

Users are by default energy non-professionals. Energy visualisation tool provides a lot of information – few users are trained to understand this info and thereby get full value.