

Approach for the implementation of AMR system for gas meters in France

GrDF AMR Project

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Venue: CS4.2:WOC4

Patron



Host

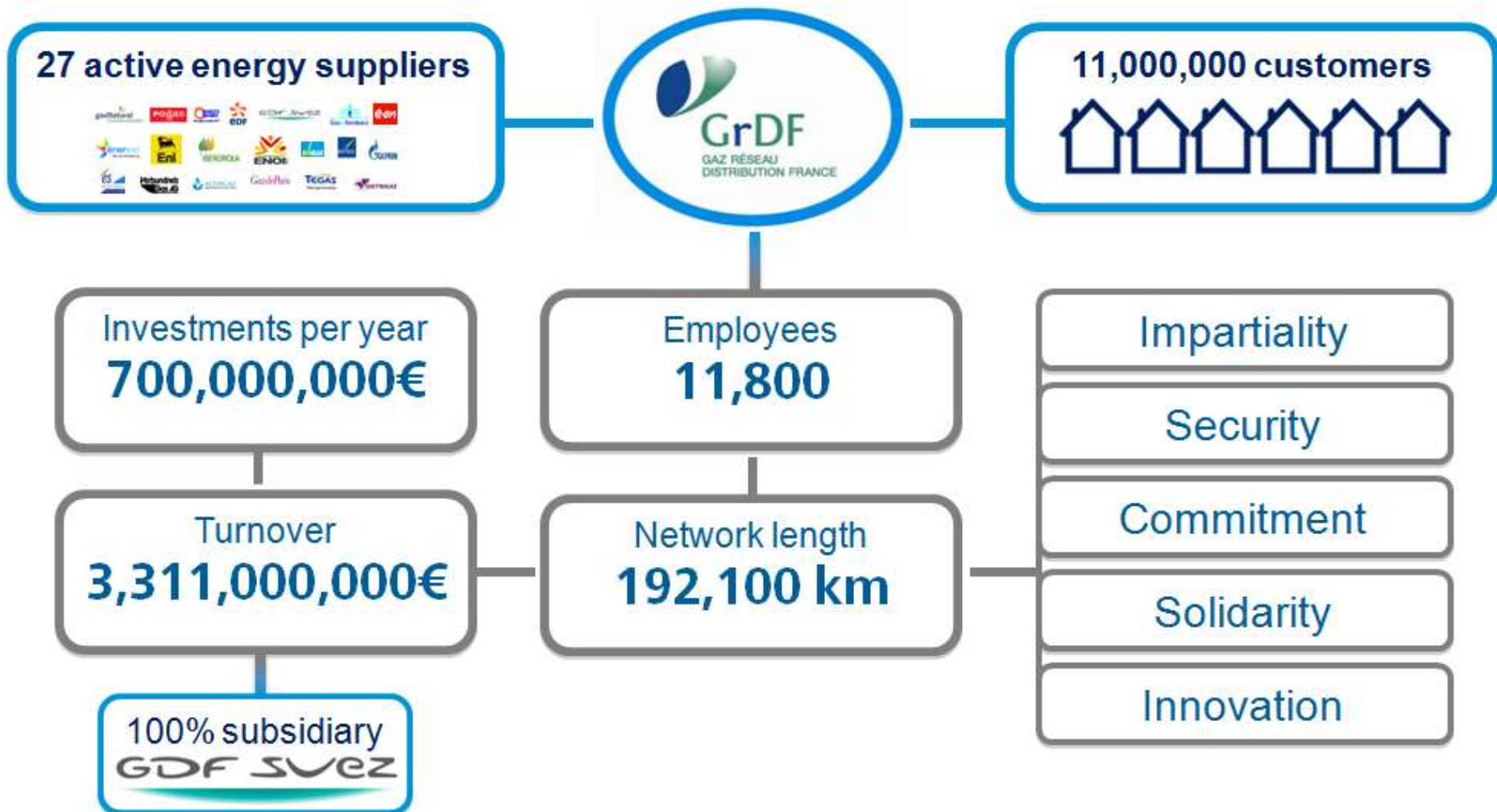


Host Sponsor



GrDF, the french gas distributor

A major DSO : **95%** of french gas consumers



T3MM & AMR Projects' Roadmaps

T3MM Project – for Commercial and Industrial customers

Point to point GPRS solution for 100,000 C&I customers

Started in 2007
End in 2012



Objectives

- 1 Customers satisfaction by quality of meter reading and real billing
- 2 Energy savings thanks to frequent information
- 3 DSO's efficiency improved due to increased performance of the network

AMR Project – for residential and professional customers

11 millions new meters

Communication network of approx. 20,000 concentrators

New information systems and impacts on existing systems



Description of the 4 technical experiments

Experiments
on 18,500 meters

Complementary
studies

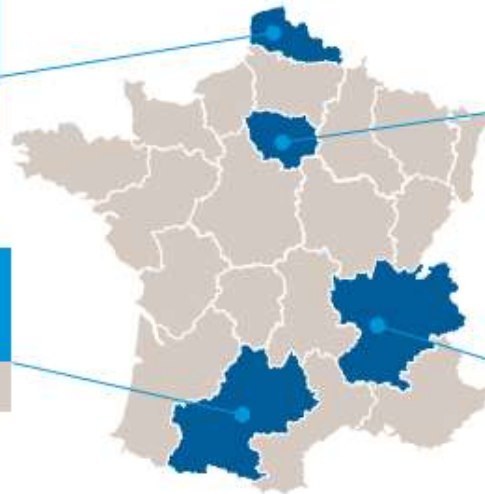
Work Groups
with Stakeholders



SAINT OMER

ITRON

433 + 868 MHz



ETAMPES

ELSTER

868 MHz



AUCH

ONDEO Systems

169 MHz

**ST GENIS LAVAL
PIERRE BENITE**

PANASONIC

433 MHz



Description of the customer tests

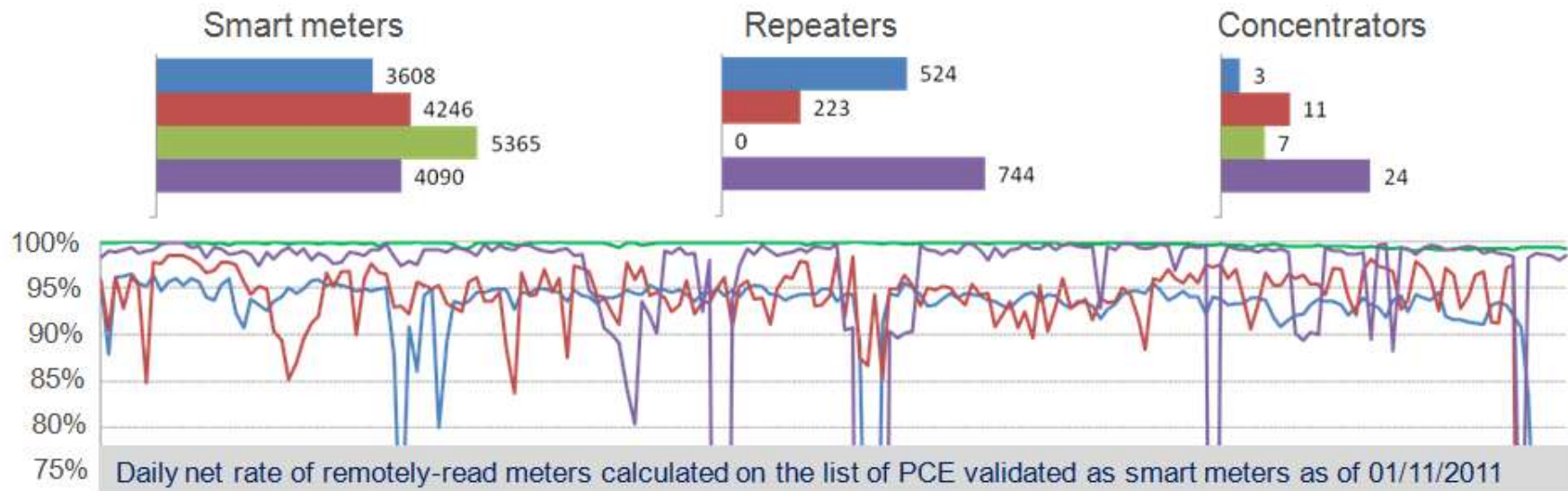
400 customers
8 months

Various communication
tools tested

In order to identify the best way
of informing customers on a
monthly basis

Results of the Experiments

An excellent rate of meters read per day, above 90%



90% of the customers were satisfied of the services offered

78% ask for monthly digest

Customers ready to pay for energy management services shifted from 12% to nearly 33% after the experiments.

26% have initiated actions to save energy, or have thought about it

The final architecture of GrDF AMR System



Meters functionalities

Daily readings
Hourly reading available upon request

Output plug for customer's home automation device

Concentrators' functionalities

Time redundancy

Space redundancy

Bidirectionality

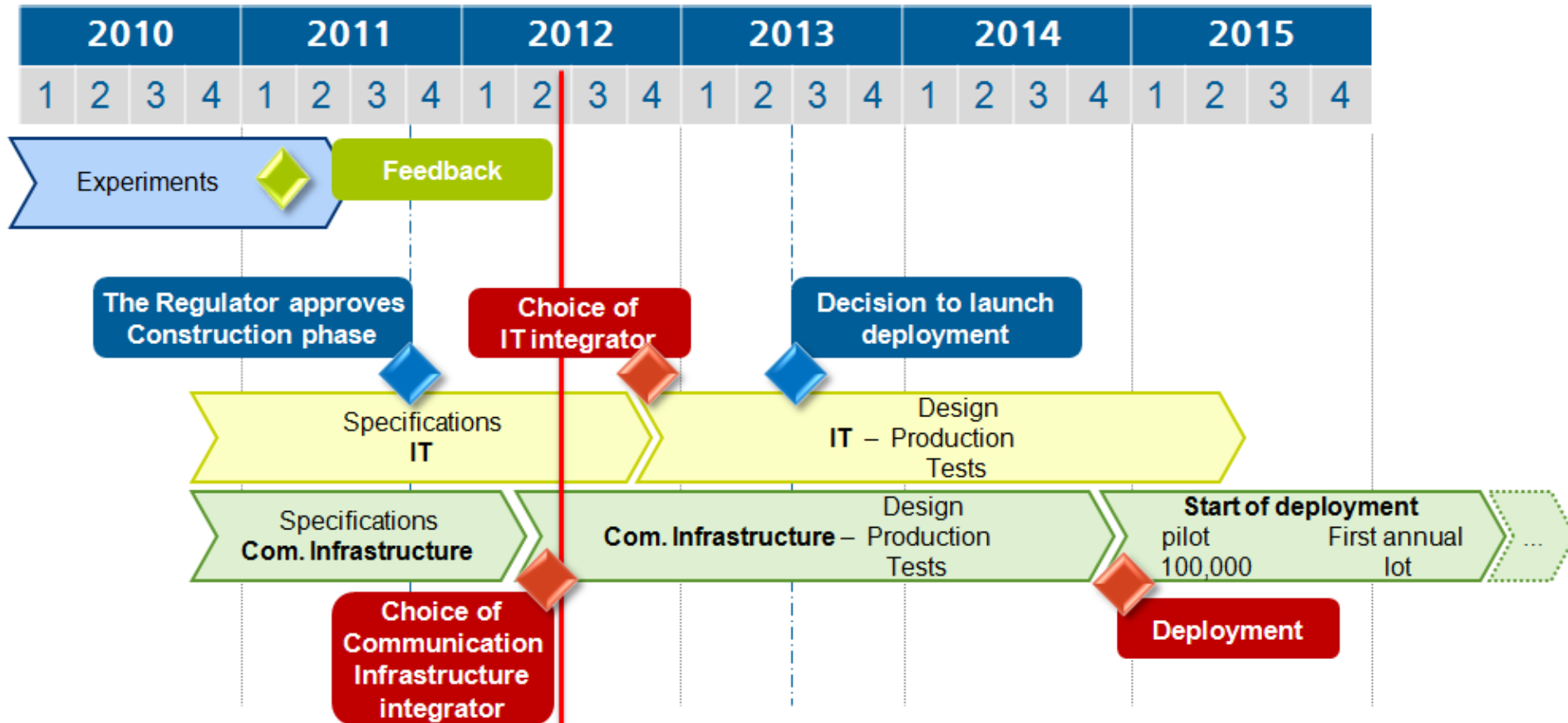
Abandoned functionalities

systematic **Shut-off valve**

systematic **Gas only IHD**

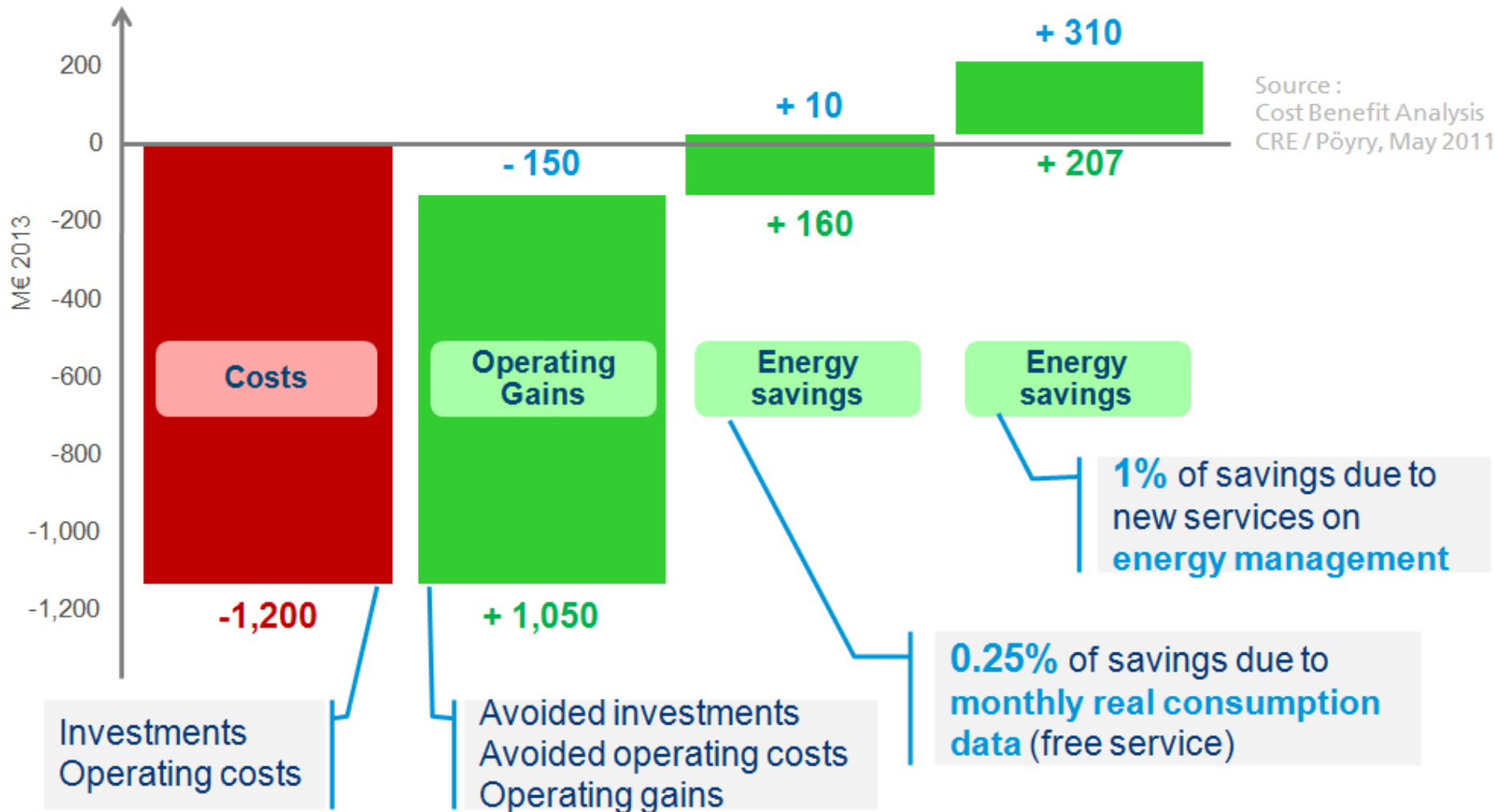
Planning and next steps for the AMR Project

Starting Construction Phase



The project's Business Case

A balanced project with only **0.25%** of energy savings



Beyond the distribution network : new services for end consumers ?

Service providers design **new offers** using automatically and periodically provided **gas consumption data**

Main objective

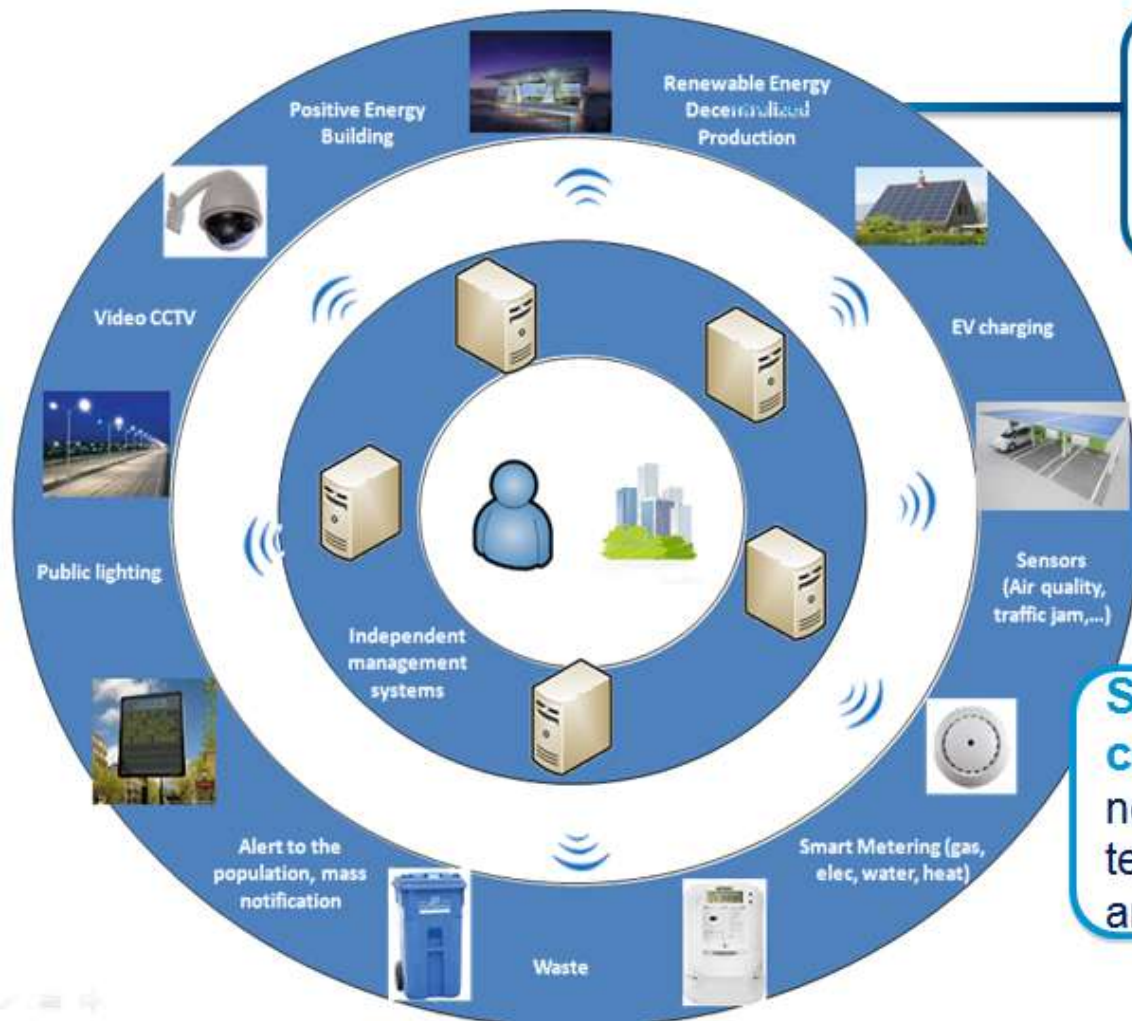
Improve **energy efficiency**
for the end user

Main characteristics

Conditions for providing data to service providers have to be defined by the owner of the meter (or the operator), under a possible supervision by the regulator

Offers always include several services – electricity, gas, or water consumption management, heat control, intrusion surveillance, air quality, fire alarms...

AMR gas meters, a part of future Smarter cities?



Ubiquitous City

Everything is linked to an information system through a wireless network to respond to urban stakes

Standardization and data communication protocols will be necessary to implement town teleservices, beyond needs for utilities and gas.

Contacts



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Thank you