



# Digitalization of the energy sector: the case of Estonia

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# Short overview of Enefit



# We have 8 business functions



Mining operations



Power sales in the Baltic Sea region – electricity and gas



Logistics: oil shale, biomass, peat, tyre chips, oil shale gas



Generation from renewables



Generation: oil shale, biomass, peat, tyre chips, oil shale gas



Distribution Network services



Repair, maintenance and technological solutions



Trading of energy



# Digitalization in Enefit

## Production



## Smart Grid



## Sales & Service



# Digitalization in Enefit

## Production



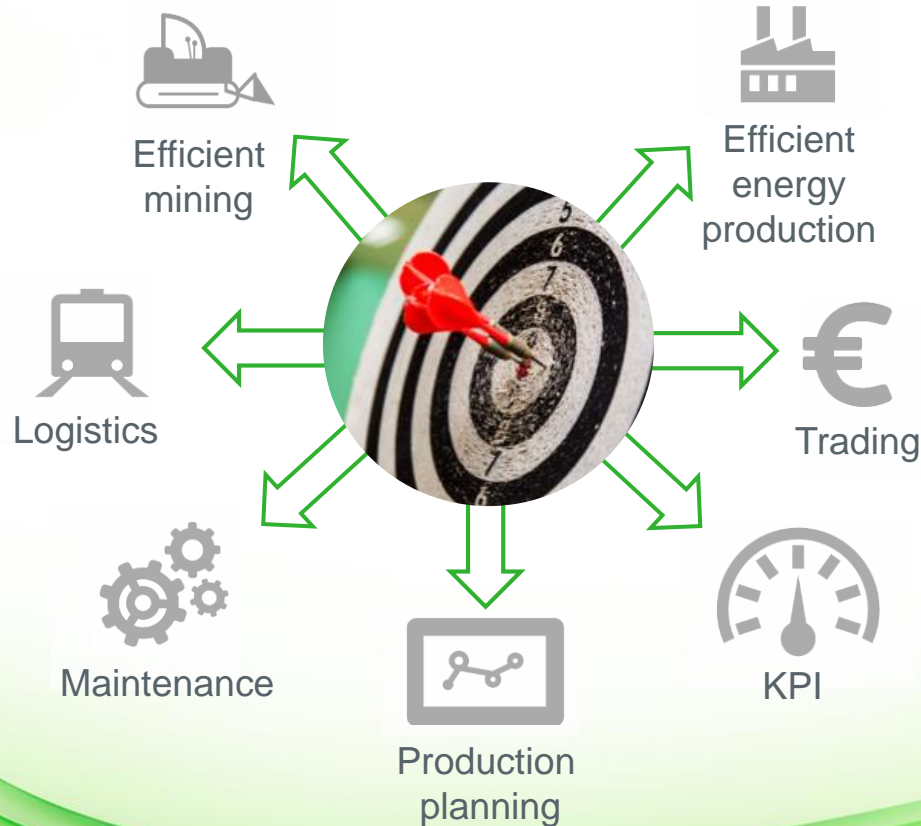
## Smart Grid



## Sales & Service



# Production => „Industry 3.5“ program



Engagement of more than 300 employees

Started in 2015 in cooperation with PWC to find possibilities for efficiency in our oil shale chain

# Digitalization in Enefit

## Production



## Smart Grid



## Sales & Service

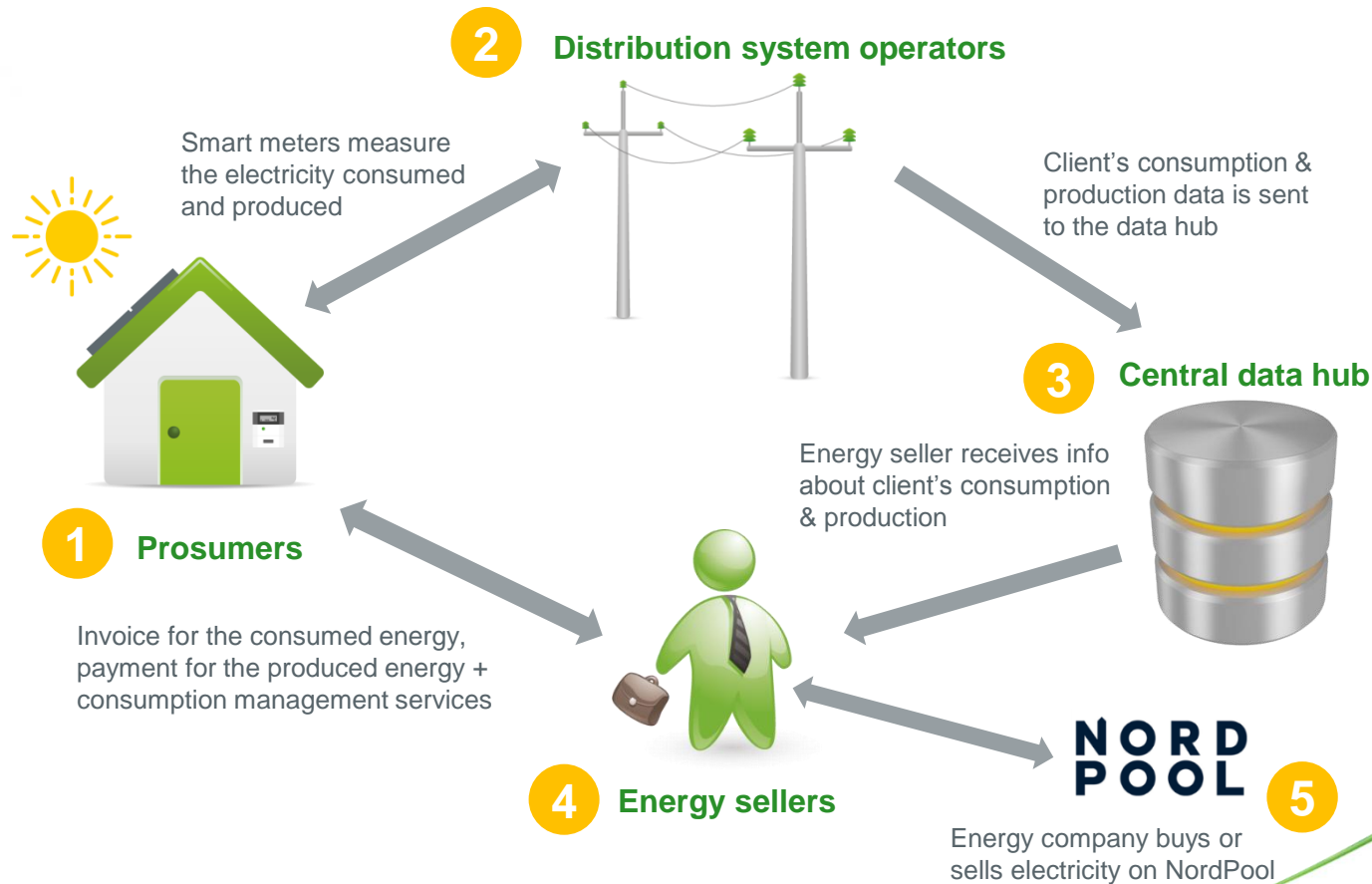








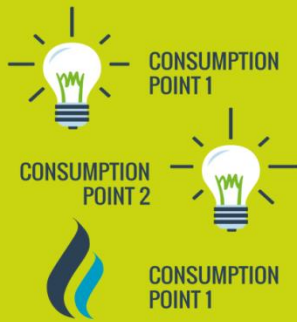
# Smart meters in the electricity market



# Achievements: DSO's efficiency and customer satisfaction up

- **Network losses reduced by 20%**  
5,7% in 2012 => 4,1% in 2016
- **Customer satisfaction increased**  
39 points in 2012 => 52 points in 2015
- **Customer inquiries reduced by 50%**  
Metering-related 305 339 => 145 754





# Achievement: TSO functions as a data hub

- Personal data about consumption, production, seller authorizations
- Calculations of the correct amperage level
- Tools for apartment associations to bundle electricity agreements
- Consumer flexibility to the market
- Innovation: product development opportunities for start-up

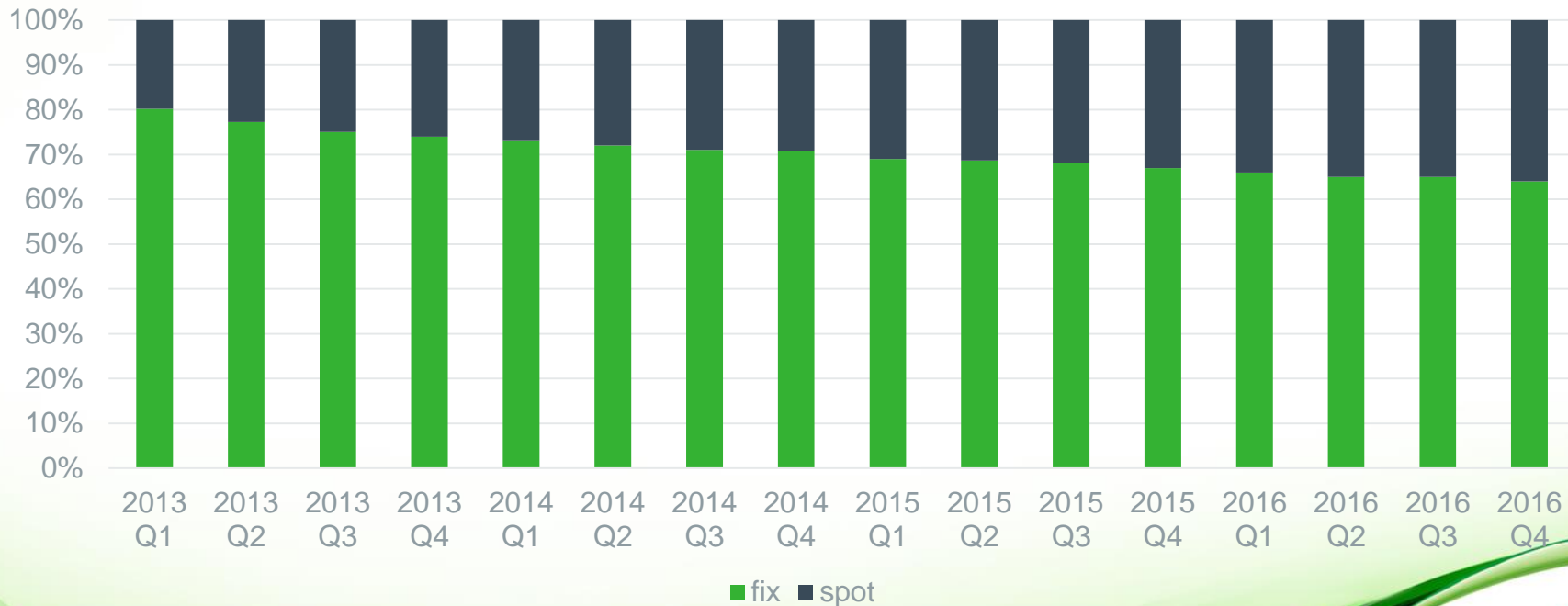


# Achievement: active market & smart services

- Switching is easy, consumption data is available
- Solutions for analyzing electricity consumption
- Solutions for shifting energy consumption to off-peak hours



# Increased market awareness => growing share of agreements with variable price



# Sales & service => becoming digital (... – 2013)



Contracts

**>90%** of all the electricity contracts are signed or prolonged digitally (online self-service; e-mail)



Bills

**>90%** of all invoices are sent/received digitally (e-mail; sms; online self-service)



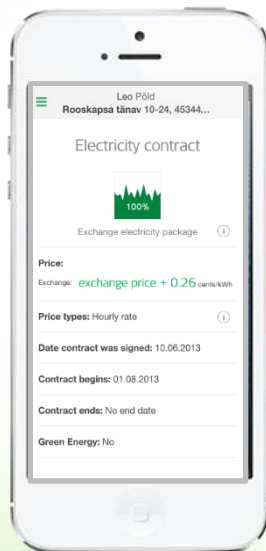
Consumption history

**>30%** of all the consumers visit our e-channels (website, mobile) at least once a month.

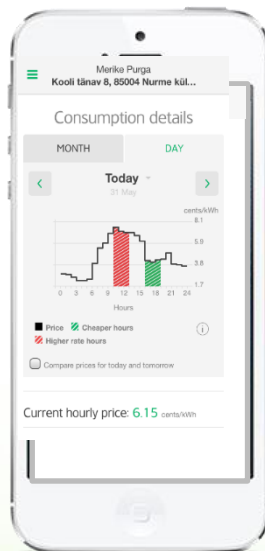


# Sales & service => becoming „mobile“ (2014 – 2016)

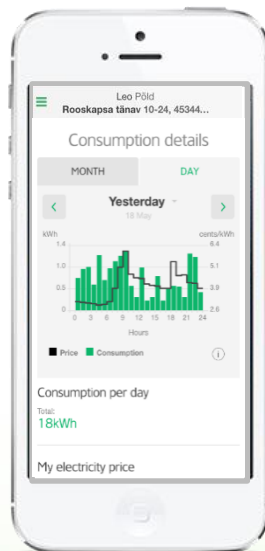
Electricity  
contract  
information



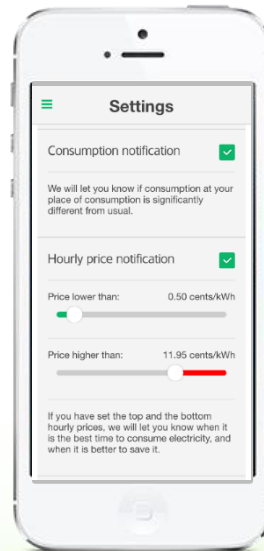
Price updates  
for the next  
day



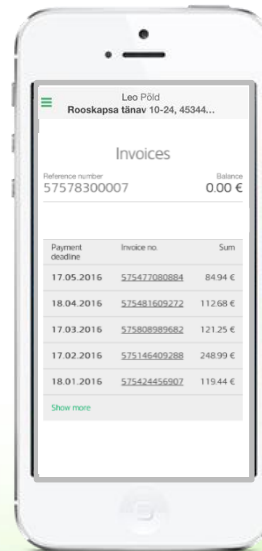
Consumption  
history & data



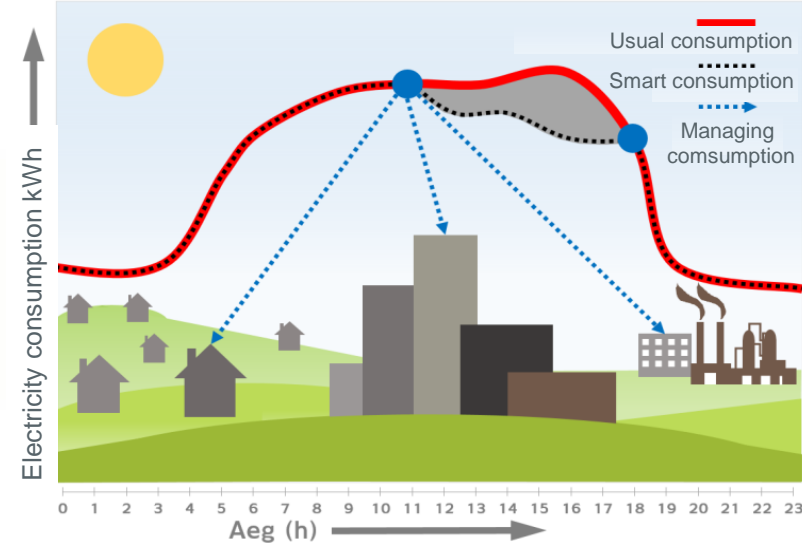
Price alarms



Billing  
information &  
payments



- 8% of customers have downloaded the mobile app
- Gas functionality in mobile app to be added in 2017



# Becoming smart (2017-...) => from buying to producing & using services

- Consumption management services (automated optimization of consumption)
- Distributed production + storage services
- Demand-response + virtual power plants
- Consumer => Prosumer



# Our experiences in digitalization => we call it „e-Energy“



FULL ACCOUNTABILITY FROM  
STRATEGY / POLICY TO  
IMPLEMENTATION

## OUR KNOW-HOW

## SERVICES

### Legislation & policy consulting

- Legal and policy analyses for smart metering system, data hub, operating model of the retail market, one invoice

### Business consulting

- Procuring and contracting smart metering systems
- Procuring and contracting data hub solutions
- Test laboratory for DSO-s
- Digitalization of suppliers' business processes (sales, billing & debt, customer care, etc.)
- Advanced big data analytics

### Project management

- Managing smart metering projects
- Managing data hub projects
- Digitalization of suppliers' business processes (sales, billing & debt, customer care, etc.)
- Advanced big data analytics

### Development & implementation

- Roll-out of the smart metering system
- Data hub
- Digitalization of suppliers' business processes (sales, billing & debt, customer care, etc.)
- Mobile-app
- Advanced big data analytics





Thank you!

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