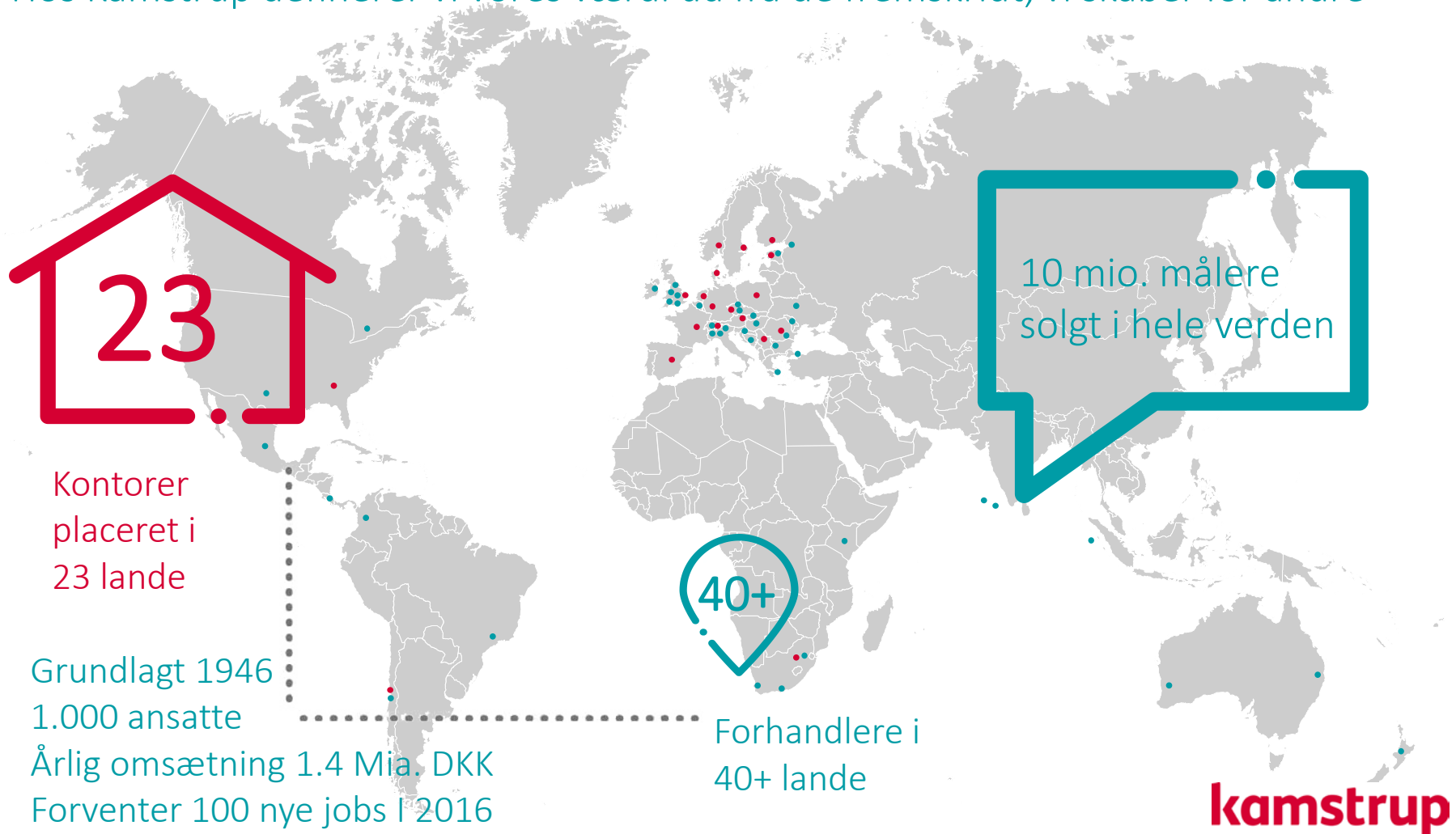


Udvikling og tendenser indenfor smart metering

Flowtemadag – Teknologisk Institut
December 2015

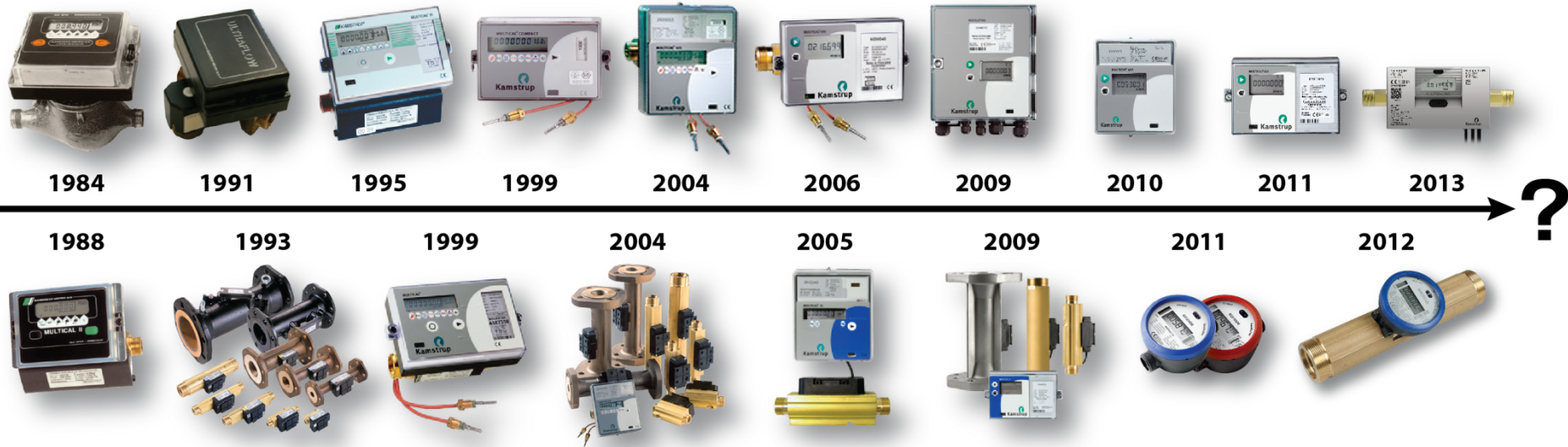
Head of Product Management
Steen Schelle Jensen
Kamstrup A/S

Verdens førende leverandør af intelligente målerløsninger til energi og vand
Hos Kamstrup definerer vi vores værdi ud fra de fremskridt, vi skaber for andre



Lang erfaring med flowmåling

kamstrup





MULTICAL® 302



MULTICAL® 402



MULTICAL® 602



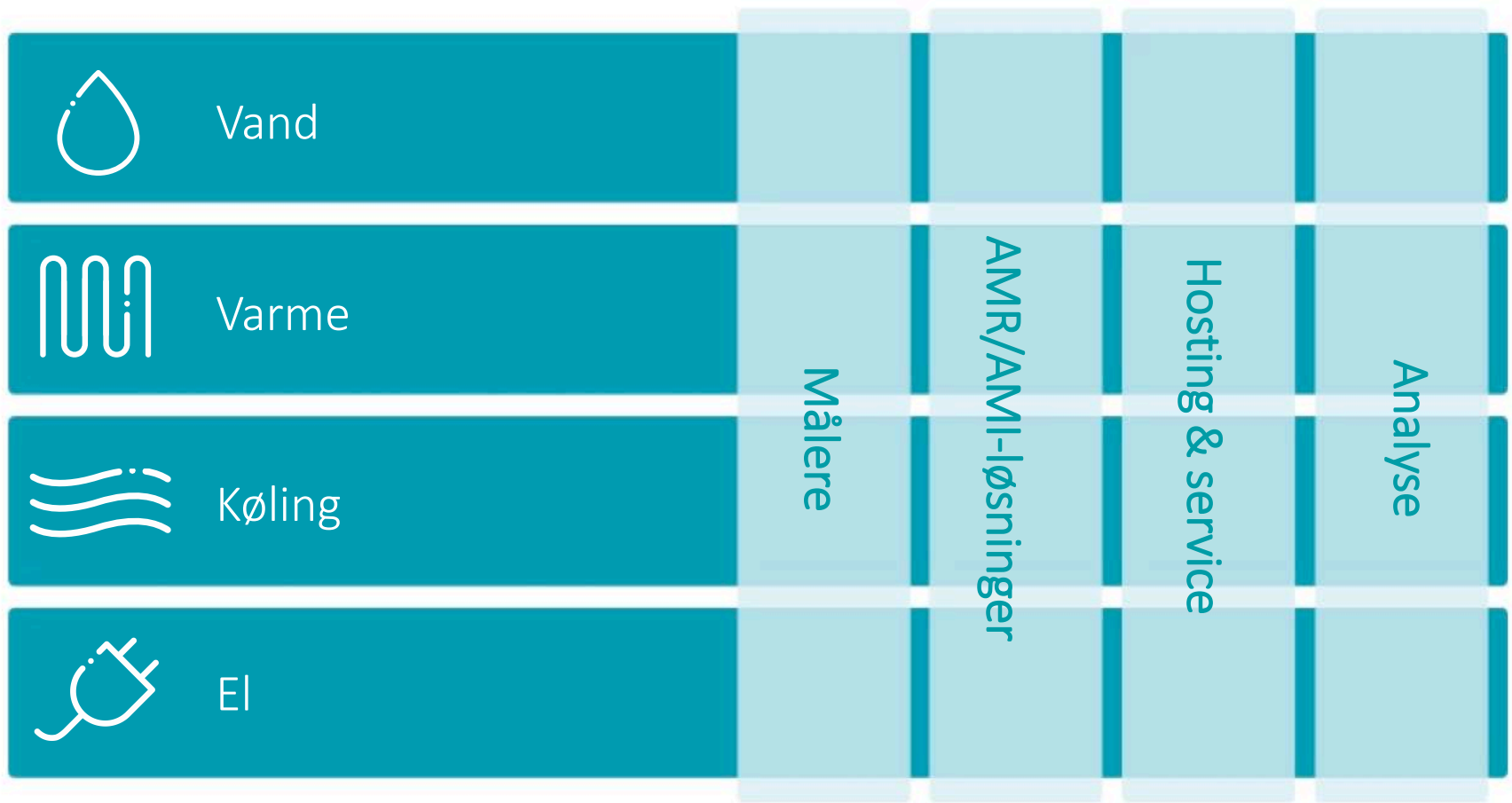
MULTICAL® 801



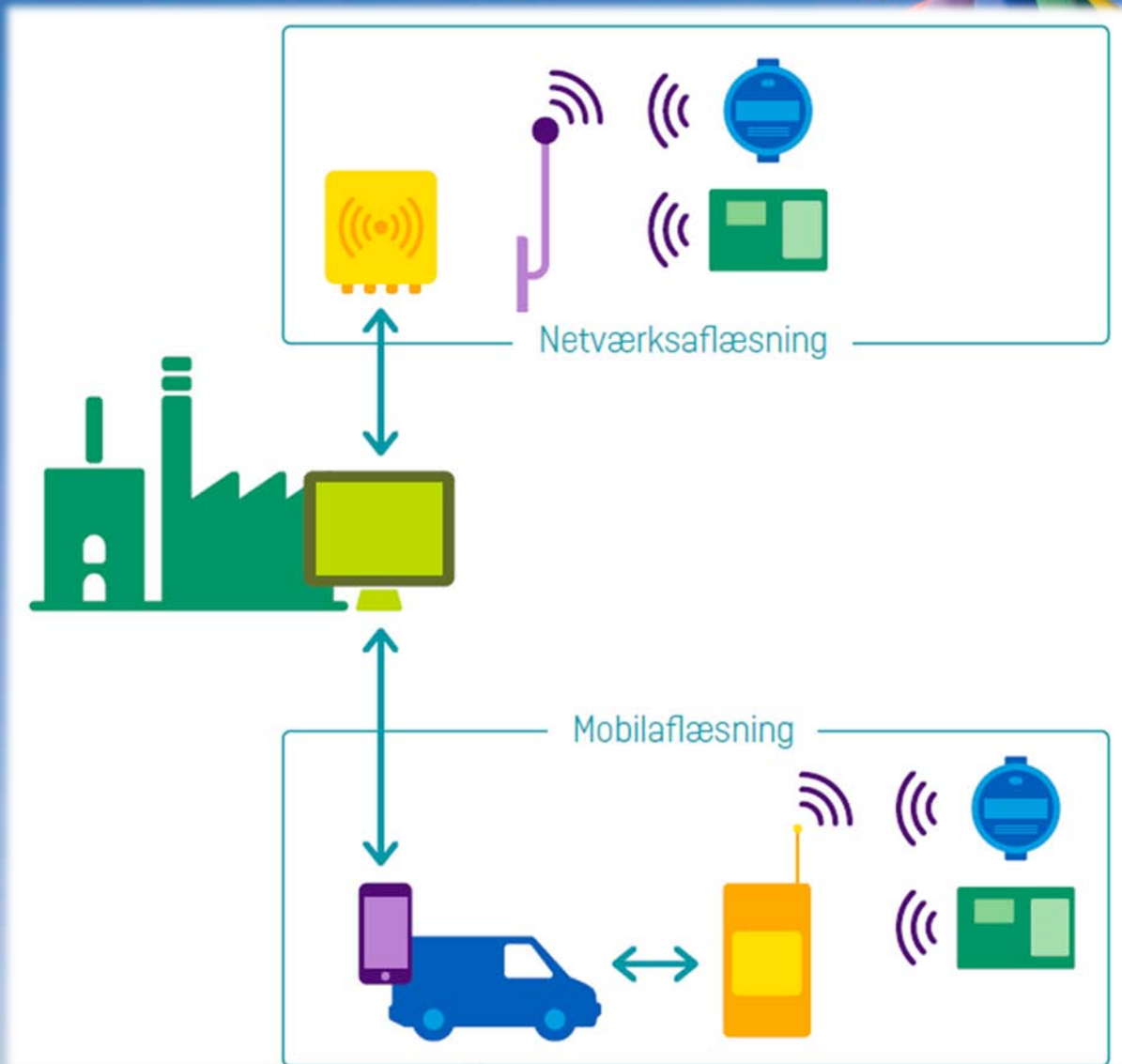
flowIQ 3100

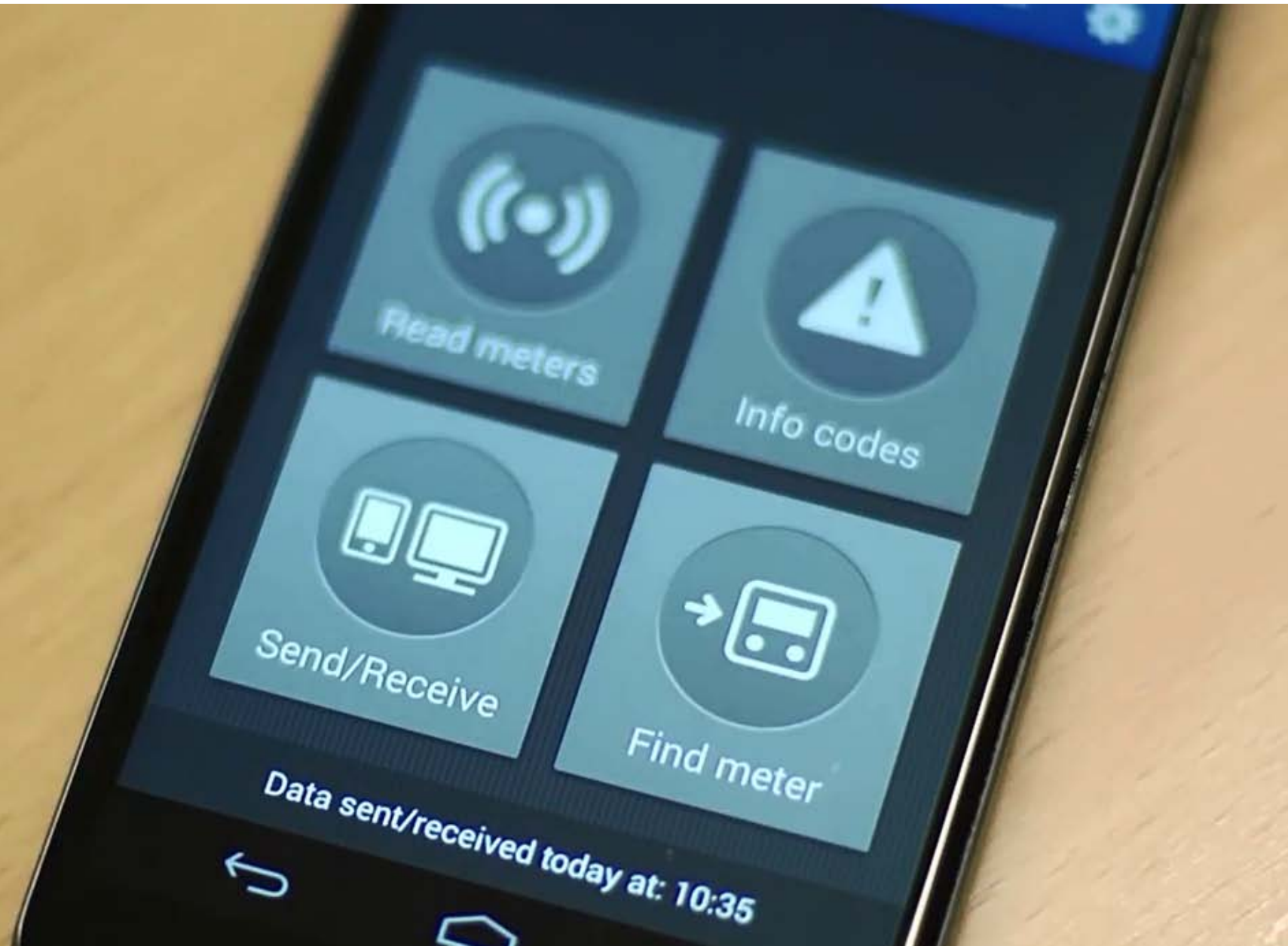


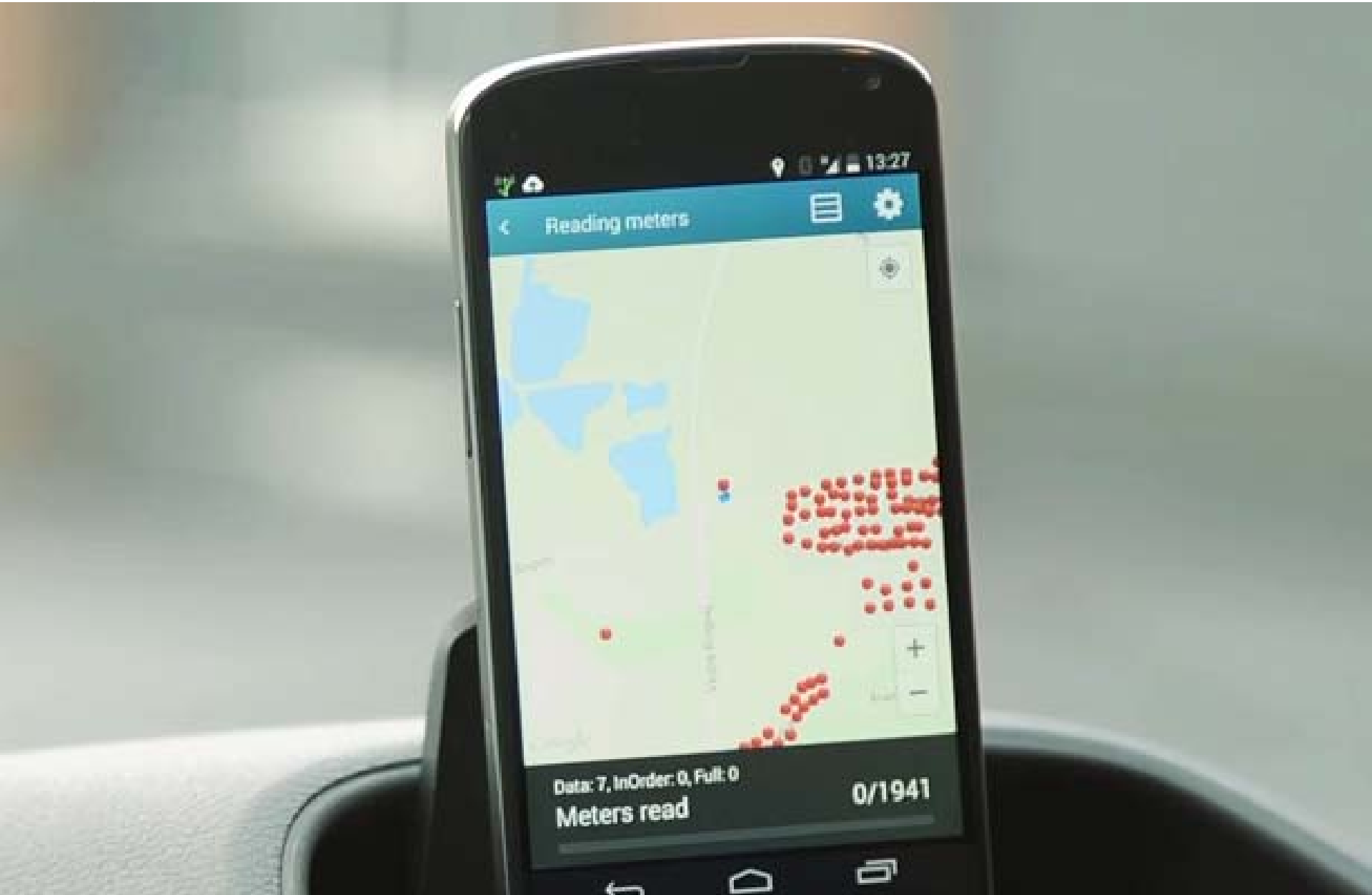
MULTICAL® 21



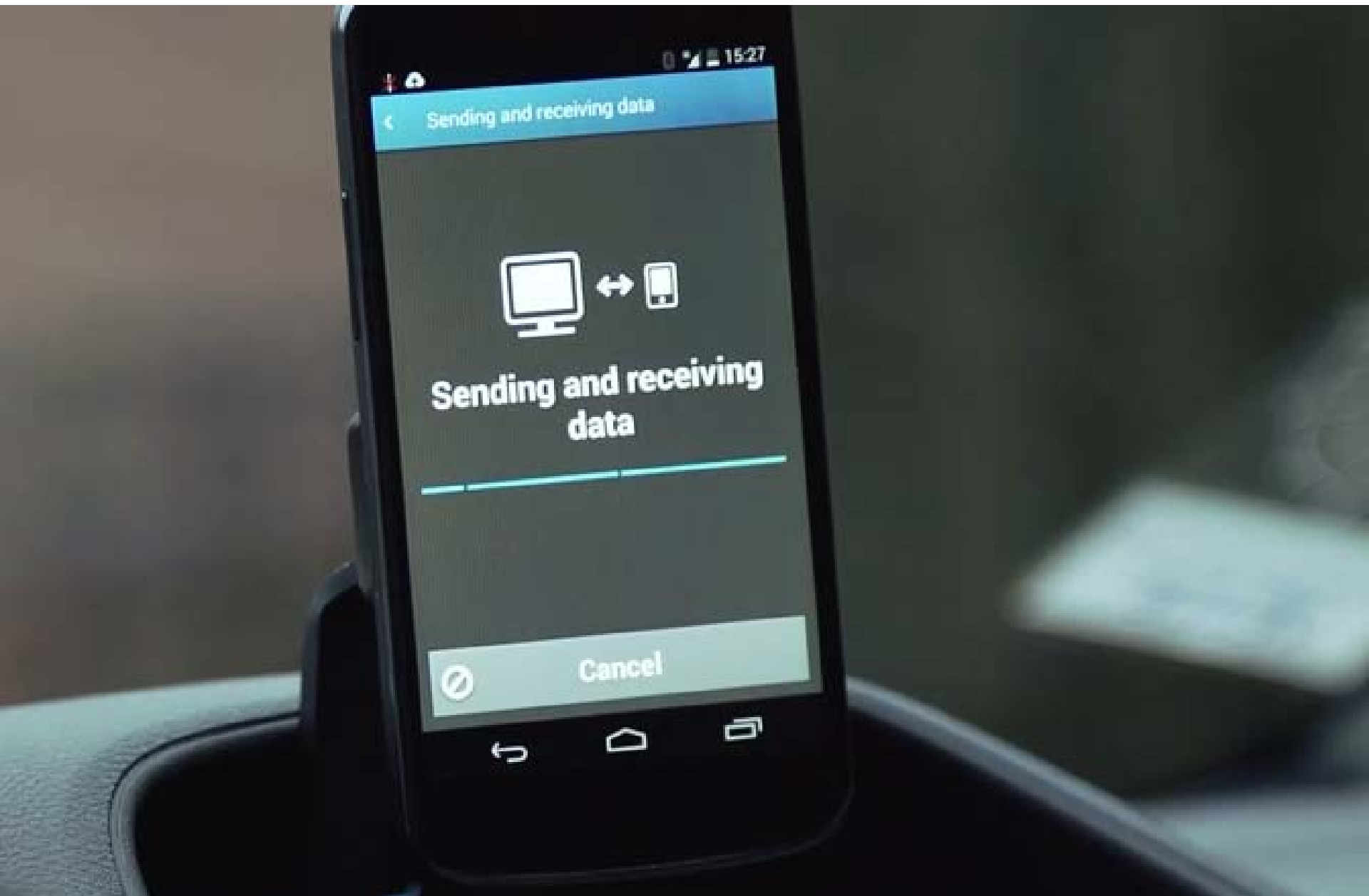
READY





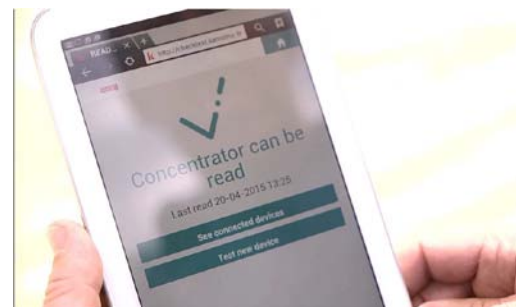






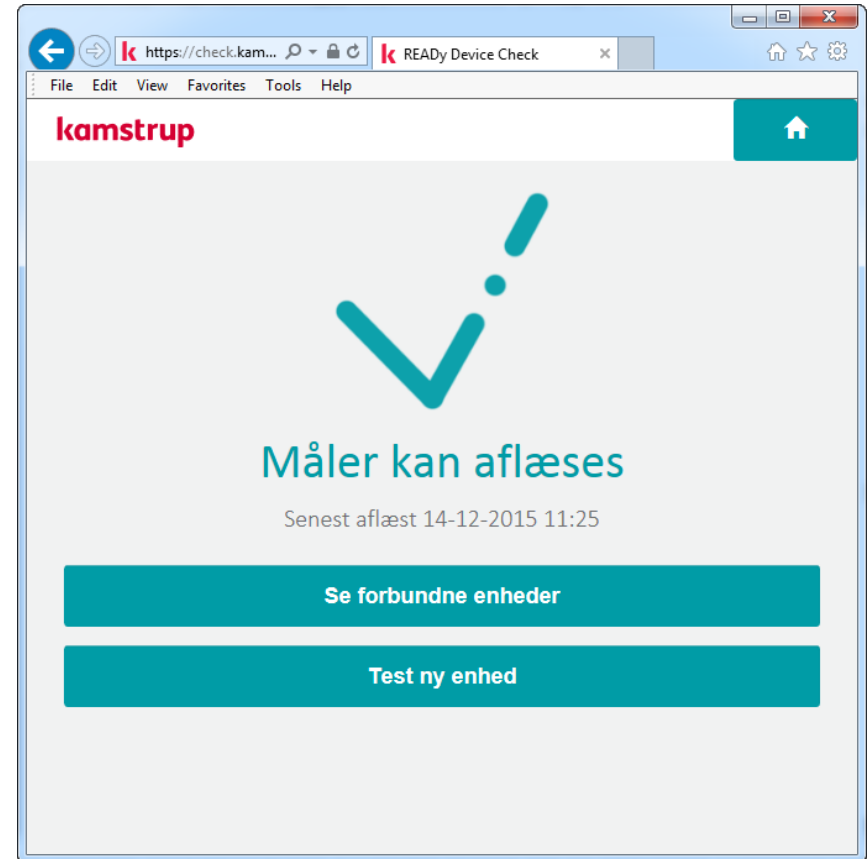
READy netværksaflæsning

•



READY

kamstrup



[HTTP://CHECK.KAMSTRUP.COM](http://check.kamstrup.com)

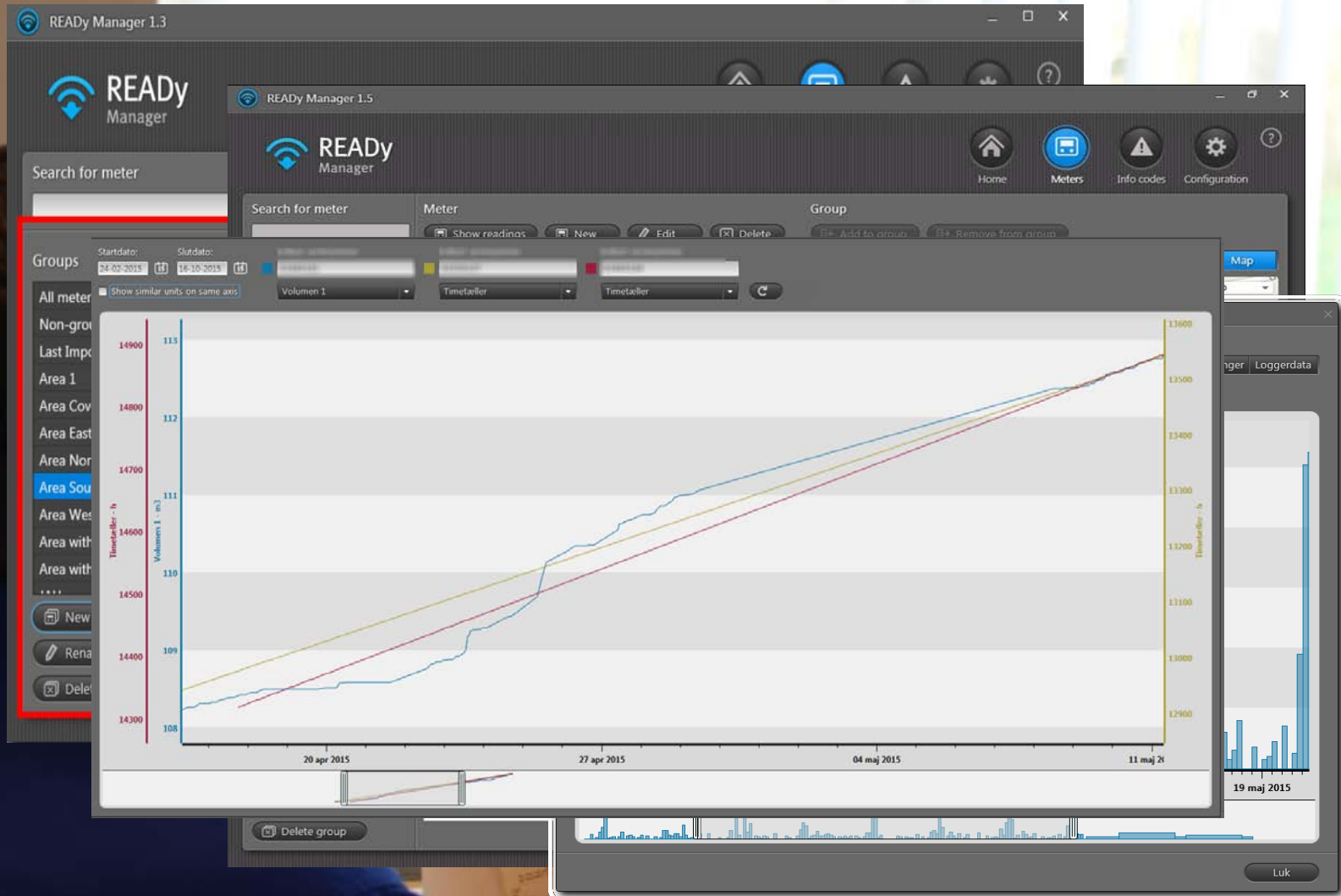
READY

kamstrup



READY

kamstrup



Meter readings

74171801 - Børneshaven Paddeshatten, Sønder Bygade 11

From: 27/08/2014 To: 06/09/2015

Visualization Readings Logger data

Reading time	Volume 1
10/07/2015 19:02:38	162.853 m3
▲ 08/07/2015 23:02:52	158.884 m3
▲ 08/07/2015 22:02:41	158.819 m3
▲ 08/07/2015 21:02:38	158.688 m3
▲ 08/07/2015 20:02:32	158.634 m3
▲ 08/07/2015 19:02:51	158.530 m3
▲ 08/07/2015 18:02:46	158.492 m3
▲ 08/07/2015 17:02:50	158.454 m3
▲ 08/07/2015 16:02:38	158.409 m3
▲ 08/07/2015 15:02:50	158.304 m3
▲ 08/07/2015 14:02:38	158.087 m3
▲ 08/07/2015 13:02:38	157.896 m3
▲ 08/07/2015 12:02:36	157.801 m3
▲ 08/07/2015 11:02:26	157.452 m3
▲ 08/07/2015 09:02:33	157.067 m3
▲ 08/07/2015 06:10:09	156.645 m3

Data for current reading

Volume 1 158.634 m3
 Hour counter 1832 h
 TempMinDay 14 C
 TempAmbientAvgDay 29 C

Historical data

Volume1Logged 137.199 m3

Info codes active at reading time

Leak

Historical info codes

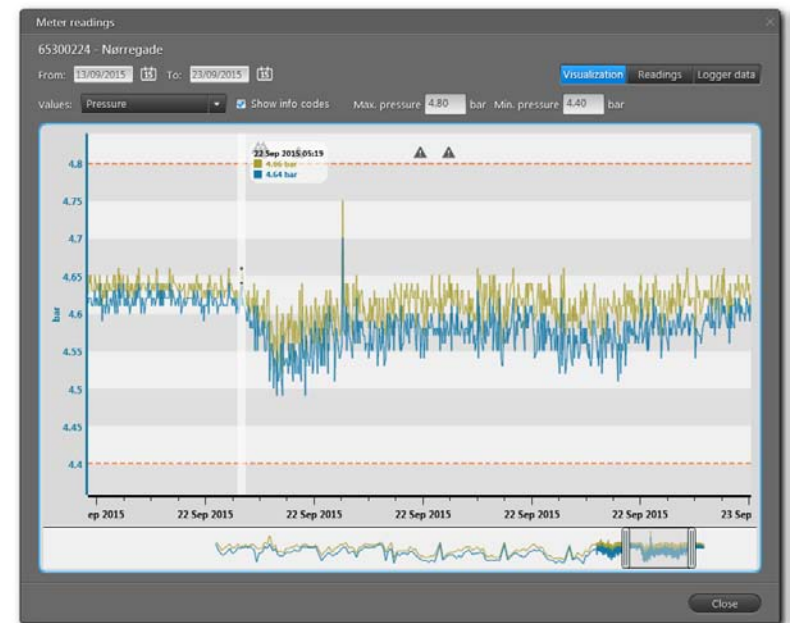
Burst has been recorded for 1 - 8 hours within the last 30 days
 Leak has been recorded for more than 21 days within the last 30 days

Close

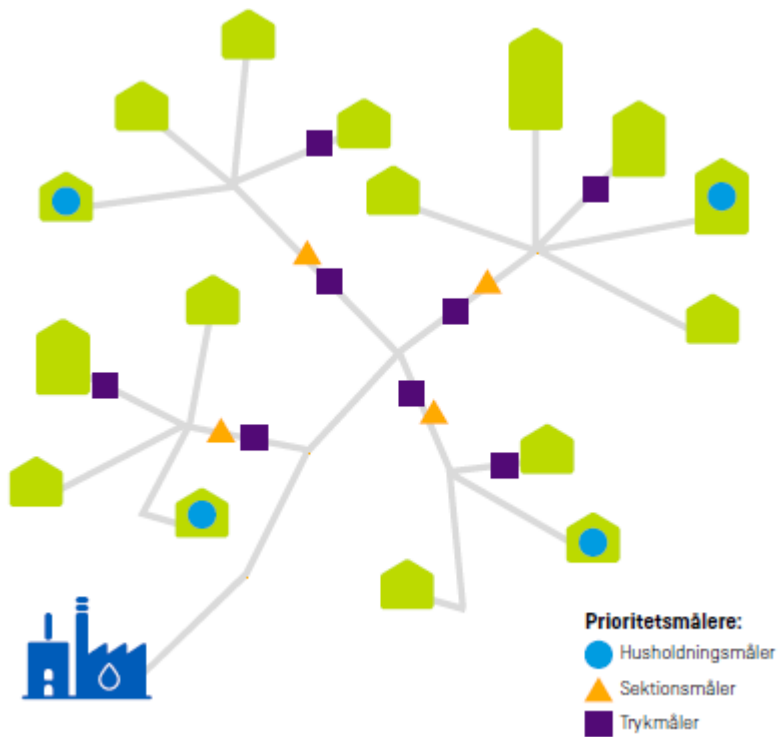
READY

kamstrup

“Brug READY til at overvåge tryk og trykstød i netværket”



“Aflæs målere med 5 min. interval!”

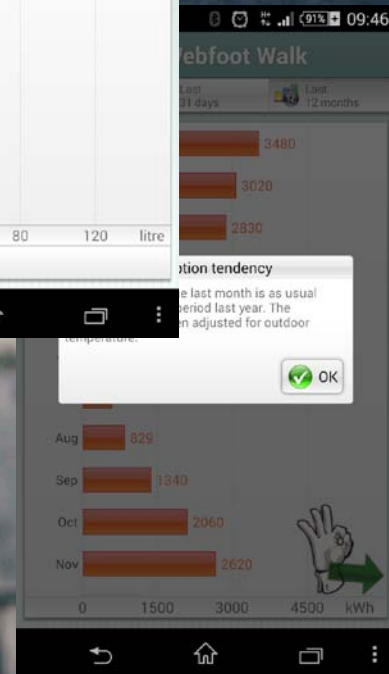


eButler i lommen



Download on the
App Store

ANDROID APP ON
Google play





Del fordelene ved smart metering med dine kunder ...





... og undgå de sure af slagsen!





Grafisk overblik over energi- og vandforbrug



Personlige SMS og Email notifikationer

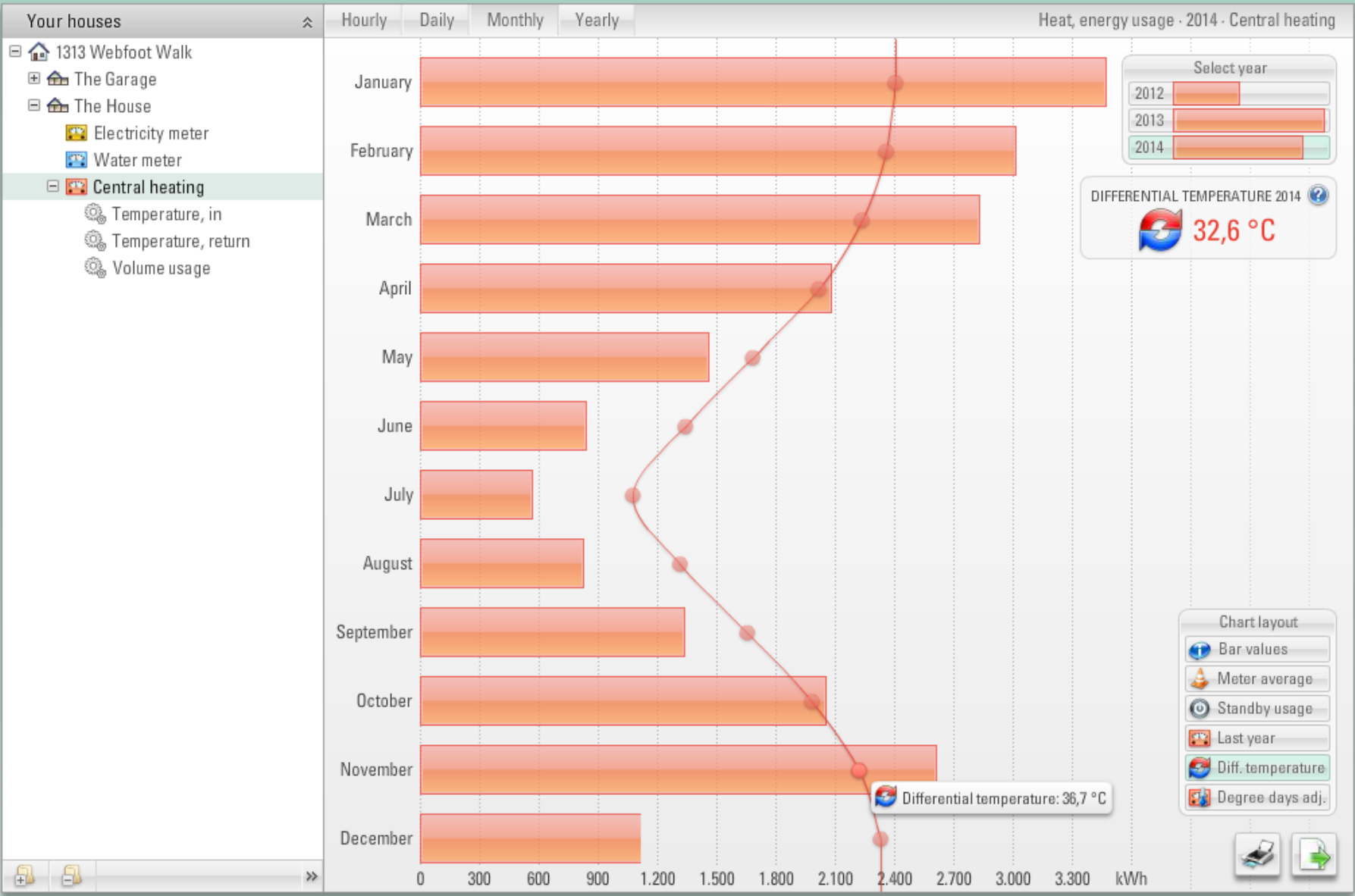


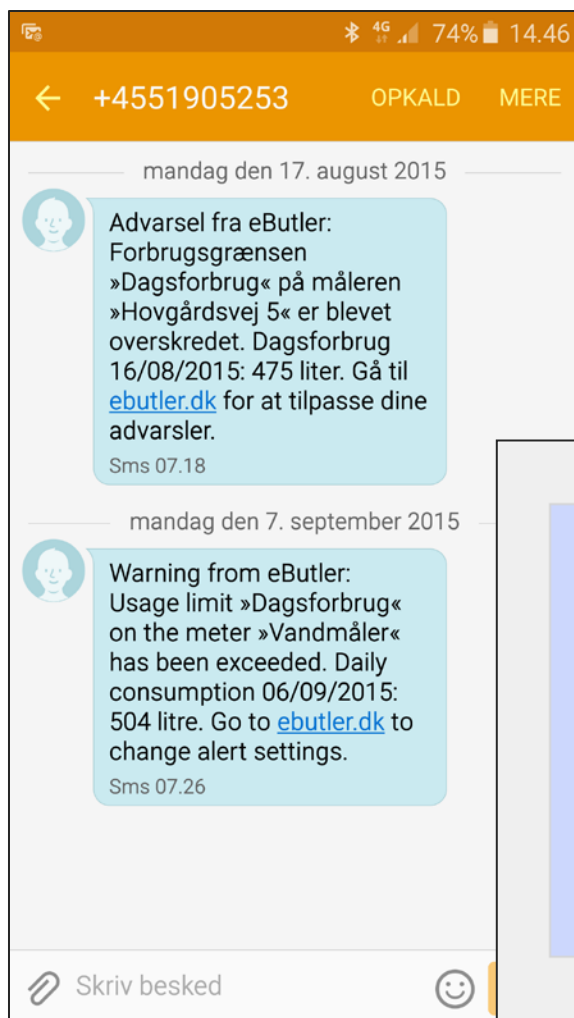
Analysér og identificér problemer



Benchmark med andre kunder

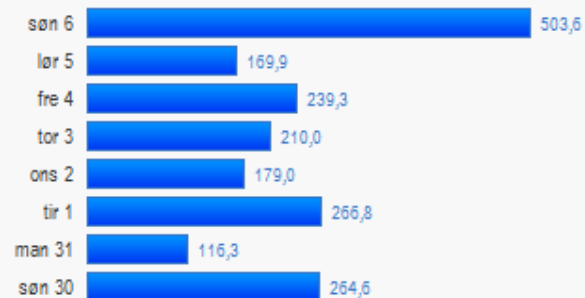






Vandforbrug på »Vandmåler«

DAGSFORBRUG DE SENESTE 14 DAGE (LITER)



eButler usage limit report for »Dagsforbrug«

THE USAGE LIMIT WAS EXCEEDED IN THE FOLLOWING CASE(S):

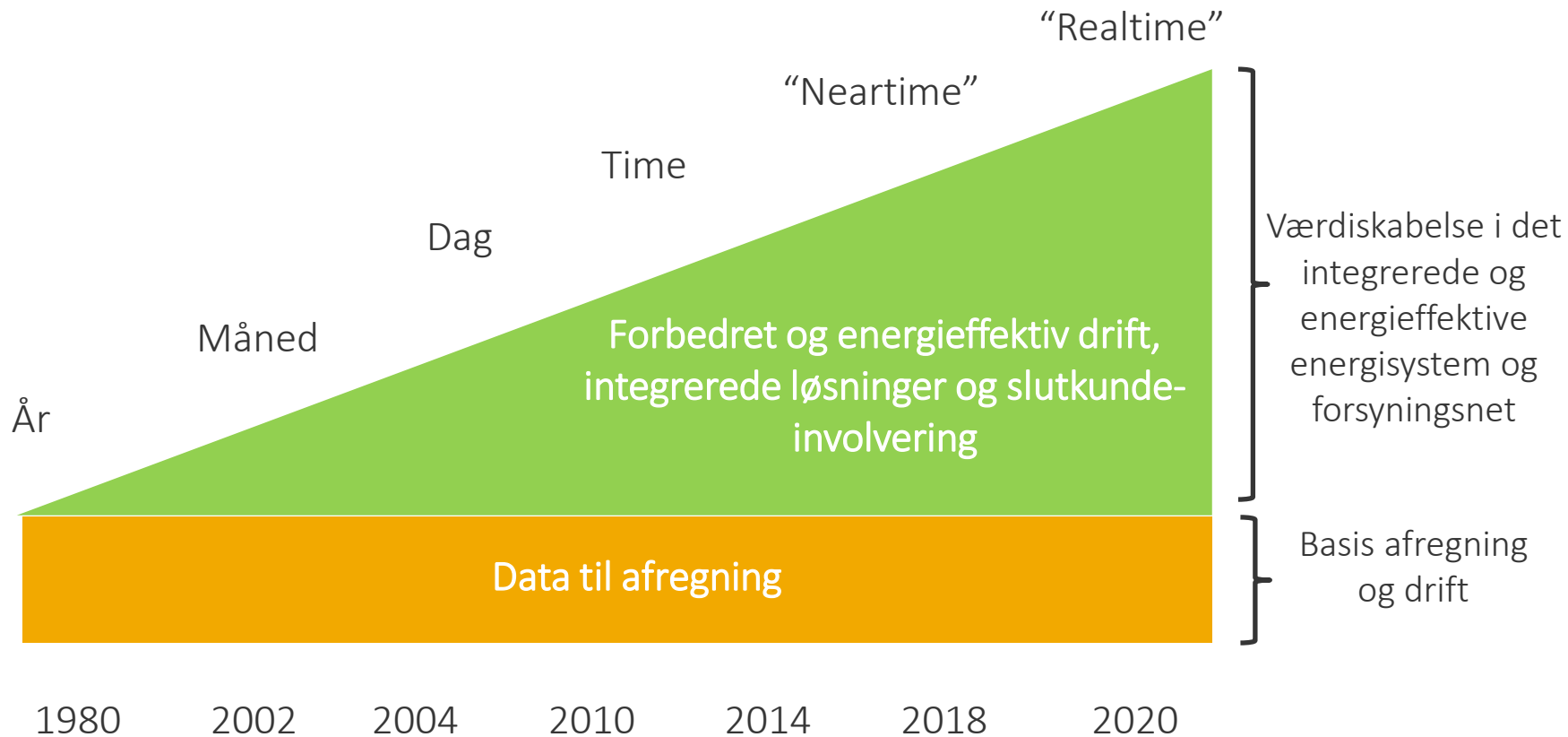
Time	Consumption
06/09/2015 00:00	503.6 litre

CURRENT SETTINGS:

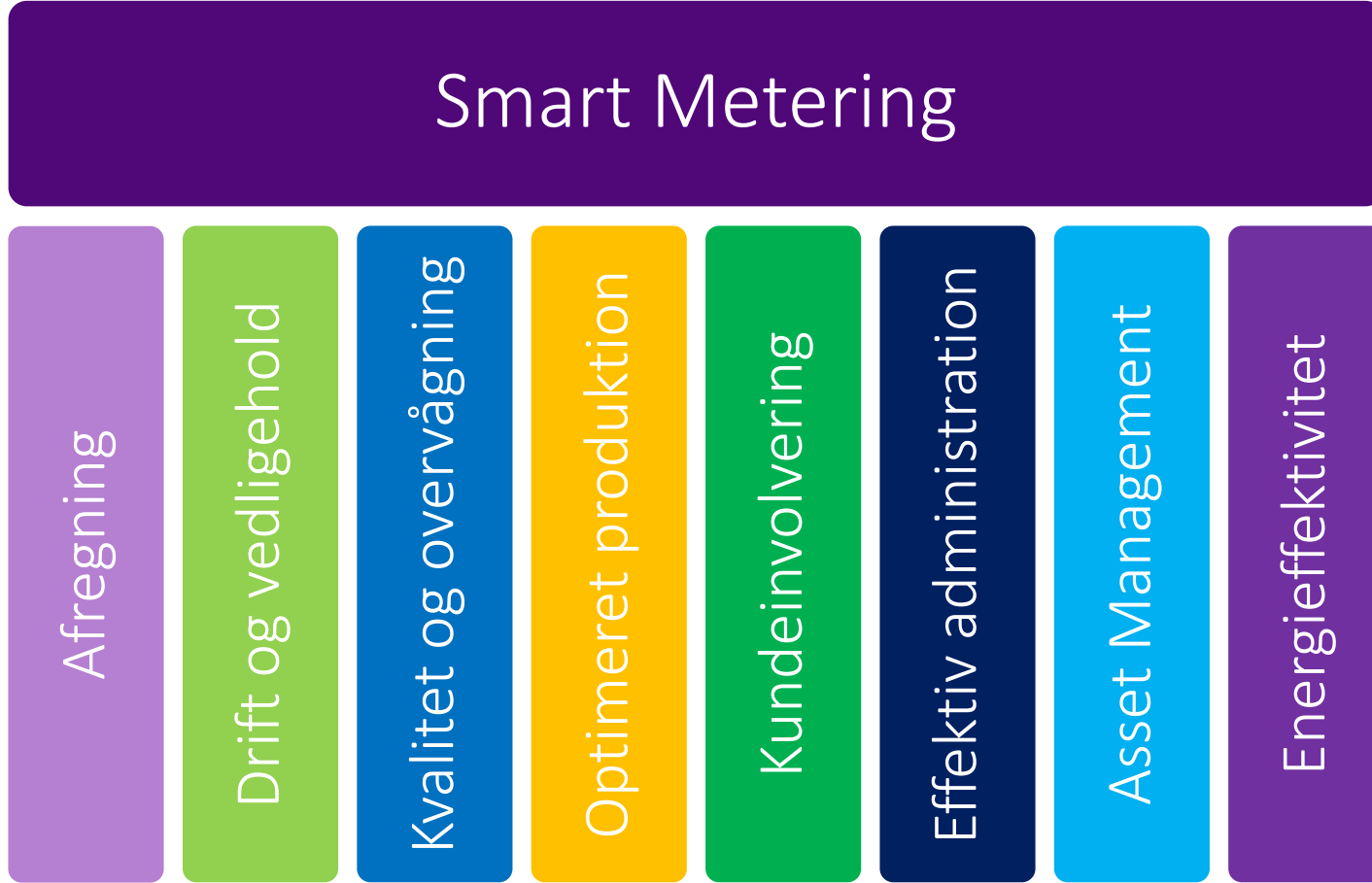
Meter:	Vandmåler	Min. limit:
Verification method:	Daily consumption	Max limit: 400.0 litre

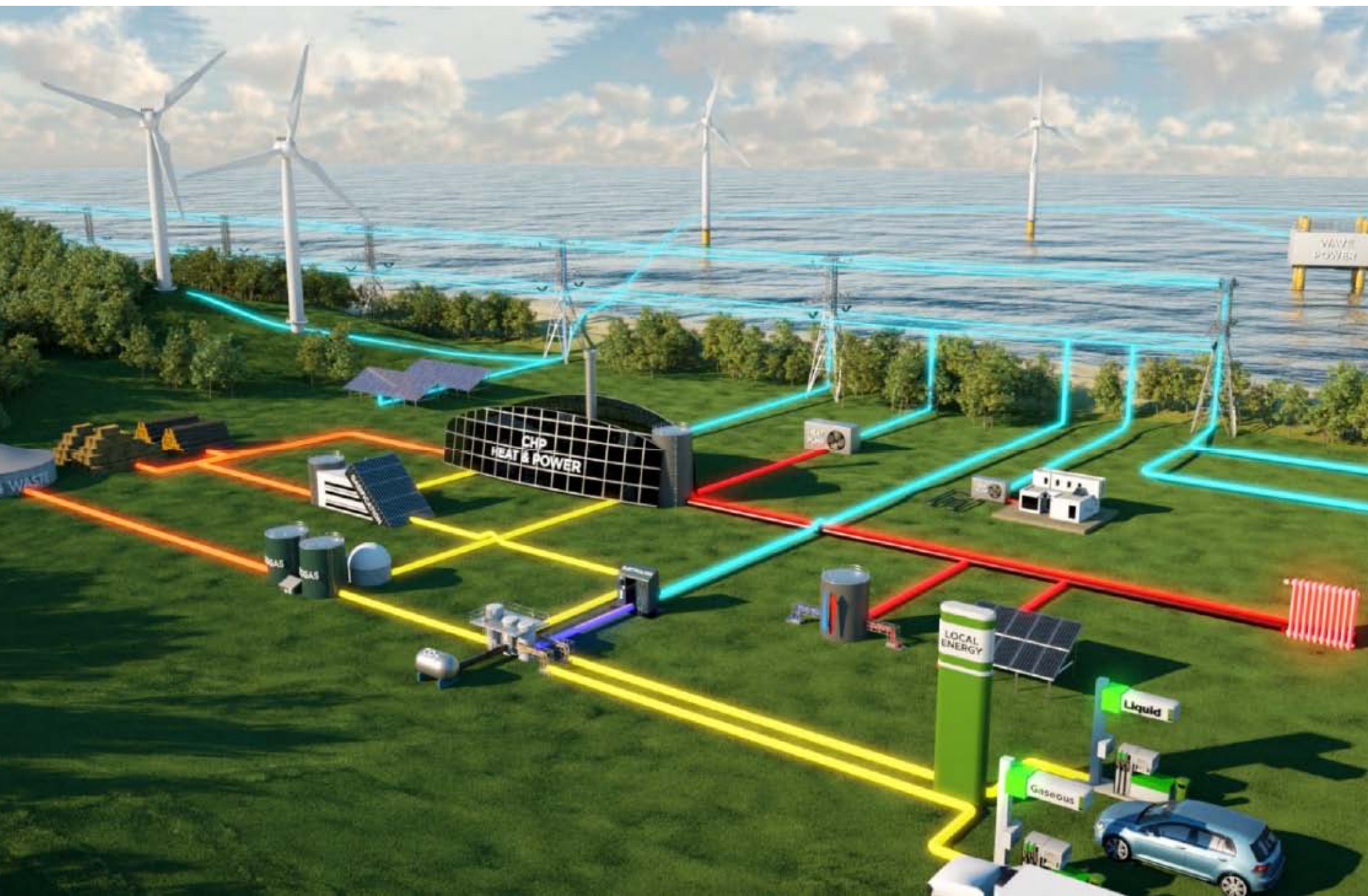
» Go to eButler

Du kan ikke optimere det du ikke måler på!



.... på mange områder i en intelligent forsyning





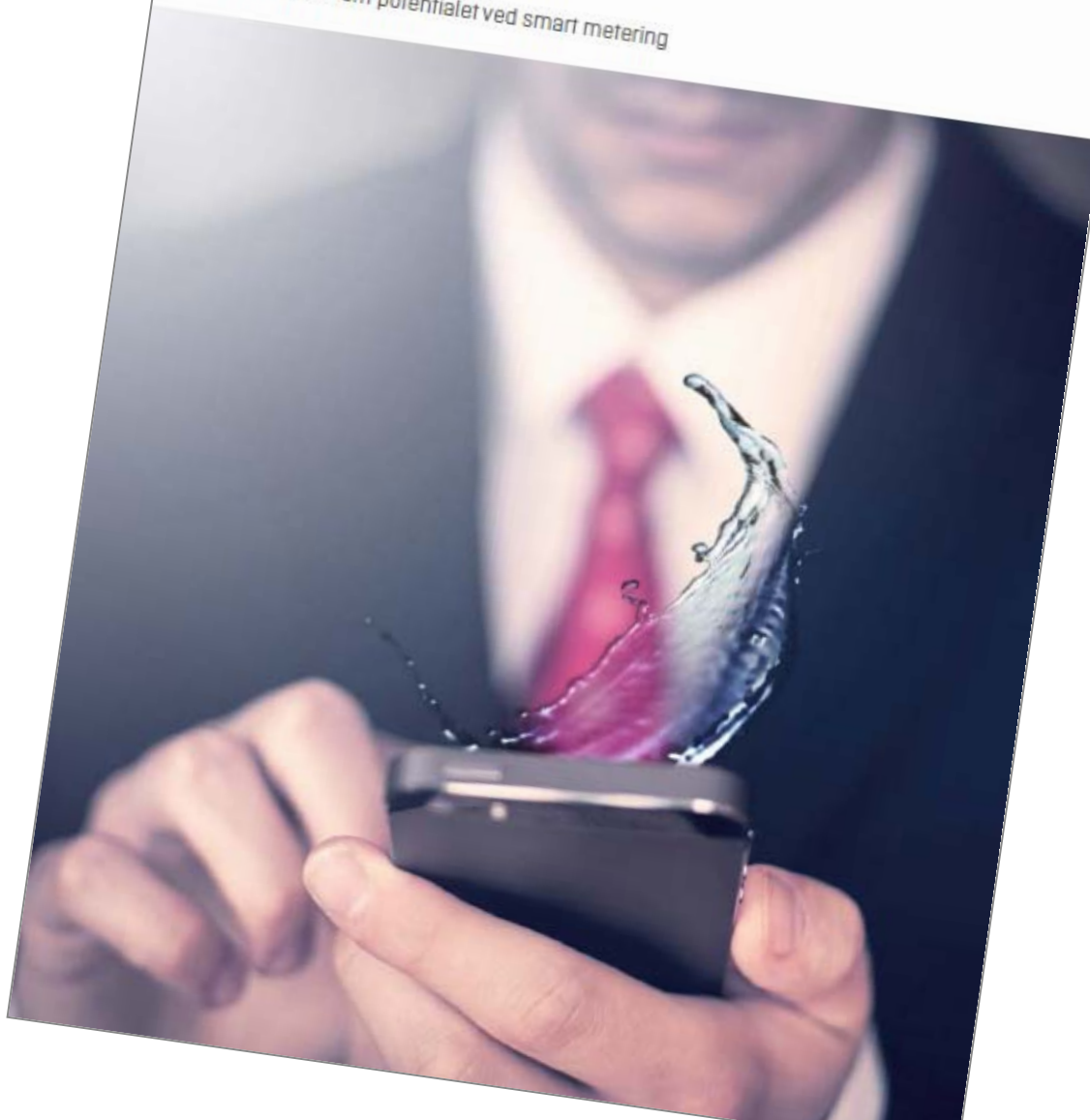
Byer dækker kun 2-3% af verdens landareal – men næsten halvdelen af befolkningen boer i byer. Det forventes at stige til 80% i 2050

I dag står byer for 75% af det samlede energiforbrug og 60-80% af de samlede globale emissioner.

Ressource-effektive byer implementerer avancerede løsninger til håndtering af energi, transport og affald

Den digitaliserede vandforsyning

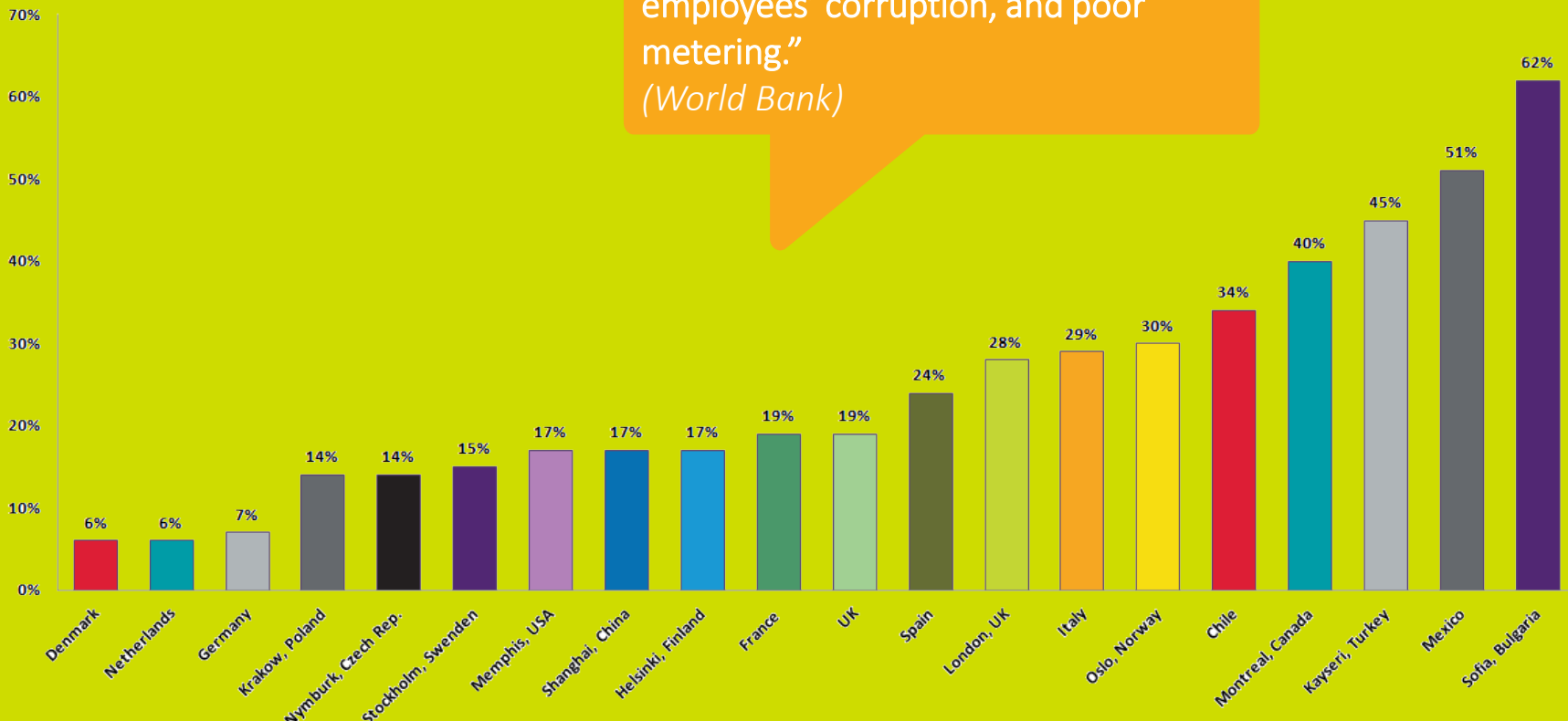
White paper om potentialet ved smart metering



"The total cost to water utilities caused by NRW worldwide can be conservatively estimated at \$141 billion per year"
(World Bank)

About 45 million cubic meters are lost daily through water leakage in the distribution networks—enough to serve nearly 200 million people.
(World Bank)

"Close to 30 million cubic meters are delivered every day to customers, but are not invoiced because of pilferage, employees' corruption, and poor metering."
(World Bank)

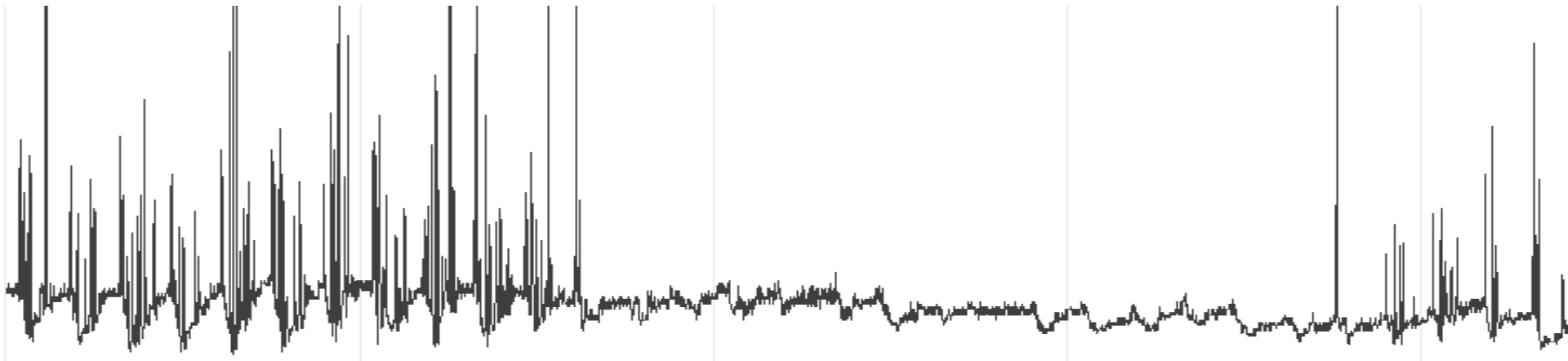


Investment needs for buried drinking water infrastructure total more than \$1 trillion nationwide over the next 25 years. Overlooking or postponing infrastructure renewal investments in the near term will only add to the scale of the challenge we face in the years to come.

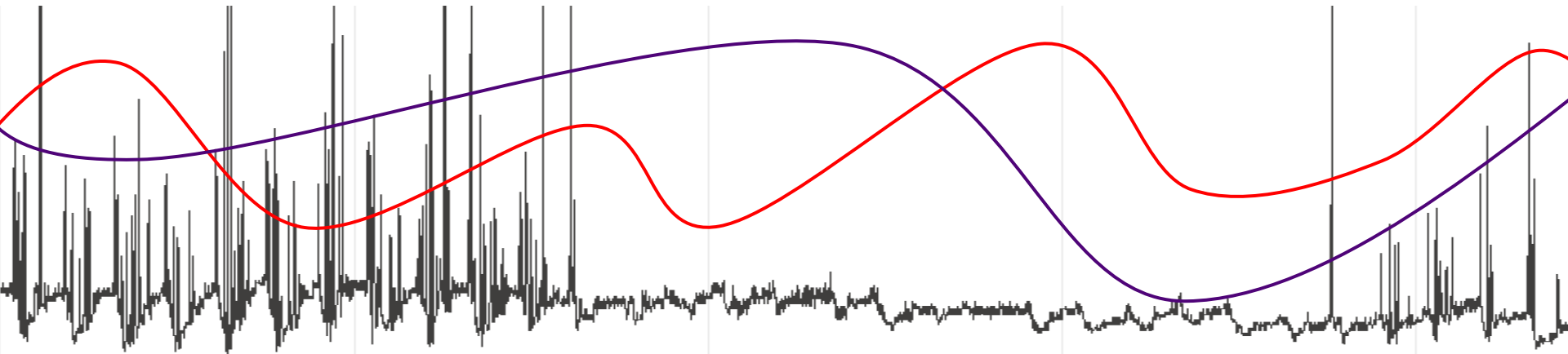
American Water Works Association (AWWA), Buried No Longer report, 2012



Timeværdier fra Kamstrup varmemålere ...



... og vejrdata fra Dansk
Metrologisk Institut...



Bygningens termiske profil

