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Trends in Energy Utilities

12. Symposium EnInnov2012, 15.2.2012-17.2.2012

Wolfgang Kuzel

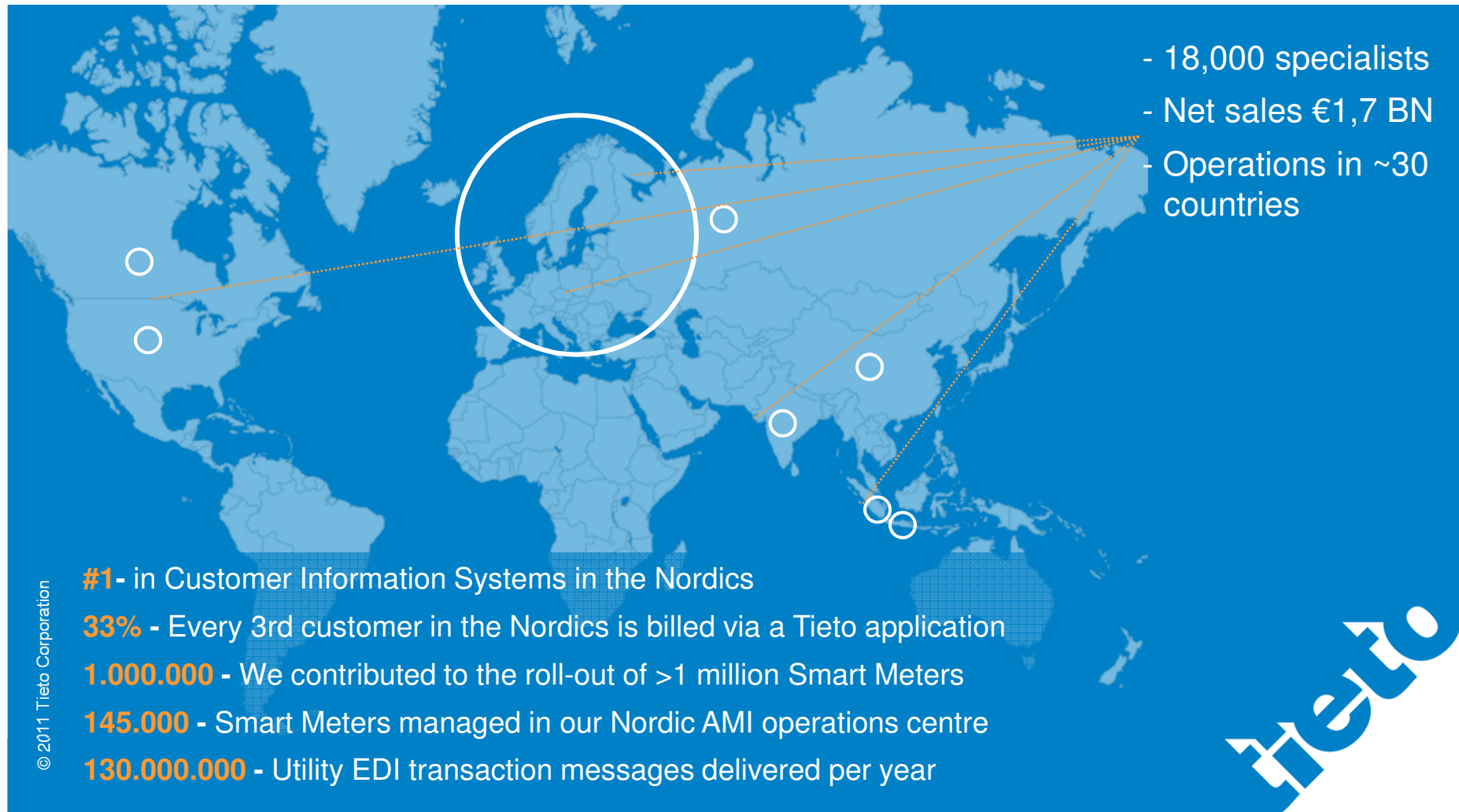
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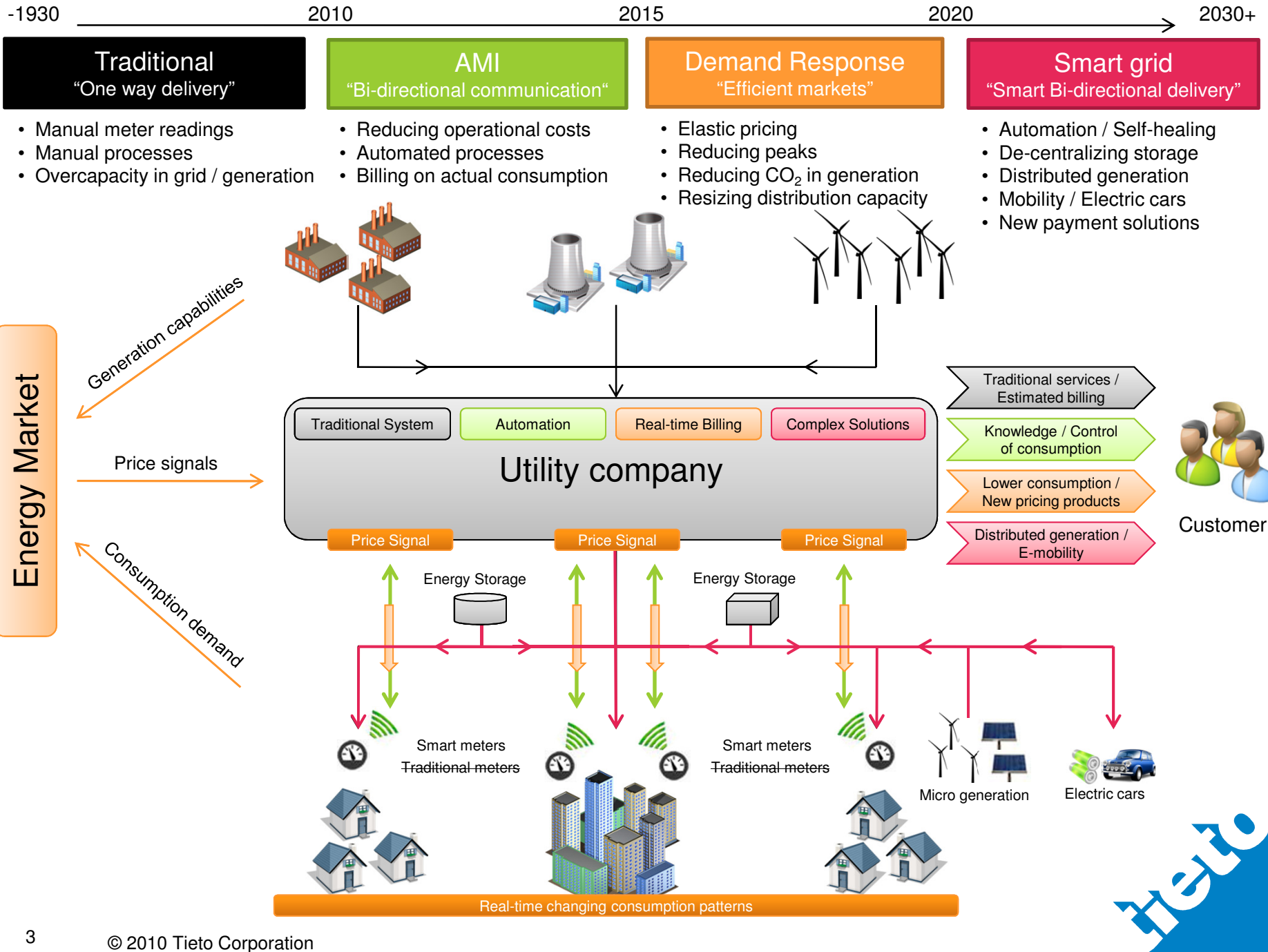


Tieto is the leading IT service company in Northern Europe providing IT and product engineering services.

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

Trusted transformation partner, close to customers' businesses.





Implications on Energy Utilities

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.

24/7 services. 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.

The market will

evolve much faster

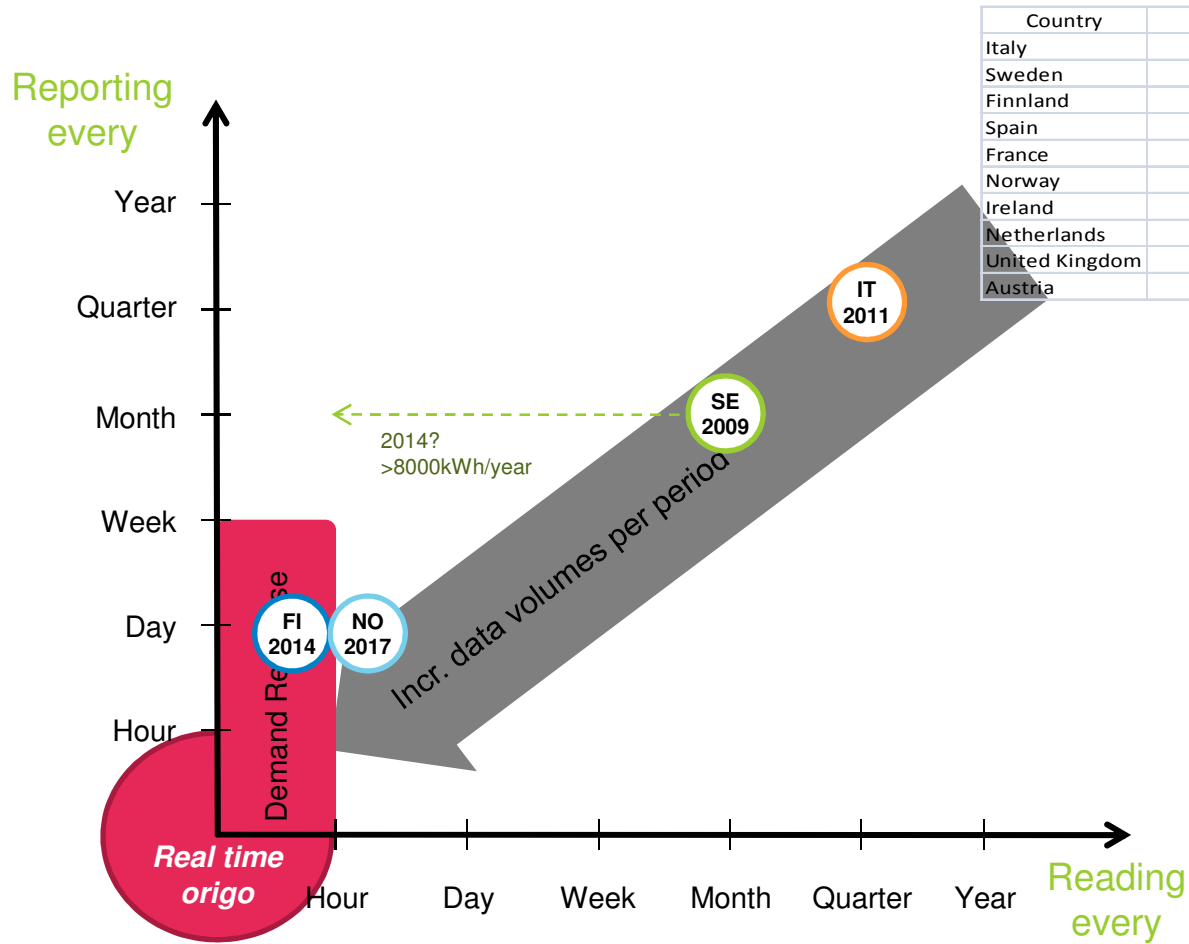
than before which requires a more agile and flexible support from **IT- architecture** and platforms to enable changes.

Beat them or join them!

Independent 3rd party service providers will enter the market.



AMI Maturity and readiness for Demand Response



| Country | Rollout period | MPs |
|----------------|----------------|------------|
| Italy | 2001-2011 | 36.000.000 |
| Sweden | 2003-2009 | 5.200.000 |
| Finland | 2009-2013 | 3.100.000 |
| Spain | 2011-2018 | 28.400.000 |
| France | 1012-2017 | 34.000.000 |
| Norway | 2014-2017 | 2.600.000 |
| Ireland | 2014-2018 | 2.000.000 |
| Netherlands | 2014-2019 | 7.600.000 |
| United Kingdom | 2014-2019 | 29.100.000 |
| Austria | 2013-2019 | 4.900.000 |



SmartGrid as an enabler for new business models



Network 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



Power 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



End 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

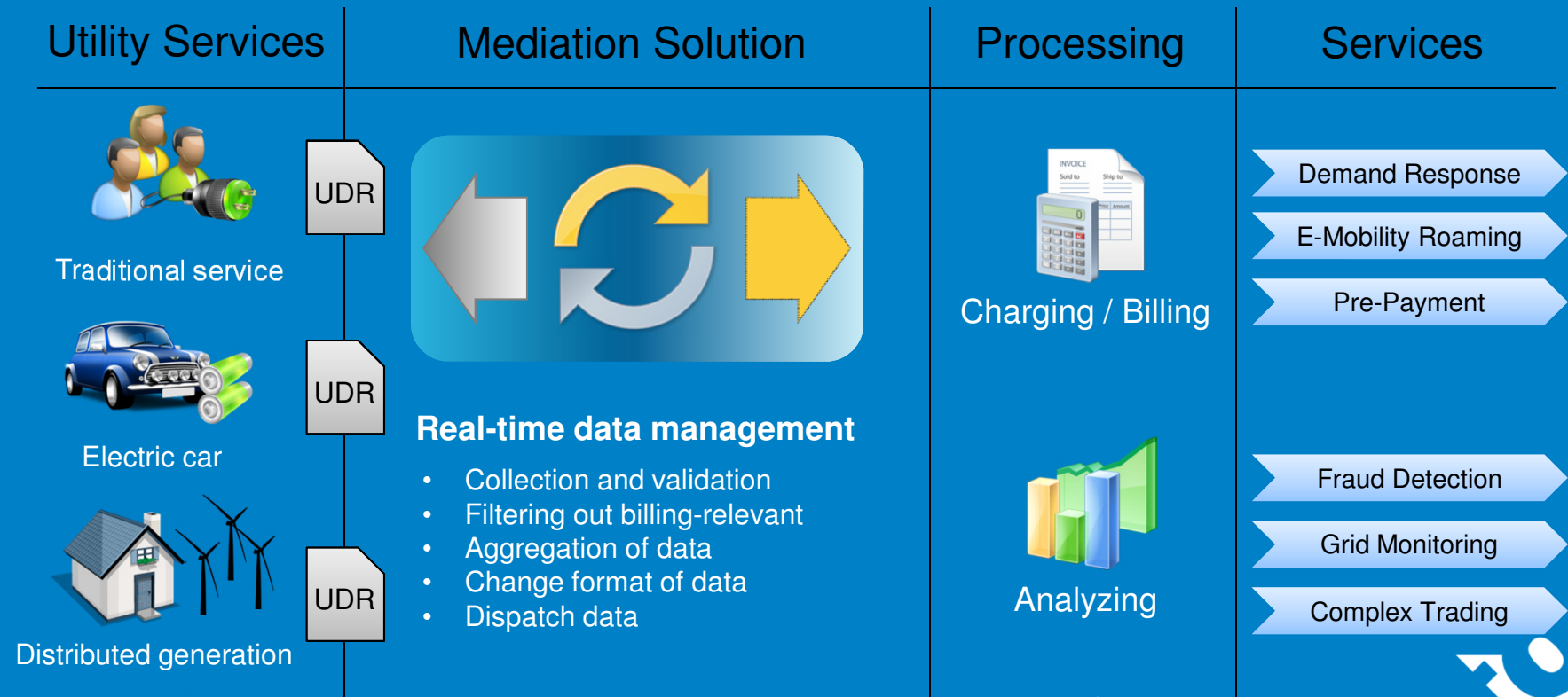
Customer view of consumption records

- 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 ”



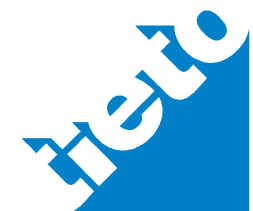
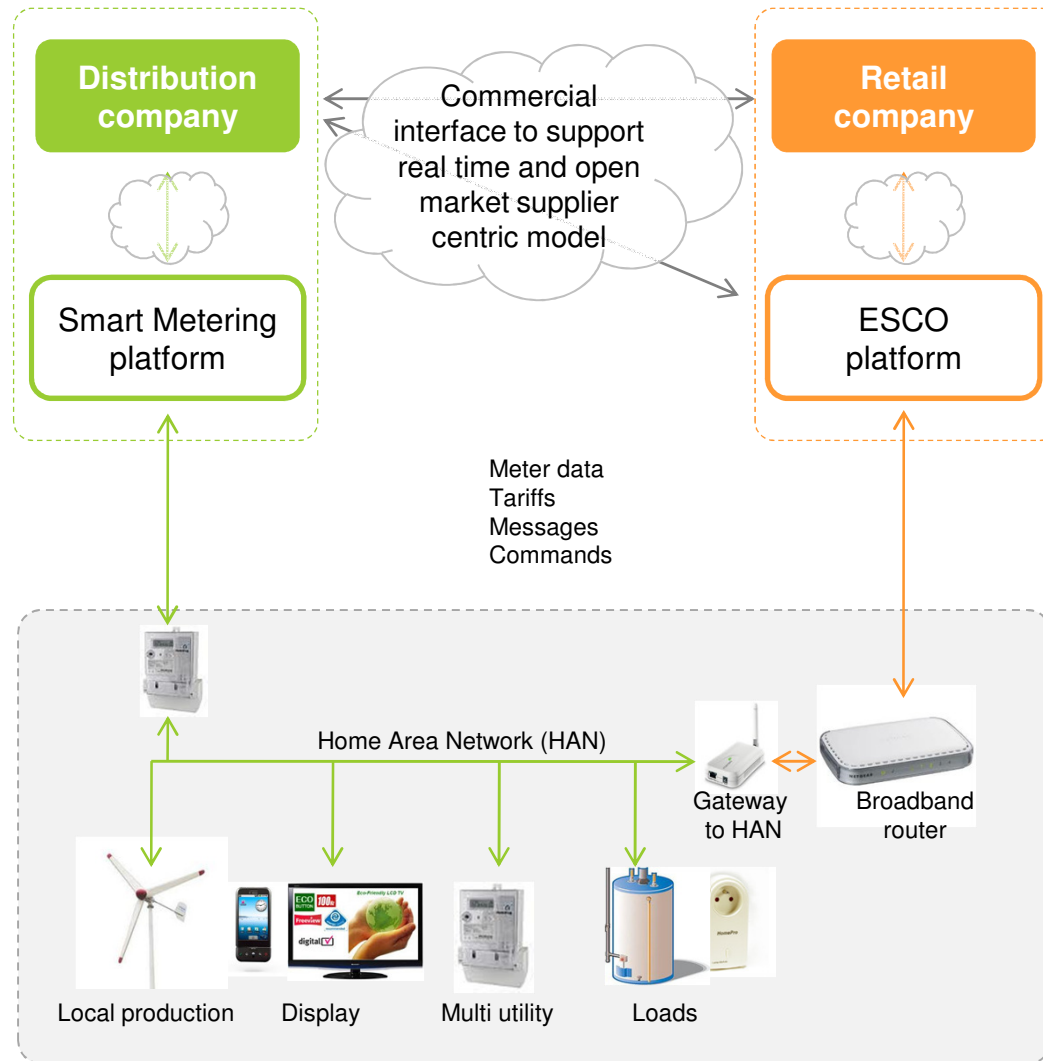
Need of X million UDR transactions / minute?

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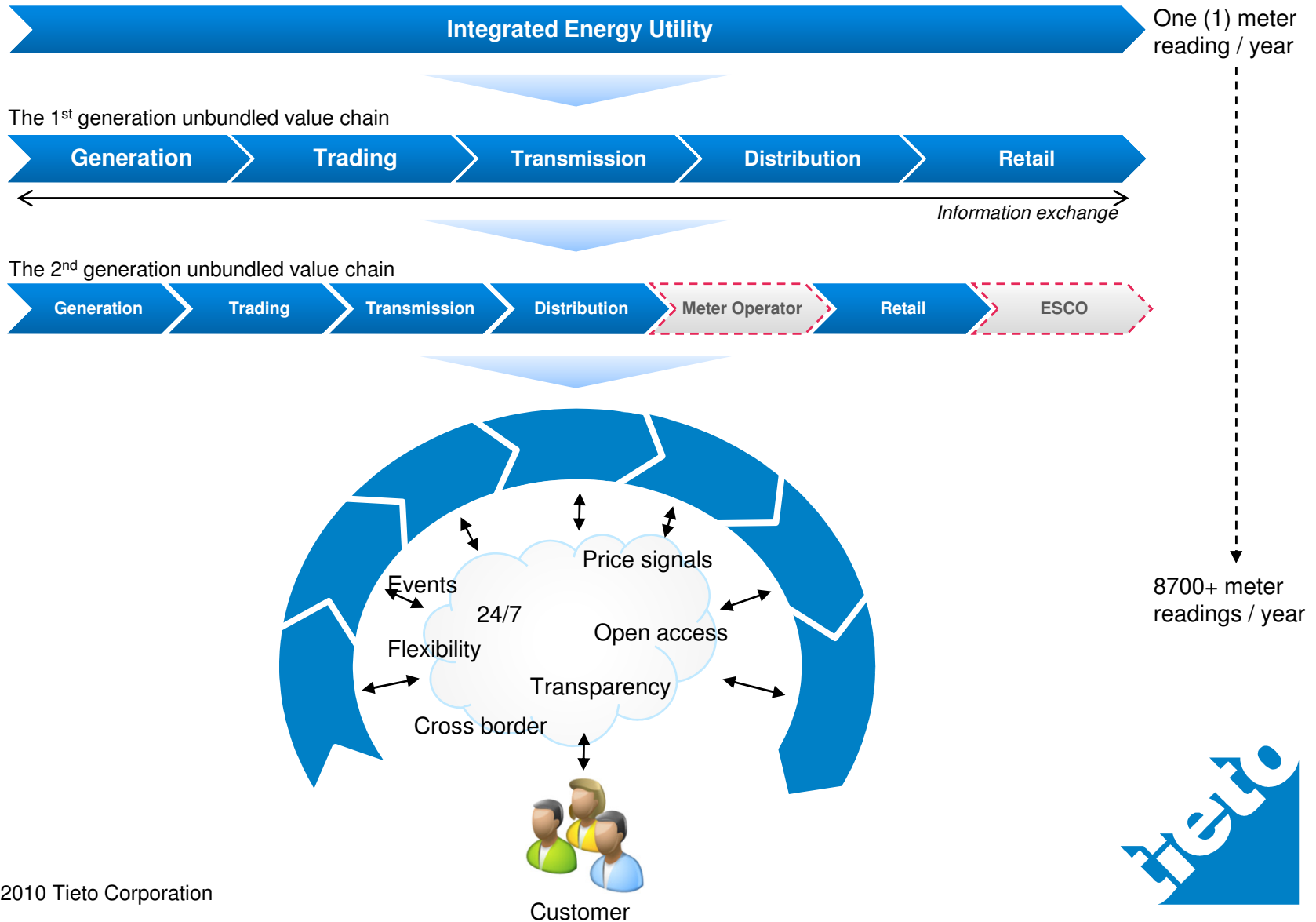
UDR, Usage Detail Record



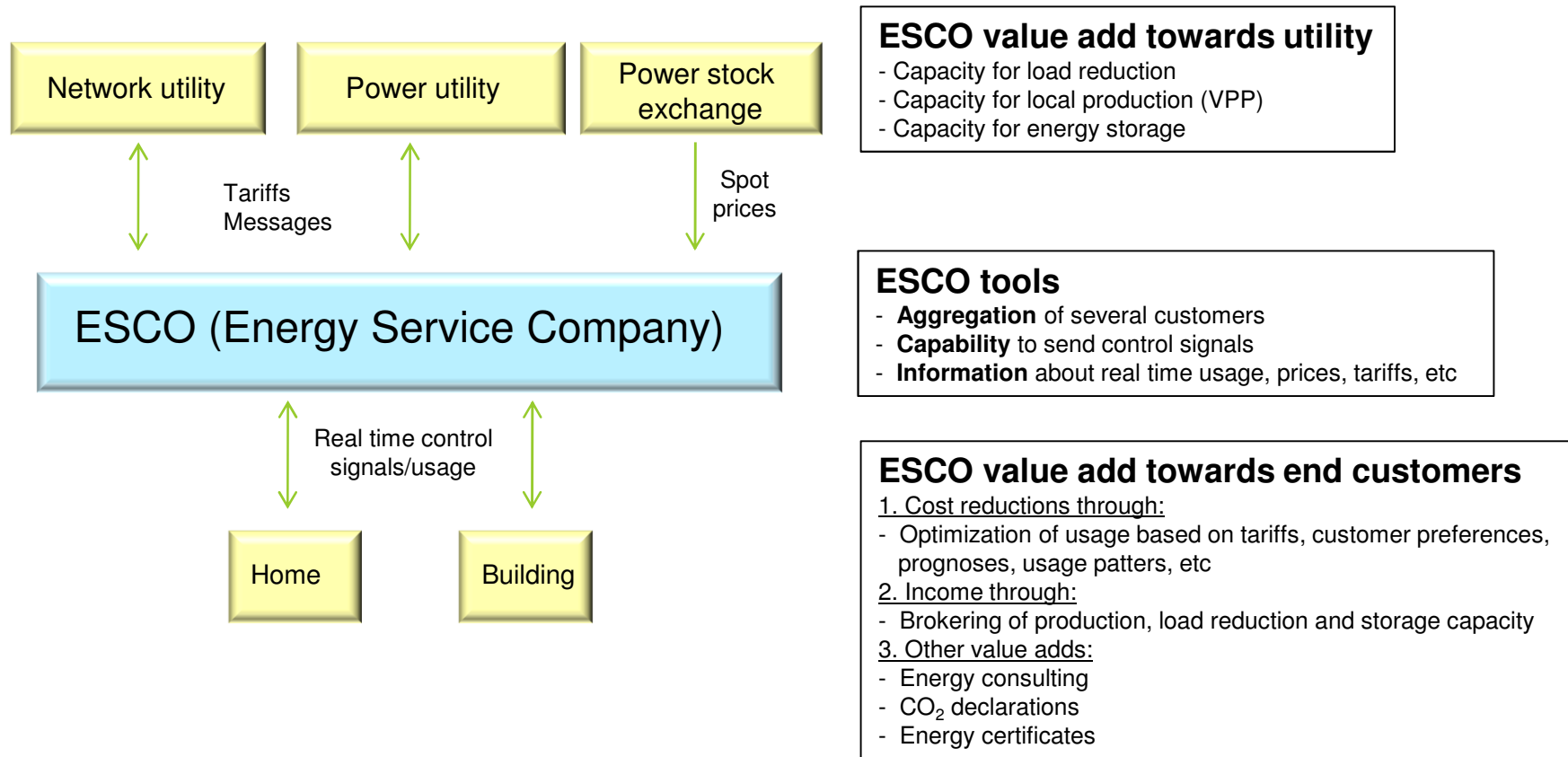
From Smart Metering to Smart Services



From closed integrated to open dynamic



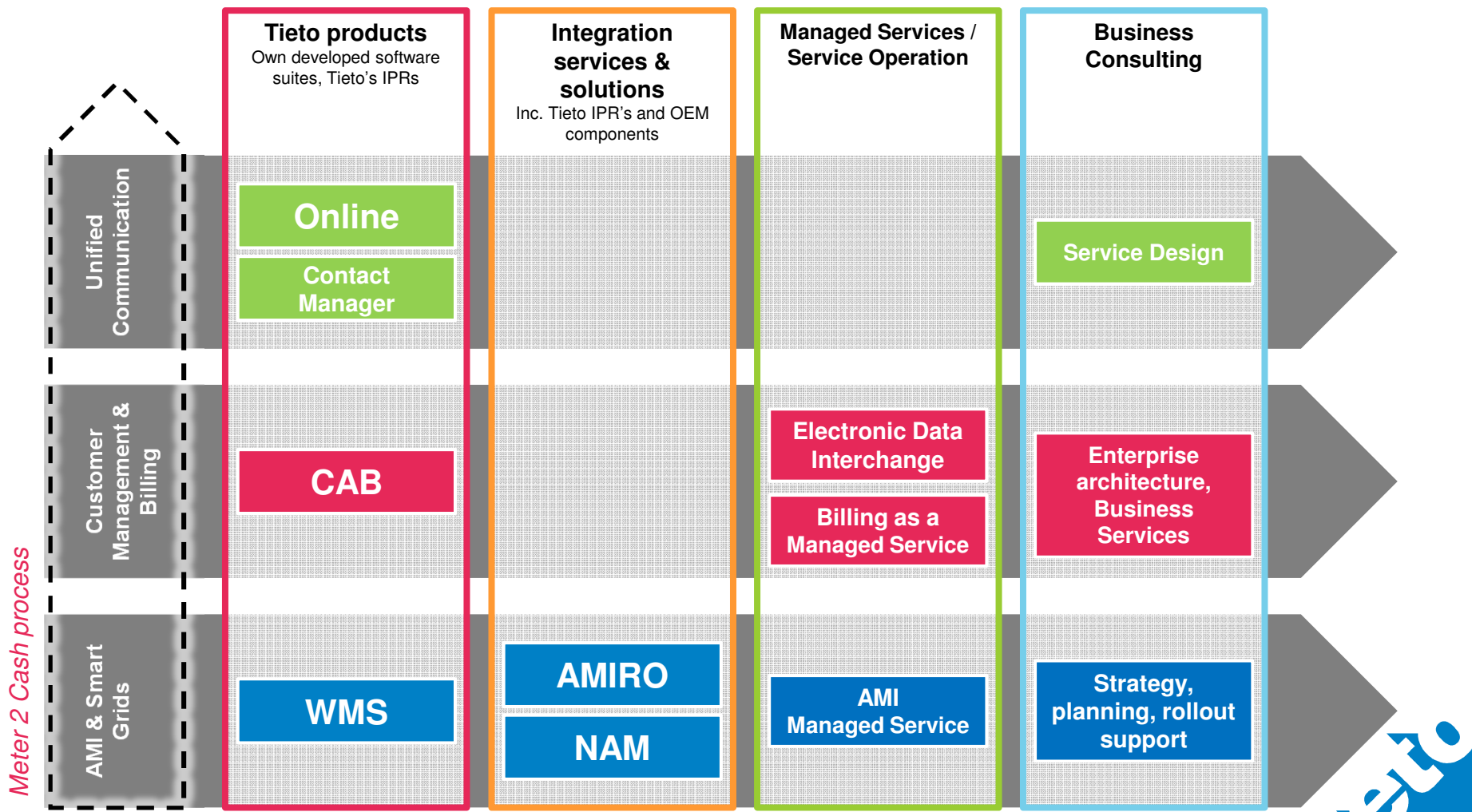
Sample ESCO business model



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



Tieto Energy Utilities offering



CAB=Customer and Billing, WMS=Workflow Management System
 AMIRO=AMI Rollout and Operation, NAM= Network Asset Management



Control and understanding

Start Calendar Energy Groceries Budget Feeds

Heating

Administrate electricity equipment

Home Summer house

⚠ The heating in the basement was lowered at 05:15 today from 20° to 16°

| Room | Temp | Set timer |
|-----------|------|-----------|
| Bathroom | 23° | Set timer |
| 2nd floor | 20° | Set timer |
| 1st floor | 21° | Set timer |
| Basement | 16° | Set timer |

Be even more amazing
with the new collection of appliances from electrolux

Replace your dishwasher with Electrolux 200X and save X kWh per year, which equals to 231 €, [Read more](#) [Buy](#)

My energy consumption

Right now: 14kWh (+15.2%)
Current price (kWh): 0,4 €

History

Active energy users

Dryer

TV

Oven

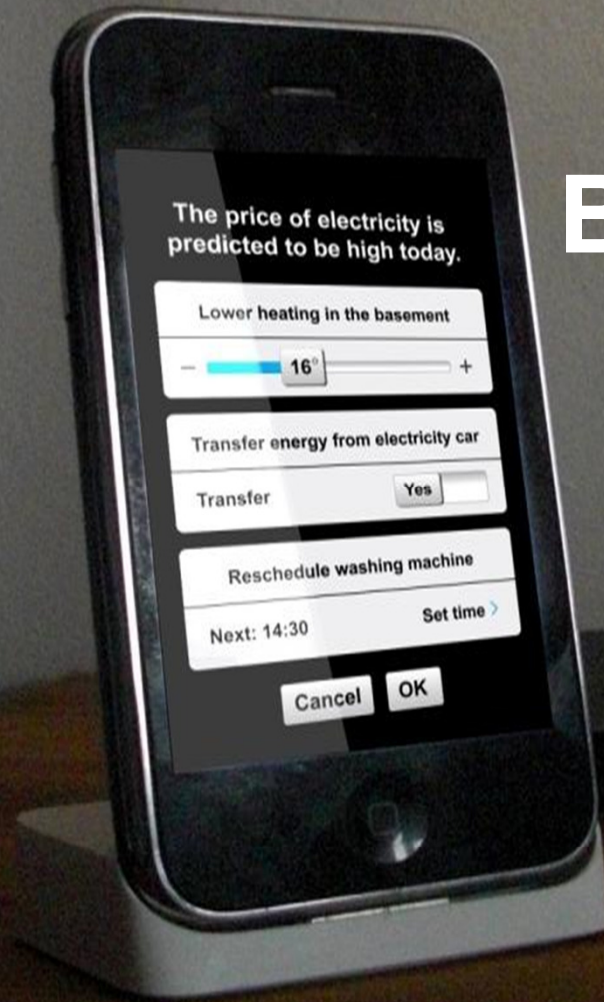
My energy production

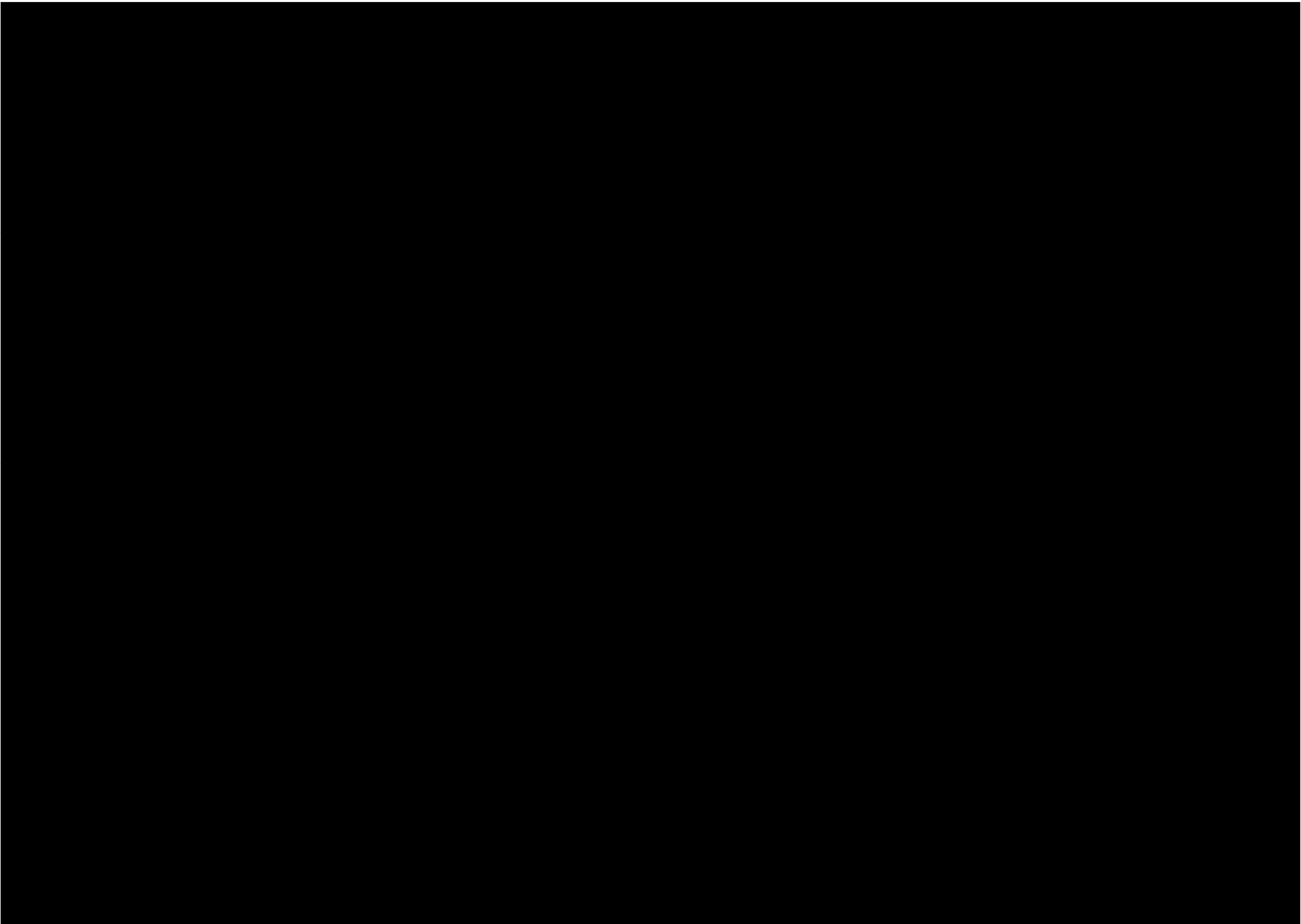
Sun Forecast: -12%

Wind Forecast: +35%



Being able to act





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!

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



**Knowledge.
Passion.
Results.**

Ihr Kontakt zu uns:

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