

IEEE SmartGridComm 2017 Panel

HOW WILL ELECTRO-MOBILITY IMPACT THE POWER GRID?



Chair: Chris Develder
(Ghent University – imec, Belgium)

SMART GRIDS

Fault detection? Restoration?
Data processing?
Privacy, security?
Pricing schemes?

New services & business models

Distributed generation (large scale)
Green energy sources (fluctuating)

ICT infrastructure

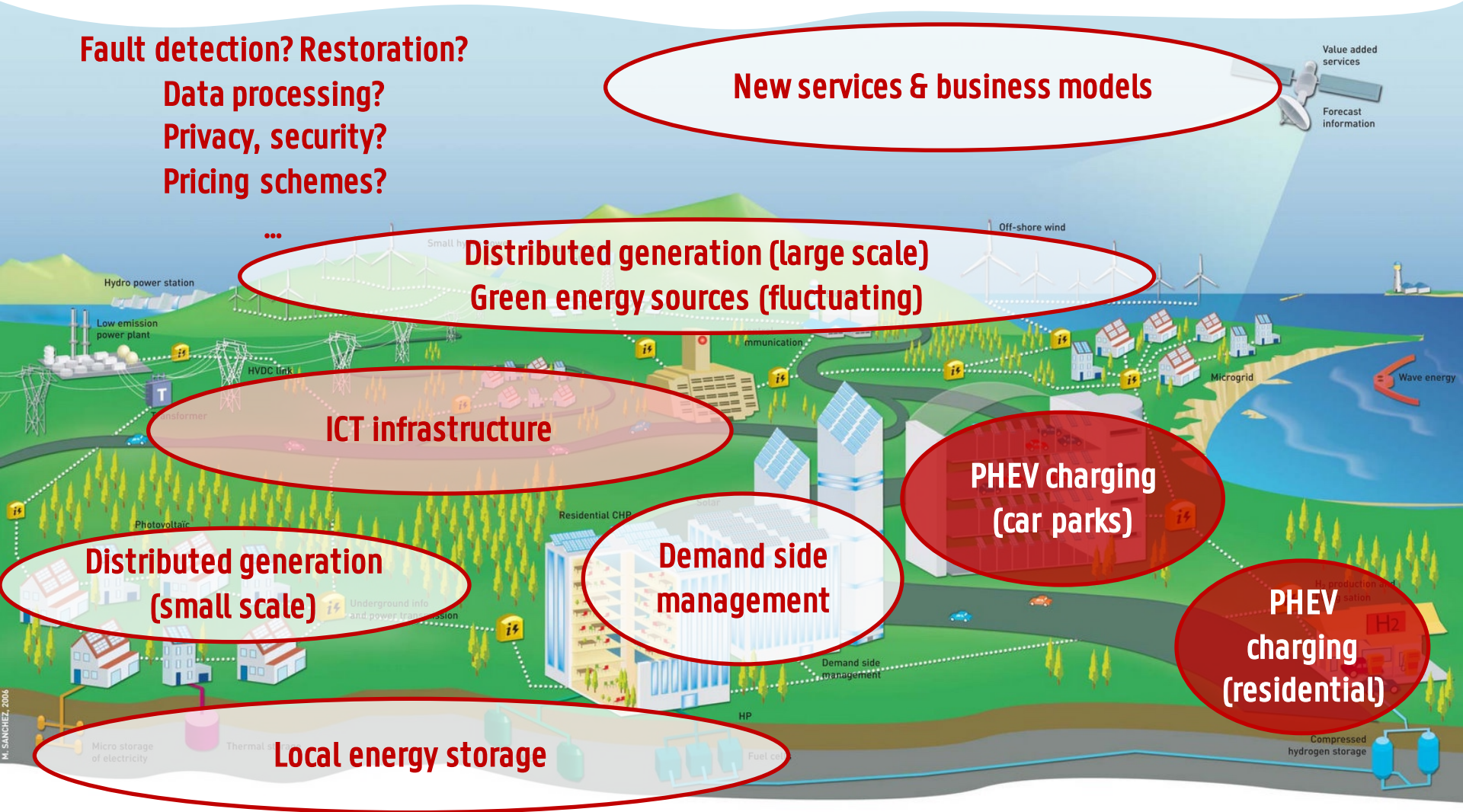
Distributed generation
(small scale)

Demand side
management

PHEV charging
(car parks)

PHEV
charging
(residential)

Local energy storage



QUESTIONS

- Impact on the power grid?
- Need for flexibility & EV charging coordination?
- Vehicle to grid?
- Practical impediments?
- What are the ICT challenges?
- Market models?
- Environmental benefits?
- ...



The image shows a screenshot of a Reuters news article. At the top left is the Reuters logo. To its right is a small thumbnail image of the Eiffel Tower and the text 'Paris plans to banish all but electric cars by 2030'. Below this is the article's category '#ENVIRONMENT' and the date 'OCTOBER 12, 2017 / 9:26 AM / 11 DAYS AGO'. The main headline is 'Paris plans to banish all but electric cars by 2030'. Below the headline is the author's name 'Brian Love', a '3 MIN READ' indicator, and social media sharing icons for Twitter and Facebook. The article text reads: 'PARIS (Reuters) - Paris authorities plan to banish all petrol- and diesel-fueled cars from the world's most visited city by 2030, Paris City Hall said on Thursday.' Below the text is a large photograph of the Paris skyline, featuring the Eiffel Tower prominently in the center.

PANELISTS



Marc Petit

CentraleSupélec, France

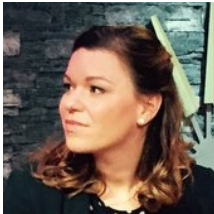
on EV charging needs as seen from a **power grid** perspective



Christian Rehtanz

TU Dortmund, Germany

on how **ICT** is the key for new business models



Annelies Delnooz

Vito, Belgium

on the need & availability of EV **flexibility**



Massimo Ceralao

University of Pisa, Italy

commenting on full **life-cycle assessment**, and well-to-wheels



Flavio Gromann

TU Berlin, Germany

on a **project implementation** of an EV fleet charging coordinator