



Smart Grids challenges and DSOs' responsibilities

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employees
35 711

Turnover
13,3 Mds€

Concession contracts
762

Field interventions
11 millions

1.3 million
km of LV and MV network



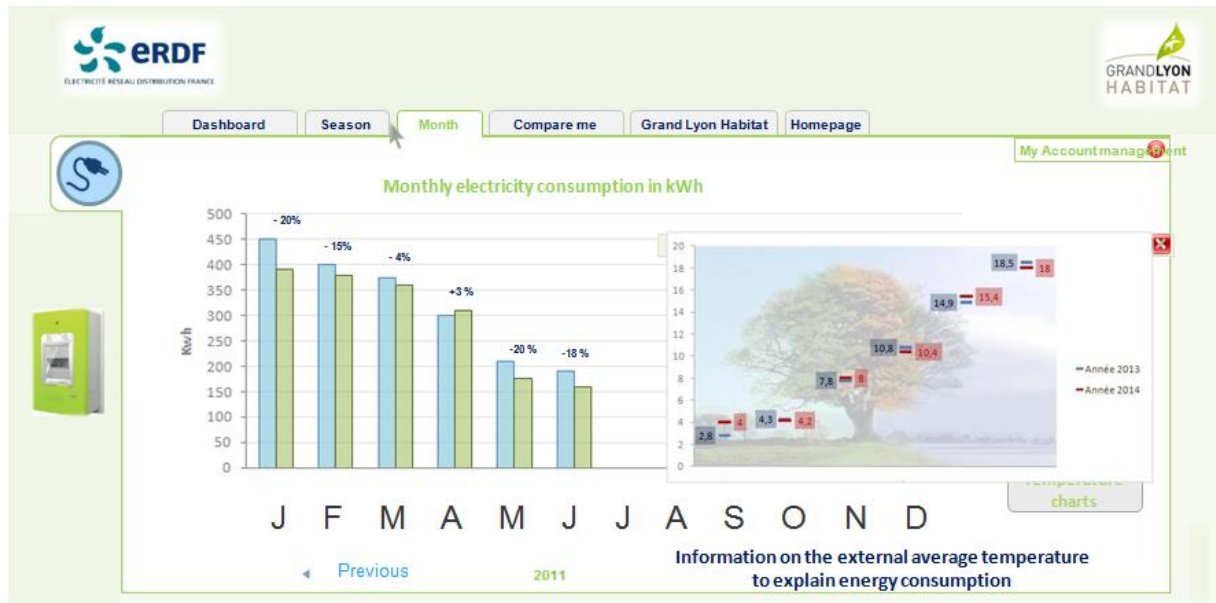
Staff hiring
2145

Outage duration
71 mn

Investment
3 069 M€

1st Challenge : Contribution to energy efficiency improvement

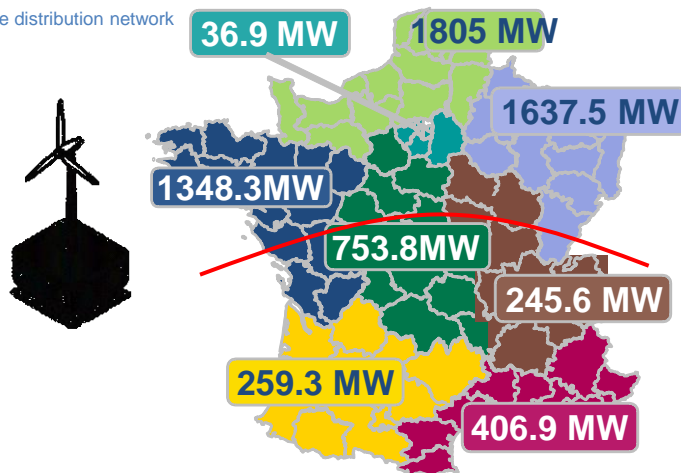
Watt & Moi Customer Web Site



2nd Challenge : Renewable connection and operation

Wind power 08/31/2012

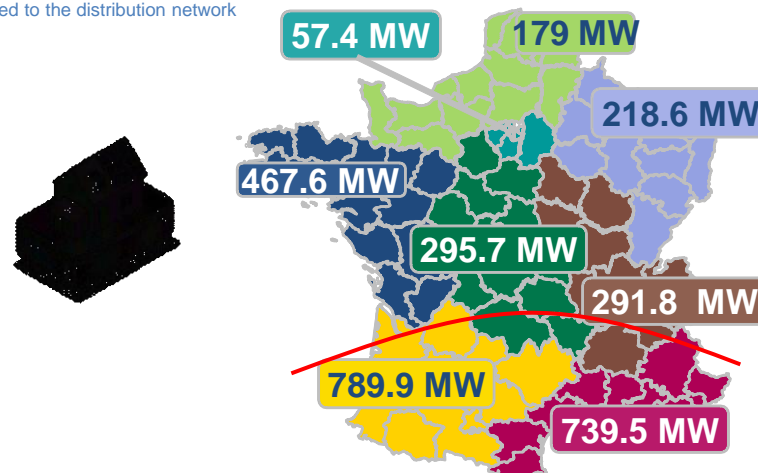
Connected to the distribution network



1 017 installations (august 2012)
6 493 MW

PV 08/31/2012

Connected to the distribution network



252 812 installations (august 2012)
3 039 MW

2020 forecast : 1 million installations

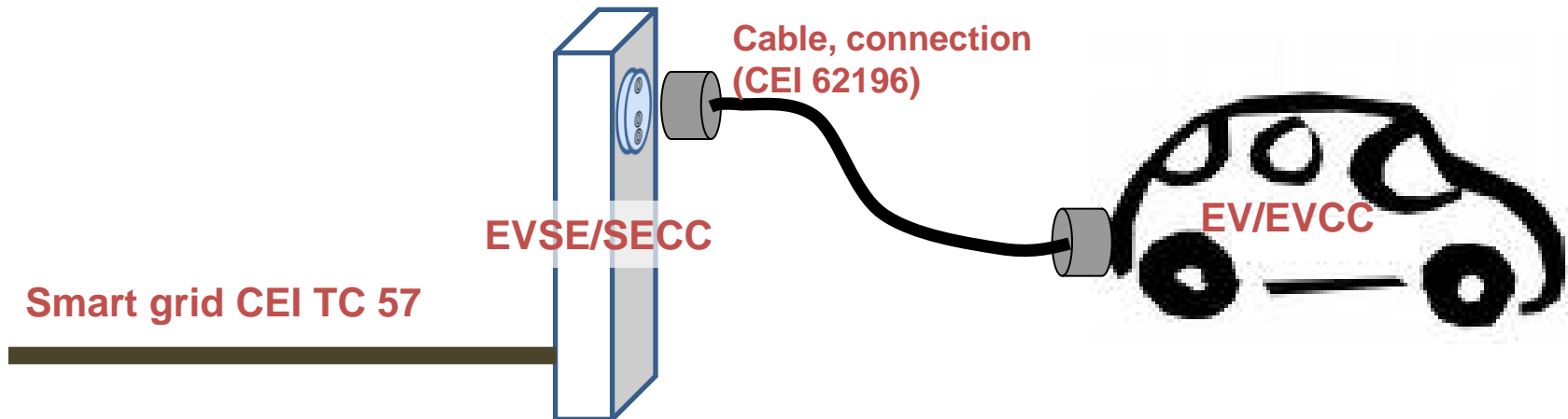
- Wind generation mainly connected to the MV network
- PV generation mainly connected to the LV network

Challenges

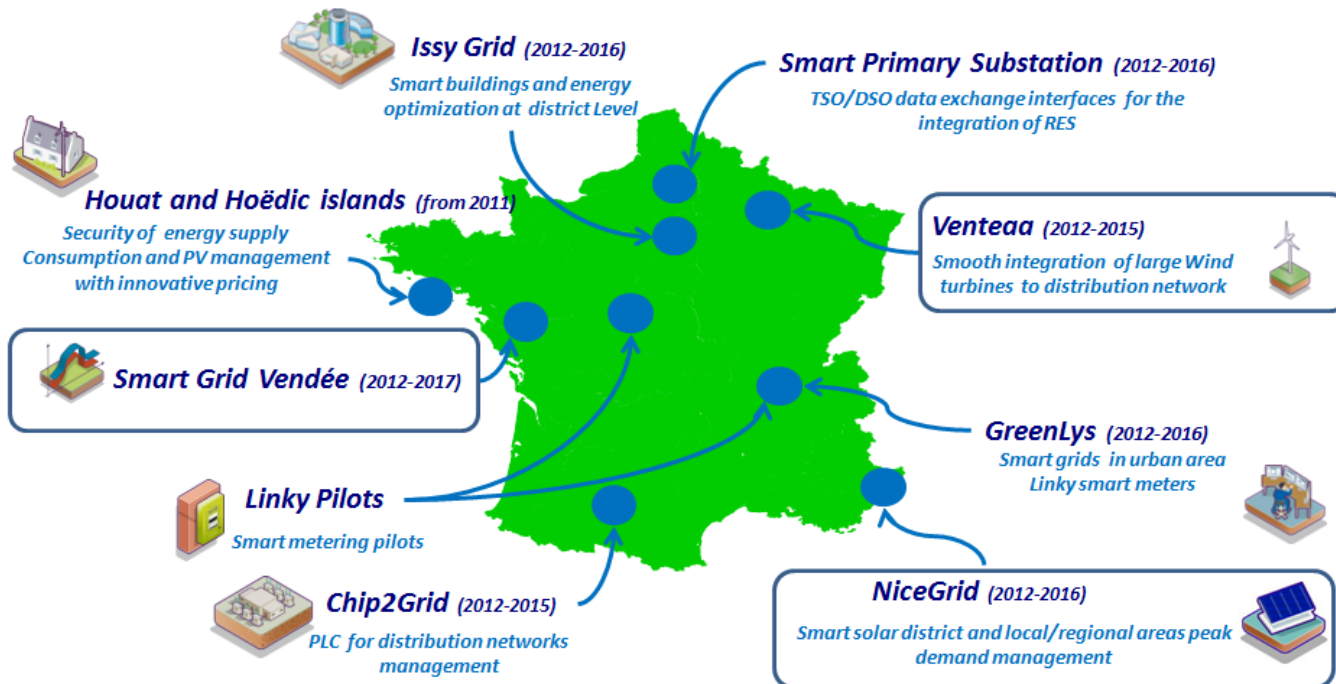
- Difficulty to forecast the generation level
- Management of bidirectional flows

3rd Challenge : New consumption patterns and new uses

- 2030 : [1M; 9M] EV + HRV in France
- 2012 : Demonstrator “Infinidrive” = management of a fleet of 18.000 vehicles
- European interoperability



1st Change : Extensive use of Smart-Grid technologies



Over 100 partners
industrials, SMEs, start-ups,
Universities, laboratories

Watt
& moi

Customer commitment
with Linky

G3-PLC
Alliance

International Alliance
promoting G3 PLC

Grenoble
FONDATION INP

1st Smart Grid
Academic chair
In France

GRID4EU
INNOVATION FOR ENERGY NETWORKS



ERDF
ÉLECTRICITÉ RÉSEAU DISTRIBUTION FRANCE

IBERDROLA

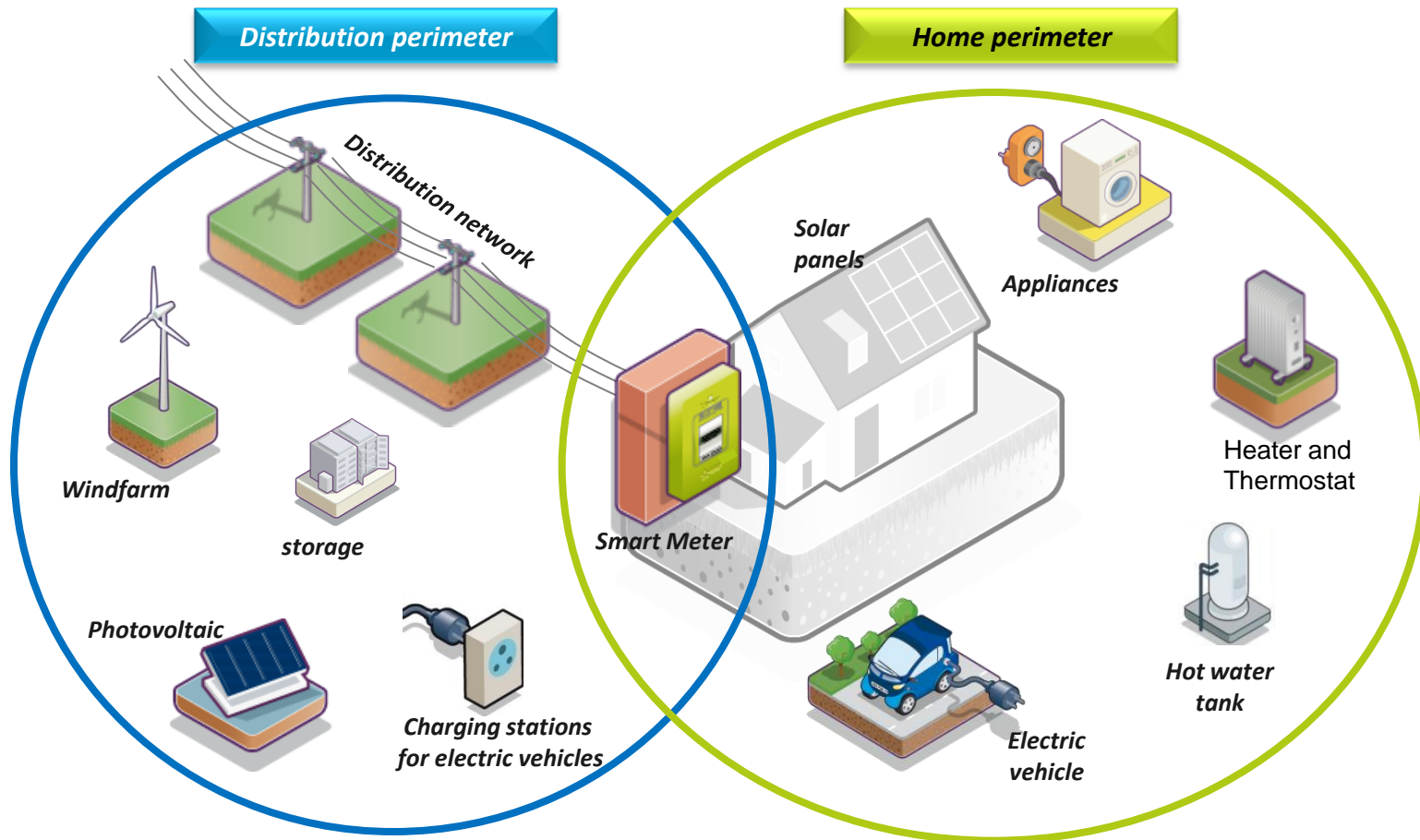
CEZ GROUP

RWE

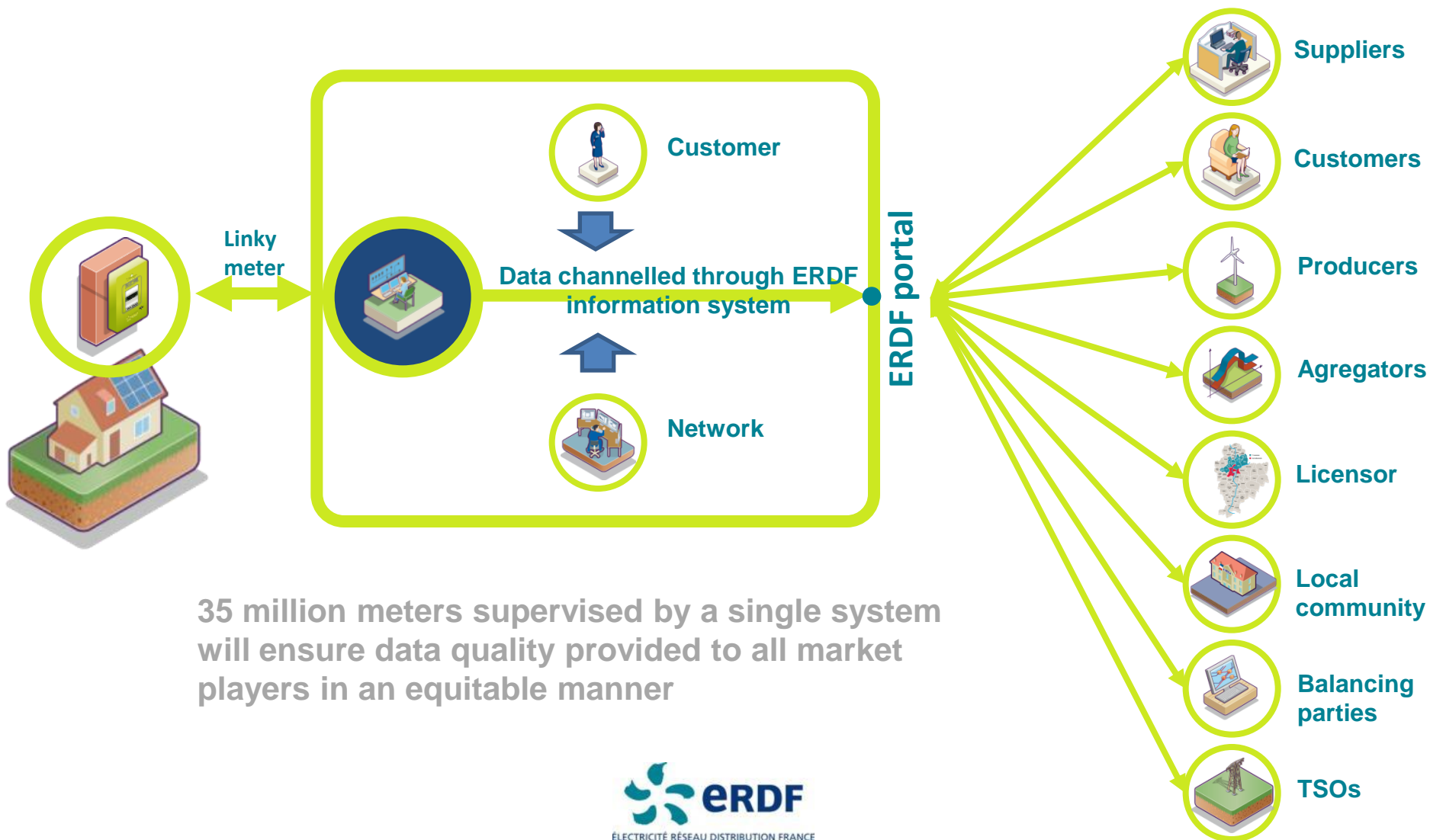
Enel
L'ENERGIA CHE TI ASCOLTA.

VATTENFALL

2nd Change : Organize intersection of Home and Distribution spheres



3rd Change : Enable market innovation



Conclusion : DSOs' new responsibilities

- Active local system manager
- Energy data manager

