

26th World Gas Conference

1 – 5 June 2015, Paris, France



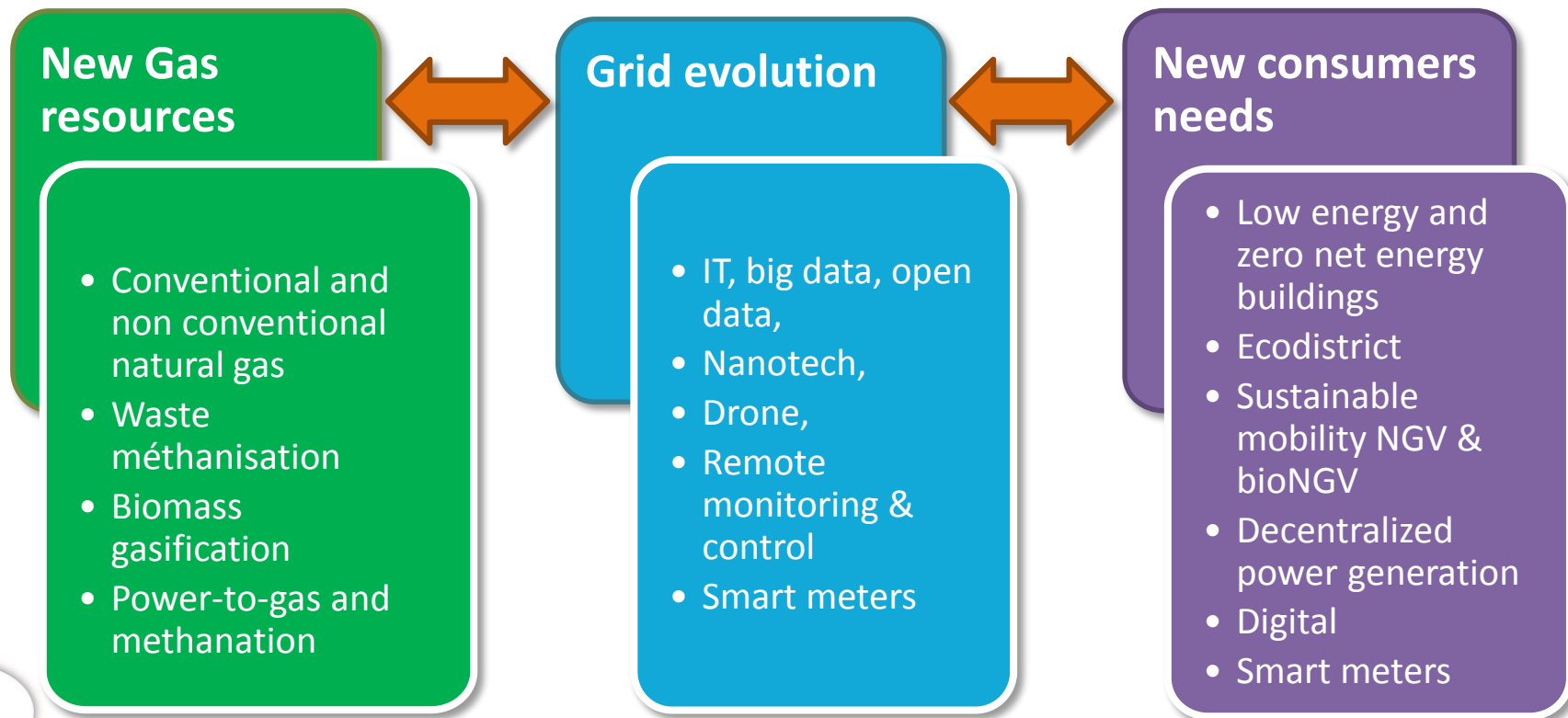
Smart Gas Grid

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GrDF



Energy transition: new gases, uses and ways to operate the grid



GrDF Challenges

Industrial safety

Essential to interpret the signalling and prevent the excessive pressure incidents

Customer satisfaction

To prevent a gas supply interruption

Plans for the future

Maximize the green gas injection on the network

A quick safety implementation of the network in distant zone



Remote monitoring and control

The strategic pressure reduction stations (PRS) remote monitoring
The biomethane injection stations remote monitoring and control
Cathodic protection system remote monitoring



R&D Project Gontrand

A demonstrator elaboration : 'Cockpit of Network monitoring'



A dynamic network remote monitoring in real time

Feedback of several ground sensors in real time on the network (pressure, flow, temperature ...)
A remote and safe operation of work
A decision-making tool and a dynamic simulation of the network

Roadmap TEX

From 2015

Scada commissioning

From 2016 to 2020

**Equipment roll-out for selected pressure
reduction stations**

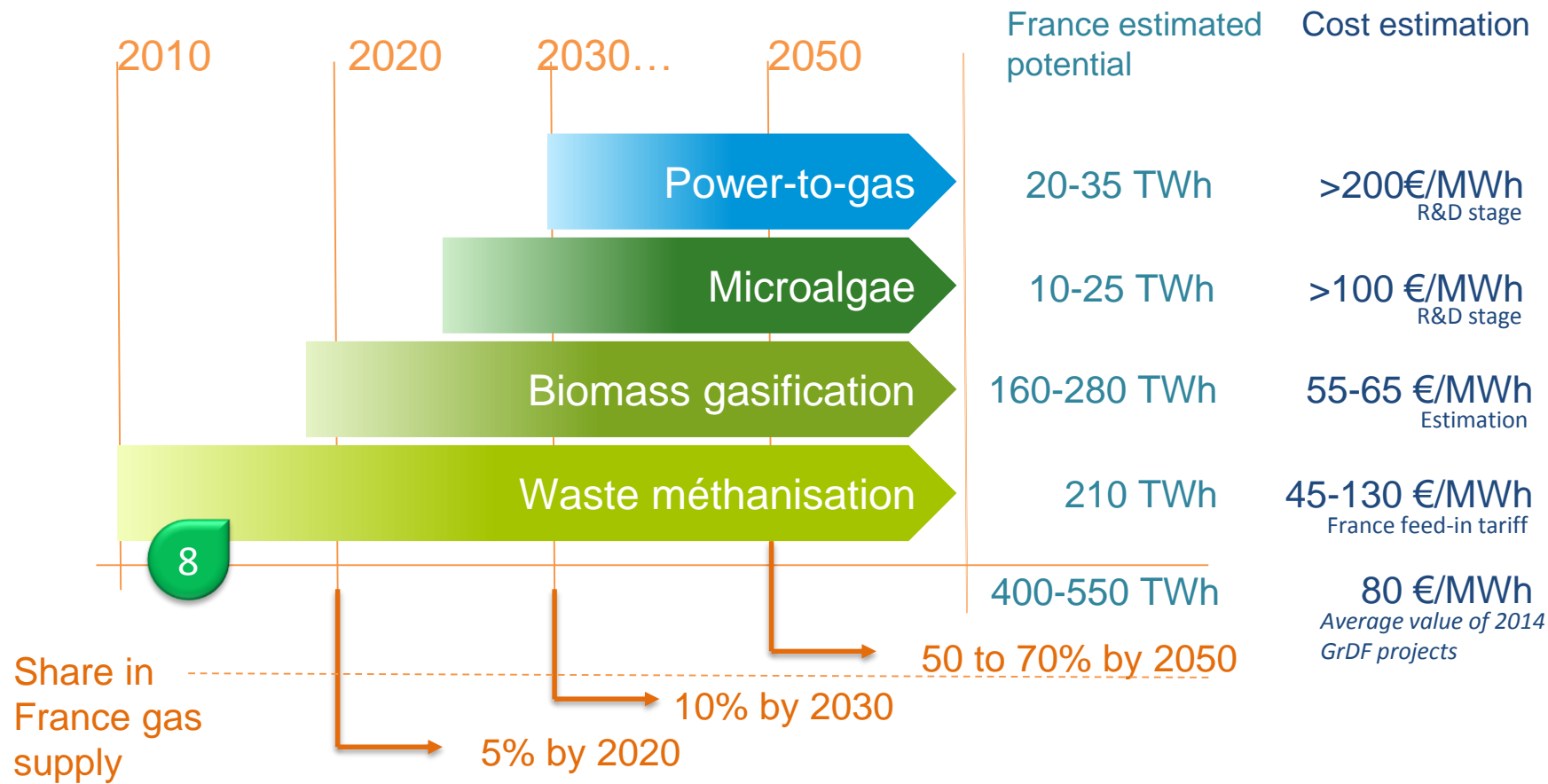
From 2017

Injection Biomethane remote monitoring

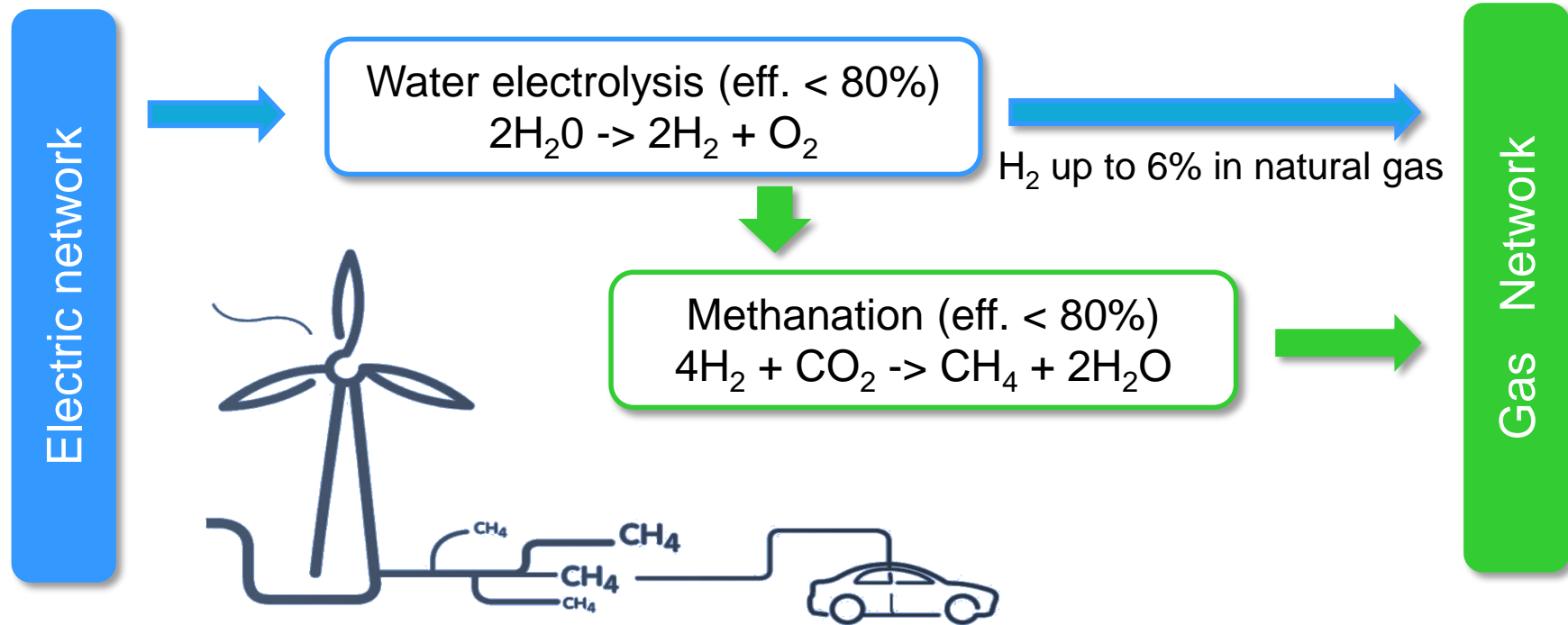
From 2017

GONTRAND Demonstrator

The GrDF green gas roadmap



Focus on Power-to-Gas – 25 TWh production est. in 2050



New and efficient gas solutions are available now



Ecogenerator

Higher efficiency
cogeneration H&P
closer to the need



Absorption Gas Heat Pump

A 170% efficiency
through recovery of
renewable energy



Hybrid boiler

Condensing gas boiler
with electric heat
pump



GNV

an ecologic solution
in addition to
economic benefits



GAZPAR : € 1bn, 11M customers project starting in 2015

3 major goals

1 Improve
invoicing
quality and
customer
satisfaction



Invoicing based on
real consumption data

2 Develop
energy
efficiency



More frequent
consumption data

3 Optimise
distribution
network



**Modernisation and
performance** of gas
distribution network

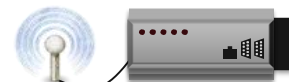
A simple, robust & reliable solution



Gas Meter +
radio module



Fixed radio
Network



Data
Concentrator

Operator

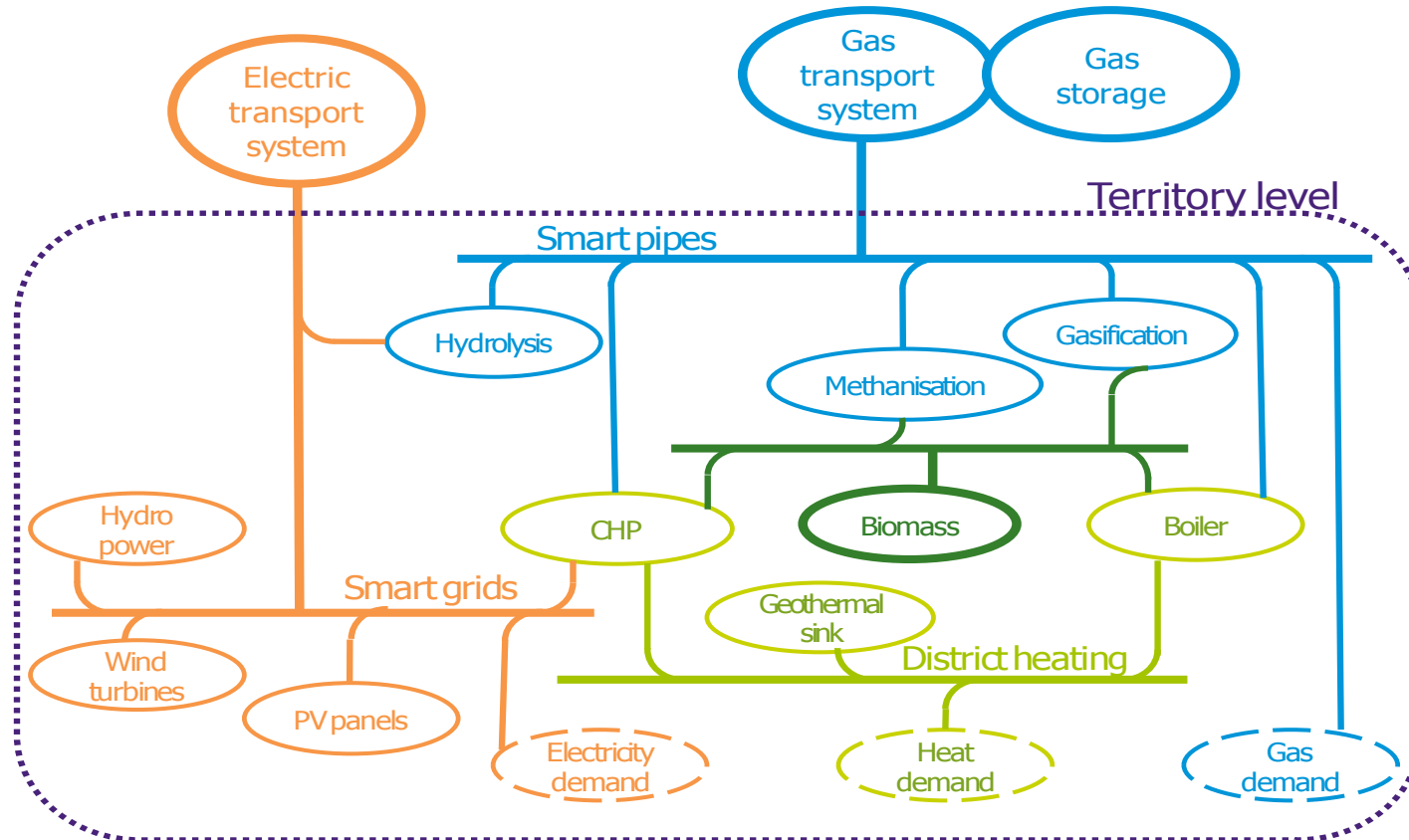


GPRS network



National data
collection and
management system

The smart gas grid part of a wider smart networks project



Gas distribution : an history of transitions

