



ZF Power Summit

February 21, 2017

Four lenses on landscape and its implications for utilities

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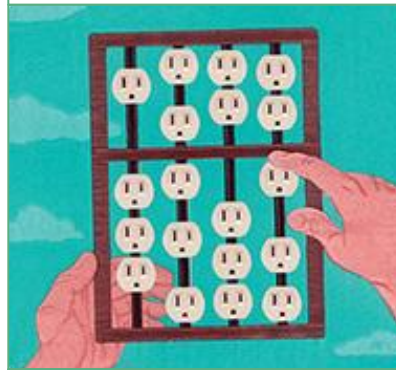
Value pools



Value will further shift from traditional pools

2

Competitive advantage



Past capabilities no longer sufficient

3

Investor perspective



Traditional investor thesis no longer works

4

Implications for management teams

Dramatic shifts in value pools

Expected change in value
pool 2025 vs. 2015

Equipment

Services

Ownership

Conventional generation

Large scale RES

Trading

TSO

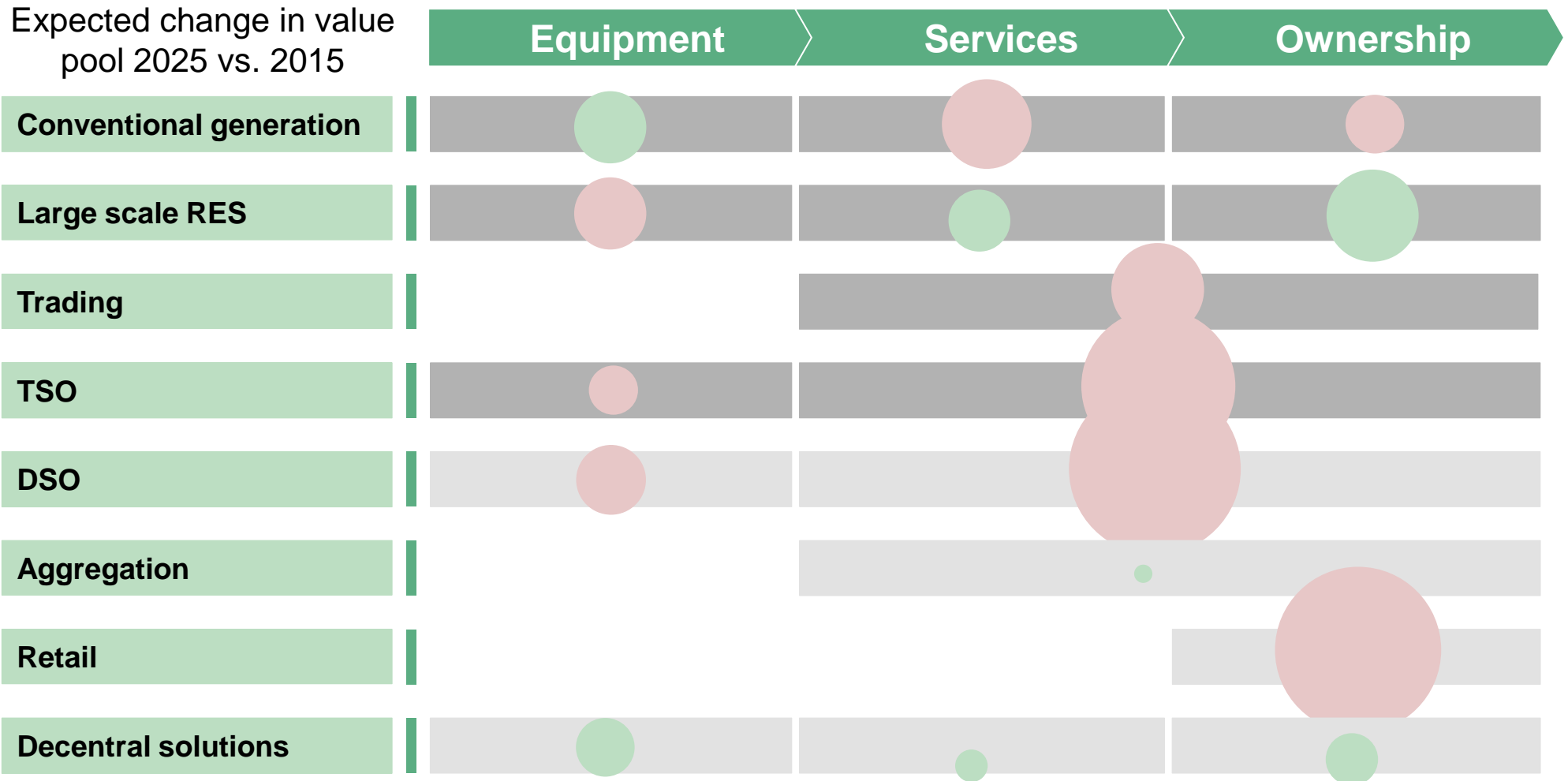
DSO

Aggregation

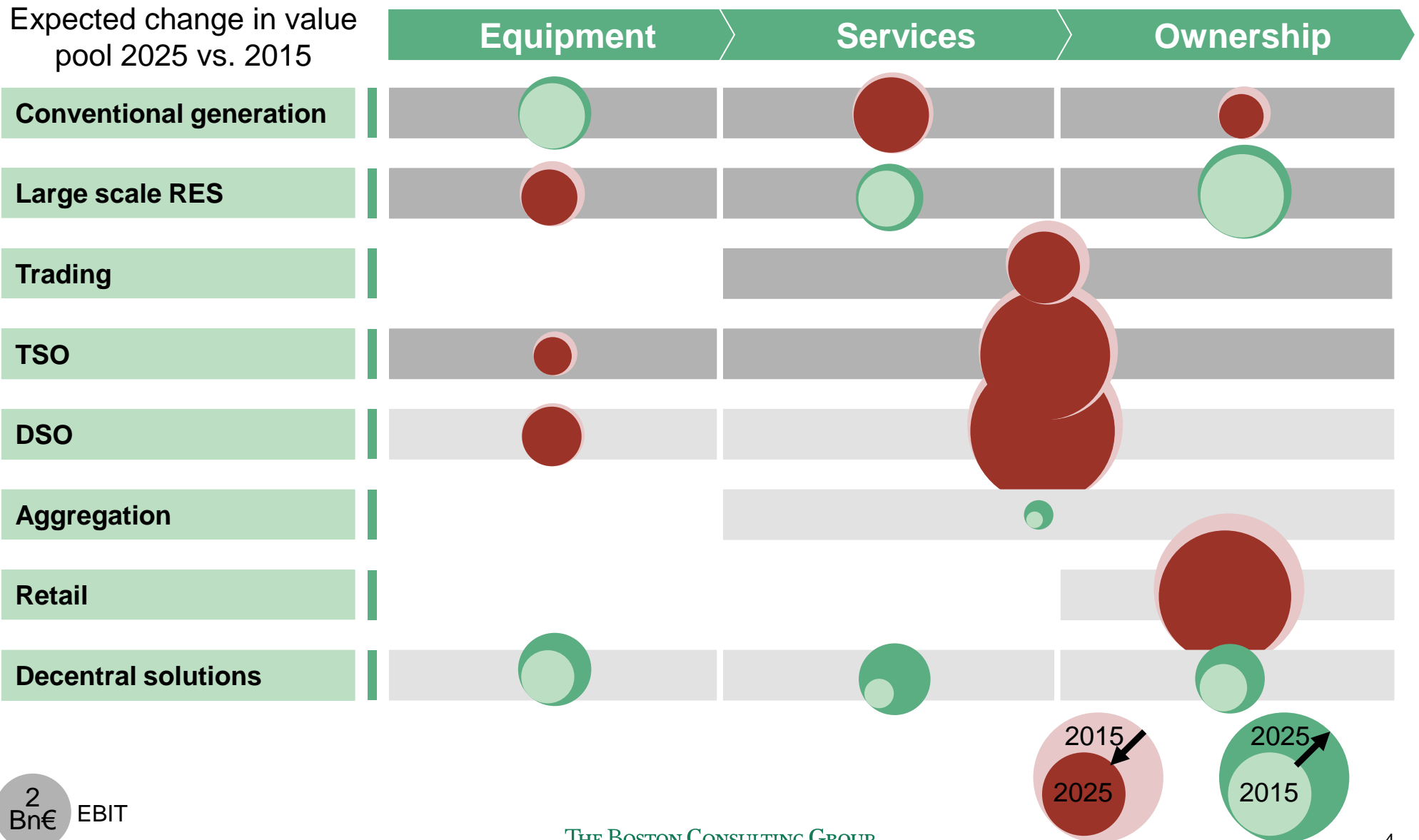
Retail

Decentral solutions

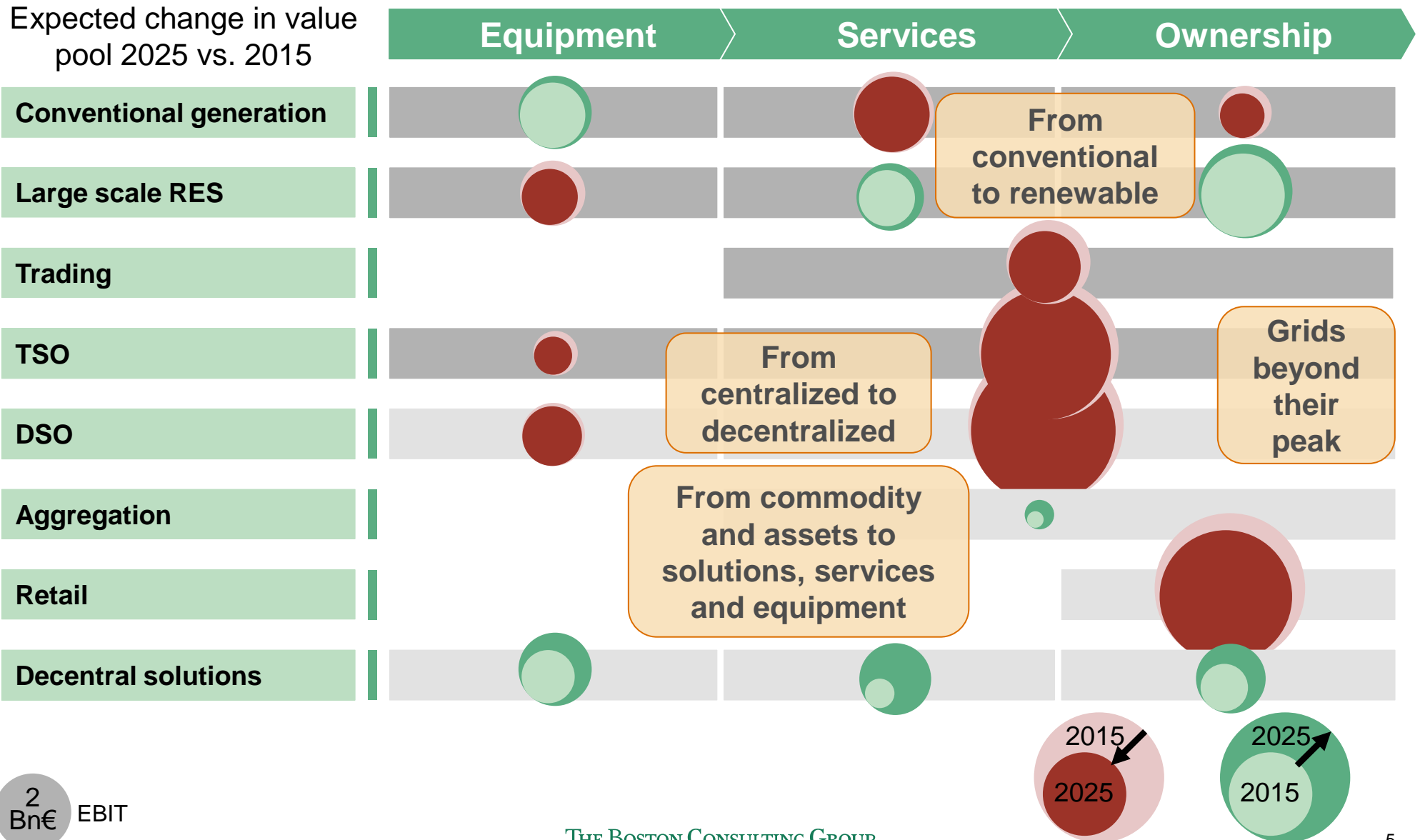
Dramatic shifts in value pools



Dramatic shifts in value pools



Dramatic shifts in value pools



Fundamental changes in competitive advantages

Traditional success factors

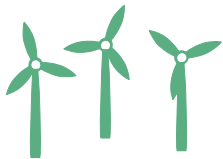


Availability

New success factors

Real operational excellence

Flexibility



Ownership

**Full industrialization
(throughout the value chain)**

Superior development

Fundamental changes in competitive advantages

Traditional success factors



Asset base

Regulation management

New success factors

Operational performance

**Capex portfolio management
and project execution**



Incumbency

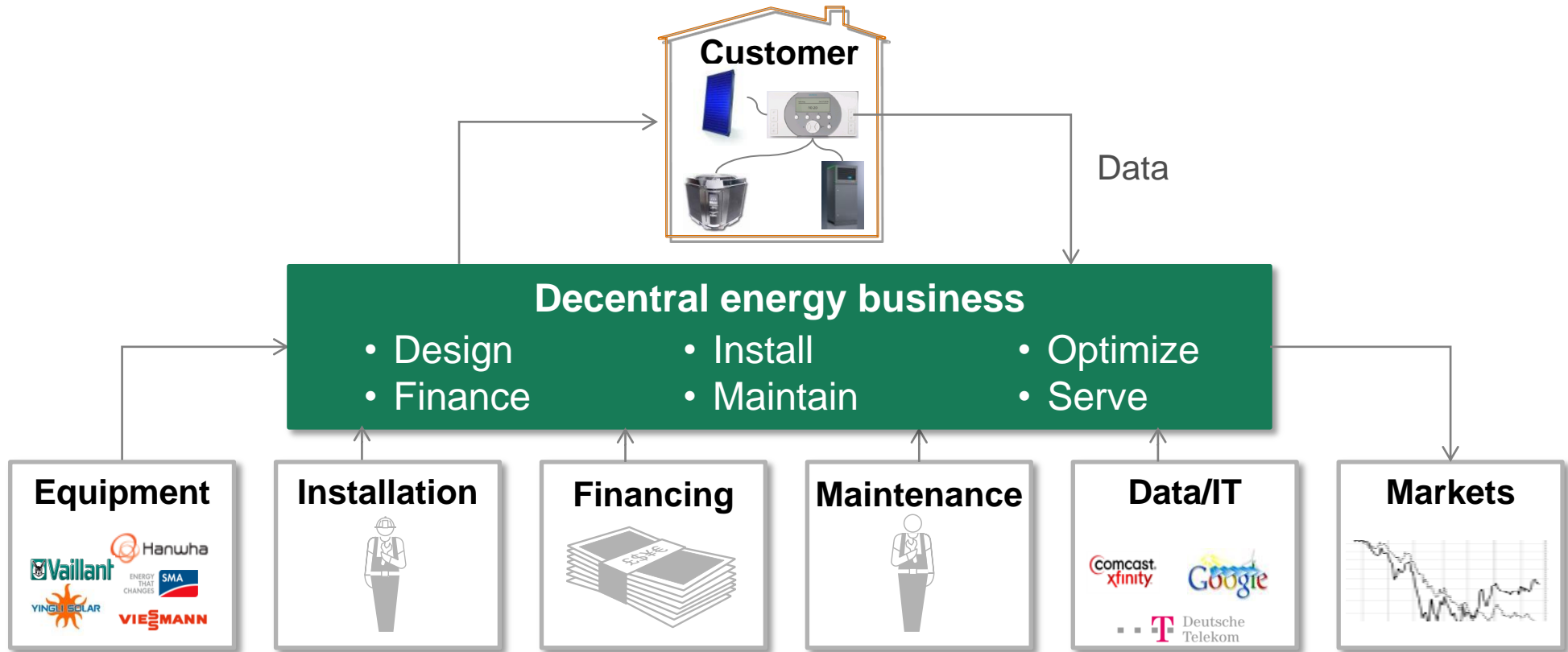
National scale

**Drastically cheaper, fully
digital operations**

Data exploitation

**Service offering (& then local
scale)**

The new business every player wants to reap



Competitive advantages that a utility may have for new, decentralized energy business models



A strong customer franchise

... provided...

It has become a genuinely **high performance** retailer



Deep knowledge of its customers

... provided...

It has learned to **exploit well all the information and data** it has on its customers



A technology-neutral position

... provided...

It gets rid of its "not invented here" syndrome
It is **able to integrate new technologies** as they come

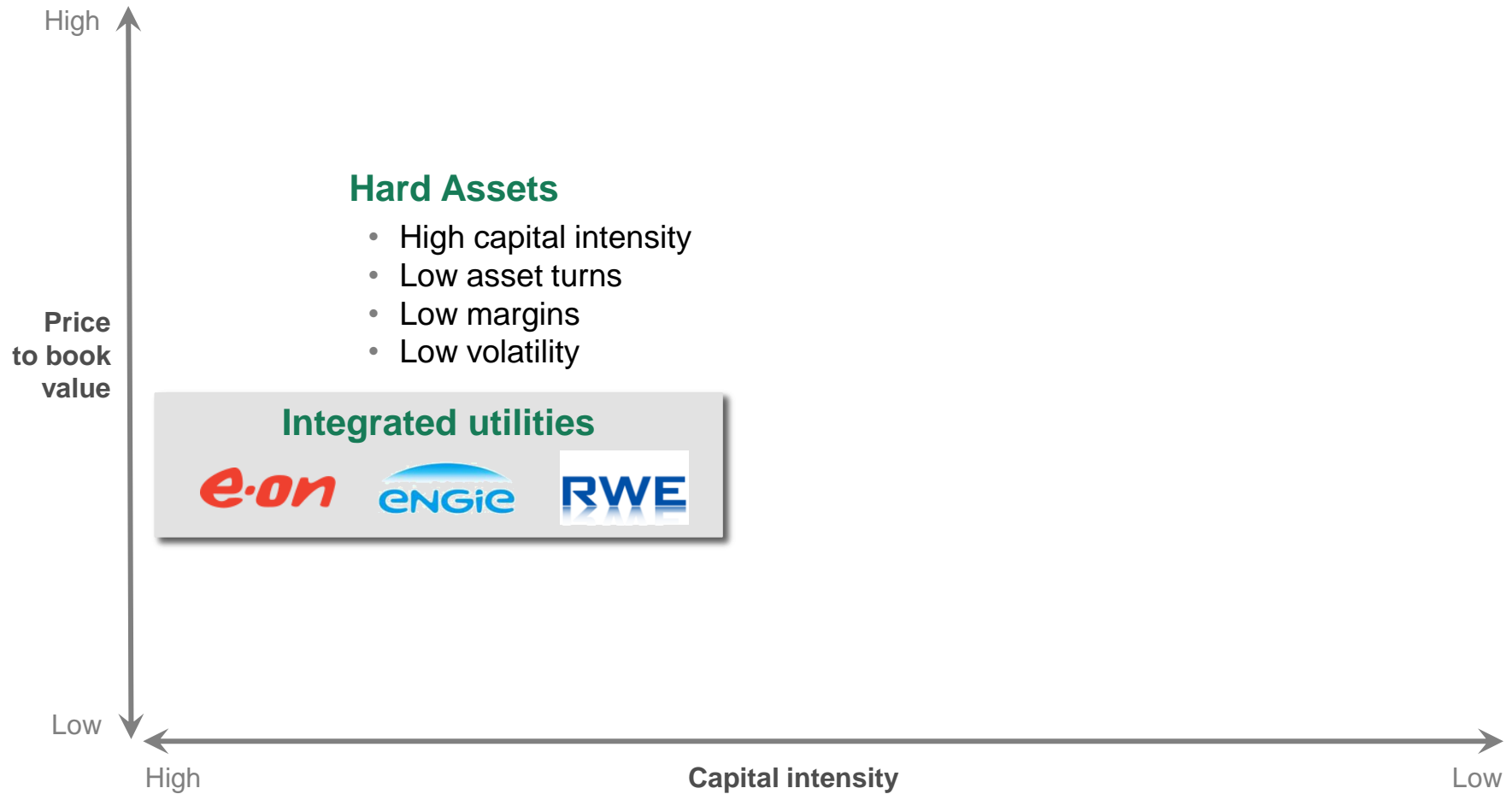


A competent and efficient field force

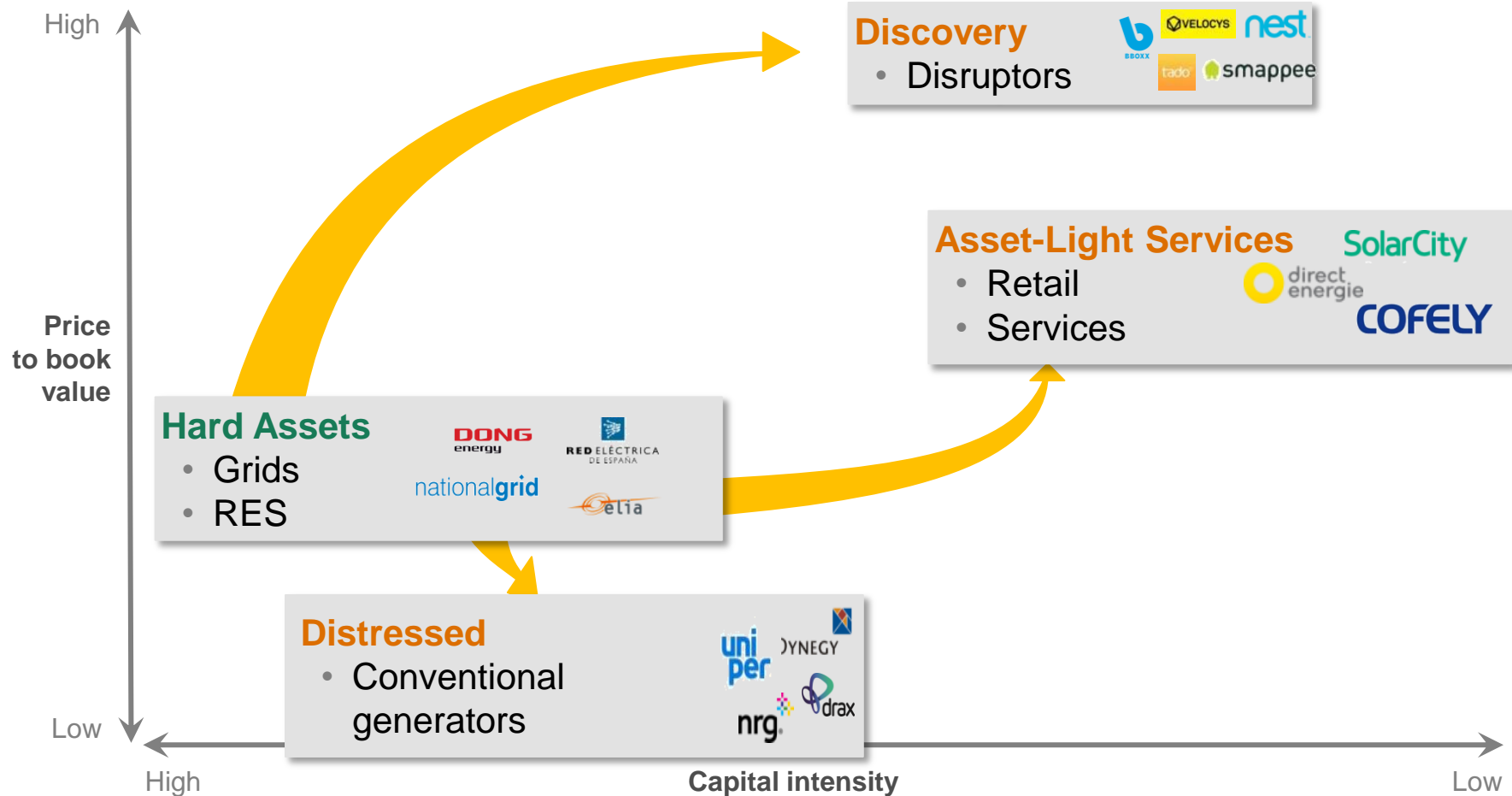
... provided...

It has developed a field intervention business, with enough local scale, and has **learned to manage a people intensive business**




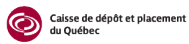








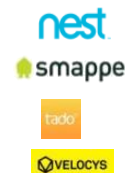


Investment theses have drifted apart



Investment theses have drifted apart



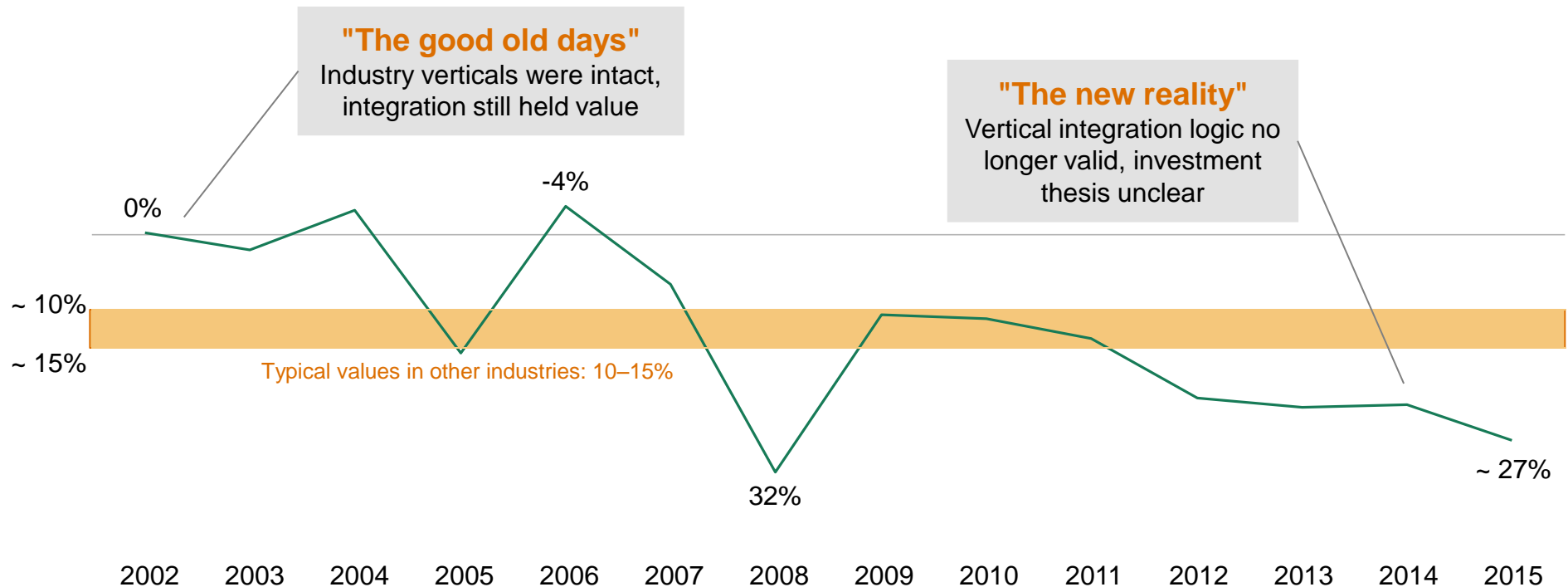
Different businesses attract different kinds of investors

Value pattern	Examples	Characteristics	Investors
Hard Assets/ Utility-Like	<div>Energy</div>  <div>Other</div> 	<ul style="list-style-type: none"> • Very capital intensive • Asset base management key to success • Stable business dependent on industry-wide cycles 	 <p>Yield investors</p> 
Distressed Assets/ Deep Value	 	<ul style="list-style-type: none"> • Unhealthy returns, lack of comp. advantage • Low valuation due to poor reinvestment economics • Value creation through restructuring 	 <p>Private Equity</p> 
Asset-Light Services	 	<ul style="list-style-type: none"> • Low asset intensity, high revenue • Large scale and distribution system key to compete 	 <p>Growth investors</p> 
Discoveries	 	<ul style="list-style-type: none"> • Disruptive: focus on R&D and technology • Shifting technologies rapidly • Pioneering in new categories, leading to scale and high gross margins 	<p>DBL PARTNERS</p> <p>Venture capital</p> 

Vertically integrated utilities trade at conglomerate discounts

Average conglomerate discount for top 15 EU utilities

%



1. Excluding ENGIE, EDF and ENDESA due to changes in EBITDA reporting over the last 10 years

Note: Conglomerate discount calculated based on 3Y average EV/EBITDA multiples for representative pool of companies and 2015A EBITDA

Source: Capital IQ, BCG

No time for incremental measures!



Funding the journey

- Lean operations
- Nimble, simple organization
- (Working) capital optimization



Winning in the Medium Term

- Portfolio restructuring
 - shape the future of legacy assets
- Consider business models of the future – make clear choices



Right team, organization and culture

- Adapted performance measures and capital allocation
- New capabilities (data management, digital,...)
- More entrepreneurial, decentralized, "open", customer-centric culture¹

1. Depending on portfolio choice