



# Smart Energy Usage Area

---

[wouter.haerick@intec.ugent.be](mailto:wouter.haerick@intec.ugent.be)

[piet.demeester@intec.ugent.be](mailto:piet.demeester@intec.ugent.be)

[www.ibcn.intec.ugent.be](http://www.ibcn.intec.ugent.be)

INTEC Broadband Communication Networks (IBCN)

Department of Information Technology (INTEC)

Ghent University - IBBT

# Usage Areas for Smart Energy - Overview

## INPUT ON USAGE AREAS

from close collaboration with industry

**Energy Mgmt Services**  
FERRANTI

**ICT Solution providers**  
ALCATEL-LUCENT,  
SONY

**Telco providers**  
BELGACOM/TE  
LENET

**Local Energy Mgmt**  
FIFTHPLAY

**Electrical Vehicle**  
INTERPARKING,  
ATHLON, RESTORE

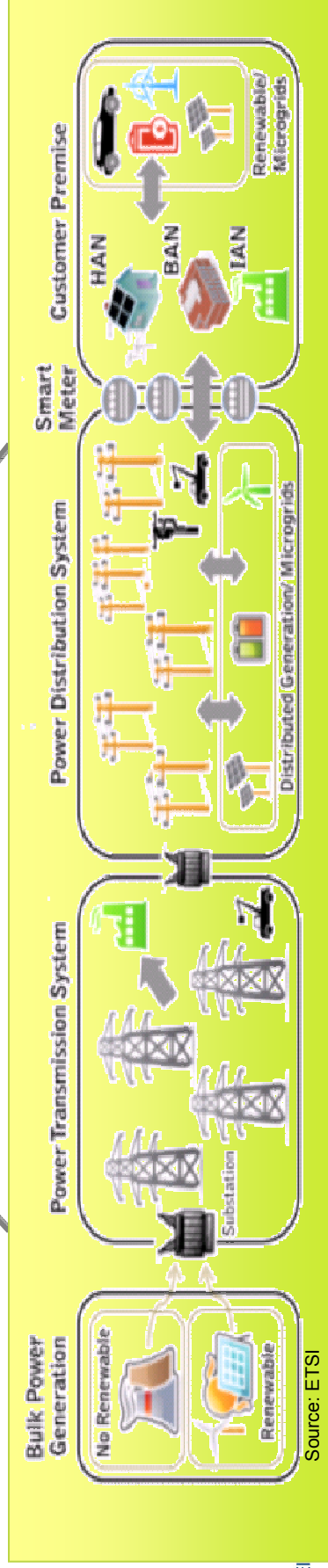
**Energy Suppliers**  
(SPE / LUMINUS)

**DNOs**  
Eandis , Infrac

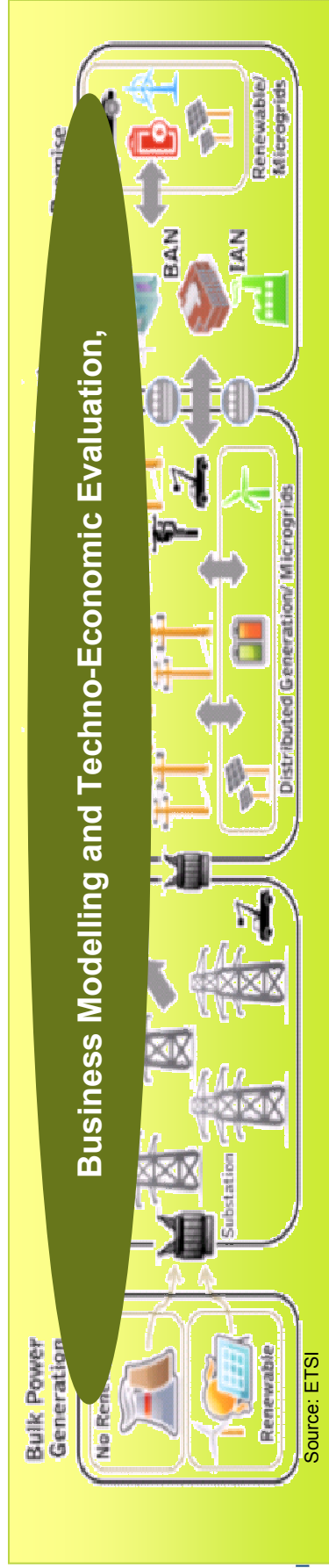
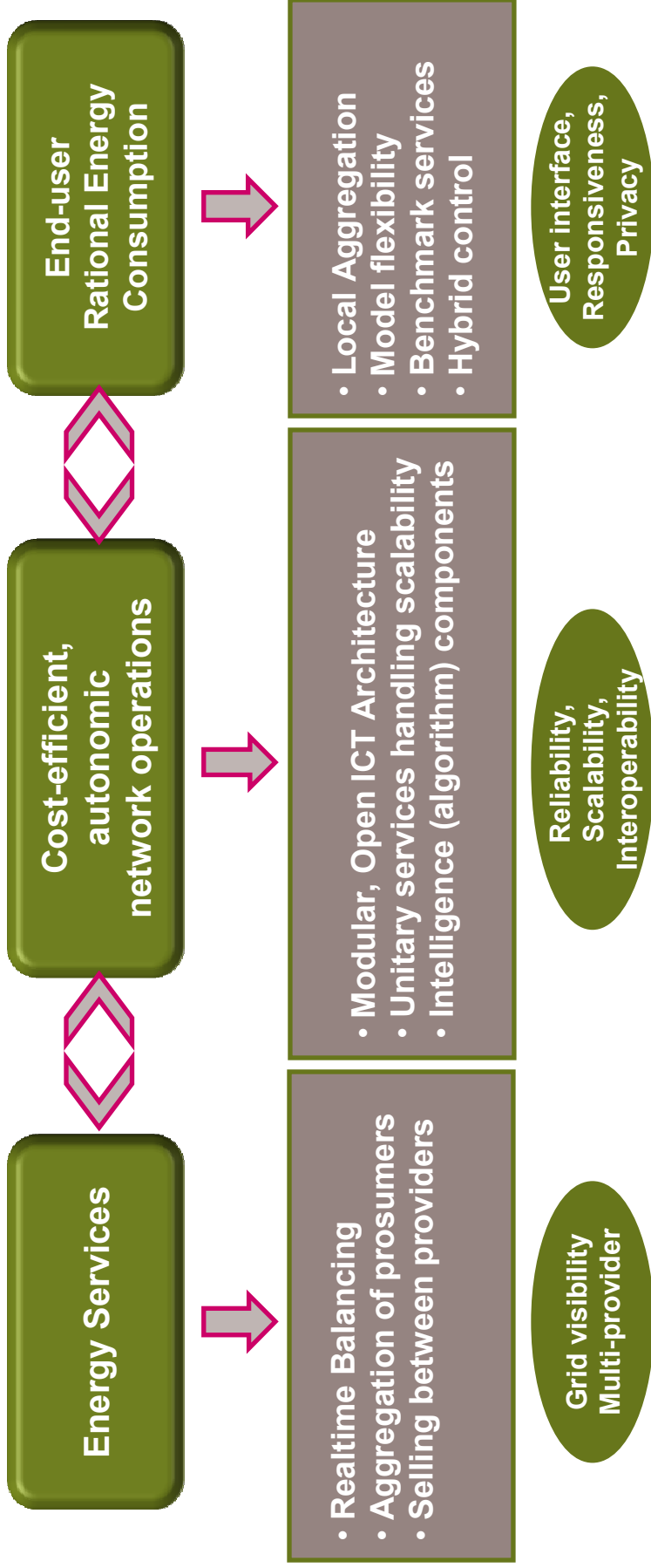
**(Low) Power Electronics**  
XEMEX, NIKO

IBBT is involved in +15 European projects (Siemens, ...)  
Smart grid projects: LINEAR, SmartE, GreenStar, SPARC

PHEV



# Usage Areas for Smart Energy - Challenges



# Usage Areas for Smart Energy – Future Internet

The Future Internet Architecture should enable:

- **multiple** energy providers, energy brokers and energy service providers involved in a **single building**
- offering and selling of **low-carbon energy** (distributed renewable energy) on a **large scale**
- minimized outages/optimized **reliability** (cfr unbalanced renewable energy and peaky demand (vehicles))

