



Public services in a friendly city

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16 September 2015

Public services for everyday life

The city of the future

TODAY?

1. Not friendly
2. Poorly connected
3. Poor social integration
4. Not environmentally friendly

A SMART CITY MUST BECOME:

Friendly

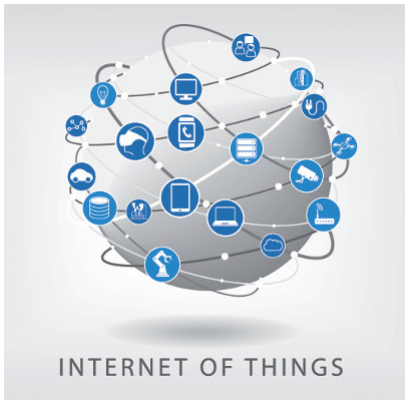
Always connected

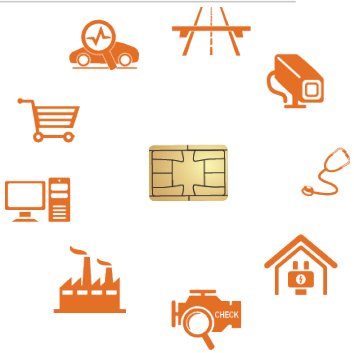
Socially Integrated

Environmentally friendly

Towards a Smart City

- **Digitalization** will enable a **collaborative** and **smart city**;
- Today there are almost 10 billions «*smart objects*»
- By 2020 more than **50 billions** connected objects (human to human, human to machine, machine to machine).





CITIZEN ROLE

- Citizien will become a **Prosumer** and not only a Consumer;
- Citizen: from services user to «**human *sensor and actuator***»;
- Also Cities will become «**producers**»

In order to reach these goals, the electrical networks need radical changes

From a Traditional network to a Smart Grid

TRADITIONAL NETWORK

- One-way, localized network
- Producers VS Consumers
- A single level for one-way energy management

WHAT ABOUT A SMART GRID?

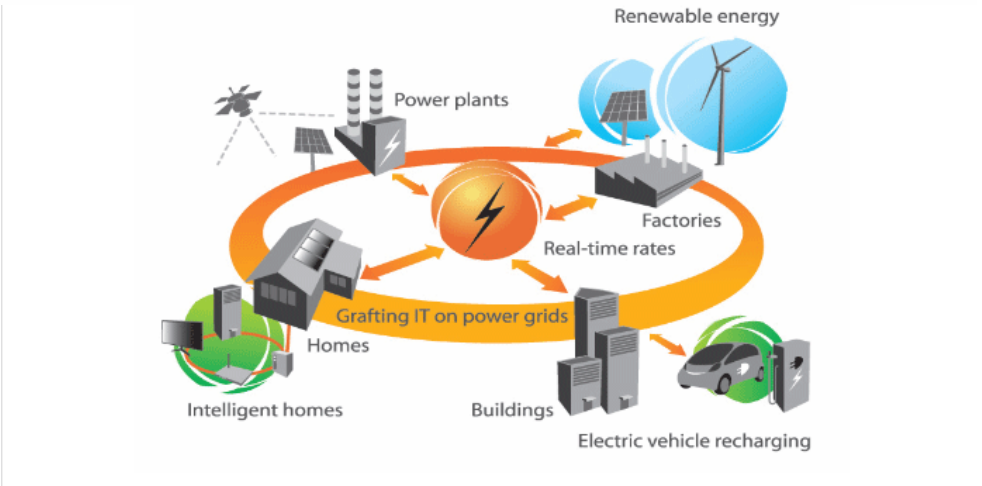
At least 2 levels:

- 1° level for bi-directional energy management
- 2° level for information

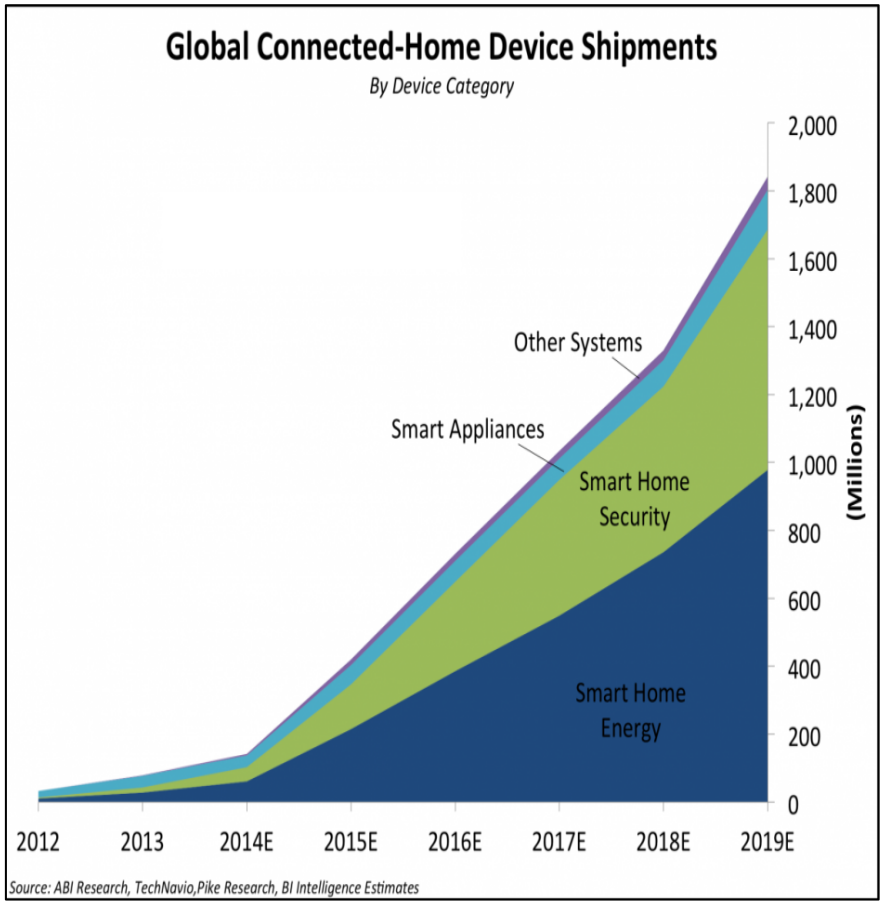
Smart Grid should also be:

- more Flexible
- More Efficient

than traditional networks



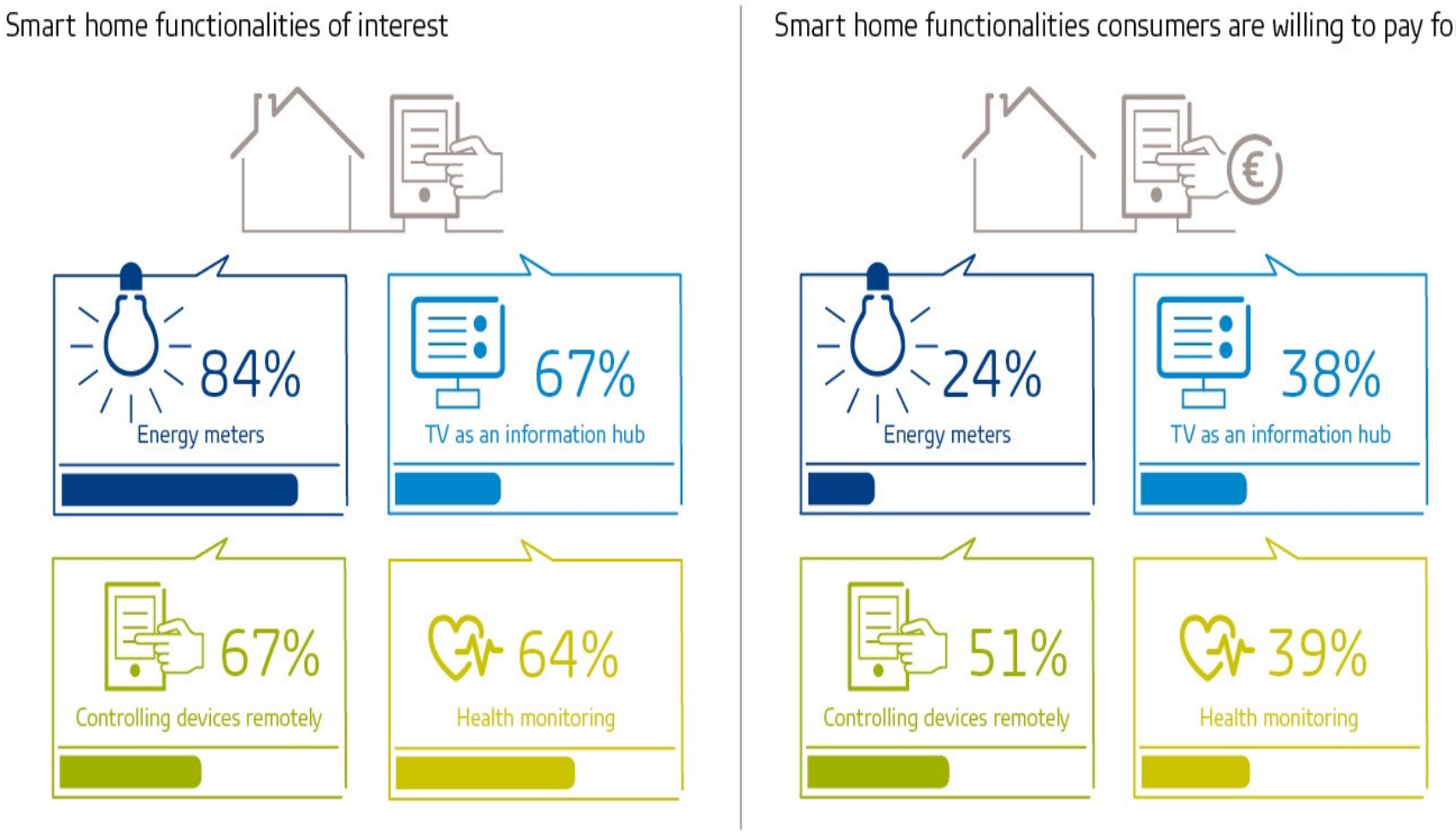
Smart Home devices



By 2020 almost **2 billions smart home devices** will be connected

More than 90% of new devices belong to **Smart Energy** and **Smart Security**

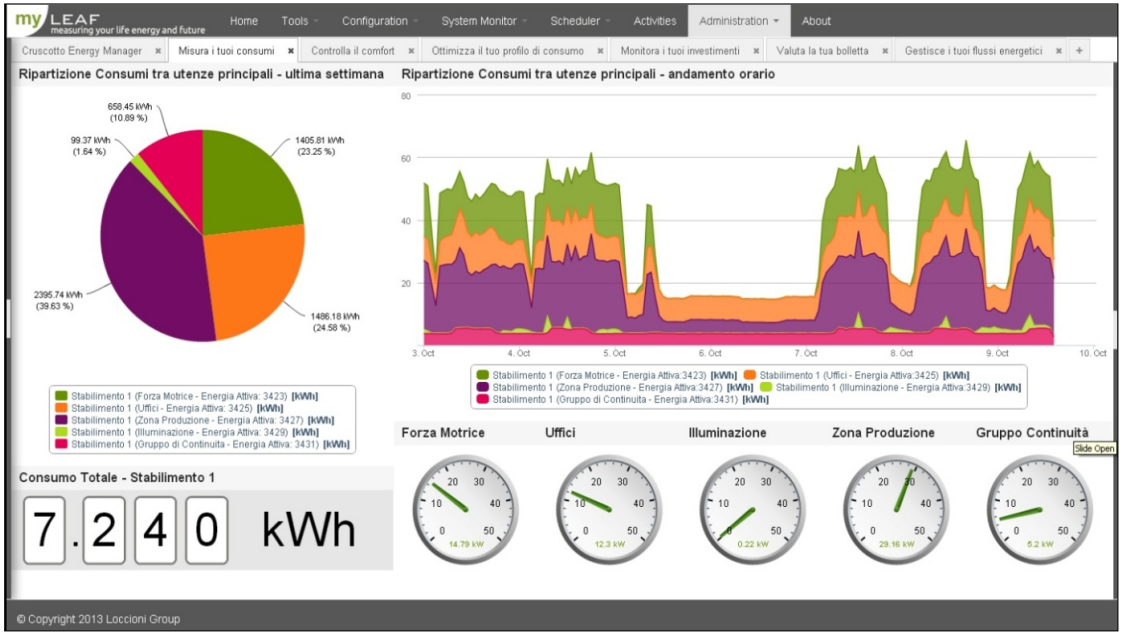
Smart home: Customer needs

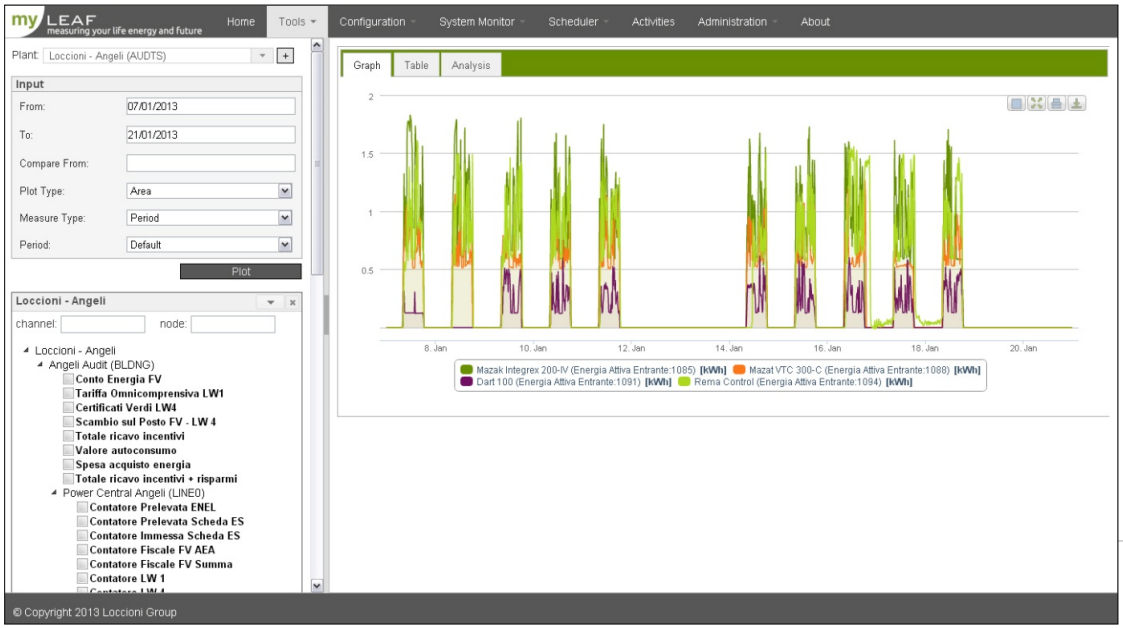


http://www.gfk.com/news-and-events/press-room/press-releases/pages/smart-home-uk.aspx

Smart Home Ecosystem

Energy Management System for business clients





Main features

- Data sampling and database interface
- KPIs and parameters for near-real time monitoring
- Alarms
- Remote control
- Investments and upgrade plans
- Data forecast
- New added-value services

For the citizens of the future:EDEN project for PA and business clients

PROJECT DETAILS

- **Focus area**: energy efficiency for public authorities
- **Funding**: POR/FESR Regione Piemonte 2007/2013 (EU Regional funds)
- **Durata Progetto**: 1 Settembre 2014 – 31 Luglio 2015
- **Pilot**: 3 primary schools in Turin
- **«Innovation community»:** Tech Enterprises, Academia, SMEs
- **Stakeholders** : school staff, docenti, students, families,, Energy Manager, ESCOs

PROJECT CONTENTS

Development of a multi-level system able to collect energy data from the field and produce taylored visualization platforms

SMART LIGHTING: TORINO LED Project

- Torino LED Project: 55.000 LED public lighting poles (55% of the total public lighting in Turin)
- Results:
  - 20.000.000 kWh/year saved (riduzione del 50% reduction in energy consumption)
  - 6.400 saved TEP/year (almost 8.800 cars)
  - CO2 emissions: 3,5 ton/year saved

Next steps

- Public safety
- Environmental monitoring
- Wi-fi
- Trafic control
- Citizen infos
- Dimmering and energy control systems