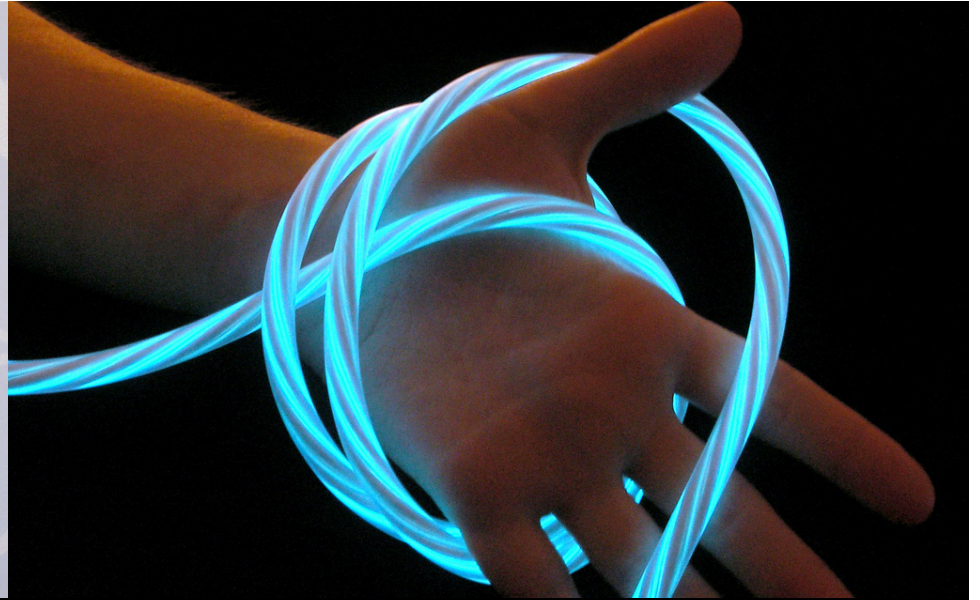


# Understanding smart sensors

**INTERACTIVE INSTITUTE**  
Anton Gustafsson

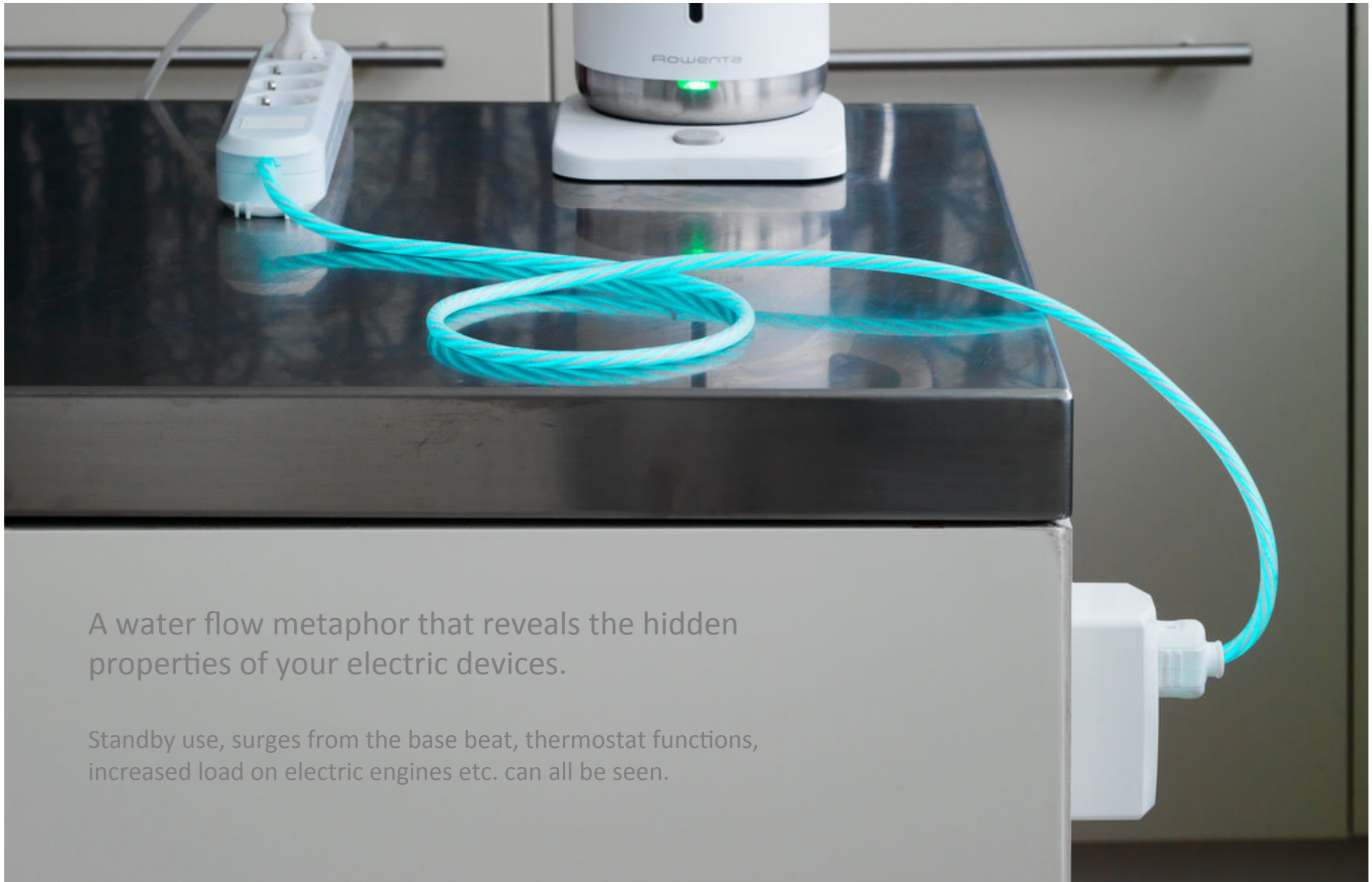




# ENERGI + IT + DESIGN



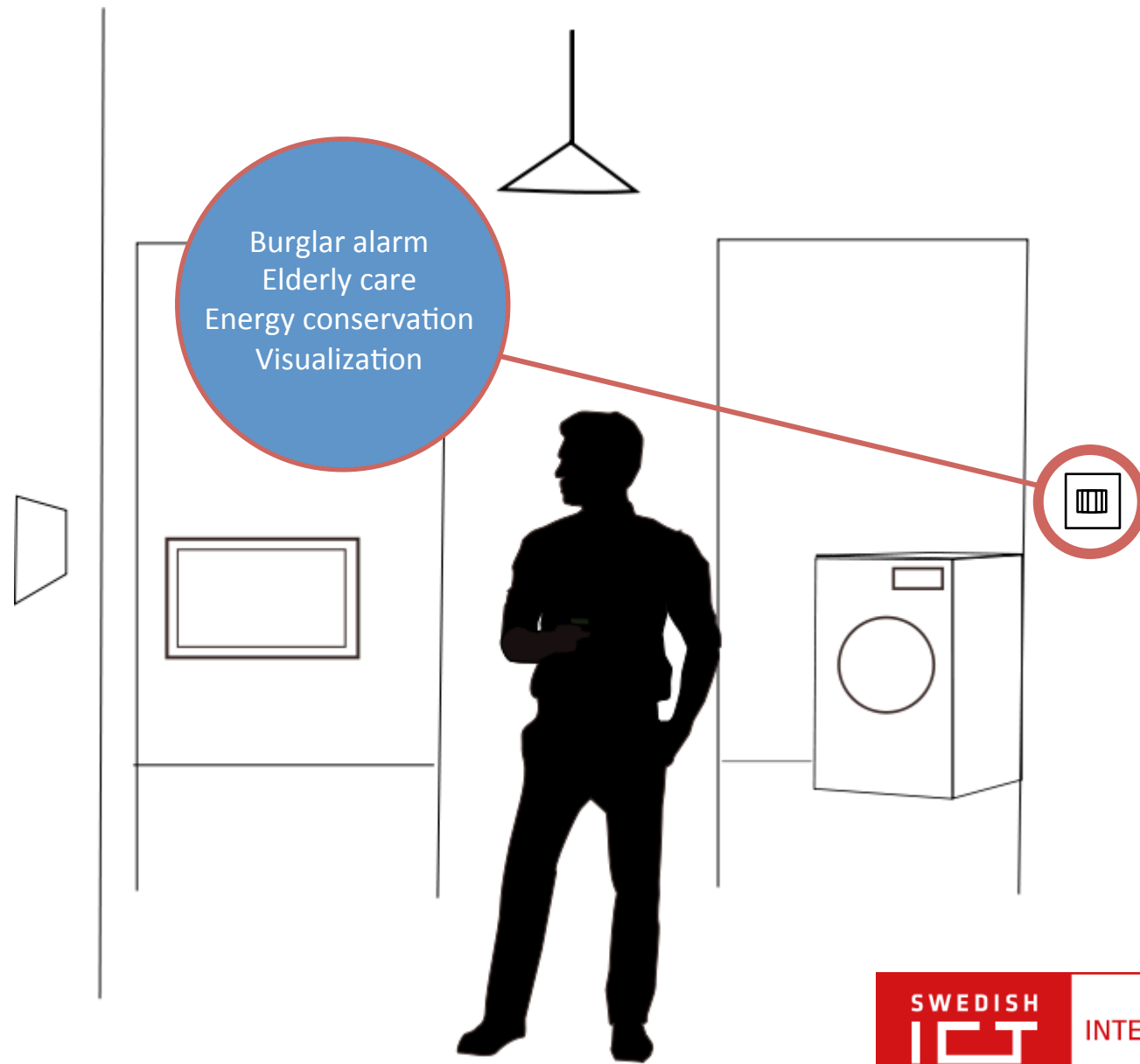




A water flow metaphor that reveals the hidden properties of your electric devices.

Standby use, surges from the base beat, thermostat functions, increased load on electric engines etc. can all be seen.

## **Power Aware Cord**



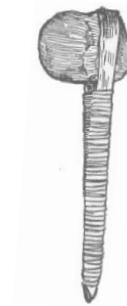
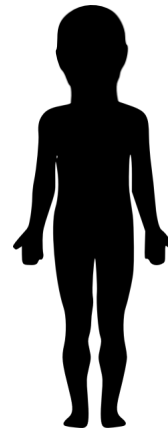


IT or ICT is a continuation of humans ability create tools and develop technology to enhance our abilities.

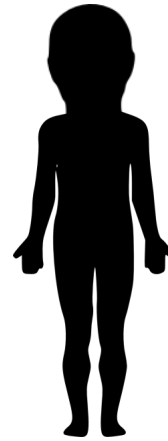




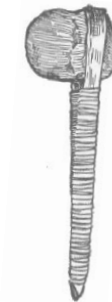
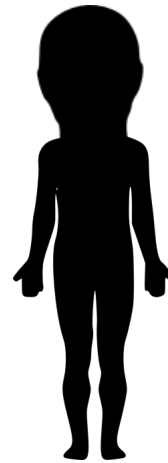


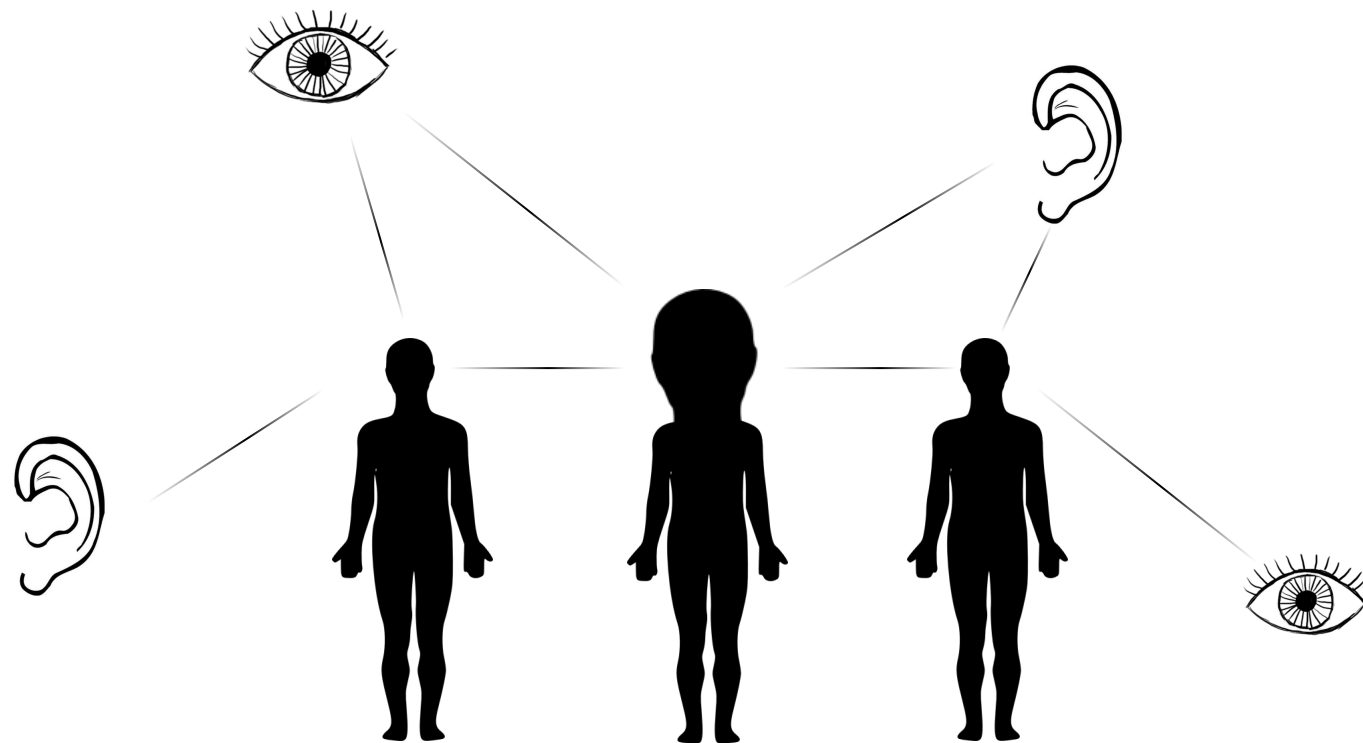


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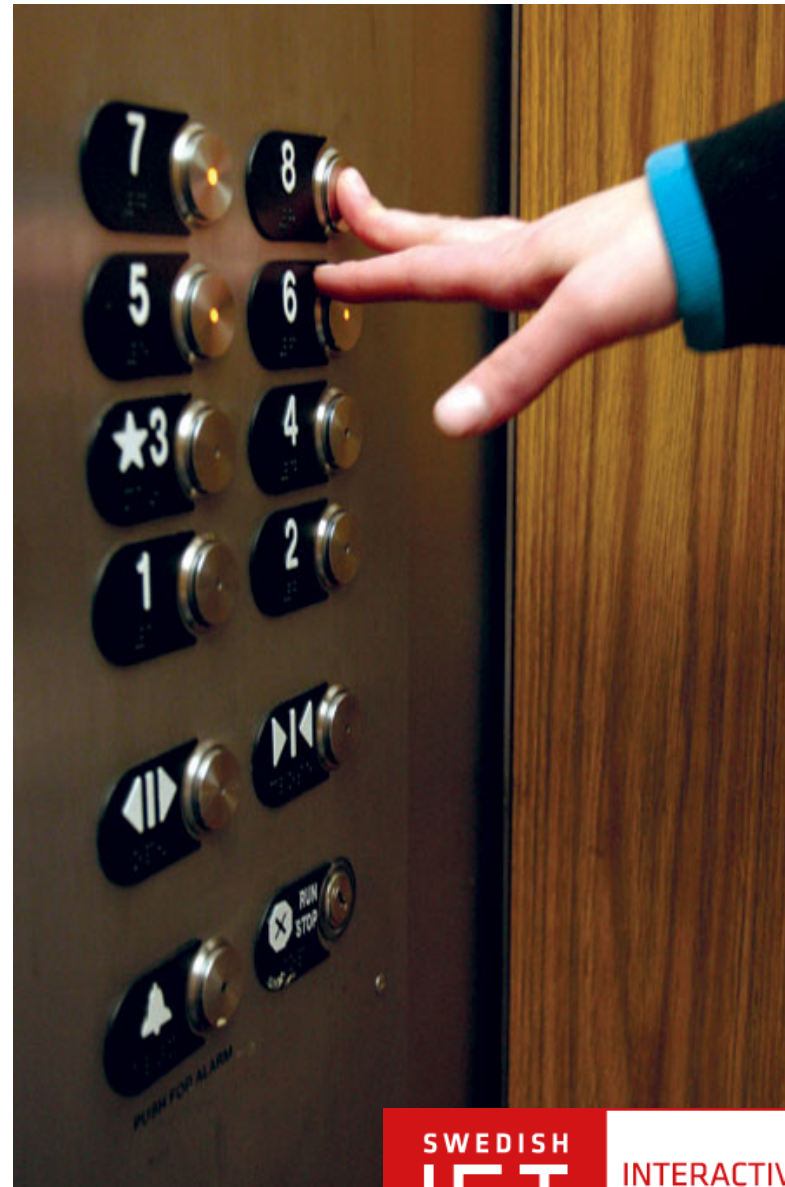
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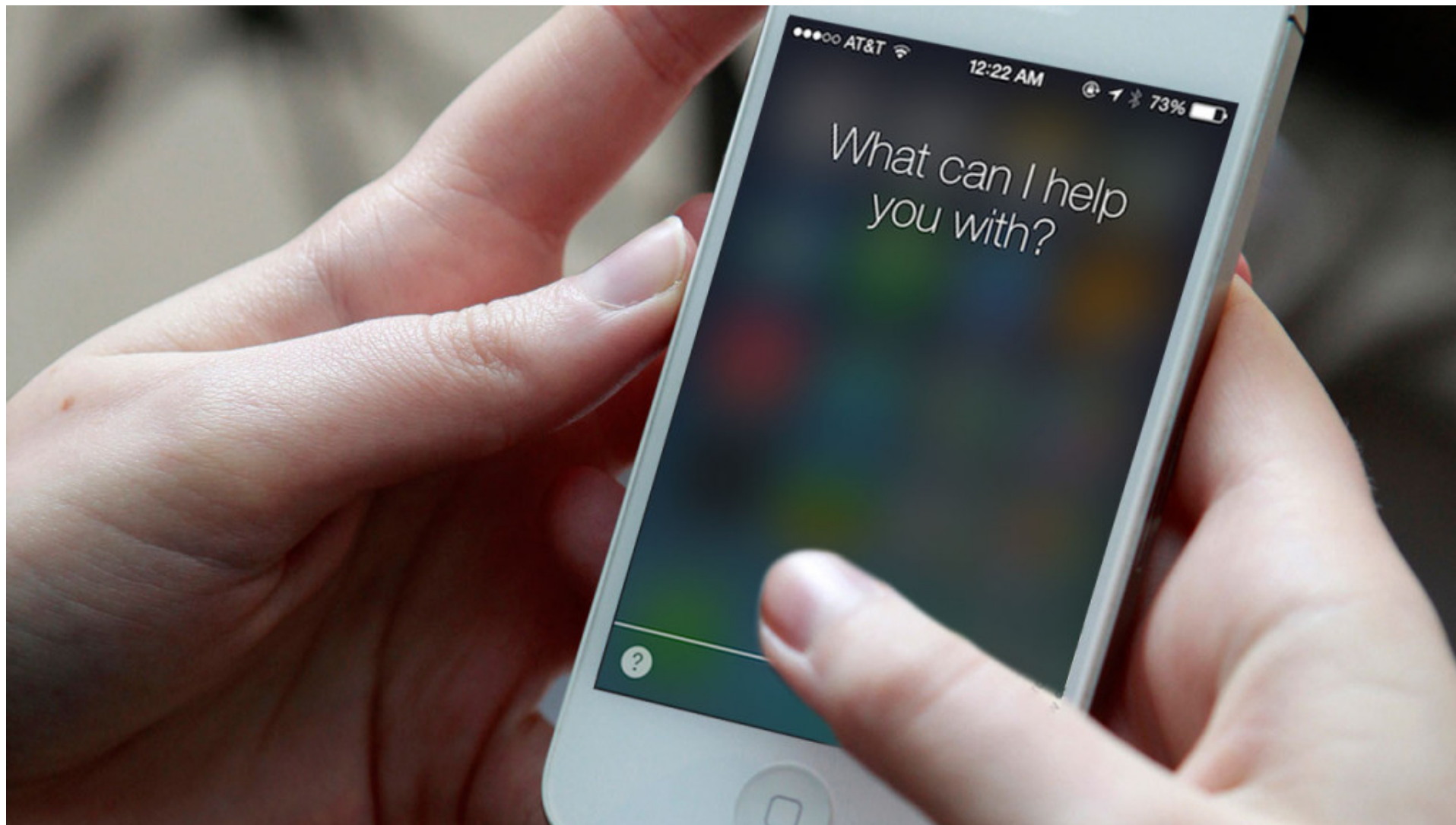




Interface design





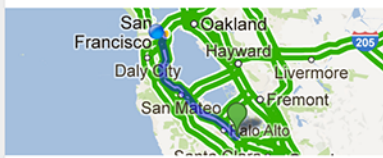




Google

42 minutes to Work

Light traffic on US-101 S



Get directions

United Air Flight 217

Delayed (48 minutes)

SFO — PIT

Departed San Francisco, today

Scheduled 4:06 PM Terminal Gate  
4:54 PM 3 85

Arrives Pittsburgh, tomorrow

Scheduled 11:58 PM Terminal Gate  
12:46 AM - C59

Final, April 11

Fishery Field, Chicago

Clovers 7

Blaze 6

1 2 3 4 5 6 7 8 9 R H E

Clovers 0 0 0 4 3 0 0 0 0 7 14 4

Blaze 0 1 4 0 0 0 0 1 0 6 19 1

San Francisco

68°

CLEAR  
13 mph  
0%

WED THU FRI SAT

Barbacco Restaurant

220 California St, San Francisco

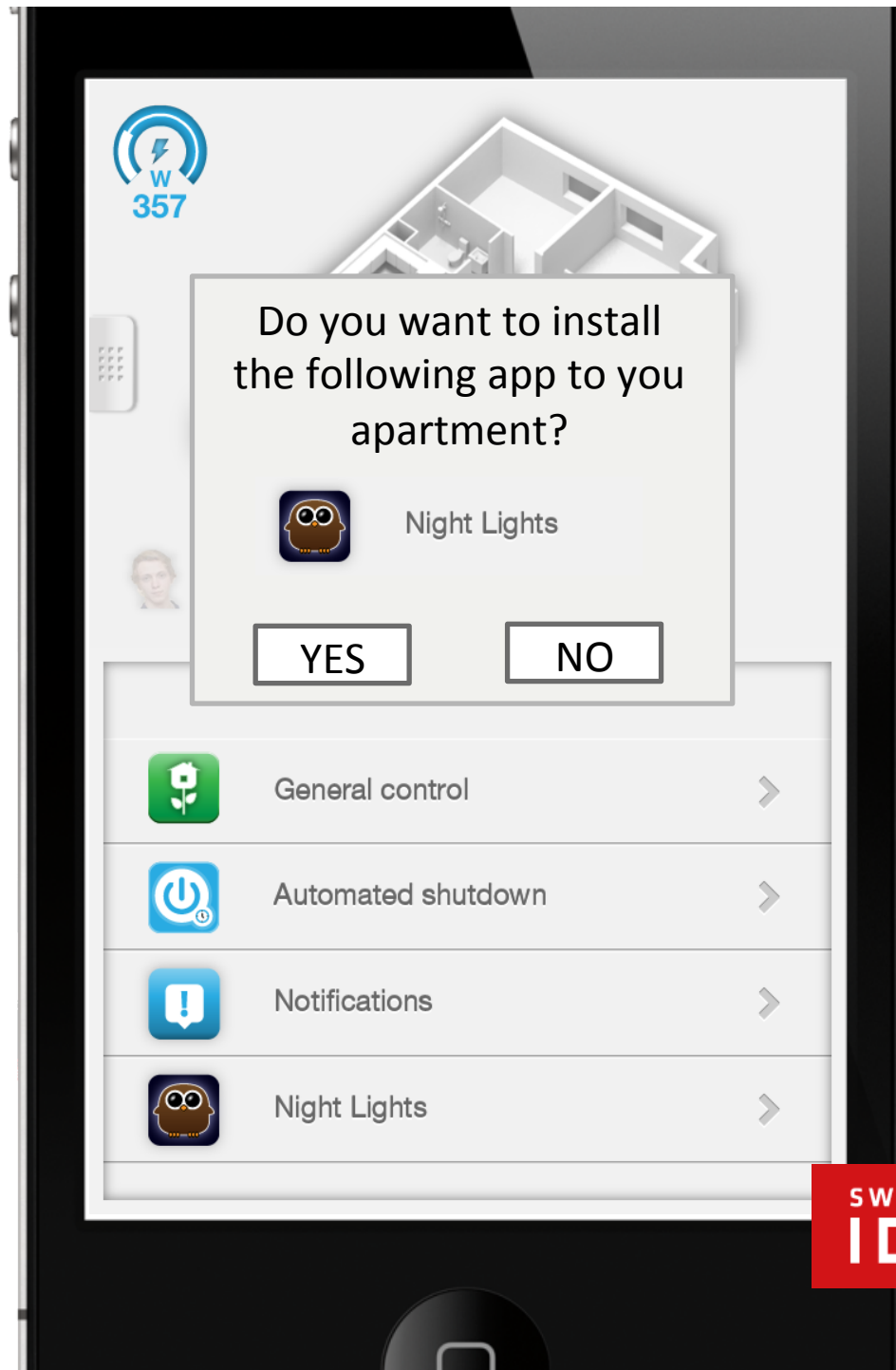
Reservation in 1 hour  
Journey time walking 30 minutes



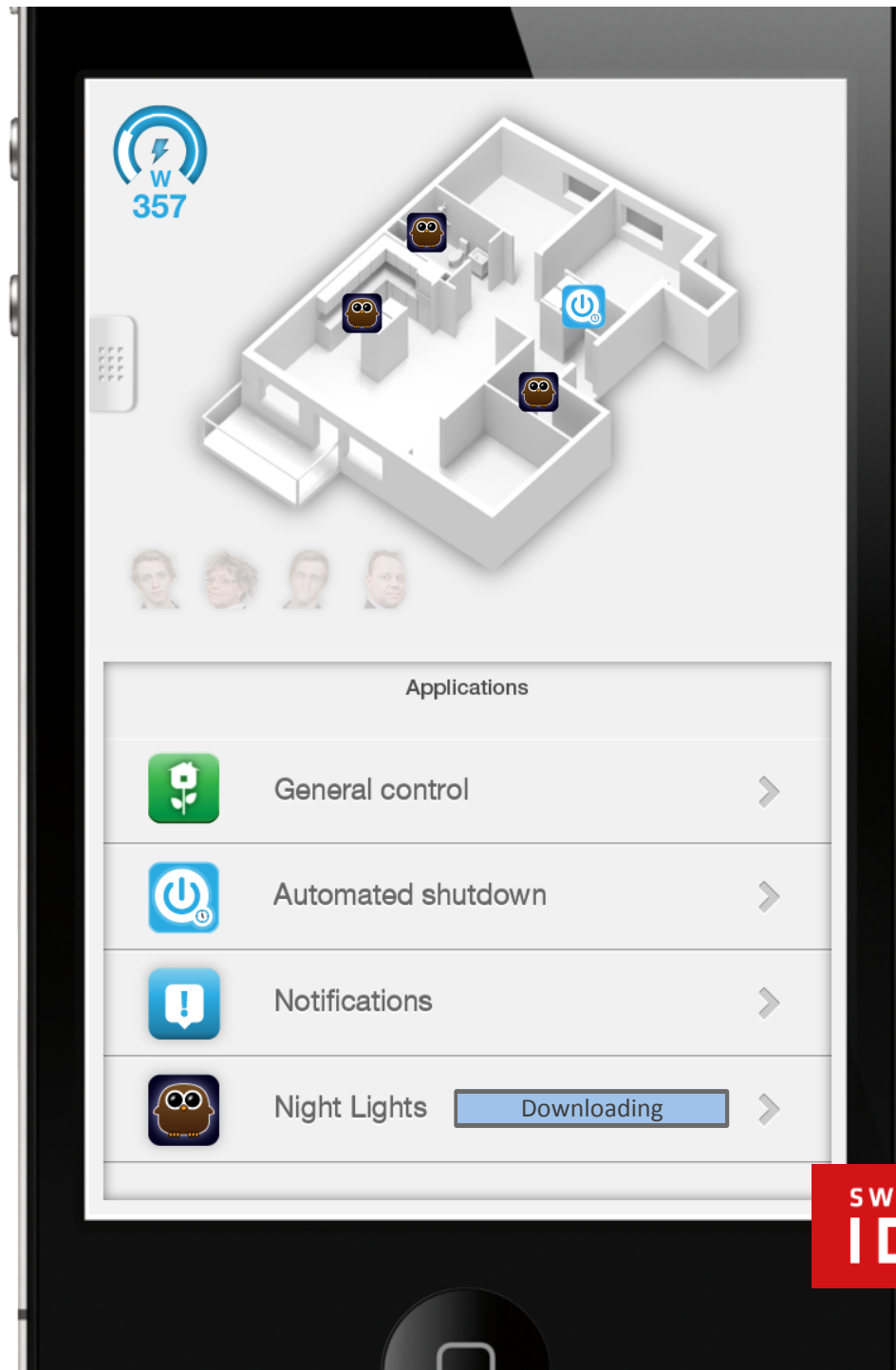
Get directions

View email



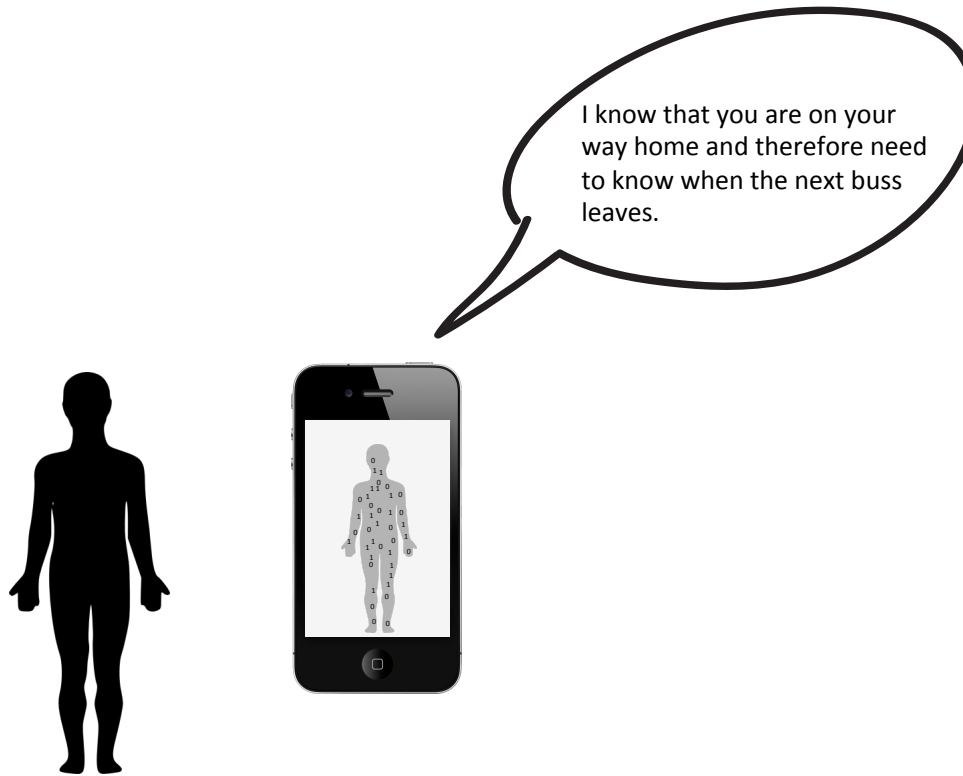


The APP-partment



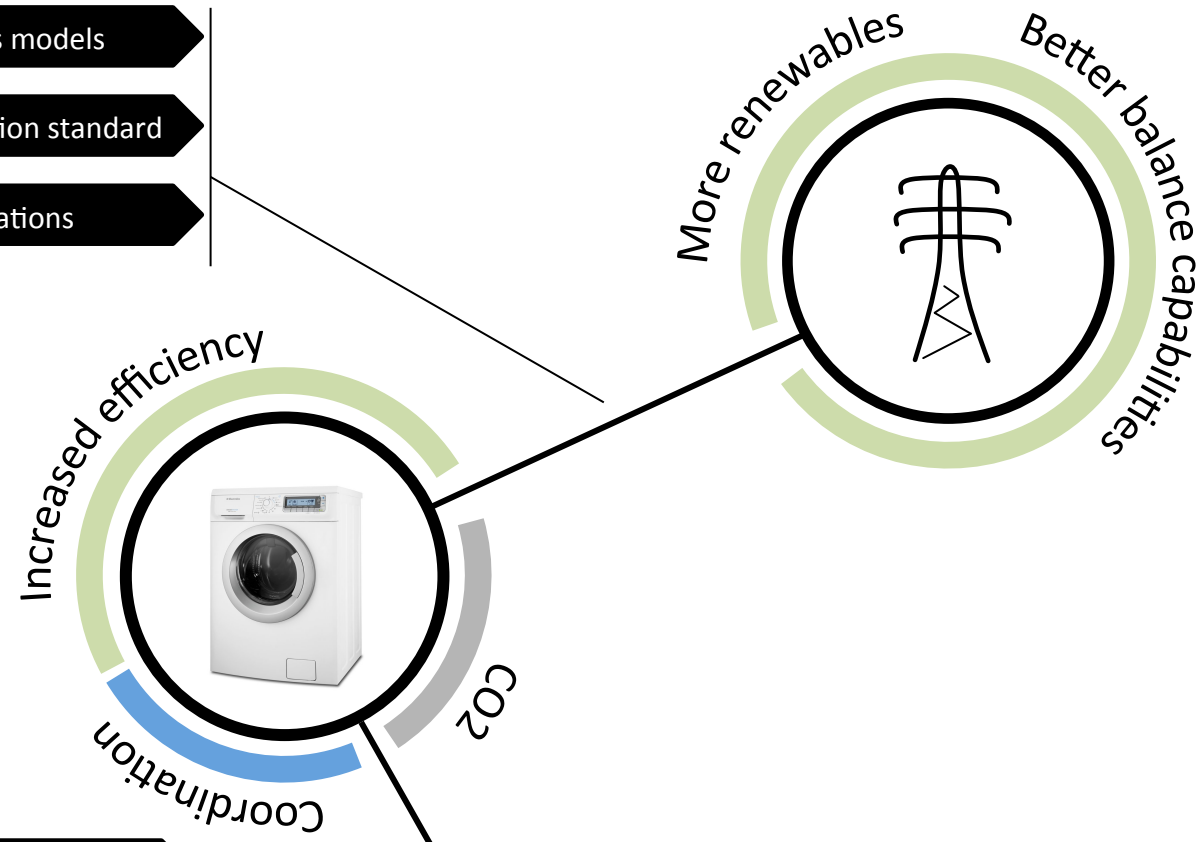
The APP-partment

# Context awareness

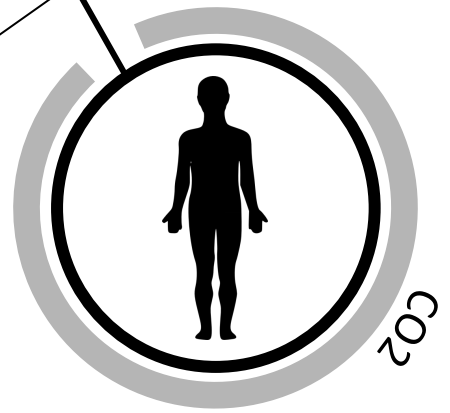


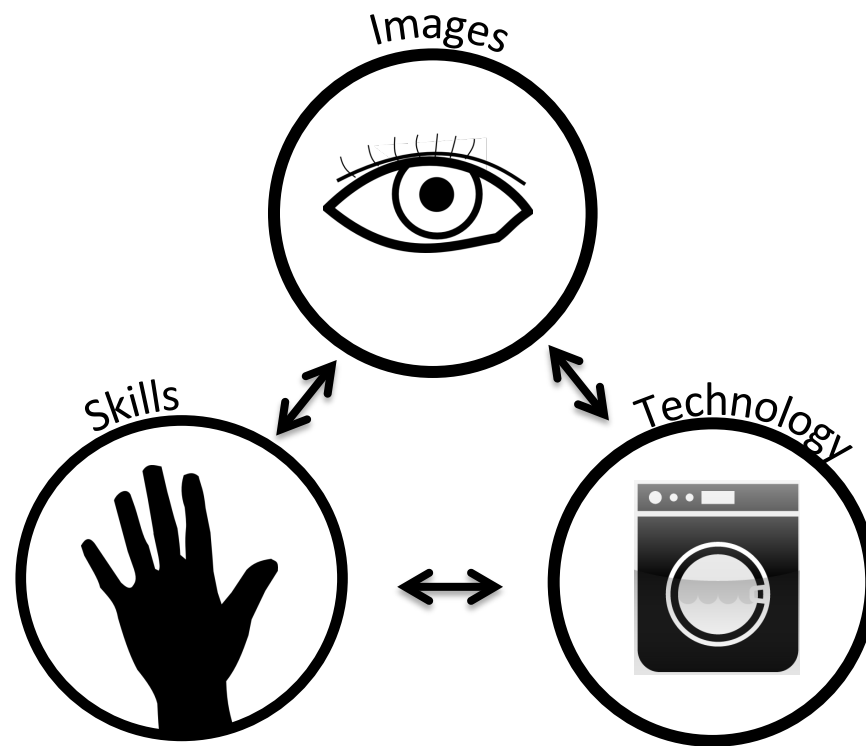


- Business models
- Communication standard
- Regulations

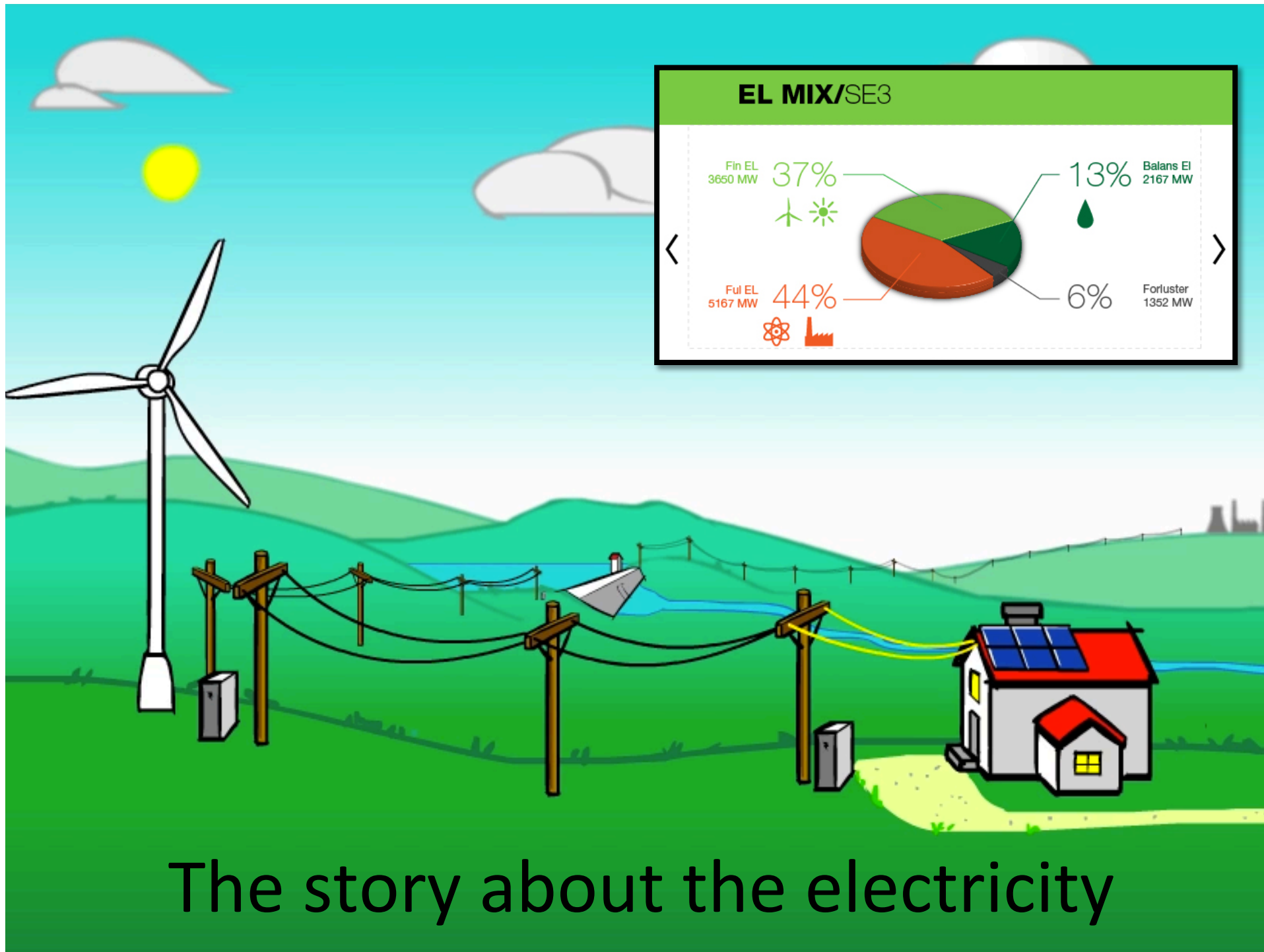


- Understanding
- Integrity
- Interaction models
- Presence
- Feedback

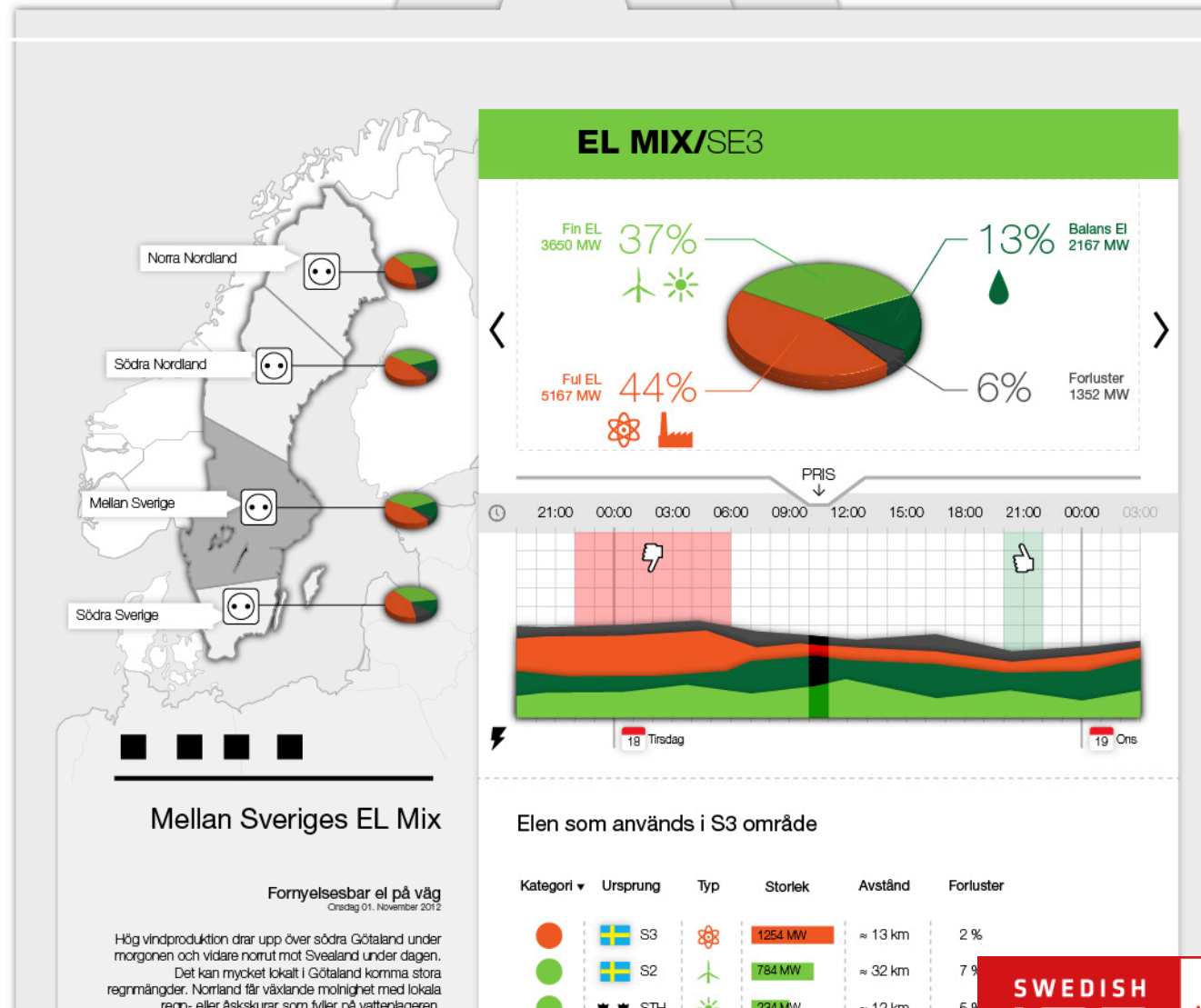




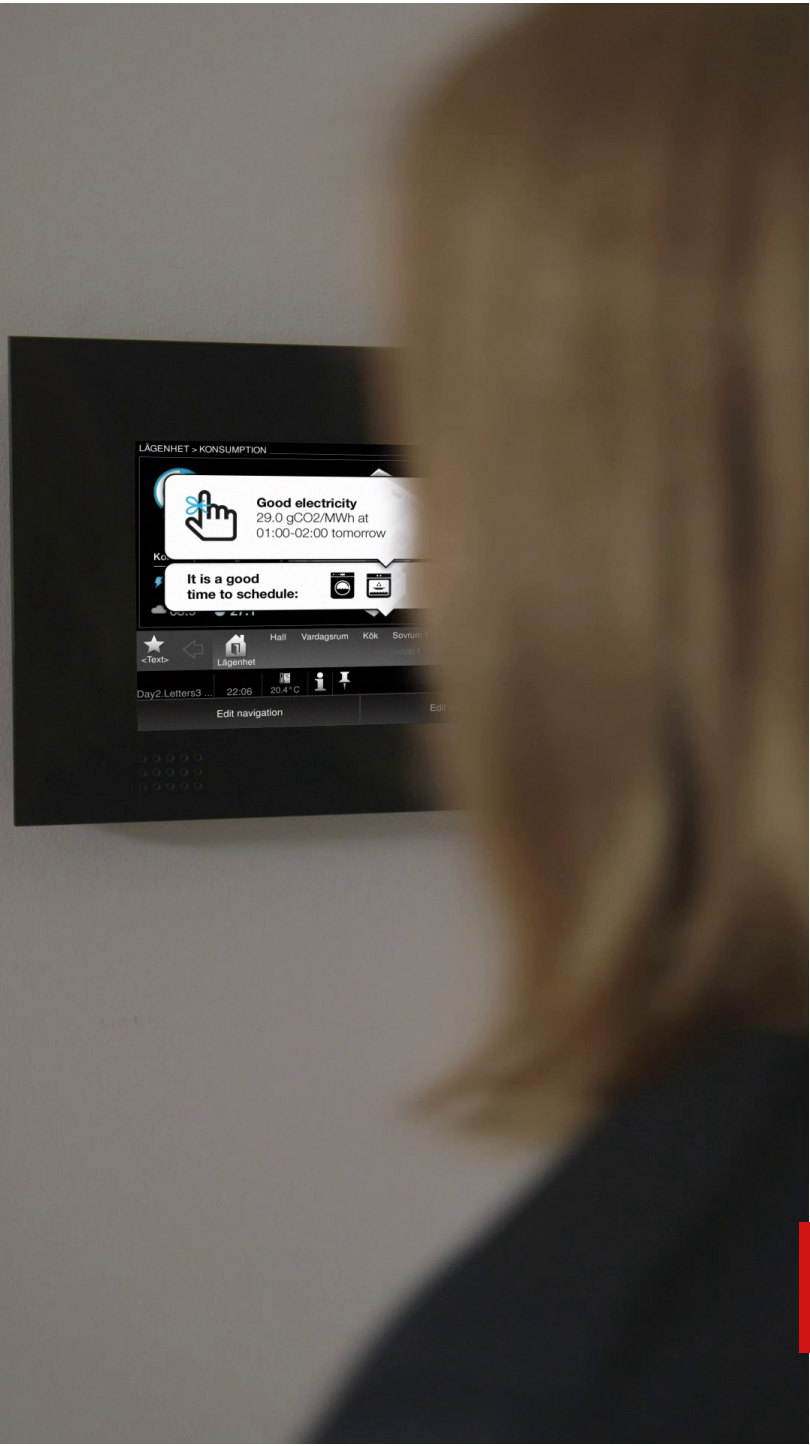
(Shove & Walker 2010)



The story about the electricity







LÄGENHET - KONSUMPTION

**Good electricity**  
29.0 gCO<sub>2</sub>/MWh at  
01:00-02:00 tomorrow

**It is a good time to schedule:**

Hall Vardagsrum Kök Sovrum

Lägenhet

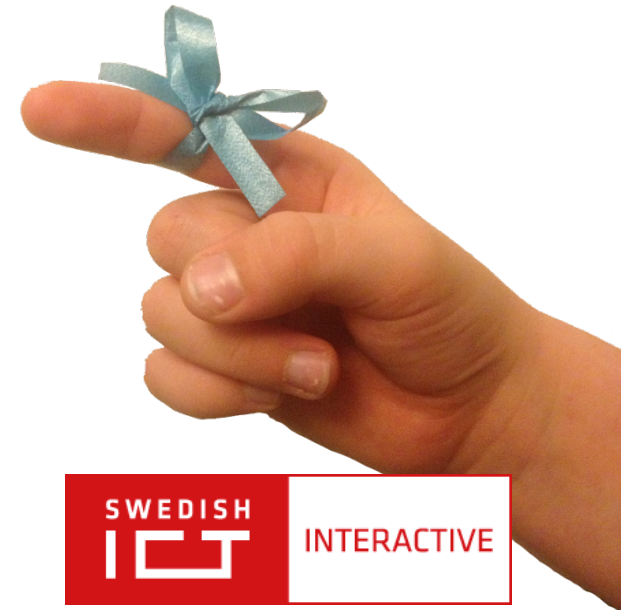
Day2 Letters3... 22:06 20.4°C

Edit navigation

Suggestions!



# Reminders



# Achivements



Tonight the CO2 prognosis show very low emissions pr kW. It would be a good time to do the dishes or wash clothes.



Schedule

Home

Log

REM Wash: Color 40 °

Start: 03:00 AM End: 07:00 AM Tomorrow  
by Sofia

Buy extra bacon, Bacon Bacon Baconooooooooon.

SCHEDULED EVENTS

Washing - 60° Color  
Tomorrow from 21:34 to 22:57

CURRENT EVENTS

Cooking  
Started 15 mins ago

PREVIOUS EVENTS

SWEDISH  
ICT

INTERACTIVE



# Providing context



mån	tis	ons	tor	fre	lör	sön
25 07:18 Kettle ... 17:33 MicrowaveOv 17:40 Toaster ... 19:39 Kettle ... + 2 till	26 06:38 Kettle ... 06:59 Toaster ... 07:08 MicrowaveOv 07:11 Toaster ... + 3 till	27 07:47 ... 07:4 ...			2	3
4	5	6 20:4			9 ve ... 08:47 Toaster ... 08:50 Toaster ... 08:58 Microwave ... 09:09 Microwave ... + 9 till	10 08:24 Microwave ... 08:26 Toaster ... 08:28 Toaster ... 12:23 Microwave ... + 4 till
11 00:22 Microwave ... 07:30 Toaster ... 07:31 Microwave ... 07:41 Toaster ... + 7 till	12 00:46 Toaster ... 00:49 Microwave ... 06:47 Toaster ... 06:48 Toaster ... + 15 till	13 07:3 ... 07:5 ... 07:5 ... 11:4 ... + 6 till			16 ve ... 08:07 Toaster ... 08:14 Microwave ... 08:15 Toaster ... gMac 12:01 Microwave ... + 12 till	17 07:40 Toaster ... 07:41 Microwave ... 07:56 Toaster ... 10:07 WashingMac + 9 till
18	19	20			23 21:01 WashingMac 21:01 WashingMac 21:01 WashingMac 21:02 Kettle ...	24 11:29 WashingMac 11:34 Microwave ... 18:27 WashingMac 18:27 WashingMac + 11 till
25 07:01 Microwave ... 07:01 Toaster ... 07:28 Toaster ... 11:46 Microwave ... + 4 till	26 08:04 Microwave ... 08:05 Toaster ... 08:06 Toaster ... 08:08 Toaster ... + 4 till	27			30	31



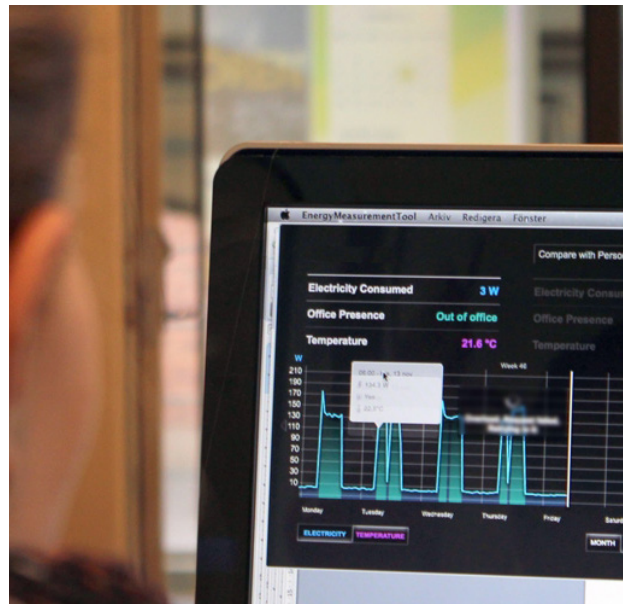




# Smart offices



Super Graph



Instant Energy



Visualisation screen





Astrid Andersson  
PRESENT

Your last absence

14h × 8.2 W = 115 Wh

"Reminder: when leaving, unplug your monitor."  
Saving tip by Lisa Ossman

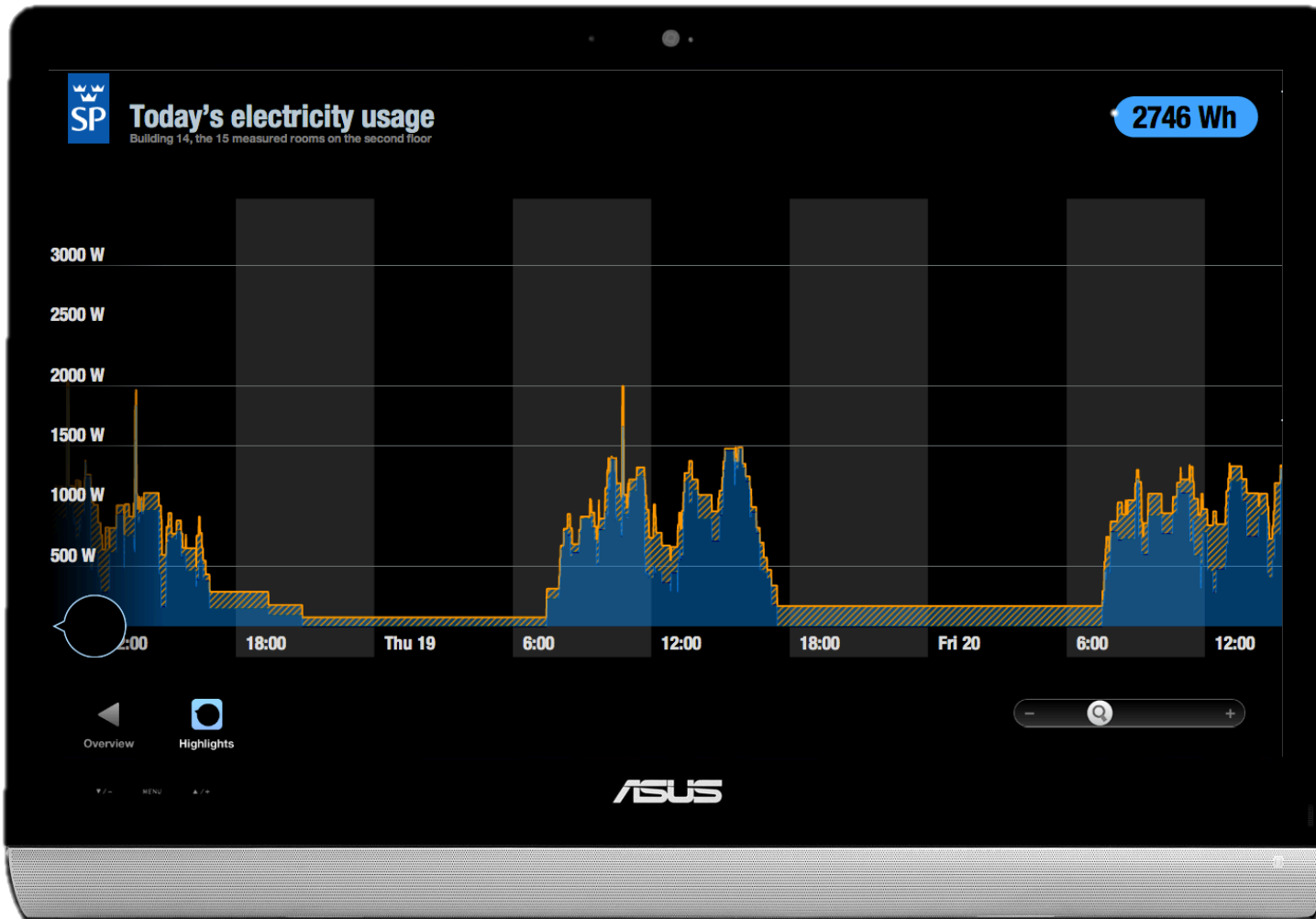
1 Astrid Andersson	1.3 kWh
2 Lisa Ossman	1.6 kWh
3 Svein Ruud	2.1 kWh

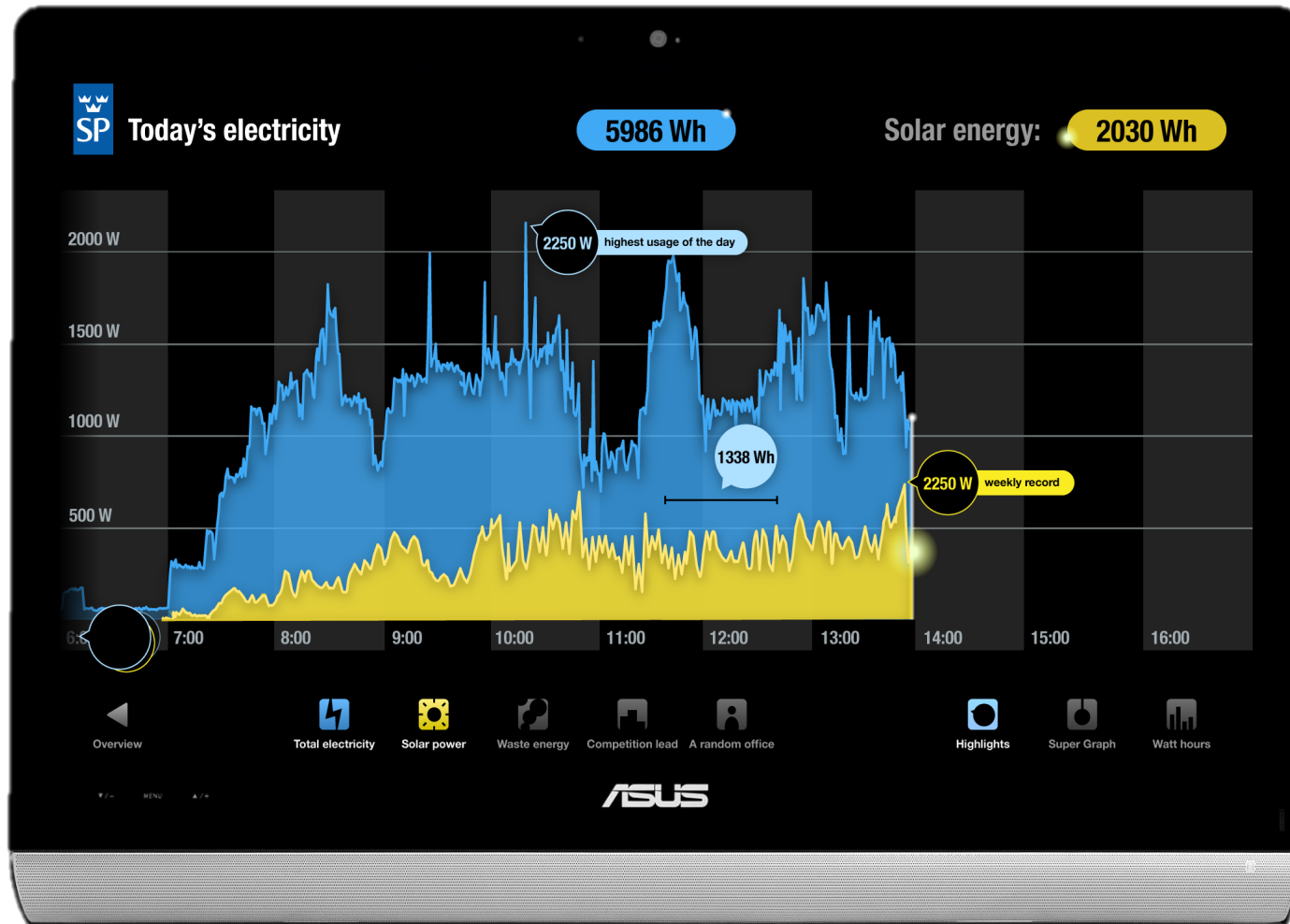
absence energy competition  
March 21 – April 4

Your waste energy today amounts to making

2.5 cups of café latte

SAMSUNG





# Attention



SWEDISH  
ICT

INTERACTIVE





What about  
automating  
everything?

