

Born to
INNOVATE



Powel in short

- Nordic Market leader, software provider:
 - Energy planning & operating
 - Smart grids for energy & water
 - Contractor projects
- Business critical software & consultancy services
- Offices in 7 countries
- 400 dedicated and high-skilled employees
- Strong Central European footprint



Changes in the energy market since 2008

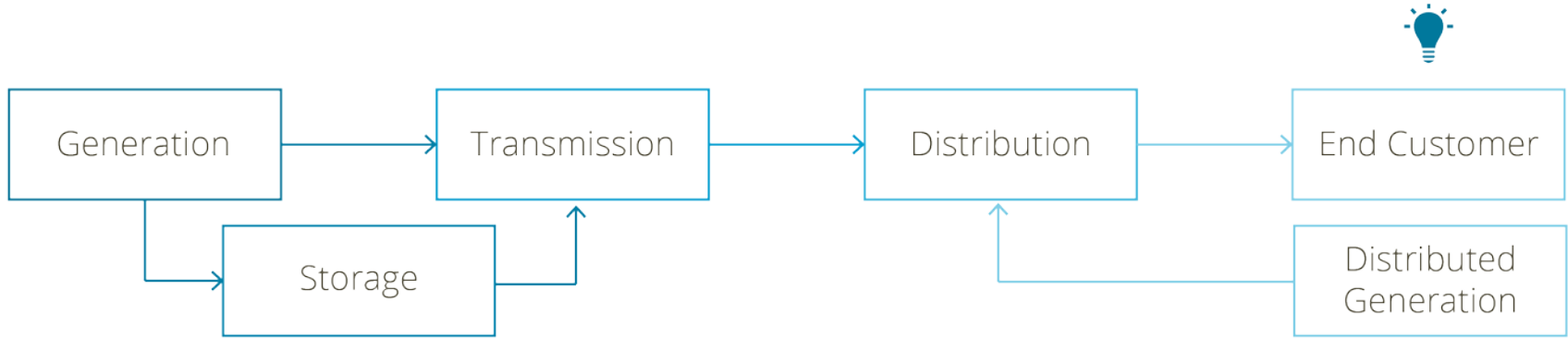
- Price changes
 - 80 % decline in battery prices
 - 70 % decline in solar PV prices
 - 50 % decline in wind turbine prices
 - And steadily decreasing power prices
 - > 70 % decrease in oil price
- Macro perspective
 - Very low interest rates
 - Economic recovery programs
- And energy politics
 - Time lag in adjustment of subsidies
 - EU: 20-20-20
 - Energiewende
 - Paris
- Write down of assets
- Climate awareness among consumers



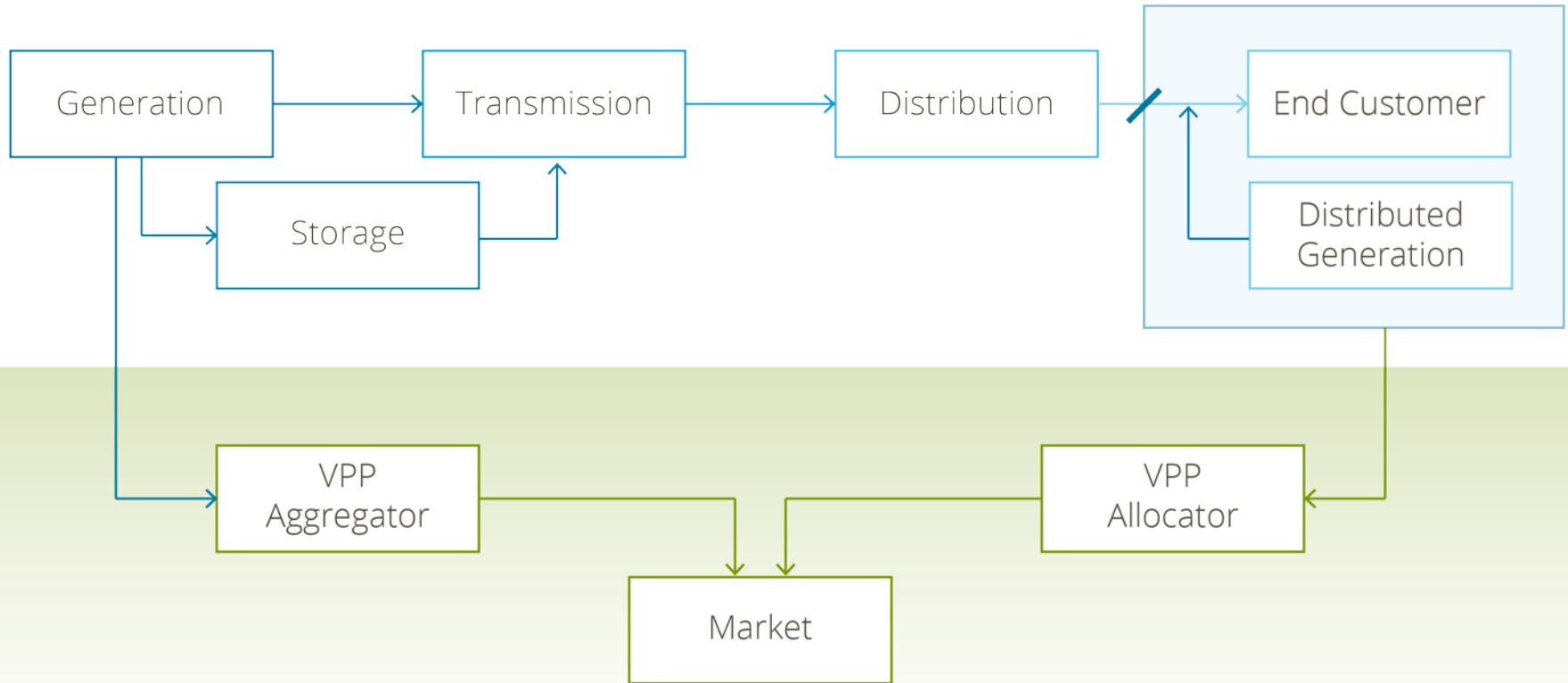
- Mobile Internet
- Automation of knowledge work
- The Internet of things
- Cloud technology
- Energy storage
- Renewable energy
- Advanced Robotics
- Autonomous and near autonomous vehicles
- Next generation genomics
- 3D printing
- Advanced materials
- Advanced oil & gas exploration and recovery

Source: McKinsey

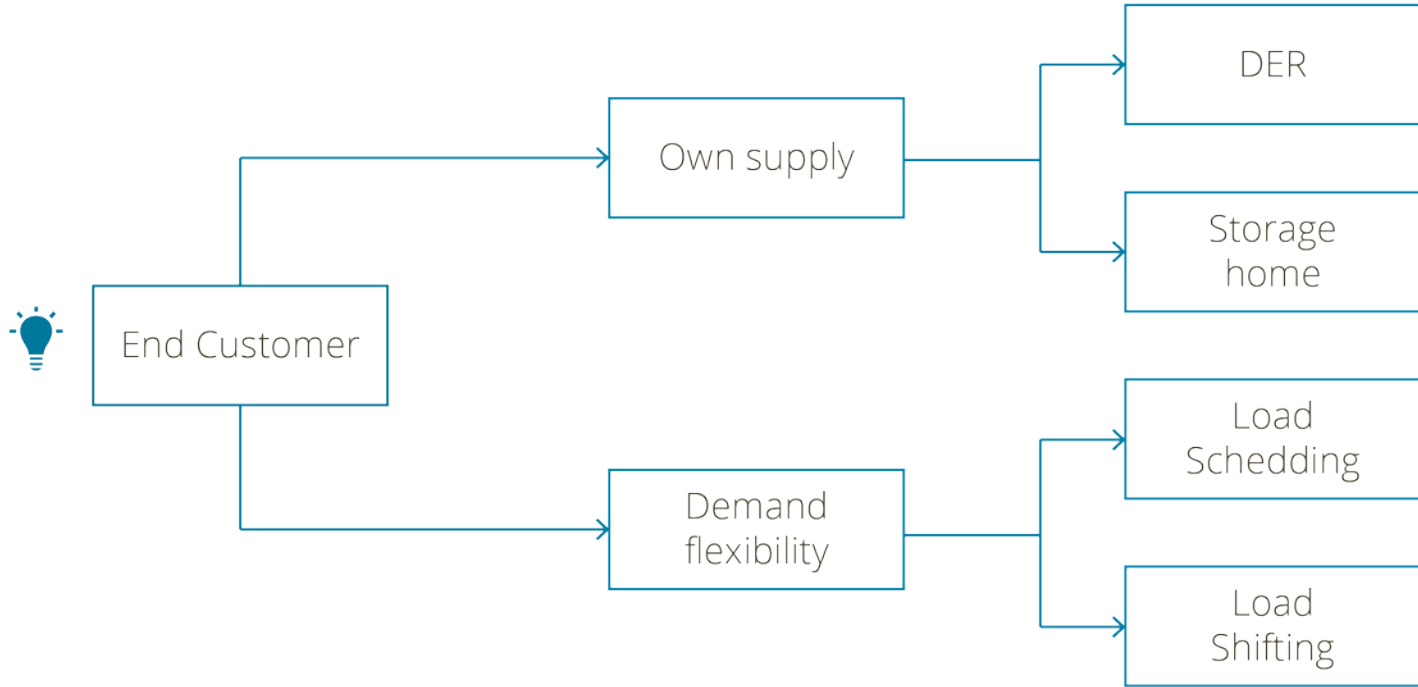
The old way: The electrons travel to the lightbulb



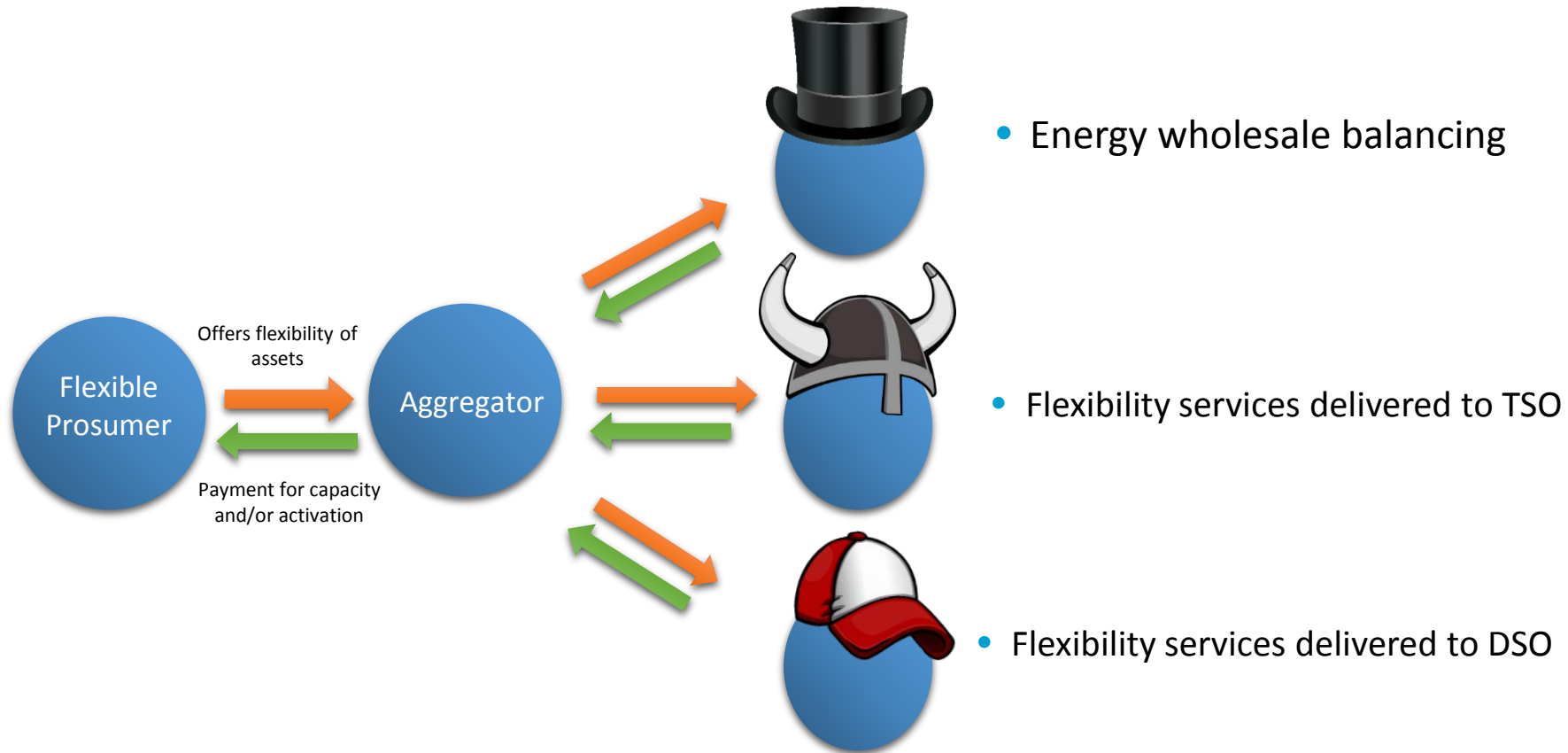
New in the game: Microgrids, Aggregators and Allocators



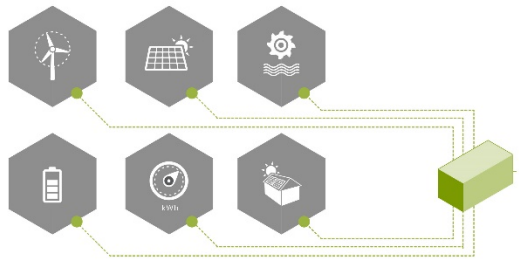
End customer- “flexible prosumer”



Need for new role “Aggregator”



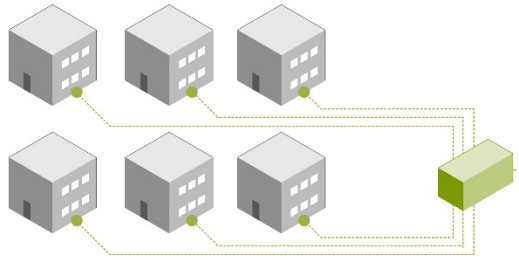
Multi-assets



Producers

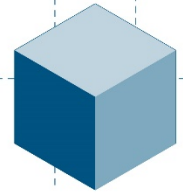


Customer portal



Consumers

Forecasting



Optimisation

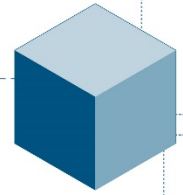
Forecasting



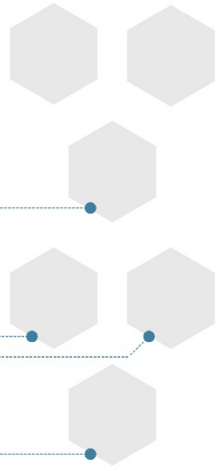
Multi-markets



Interface for service provider



Trading



Markets

Thank you!