A market journey

From traditional operator to specialized service provider

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Meet the speaker

Carl Lidholm

Tieto Energy & Utilities

Head of Consulting & Lead Business Architect

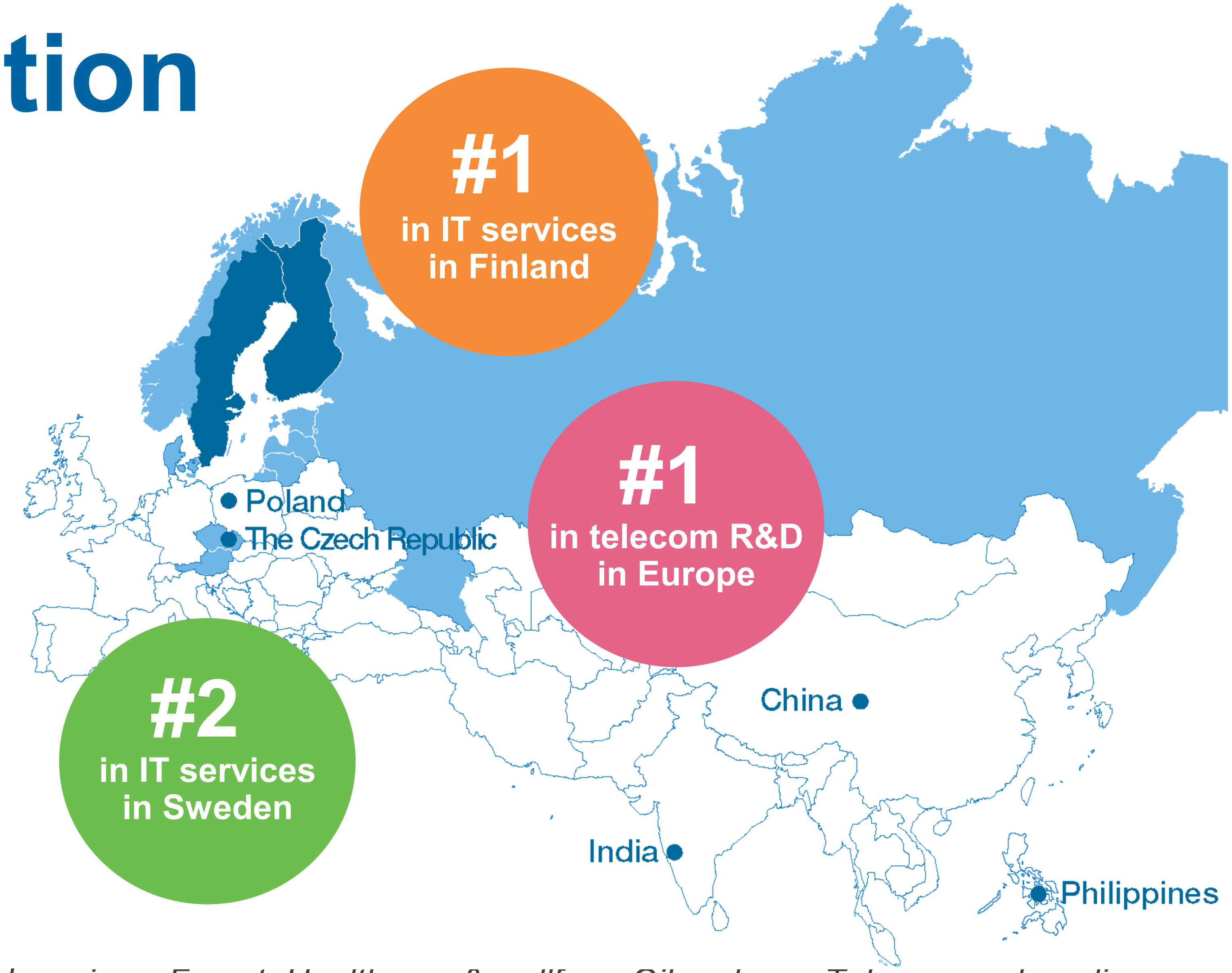
Short facts

- Been working in the Energy & Utilities Industry for 12 years.
- Key note Speaker Management Events Strategy council Sweden 2014-2015 and Norway 2015.
- Management consultant experience from Vattenfall, Fortum & others.
- Project Manager for large ERP & CIS implementations in the Energy & Utilities industry in Europe.

Tieto Corporation

Tieto is the largest company in the Nordics that provides full lifecycle services in IT, as well as product development, for private and public organisations.

Building on our Nordic heritage and values, we have global capabilities and a strong presence where our customers need it – in the Nordics or via global delivery centres across the globe.



Short facts

- Employees: 13.000
- Turnover: 1.500 MEUR
- Presence: +20 countries.
- Industries: *Energy & Utilities, Financial services, Forest, Healthcare & wellfare, Oil and gas, Telecom and media.*

Tieto Energy & Utilities

Tieto Energy & Utilities is the market leading provider of IT based solutions and services for handling Customer information, Metering, Settlement, and Billing to Retailers and Distribution companies in the Nordics.

Tieto Energy & Utilities competence and know-how is used every day to handle customer relations and secure competitive earnings for almost 5,4M POD's.

Tieto Energy & Utilities of today has played a key role on the Nordic market for more than 45 years.

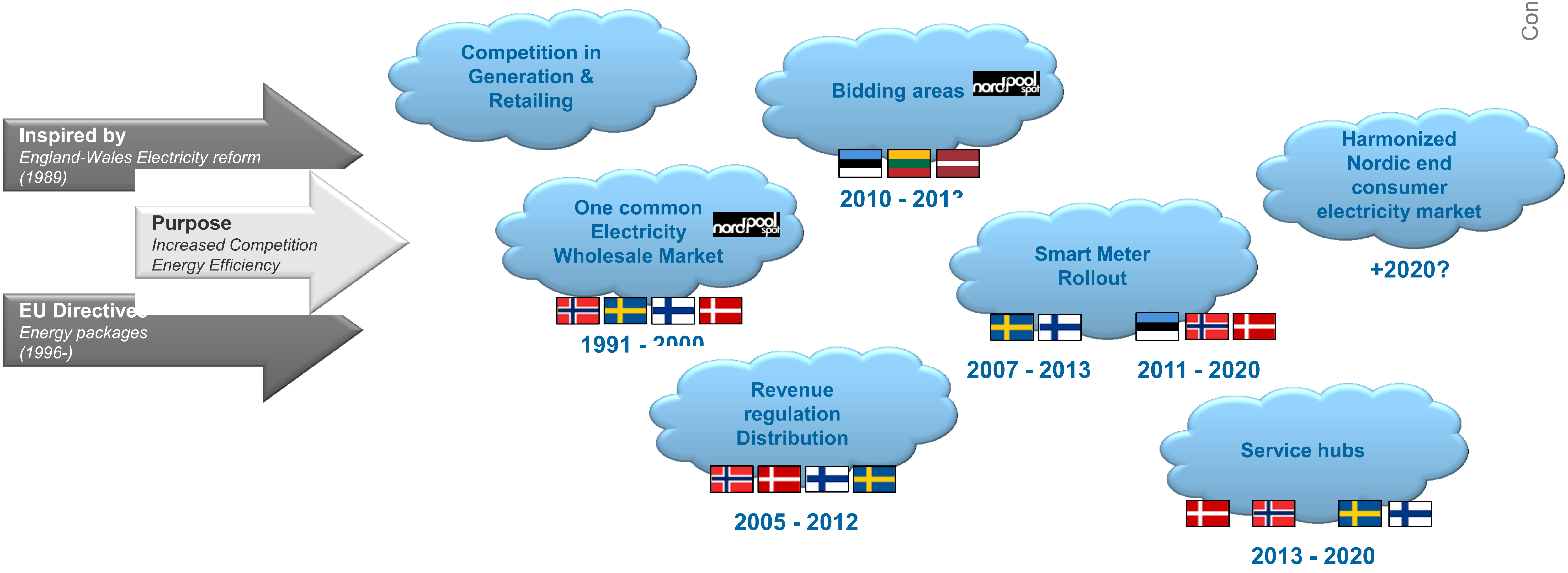
Short facts

- Employees: 440
- Turnover: 55 MEUR
- Presence: Sweden, Norway, Finland, Czech Republic, the Baltics and India.
- Key Customers: Fortum, Hafslund, Vattenfall and Eon.

The journey – so far

Market evolution

- Overview

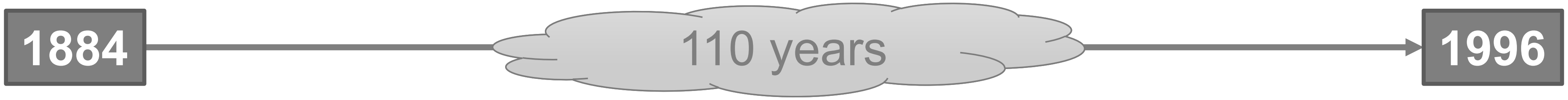


A historical journey
- The period before deregulation in Sweden

- Swedens first electricity company was founded 1884
  - Supplied the power to 1.000 light bulbs in Gothenburg

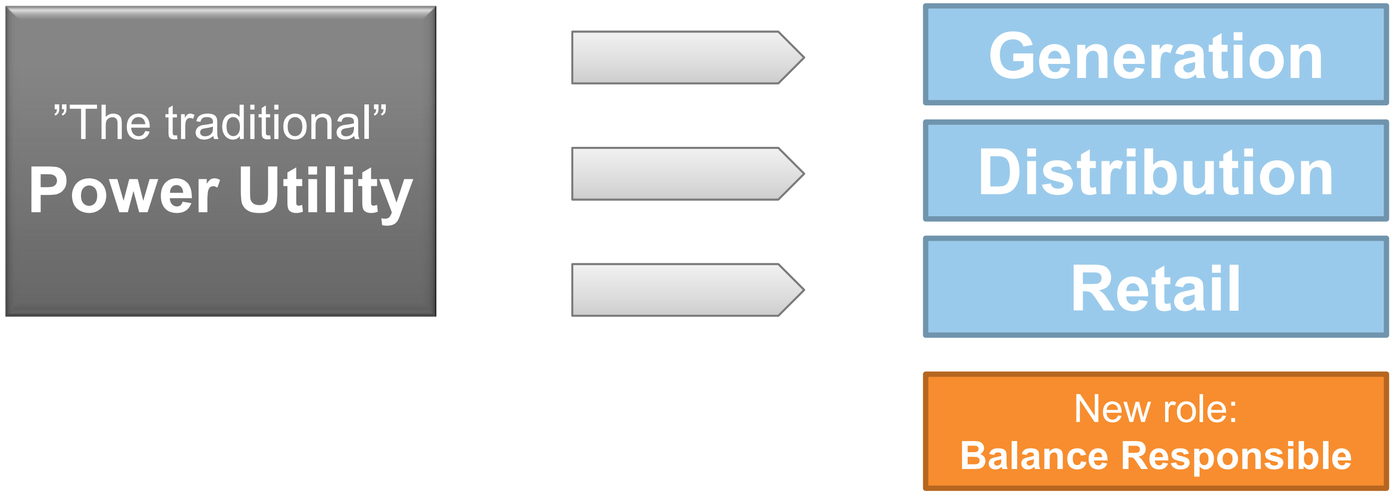
- Privately owned businesses that controlled small scale production and distribution cables in geographical areas.

- Transformation into municipal power utilities that remained in full control of Generation and Distribution.



A historical journey
- Looking back on the deregulation in Sweden

- Introduced in the mid 1990’s to enable
  - Competition to benefit the consumers
  - Improved energy efficiency awareness and consumer proactivity



Free market based pricing and production
- Production planning.

Grid tariff based geographical monopoly
- Meter readings and Settlement.

Free market competition
- Consumption projections.

Physical and financial risk balancing
- Planning, Follow-up and reporting.

A historical journey
- Looking back on the deregulation in Sweden

- The early principle (1996)
  - B2B and B2C: Hourly readings and daily Hourly based settlement
    - DSO approach: Cost for the required new AMR-solutions ” to be financed” by the customers.

- Updated principle #1 (1997)
  - B2B and B2C: Hourly readings and daily Hourly based settlement
    - DSO ”entry fee” for the customer was limited to max. 250 EUR.

- Updated principle #2 (1999)
  - B2B: Hourly readings and daily Hourly based settlement
  - B2C: Yearly readings and monthly Profile based settlement
    - DSO no longer allowed to charge the customer for supplier switches.
    - Effect: Major improvement towards increased market movements.
    - Drawback: Full financial Settlement occured 14 months afterwards.

A historical journey

- Looking back on the deregulation in Sweden

Public

- Updated principle #3 (2006)
  - New lowered limit (from 63A) for which delivery sites to include in the daily Hourly based settlement
    - Effect: Improvements toward the foundation for monthly Profile based settlement

- Updated principle #4 (2009)
  - B2B: Hourly readings and daily Hourly based settlement
  - B2C: Monthly readings and monthly Actual consumption based settlement

A historical journey

- Looking back on the deregulation in Sweden

Public

- Challenges during the early years (1996 ~ 2009)
  - Flaws in the legal standard resulted in unclear market actor roles.
  - Recommended general market processes weren't utilized by all.
  - Traditional corporate structures (with DSO and Retail combined) led to protectionism and thereby inhibited genuine competition.
  - Insufficient competence to handle various challenges.
  - Unclear routines within and between market actors.
  - No consequences on market actors who decided not to follow the regulations.
- Consequences
  - Mandatory messages and data were not communicated and communicated data was hard to interpret
    - Critical information was missing and uncertanties on the quality of the information.
  - Incorrect data was communicated
    - ”Junk mails” leading to misinformation.

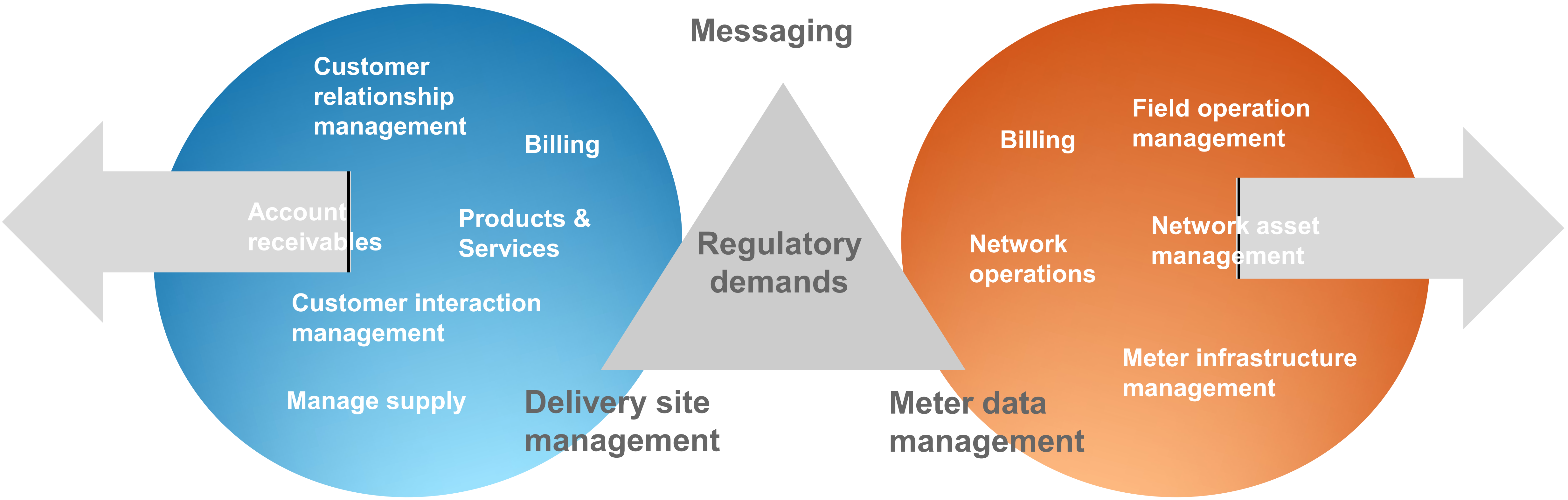
Scouting the future energy arena

Known changes and transformation of IT landscape to specialized services

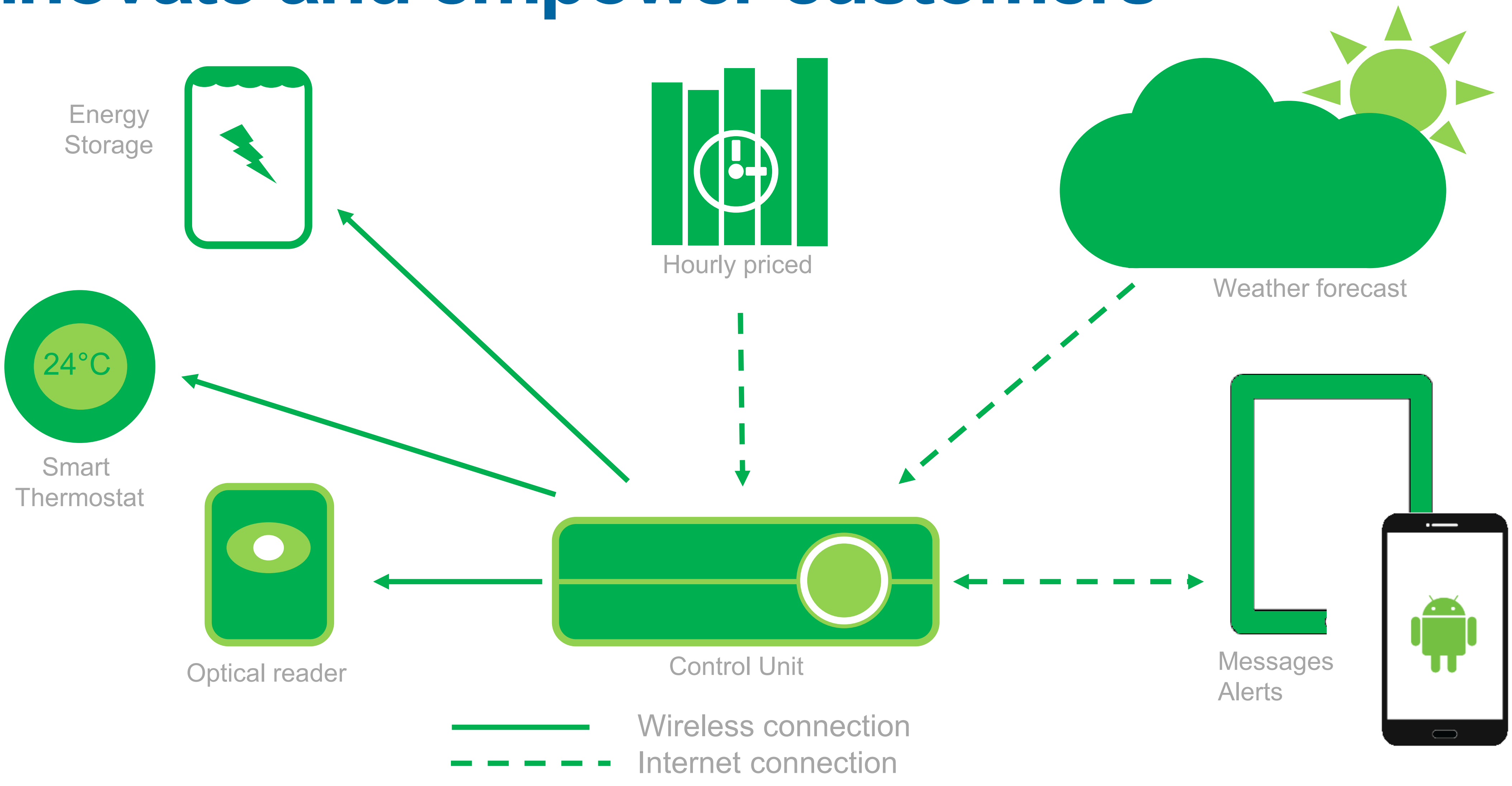
Efficiency requires specialised services

Retail:
A competitive business to win and retain the right customers

Distribution:
Cost efficient and flawless operation with strong asset development



Innovate and empower customers



Transformation

Traditional
ERP solutions

- **Best-of-Breed Solutions**
- **Unbundling**
- **Regulatory Changes**

Service hubs

Market data exchange
Meter values
Balance & settlements
Billing Electricity Distribution
DSO quality measurements

Efficient DSO

Smart Metering &
Grid Customer encounters

Competitive Retail

Marketing & sales
CEM Retail
Billing Retail

Why organizations are moving to Cloud?

Speed to deplo

IT harmonization

Major cost savings

Lack of own competence

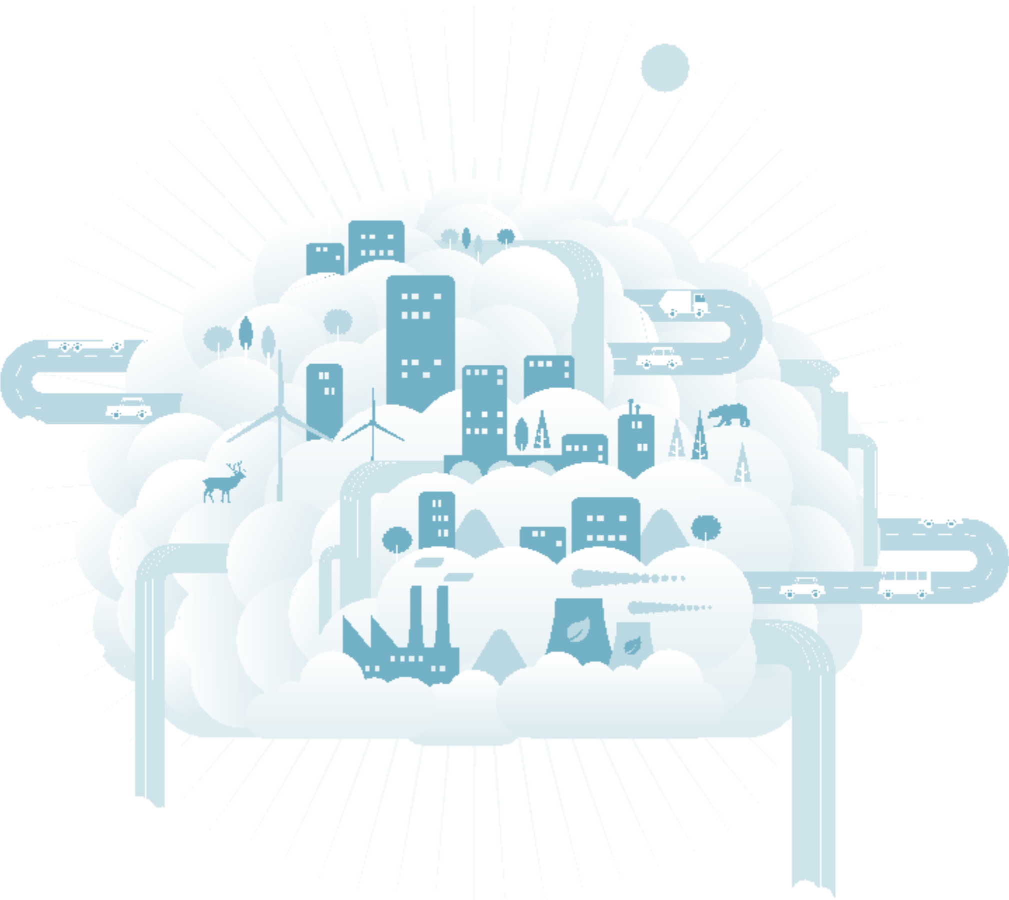
Latest versions
always available

Integration needs

Geo-distribution

Automation

IT securit



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Scalability

Usability

Unlimited
processor power

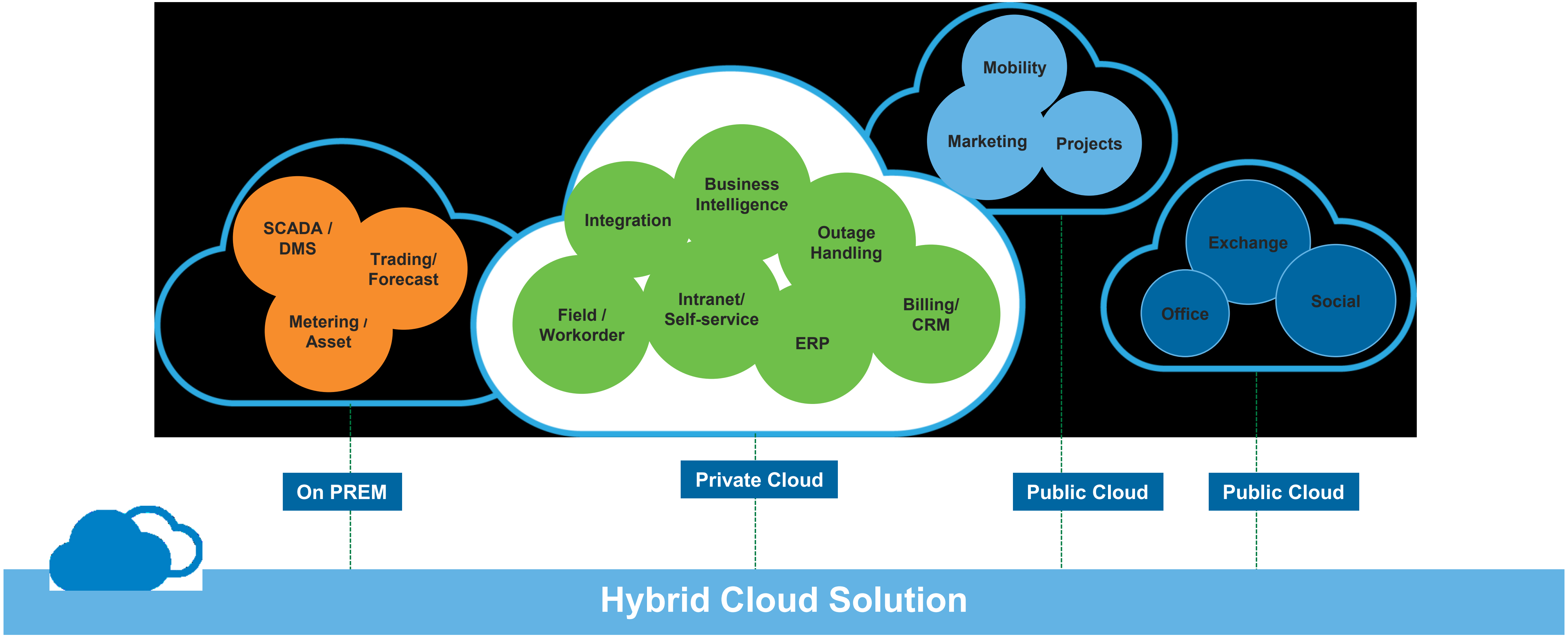
Agility & flexibility

Easy profiling
of employees

me 99,9%

Any device access

Example Scenario for Energy utilities



Changing perspectives