

# **Trends in Energy Utilities**

12. Symposium EnInnov2012, 15.2.2012-17.2.2012

### **Wolfgang Kuzel**

Senior Business Development Manager Tieto, Utility Wolfgang.kuzel@tieto.com



Tieto is the leading IT service company in Northern Europe providing IT and product engineering services.

Highly specialized IT solutions and services complemented by a strong technology platform.

Trusted transformation partner, close to customers' businesses.



-1930 2010 2015 2020 2030+

#### **Traditional** "One way delivery"

- Manual meter readings
- Manual processes
- Overcapacity in grid / generation

#### **AMI**

#### "Bi-directional communication"

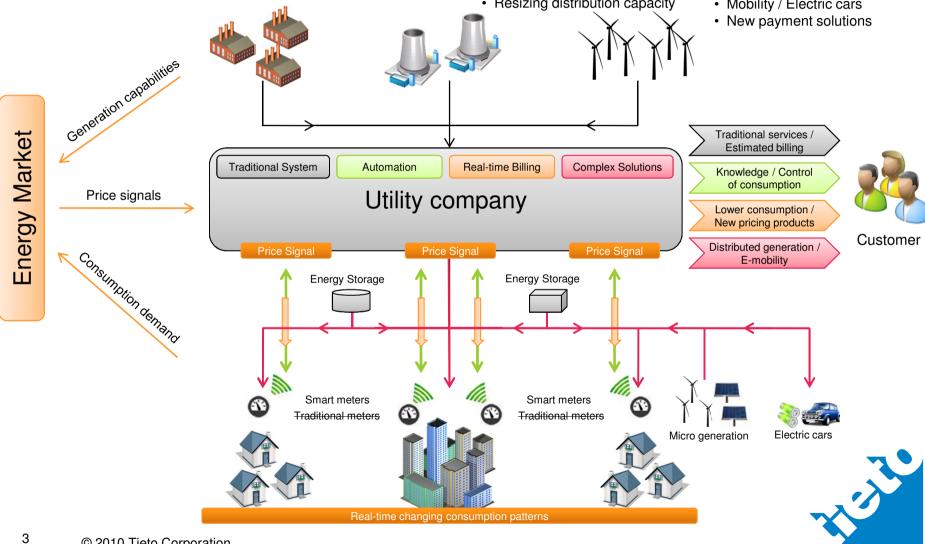
- · Reducing operational costs
- · Automated processes
- Billing on actual consumption

### Demand Response

- Elastic pricing
- Reducing peaks
- Reducing CO<sub>2</sub> in generation
- Resizing distribution capacity

#### Smart grid "Smart Bi-directional delivery"

- · Automation / Self-healing
- · De-centralizing storage
- Distributed generation
- Mobility / Electric cars



### **Everyone wants to get paid!**

Introduction of mobility and an increased number of actors in will require new and complex service provisioning, revenue management and payment solutions.

### **Empowered customers**

Intensified interactions through new interfaces and channels.

**24/7services.** The SmartGrid eco-system and it's actors operates 24/7.

### **Real-time systems**

Utilities will need to change their Batch-based systems to as Telecom did.

# **Implications** on Energy Utilities

The market will

#### evolve much faster

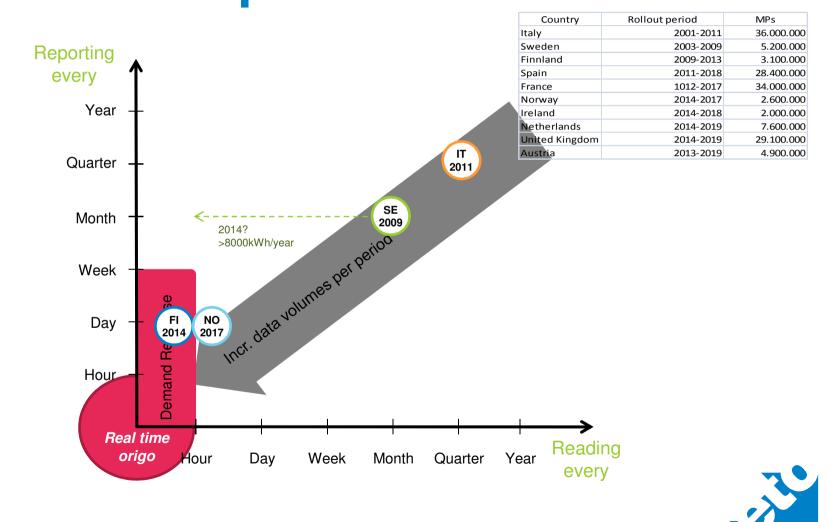
than before which requires a more agile and flexible support from **IT- architecture** and platforms to enable changes.

### Beat them or join them!

Independent 3<sup>rd</sup> party service providers will enter the market.



# **AMI Maturity and readiness for Demand Response**



# SmartGrid as an enabler for new business models



# **Vetwork utility**

- Load reduction in critical situations
- New tariffs promoting flat usage
- End user as active participant
- Integration with home control systems
- Invoicing real consumption
- Better customer service (outages, display, consult)
- Automation of processes
- Better network control and overview
- Integrating local production
- Reduced investments costs



# wer utility

- New products enabled by SmartGrid, examples:
- Hourly spot price tariffs
- Different price for different usage (luxury priced higher)
- Increased customer loyalty
- New customers
- Centralized load control
- Reduced unbalance costs:
- Better overview over prognoses for power balance
- Maintain power balance during operation



# nd user

- Reduced energy cost:
  - Reduced usage
- Reduced max power
- Sale of energy load reduction, storage and production,
- Possibility to influence energy cost
- Predictable energy cost
- Increased supply stability
- Being environmentally friendly



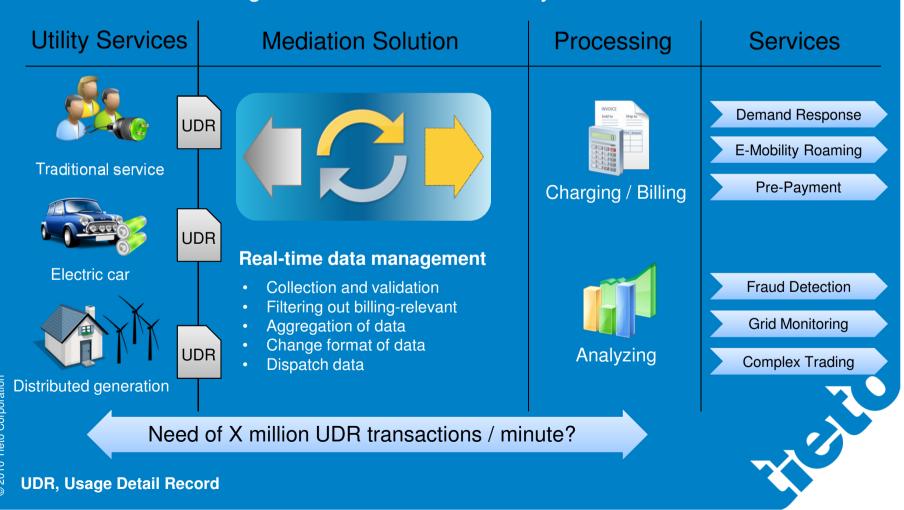
## **Customer view of consumption records**

- Do customers want hourly consumption records
  - Kilowatt is not interesting
  - Cost is interesting
  - To influence cost is very interesting
- New products and services
  - Visualization & awareness
  - Price per hour
  - Transfer volume / fixed price risk to consumer

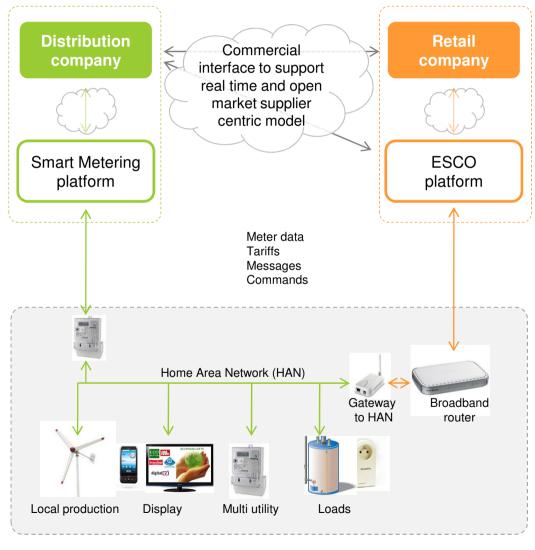


# **Mediation Solution for Utilities**

"Real-time data management enables future Utility Services"

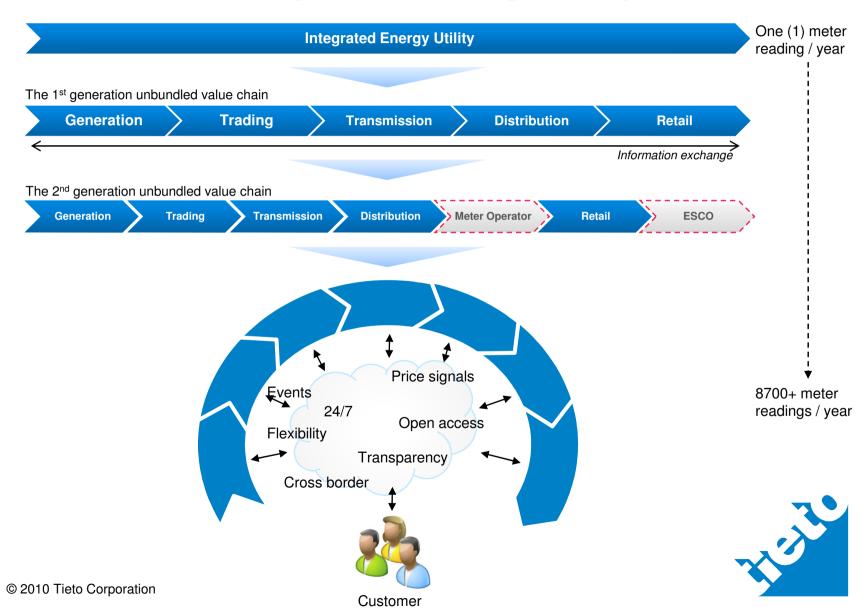


# **From Smart Metering to Smart Services**

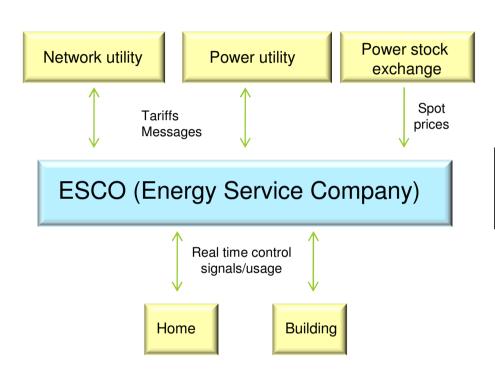




### From closed integrated to open dynamic



# Sample ESCO business model



#### **ESCO** value add towards utility

- Capacity for load reduction
- Capacity for local production (VPP)
- Capacity for energy storage

#### **ESCO** tools

- Aggregation of several customers
- Capability to send control signals
- **Information** about real time usage, prices, tariffs, etc

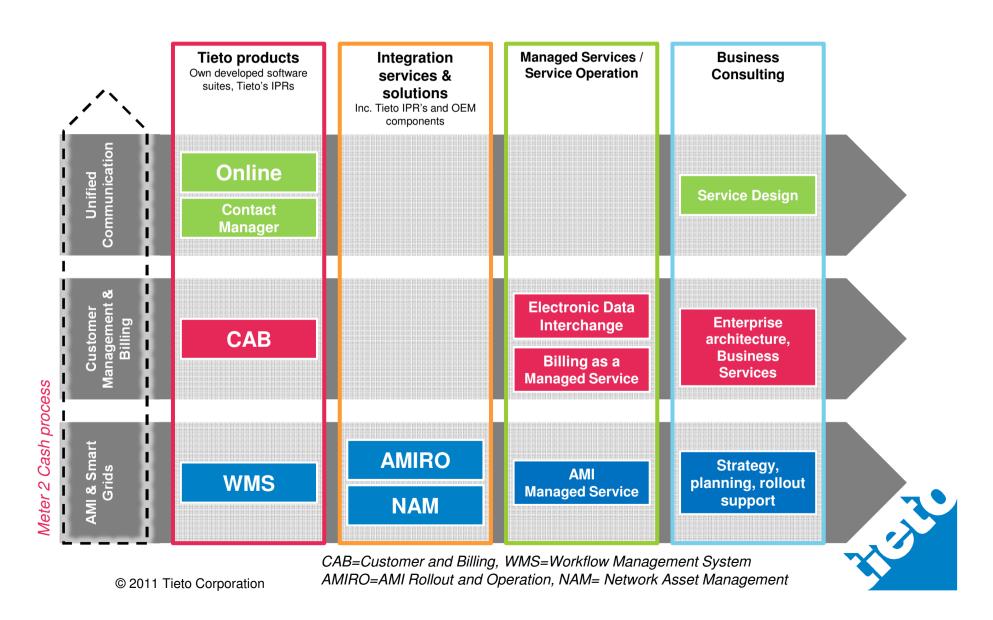
#### ESCO value add towards end customers

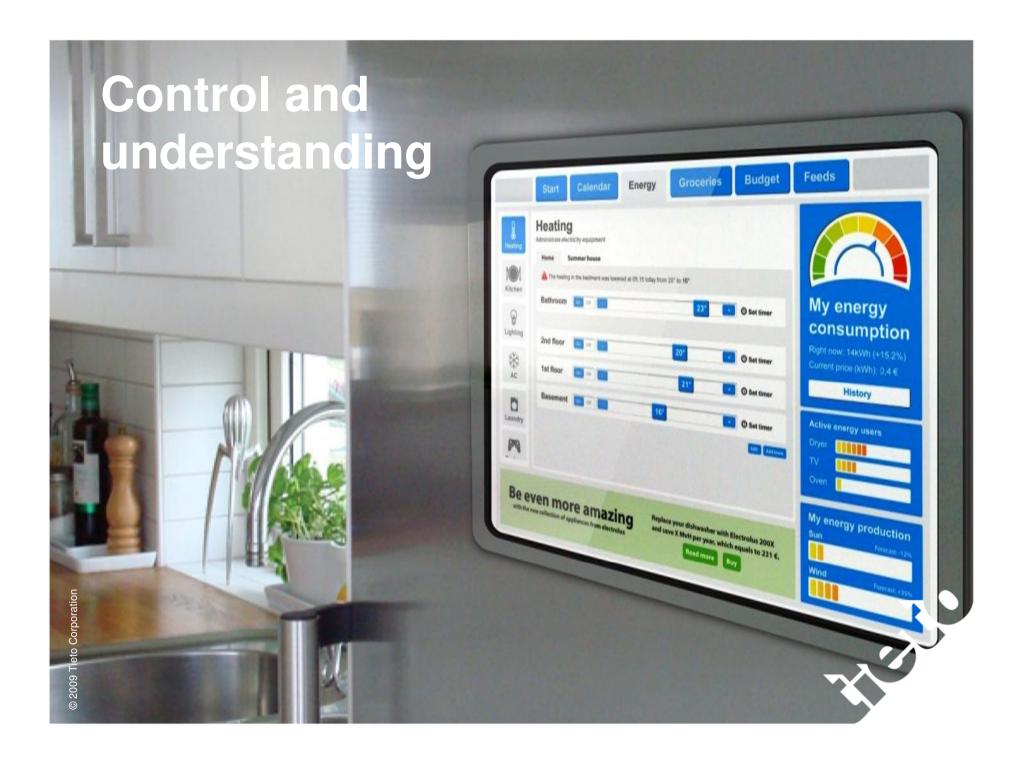
- 1. Cost reductions through:
- Optimization of usage based on tariffs, customer preferences, prognoses, usage patters, etc
- 2. Income through:
- Brokering of production, load reduction and storage capacity
- 3. Other value adds:
- Energy consulting
- CO<sub>2</sub> declarations
- Energy certificates

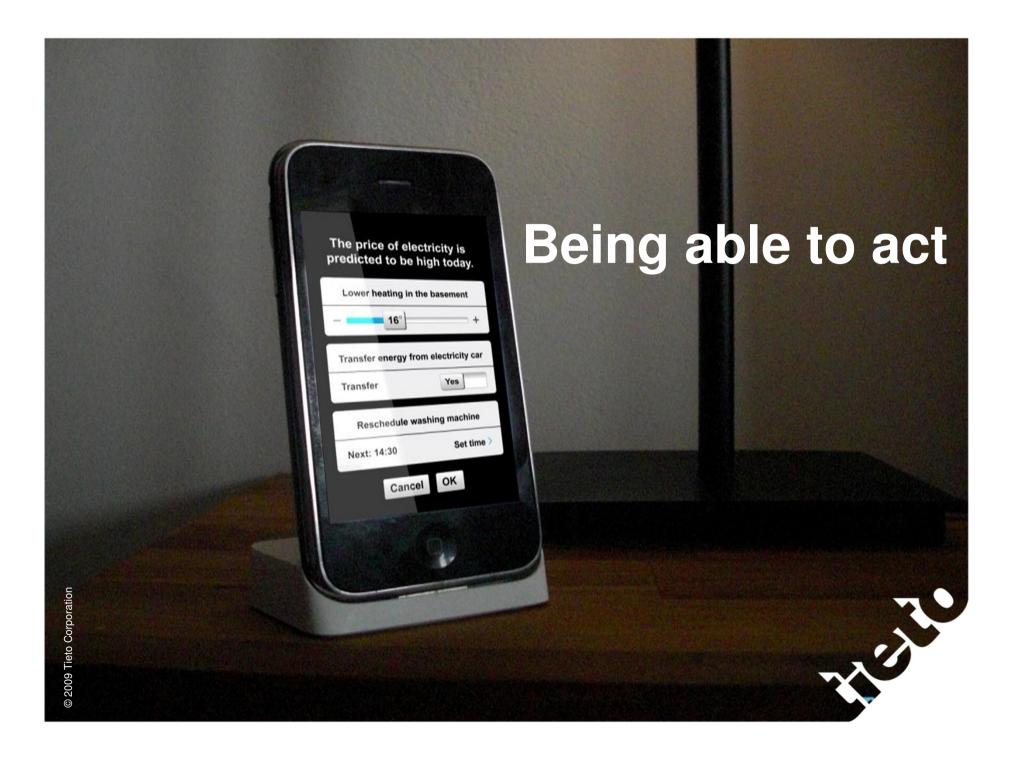
Delivering services that enable communities and property owners to become active and profitable prosumers



# **Tieto Energy Utilities offering**









# **Checklist – How to get started?**

- 1. Establish a vision for your Smart Metering (Smart Grid) project, why should we do this?
- 2. Learn from experience, choose the right partners to help you
- 3. Focus on business processes (not technology), define requirements based on existing and future business processes, products and services
- 4. Do a review of your IT- and information-architecture, evaluate how it will be affected and create a future roadmap
- 5. Choose sourcing model (in-house or outsourced)
- 6. Evaluate vendors and choose a solution scalable to future needs

### Top three advice:

- 1. Focus on risk reduction and balanced contracts with the right incentives for all partners
- 2. Focus on quality in all elements of the value chain
- 3. Rollout is done once, smart metering is forever, do not forget operations and maintenance of the infrastructure





# What is needed to be a winner in AMI Managed services?

Be perceived as sustainable, credible and trusted player!



- Economies of scale
- Strong eco system of partners
- Industrialized processing
- Capability and capacity to deliver





# Knowledge. Passion. Results.

Ihr Kontakt zu uns:

Tieto Austria GmbH Millennium Towwer Handelskai 94-96 1200 Wien

Tel.: +43 1 33174-0

Wolfgang.kuzel@tieto.at www.tieto.at