

# Automatic meter reading at Vattenfall Finland

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# Content of the presentation

1. Vattenfall briefly
2. Transitions of energy market
3. Improving customer service with telecommunications
4. Automatic meter reading (AMR) at Vattenfall Finland
5. Long-term benefits of AMR
6. Conclusions

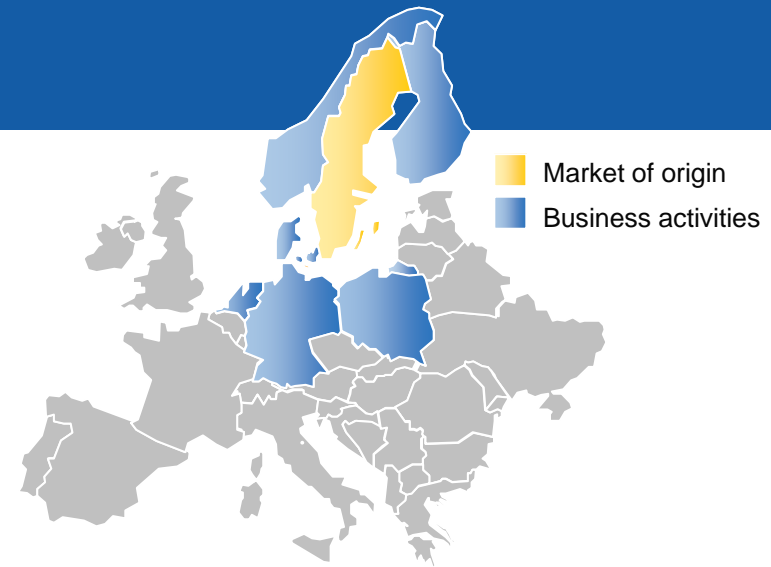
A woman with dark hair, wearing a white dress, is shown from the chest up. She is holding a clear plastic water bottle in her right hand. The background is a warm, golden bokeh of out-of-focus lights, creating a soft and pleasant atmosphere. The woman has a slight smile and is looking towards the camera.

**Vattenfall**  
- A leading European energy  
company

# Vattenfall

## Company description

- Active within electricity and heat along the whole value chain in Sweden, Finland, Germany and Poland
- Largest energy company in the Nordic countries by market share in generation
- 6 million customers in Europe



## Strategy

- Focus on core products and core markets
- Strategy to grow through acquisitions in medium to long term to become a leading European energy company

## Ownership

100% state owned

## Key Figures 2004

Net Sales: € 12.6 billion  
Operating profit: € 2.2 million

## Vattenfall's main products

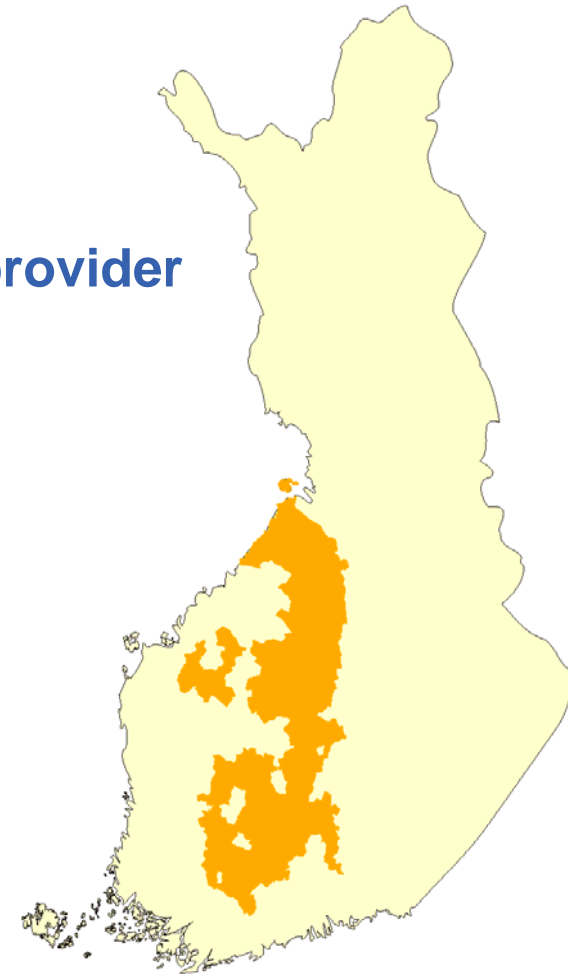


# Vattenfall in Finland

## Vision

**Number One for the Customer**  
**- open and customer-oriented service provider**

Market entry	1995
Customers	365 000
Market share	12 %



# Large transitions of energy market

- Local power generation plants 1880 –
- National distribution grid 1950 –
- Deregulation of the electricity market 1995 –
- Extensive use of information technology 2005 -

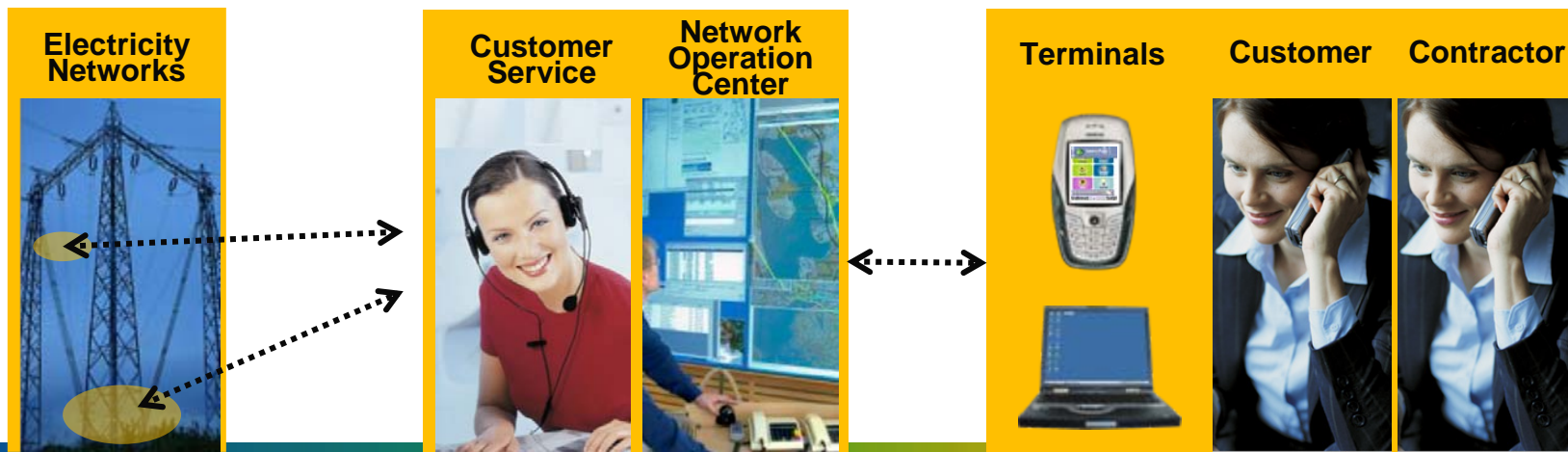


# Challenges in energy business

- Improving customer service and increasing customer loyalty
- Providing new services and products in a cost-effective way
- Improving the efficiency of the operations
- Investing in the future distribution network
- Meeting regulator's requirements

# Improving customer service with telecommunications

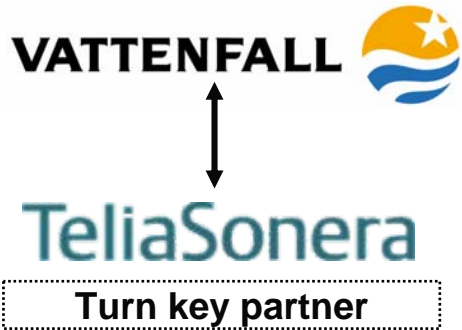
- **Customer-driven operations model** requires more efficient and wider use of technology and telecommunications in customer service
- **Extending automation in customer interface** creates new opportunities in electricity networks use and management
- **Mobile workforce management** and implementation of automatic metering system are significant development for the customers



# Automatic meter reading at Vattenfall Finland

- Vattenfall has already installed 35 000 remotely read meters
- Every customer will be integrated into the automatic meter reading system by the end of 2007
- Strategic partnership with telecommunication company initiated 11 October, 2004
- The new system is cost-effective and it will open new business opportunities

# TeliaSonera's total solution for Vattenfall



ISKRAEMECO **+ -**



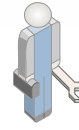
Modem integrated meters

**SLO**



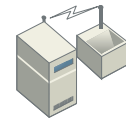
Logistics

**ELTEL**  
networks



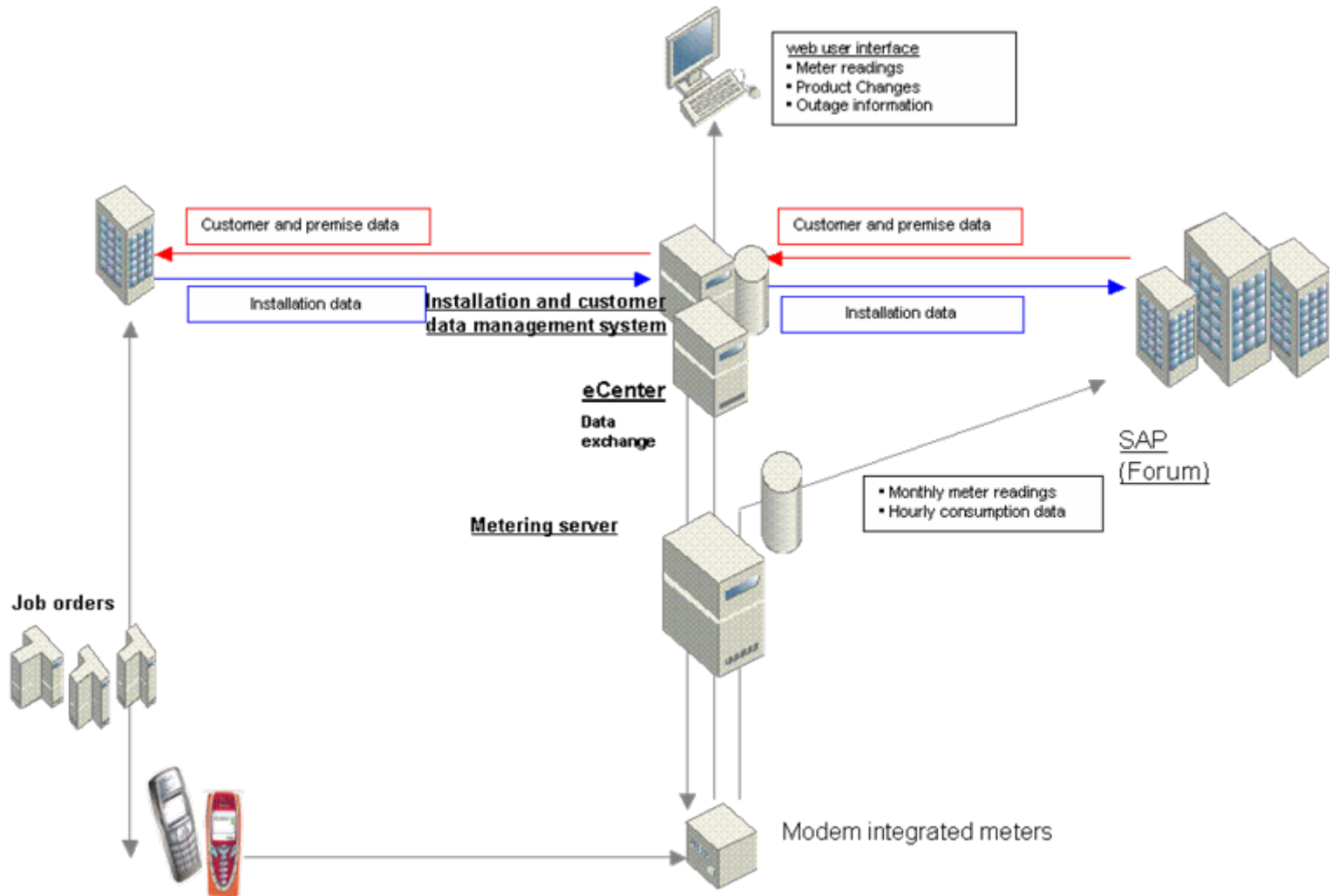
Installation

**TeliaSonera**



Reading and management

# TeliaSonera's system service



# Benefits to Vattenfall's customers

- Precise consumption information
- Clear and accurate billing
- Automatic outage information and faster recovery
- Better and faster customer service
- Eradicate the need for self-reading the meters



# Benefits to electricity market

- Fast and accurate information exchange between all parties
- Flexible customer data management
- Opportunities to new products and services
- Customer-driven market development



# Benefits to Vattenfall's operations

- Accurate information from the network load to optimize maintenance and investments
- Better network performance and cost efficiency
- Smart automated processes instead of manual work
- Accurate measurement of transmission losses
- More intelligence to business planning



# Conclusions

- Key driver in the new electricity market is customer orientation
- Importance of information management and customer communication increases
- New technologies have a significant role in building the future distribution network and smarter energy services to customers
- Labour costs increase while technology and telecommunication costs decrease
- Key issues in the future are automatic remote management solutions and mobile work force management