



**Martin Kuppinger**

CEO, Founder & Principal Analyst

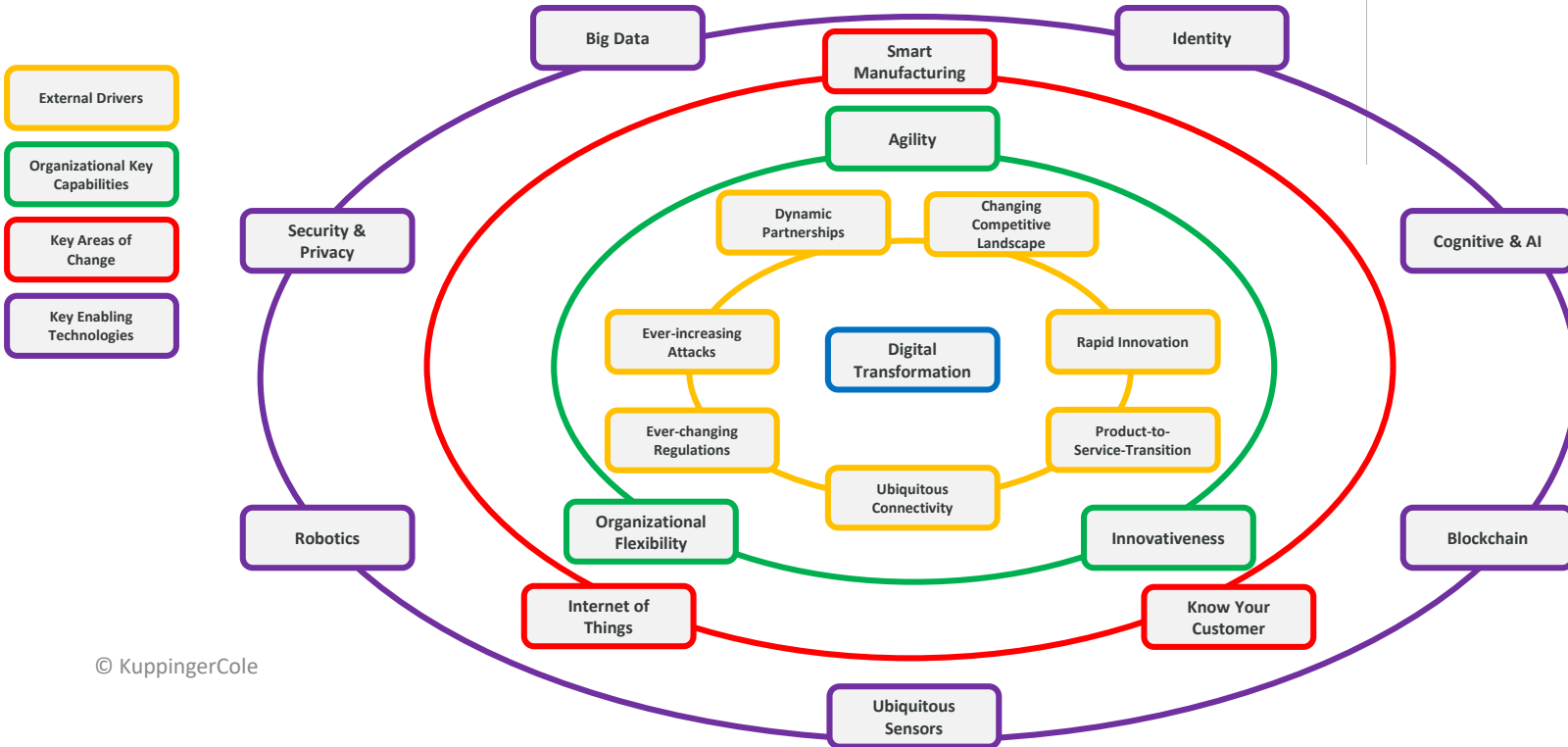
KuppingerCole

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# Digital Transformation: A Game Changer for every Industry

## What it is and what it means to the Energy sector and Transmission System Operators

# Digital Transformation: Circles of Change



# Digital Transformation for TSOs

## Innovation-driven

- Prosumers and their impact on networks and peak loads
- Renewable energy and their impact on networks and peak loads
- Smart Cities with Smart & Autonomous Grids

## Market-driven

- Prosumers and their impact on energy trading
- Smart Meter Gateway Services and more for the DSOs

## Technology-driven

- Big Data, Data Lakes, Data Management, Data Exchange, Analytics
- Blockchains for Distributed Use of Data
- Security and Privacy for the Smart Grid

# Prosumers can cause or cushion peak loads

## Production



Production: Whenever the sun is shining

## Consumption Storage



Storage: Whenever the vehicle isn't used  
Vehicle ~21h/day as flexible storage

## Procurement Feed

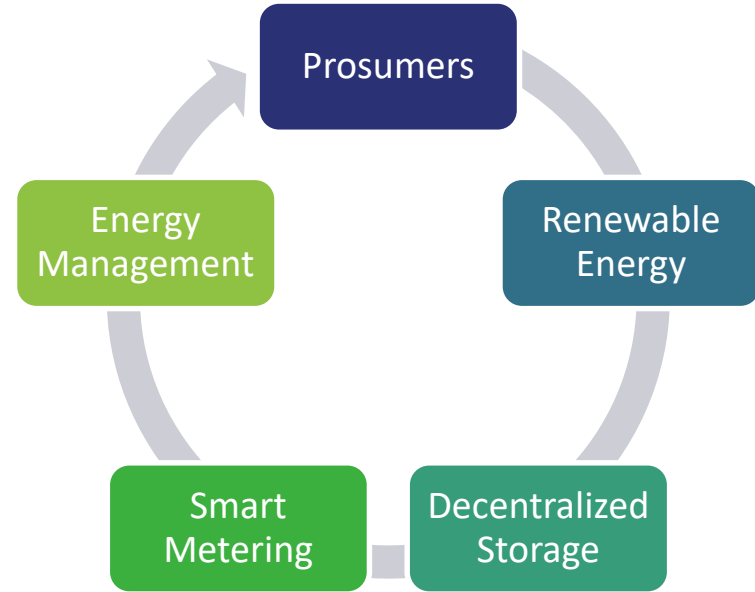


Procurement: Whenever power is cheap  
Feed: Whenever power is expensive

## Smart Cities – Smart Grids – Autonomous Grids

Nice Grid – demonstrating the way towards autonomous grids („islanding“)

Changing the play for TSOs – autonomous grids need different services



## Interplay TSO – DSO: Services for the DSO

Most DSOs will not be able to provide all services for smart cities, metering, etc.

Leading to

- Cooperations between DSOs
- Market entry of new players such as Telcos
- Market Opportunities for TSOs

Essential in the Digital Transformation: The face to the customer and consumer

Don't miss that opportunity

# Blockchain Impact

Blockchains are distributed ledgers

Characterized by

- Distributed
- Sequenced
- Time-stamped
- Tamper-proof

Massive opportunities for storage and exchange of data between the various parties in the market

## Rethink your Role in the Market

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Look at the opportunities  
– the TSO role will never  
be the same again



## About KuppingerCole

- Founded in 2004
- International independent analyst organization
- Offers neutral advice, expertise, thought leadership, and practical relevance
- Supports companies, corporate users, integrators, and software manufacturers with tactical and strategic challenges
- Specialized in:
  - Information Security
  - Identity & Access Management (IAM)
  - Governance (IAG)
  - Risk Management & Compliance (GRC)
  - All areas concerning the Digital Transformation



## Our Business Areas

### Research



- Different Research Types
- Vendor-Neutral
- Always up to Date
- Independent Advice

### Events



- Thought Leadership
- Best Practices
- Great Networking Opportunities
- Meet the Experts

### Advisory



- Best Advisory Partner
- Make Your Business Successful
- Advise in the Era of Digital Transformation

# KuppingerCole Conferences 2017/2018



## Consumer Identity World Tour 2017

LOCATIONS: APAC - Singapore | USA - Seattle | EUROPE - Paris

DATES: Seattle: Sep 12-13 - Paris: Nov 28-29 - Singapore: Dec. 13-14



## Next Generation Marketing Executive Summit 2018

LOCATION: Frankfurt, Germany

DATE: Feb. 06 – Feb. 07, 2018



## Digital Finance World 2018

LOCATION: Frankfurt, Germany

DATE: February 28 - March 01, 2018

**The Future of Information Security – Today.**

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