



CENTRAL SMART METERING LTD.

# SMART Devices in Utilities

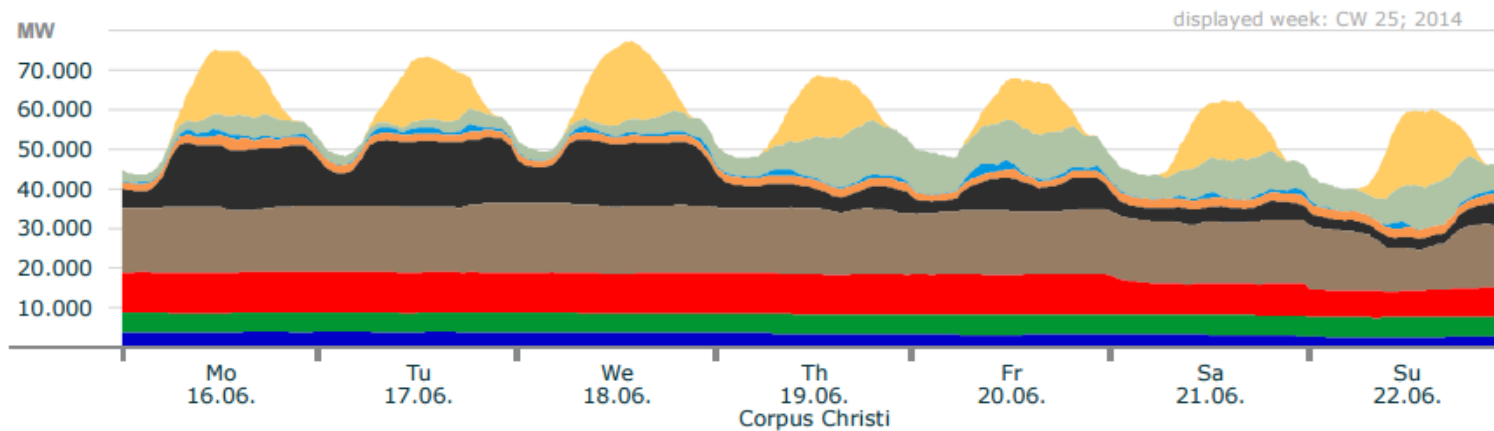
Béla Bakos

*Innovation advisor*

*bela.bakos@komzrt.hu*

# Electricity Production in Germany: Calendar Week 25

## Actual production

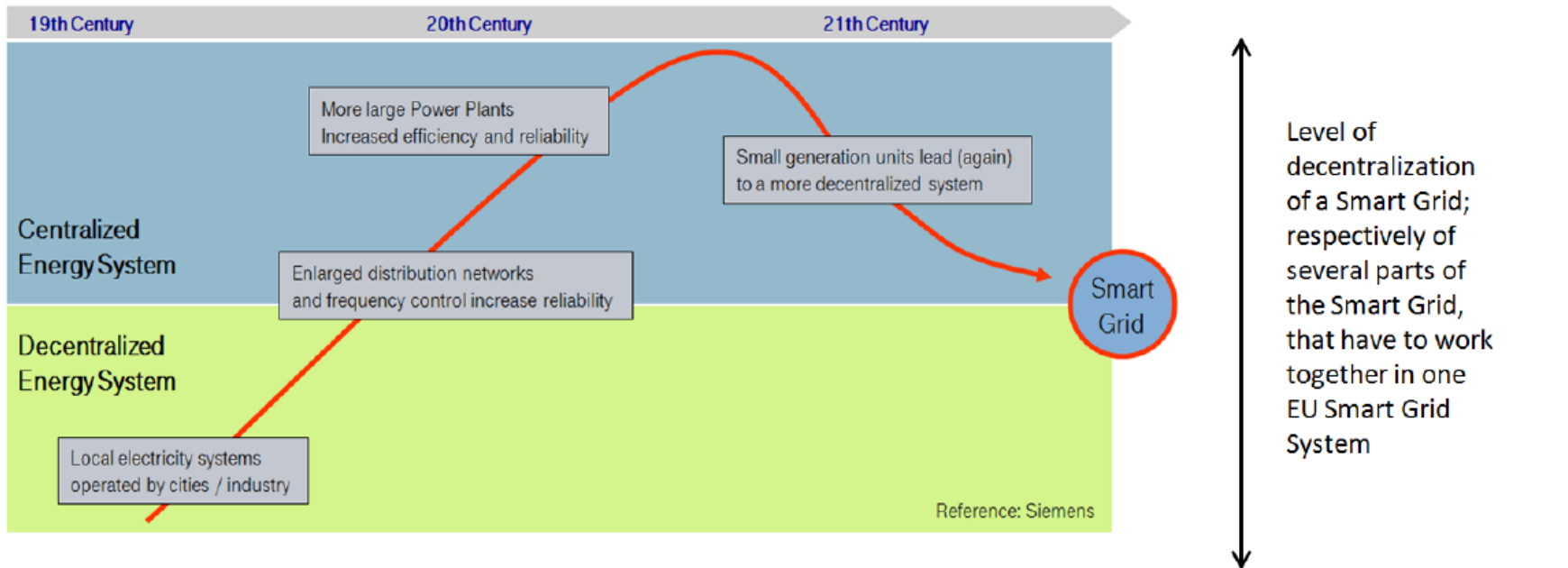


Legend: Hydro Biomass Uranium Brown Coal Hard Coal Gas Pumped Storage Wind Solar

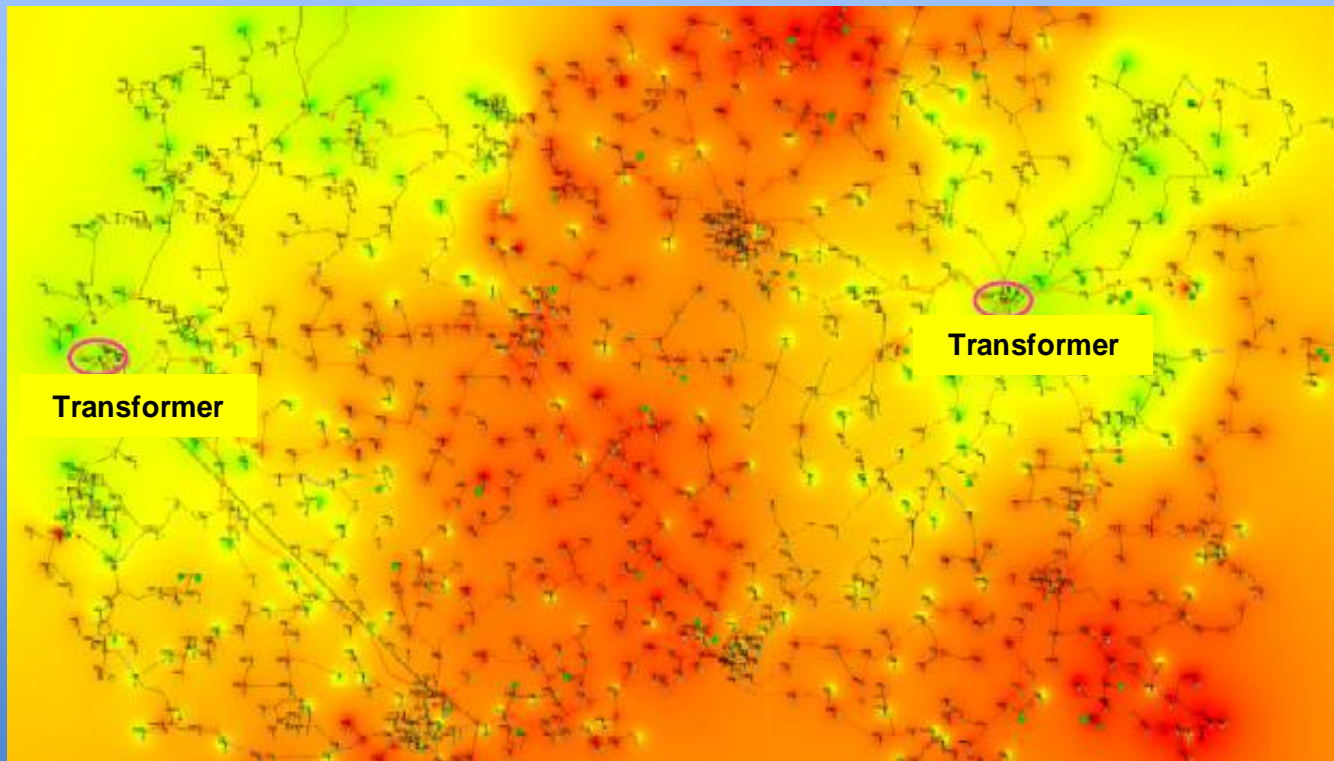
	Hyd	Bio	Uran	BC	HC	Gas	PSt	Wind	Solar
min. power (GW)	2.47		6.55	10.26	2.43	1.56	0	0.7	0
max. power (GW)	3.93		10.21	17.5	16.63	2.97	2.92	13.68	20.0
weekly energy (TWh)	0.56	0.83	1.59	2.7	1.44	0.35	0.11	1.01	1.06

Graph: Bruno Burger, Fraunhofer ISE; Data: EEX Transparency Platform

# ENERGY NETWORKS DEVELOPMENT



# NEW DISTRIBUTION PROBLEMS



Local congestions to be solved locally

# **DISTRIBUTION NETWORKS TODAY**

**Numerous and very heterogeneous (from rural aerial to city cable network)**

**Do not provide for real time electricity prices or network operations**

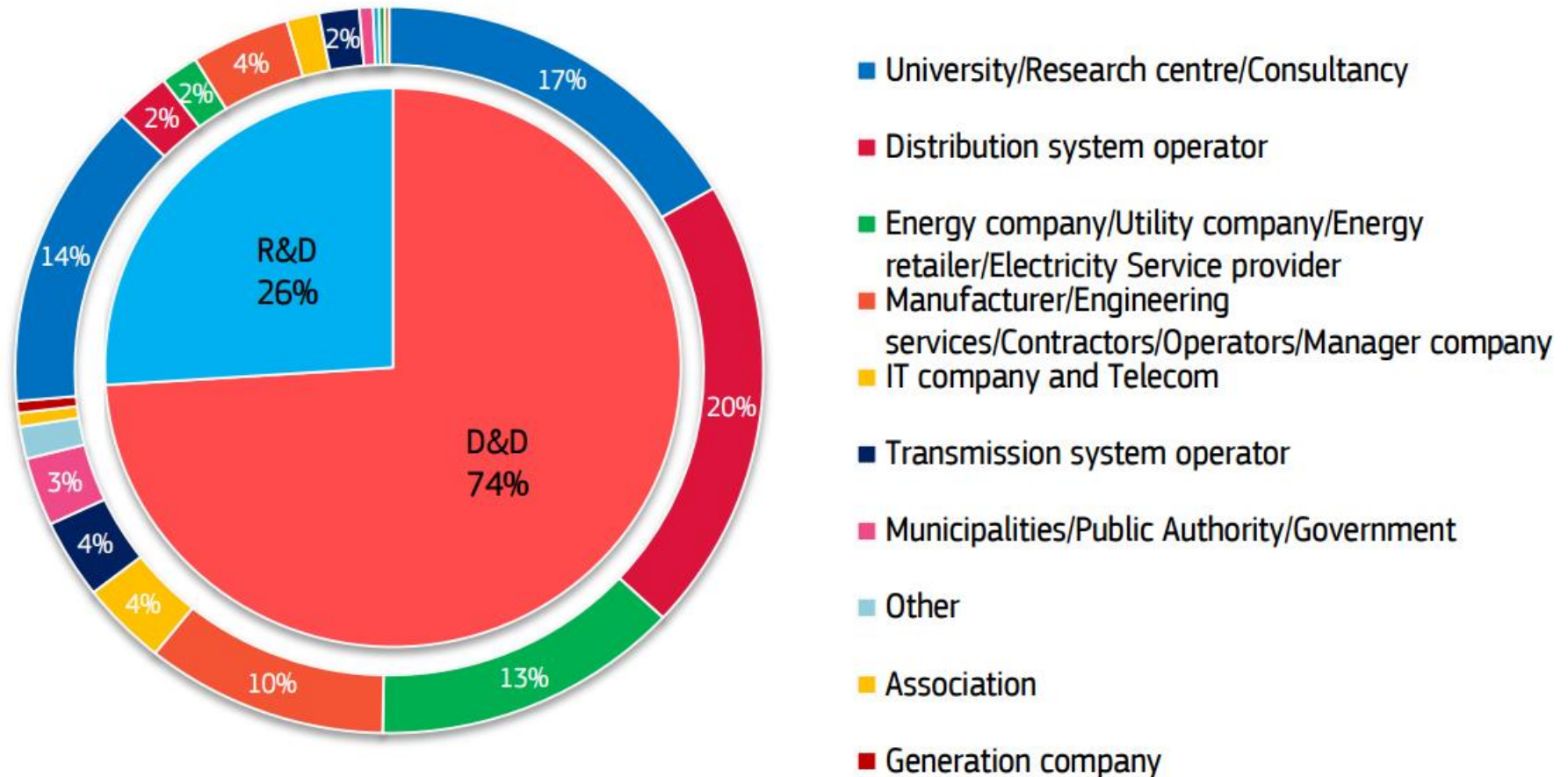
**Apply connect-and-forget approaches for generation and demand**

**Built for peak demand**

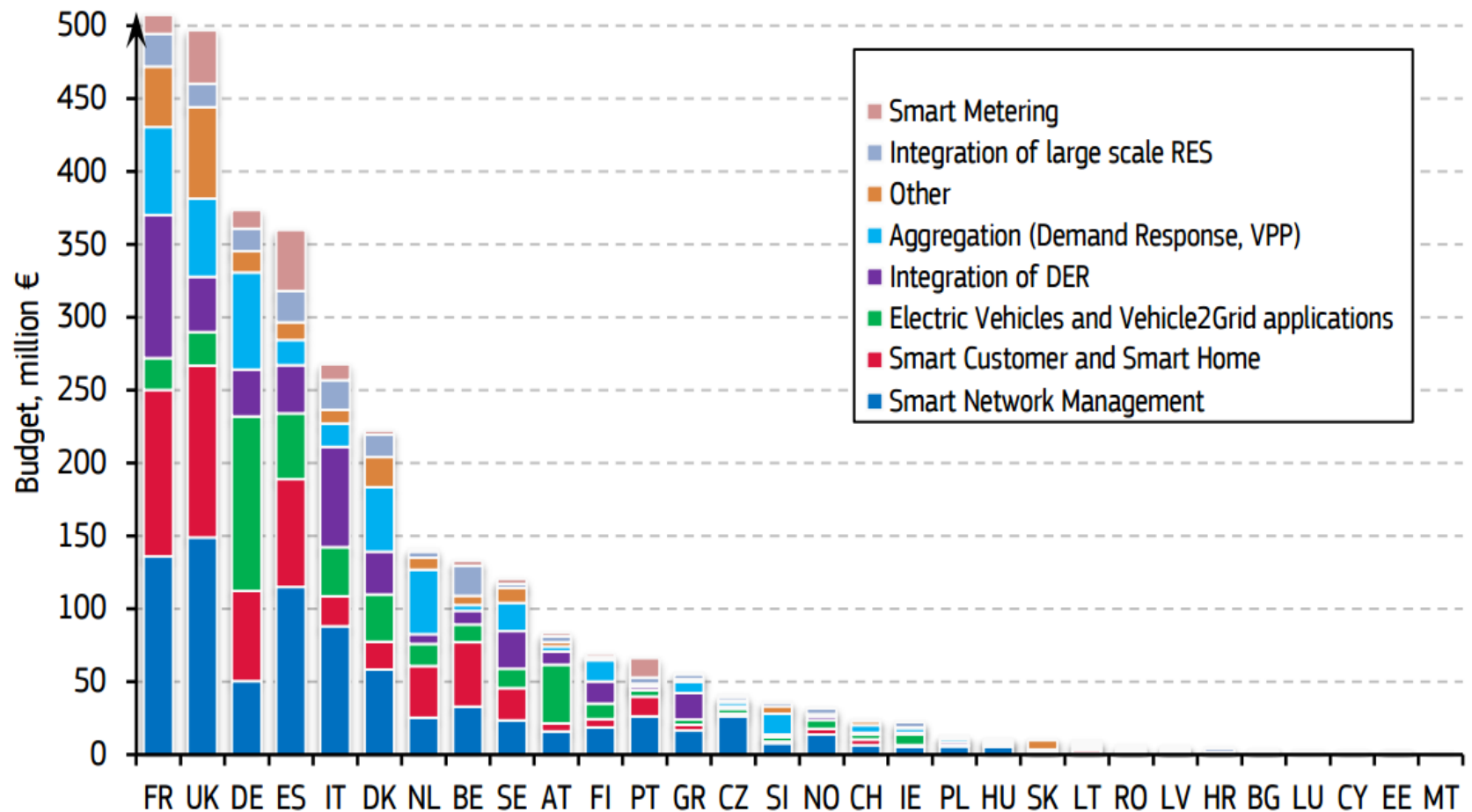
**Treated as passive load centers from the transmission perspective**

**Turning into generation centers with decarbonisation, renewable**

# EUROPEAN SMART GRID PROJECTS WHO IS DOING?

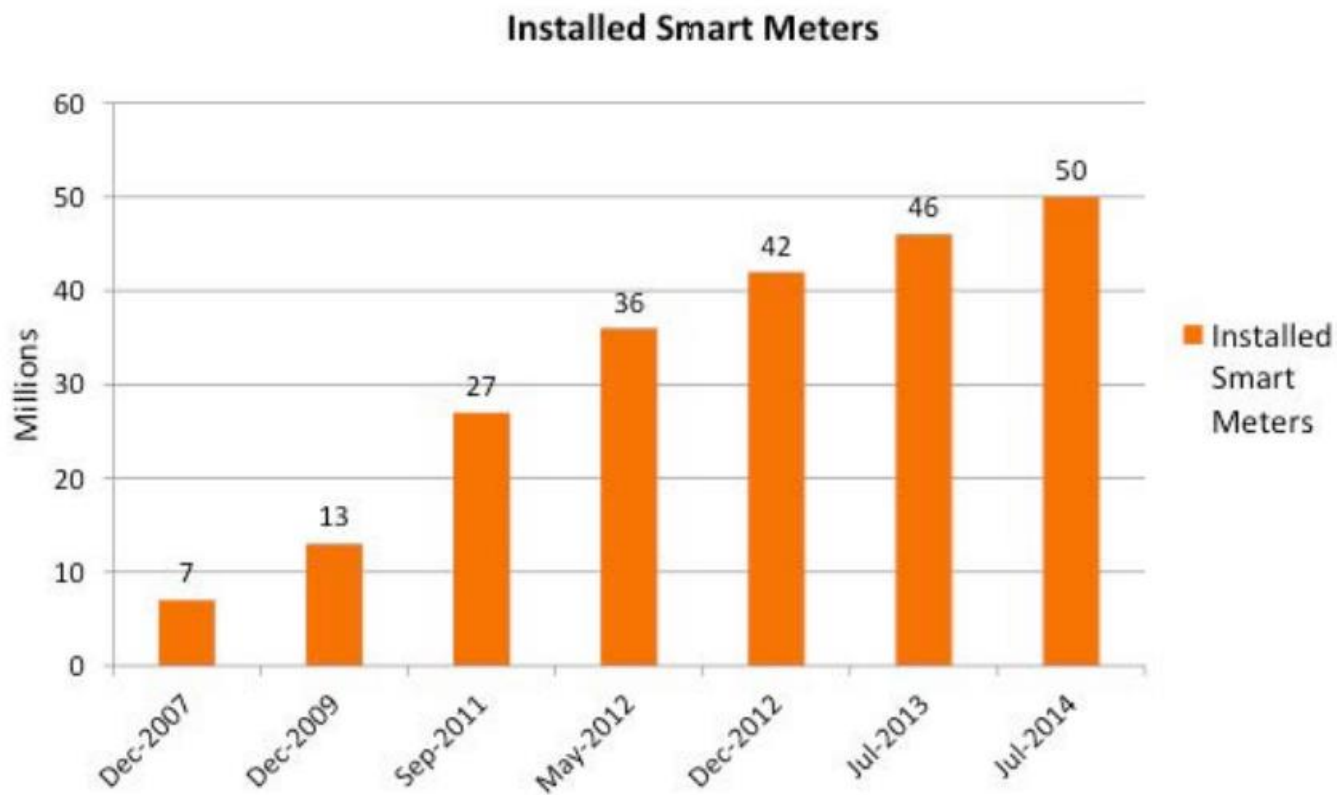


# EUROPEAN SMART GRID PROJECTS BUDGET PER APPLICATIONS





# SMART METERS IN U.S.





## ABOUT OUR COMPANY

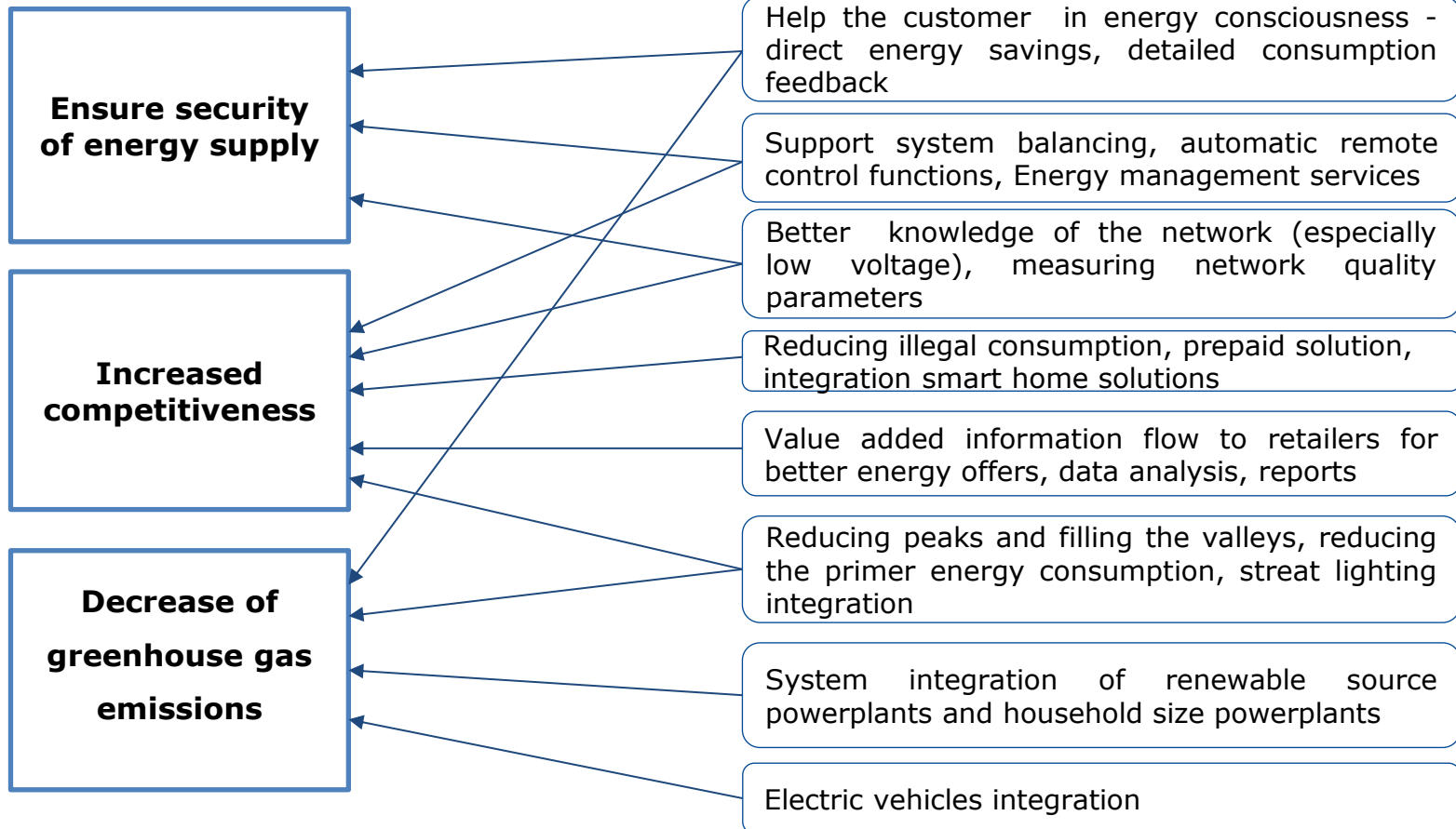
- Preliminaries (2011-12)
  - The Hungarian State has compiled a National Plan with a list of investments
  - As part of the National Plan the State intends to support a smart grid model pilot through the 10c Support Mechanism
  - The Smart Grid Pilot Project will be implemented by MAVIR or its exclusively owned project company.
- KOM Central Smart Metering Company Ltd. was established by MAVIR (TSO) in 2013
- Our challenge: **Realization of the most considerable smart grid model pilot in the CEE region from 2014**



# COMPLIANCE WITH ENERGY EFFICIENCY DIRECTIVE

## NATIONAL PLAN

## Smart Grid project execution



## Use cases

### **Identifying more than 50 use cases**

- Energy consumption / production data
- Network quality data
- Switch on/off of local producer (solar, wind systems)
- Central support of flexible payment functions (prepaid – TOU tariffs )
- Exploration of network losses
- Supporting low-voltage operation control
- Supporting Energy traders for capacity allocation
- Energy Management, Smart Home Device Support
- Electric vehicle integration, charging control



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**Thank you for your  
attention**

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