

# LINKY smart meter communication with Home Area Network

**1** Market needs

**2** Iignes recommandation

**3** Example of commissioning

**4** Smart Electric Lyon pilot project

# MARKET NEEDS

## BUILDINGS & HOUSES

**Various typologies, but common need: to get LINKY information into the home**



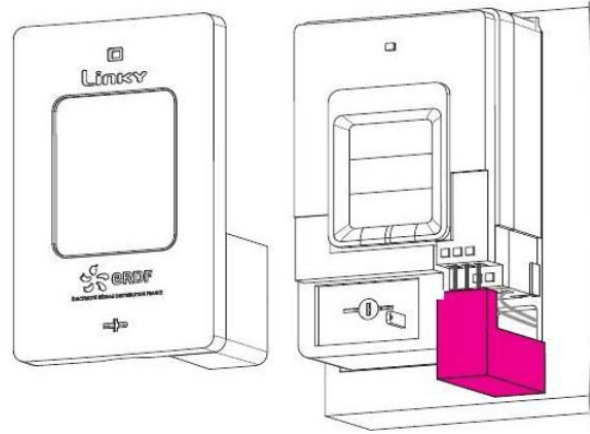
**In 90% of 27 Million existing housing, Linky data are not available for in home equipment**

**50% of installed electrical meters are located in the street.**

# THE RADIO LINKY TRANSMITTER: ERL

ERL = EMETTEUR RADIO LINKY

Standard



Only one slot  
in the meter

- To communicate with **all** Home equipment in 100% of the housing
- To promote innovation and in home equipment market

# STANDARDISED ERL

## Benchmark

- Analysis of available protocols
  - ✓ Wireless Mbus, KNX RF, ZigBee, WiFi, ...
- Analysis of other European initiatives
  - ✓ UK, Germany, Sweden, Italy

## Constraints

- Willingness to define a common solution to create a mass market
- Linky technical restrictions (power limited to 130mW, small size)

# STANDARDISED ERL

## Criteria

### Standards

- Published and including certification program
  - Specification from physical layer up to application layer
- Promoted by multiple manufacturers
  - Upgradability
  - Sustainability
- Open and international
- In line with European standardisation work
  - Compliance to CENELEC TC205 prEN 50491-11  
(SmartMeter to Simple customer external display link)

# STANDARD ERL

## BASED ON OPEN STANDARDS WITH SECURITY



868-870 MHz KNX RF Multi

New datapoints under process at  
KNX Alliance

KNX est une marque déposée de KNX Association, Brussels – utilisé avec l'aimable autorisation



2,4 GHz ZigBee HA 1.2

New cluster under process at ZigBee  
Alliance

ZigBee est une marque déposée de l'Alliance ZigBee, San Ramon – utilisé avec l'aimable autorisation

### Answer to user needs

**Easy to install and secured**

**Usage is independant from technology**

**Compliant to HGI-RD039 on 32/34 requirements**

# EASY TO INSTALL

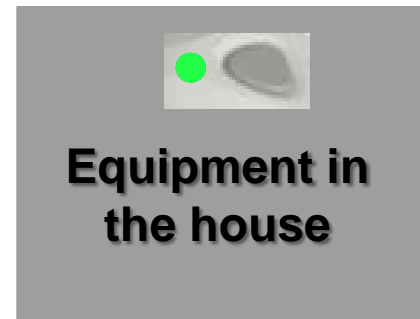
## UNIQUE AND SECURED PROCESS

1 – Press on the remote controller



Start configuration

2 – Press on the in house device



Devices pairing procedure

3 – secured communication



Link done



# SMART ELECTRIC LYON PROJECT

## OVERVIEW

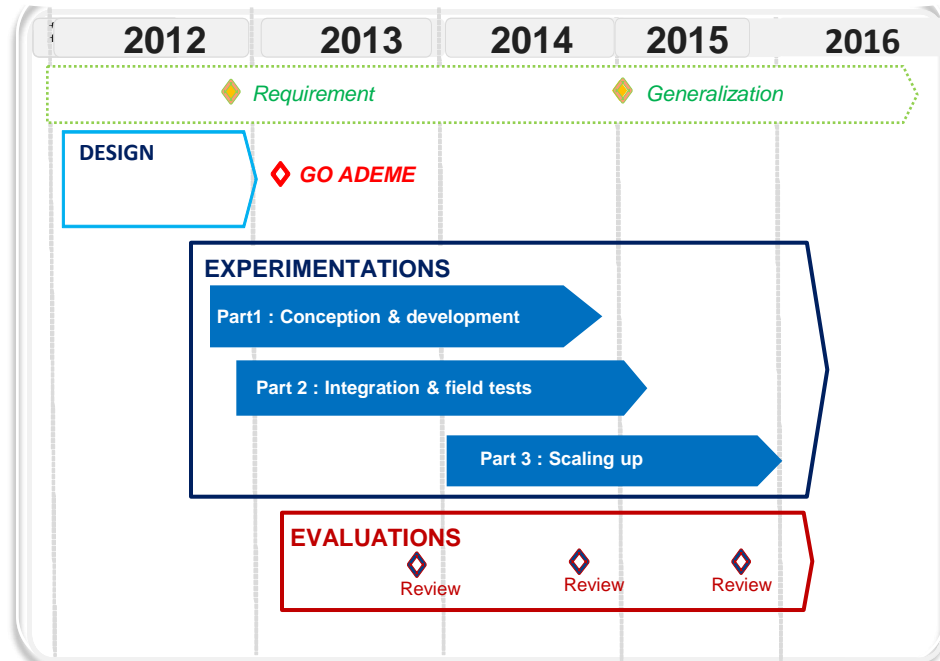


### Stakeholders

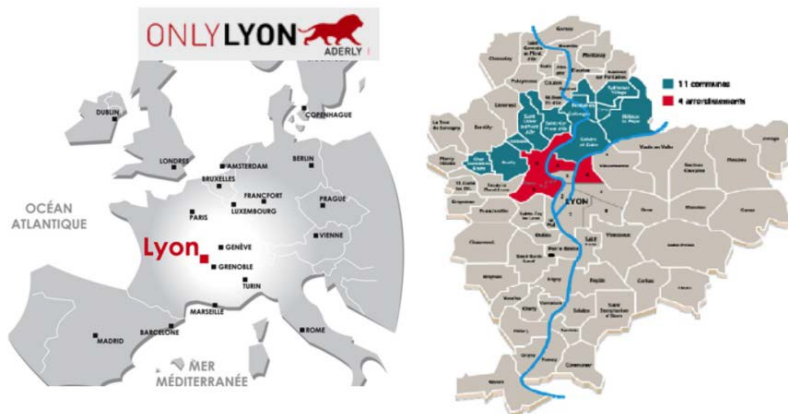


GRANDLYON  
communauté urbaine

### Planning



### Localisation



### Ressources

60 people working full time

Project office in Lyon Part Dieu

A €15 million R&D investment

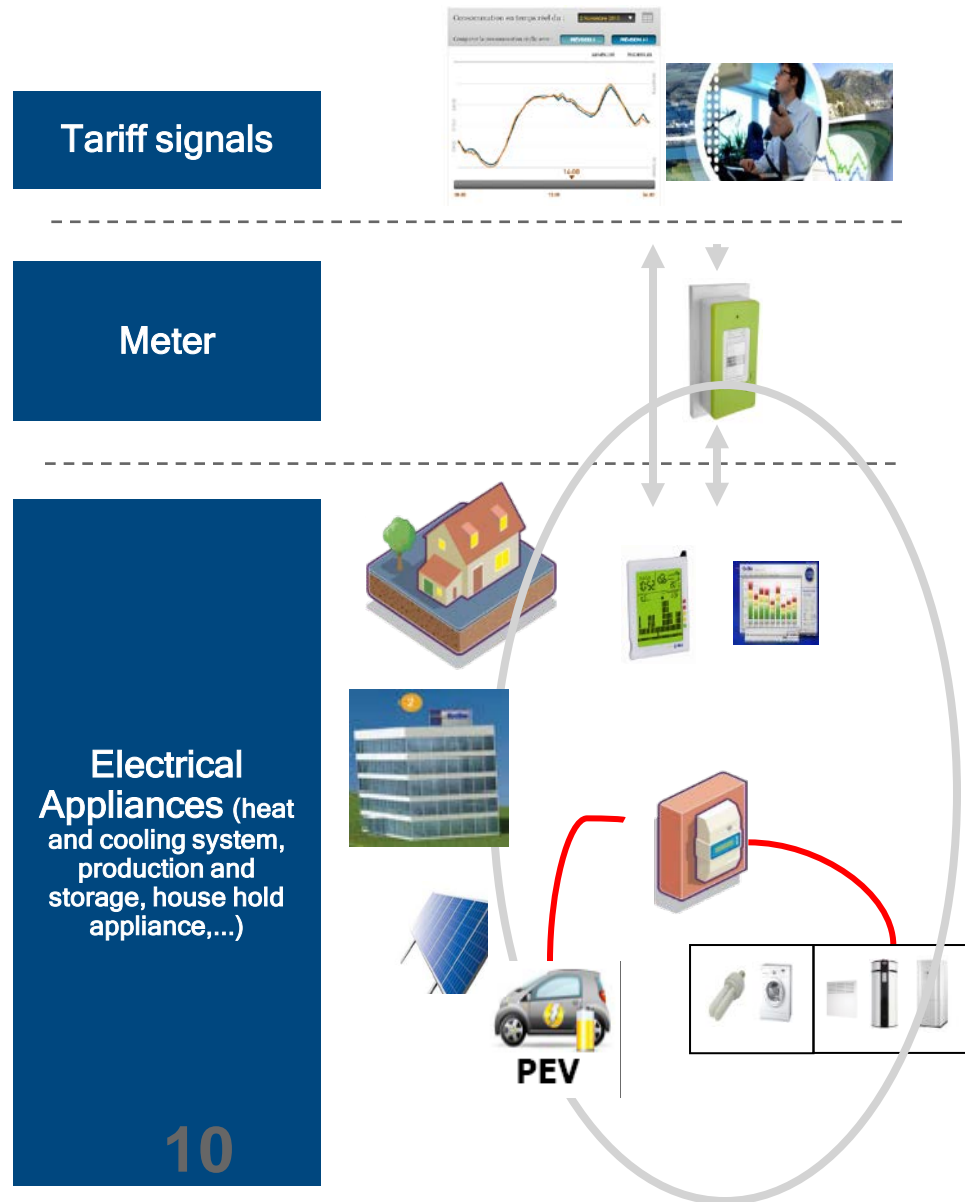
IT Platform to collect data

# SMART ELECTRIC LYON PROJECT

## EXPERIMENTATION TARGETS

Experimentations will mainly target home and service building in which electrical equipment will be installed :

1. Including meter, information device and appliances
2. To test the whole chain :
  - Tariff signals
  - Meter
  - Energy management tool – Smart Home Ecosystems
  - Customer information
3. 2500 installations in 2017



# NEXT STEPS

In house devices interface preliminary specifications are available

<http://www.smart-electric-lyon.fr/projet/lemetteur-radio-linky-erl/>

**T2 2015** : First prototypes for functional testing in Lyon

**T3 2015** : Development kits available

**T4 2015** : ERL available

# THANK YOU

## IGNES members



## Smart Electric Lyon partners



## Governmental clusters

