



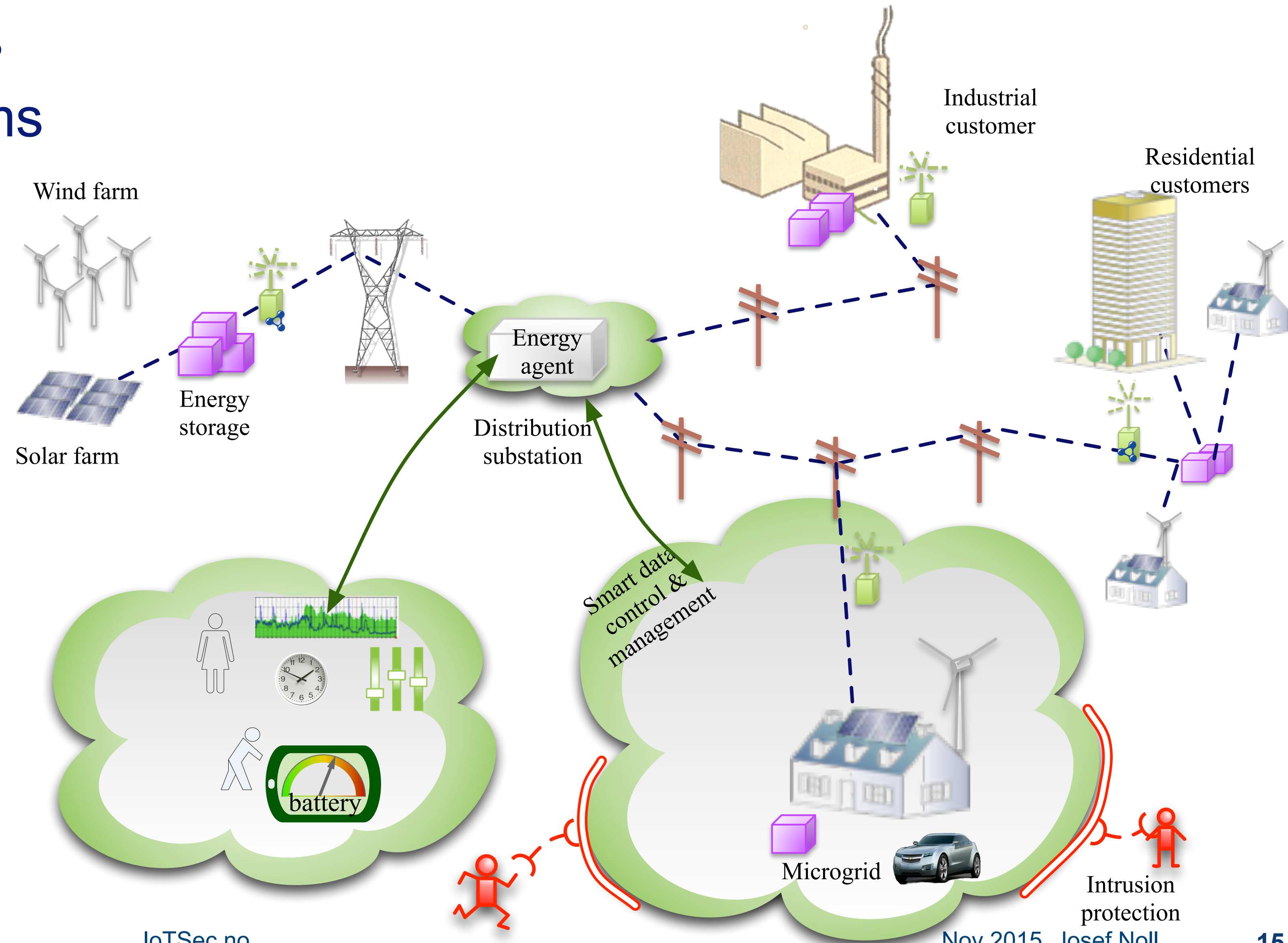
Evolution to future Smart Grid Infrastructures

Josef Noll

Future Smart Grid

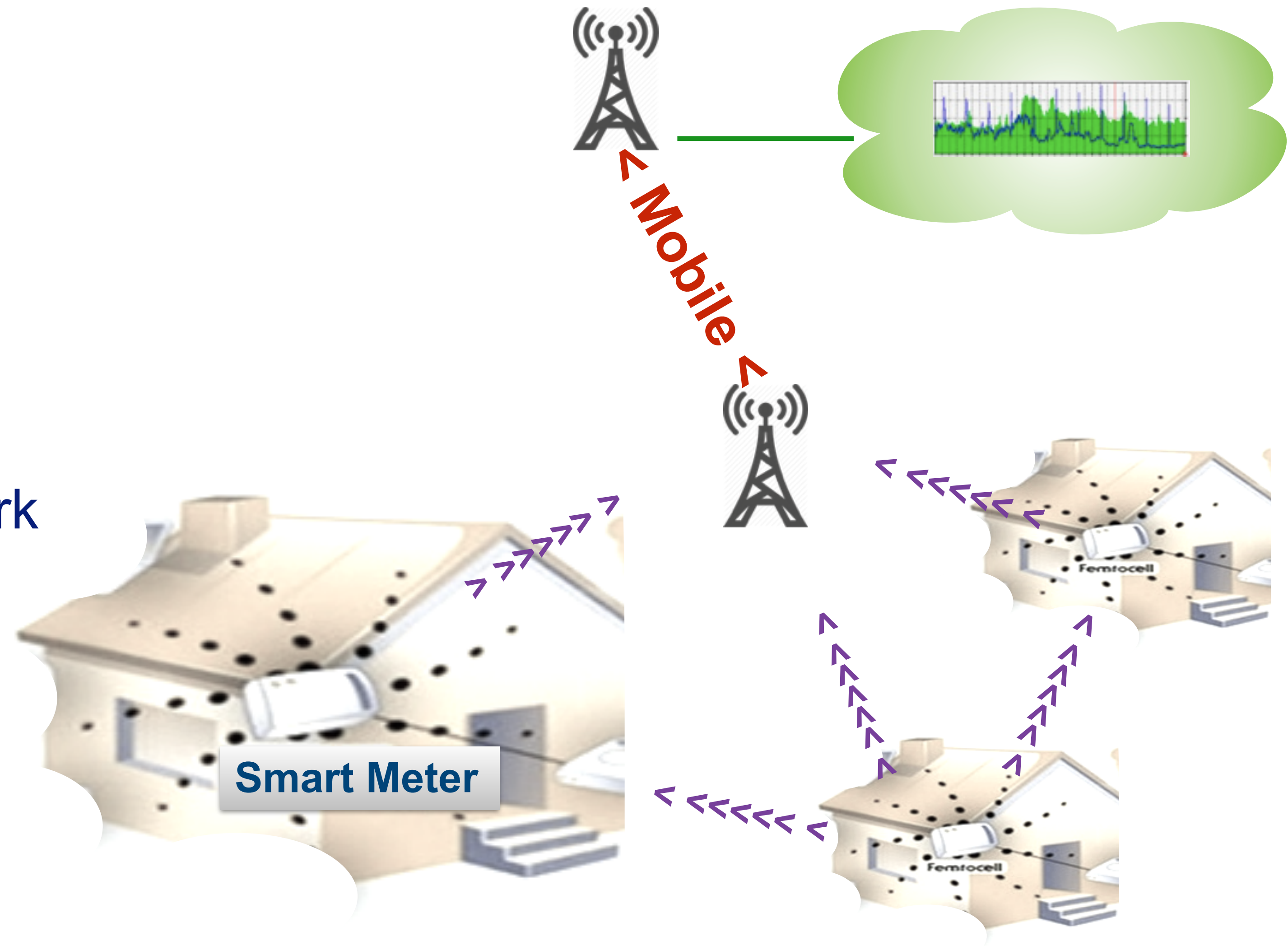


- Smart grid with prosumers
- various control mechanisms
- attack scenarios
- dynamic service level agreements



Current Infrastructure

- Smart Meter (customer home)
 - ➔ connected via mesh or directly
 - ➔ proprietary solution (800 MHz band)
- Collector
 - ➔ collects measures
 - ➔ communicates via mobile network
- Mobile Network
 - ➔ as a transmission network
- Cloud (Provider)
 - ➔ entry point for remote access
 - ➔ Application platform



[source: seminaronly.com]

Upcoming Infrastructure

- Smart Meter
 - ➔ read and control
 - ➔ logic?
- Smart Home
 - ➔ intelligent devices
 - ➔ on-demand regulation
- Challenges
 - ➔ Logic: Centralised $\longleftrightarrow$ Fog
 - ➔ Smart Meter: Information $\longleftrightarrow$ Control
 - ➔ Smart Grid Information $\longleftrightarrow$ Internet Info



[source: seminaronly.com]