



green:field

Vattenfall's open innovation platform

*The end of the energy giants and the beginning of a new era
- changing actors in an evolving energy landscape -*

July 2016, Juliane Schulze, Vattenfall GmbH

The end of the energy giants? RWE AG (RWE.DE)



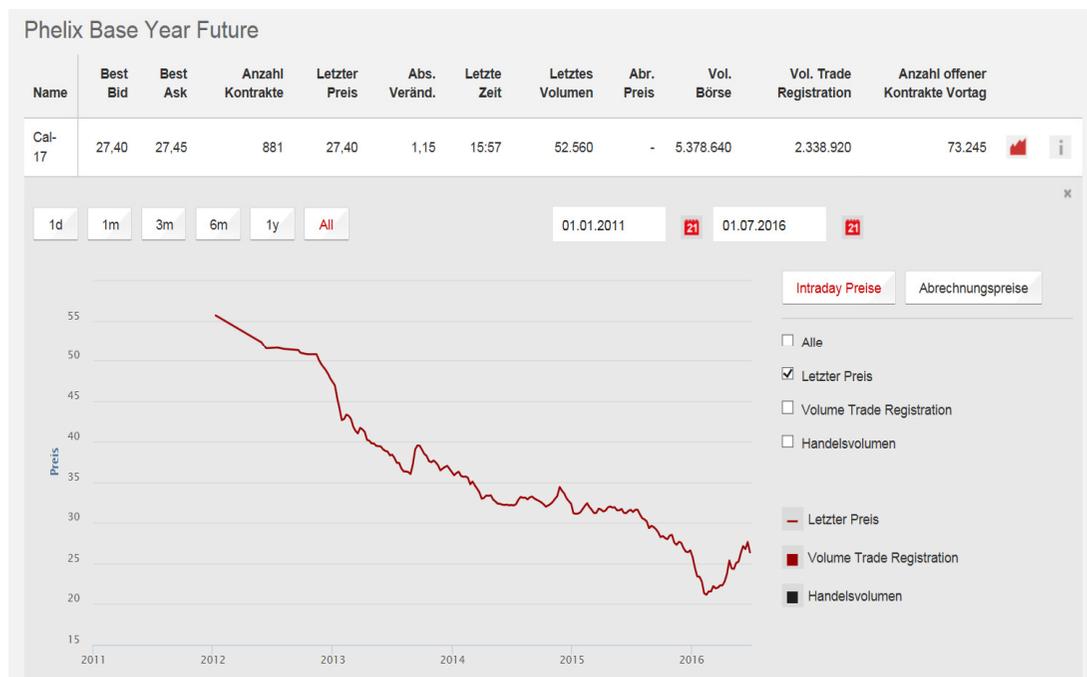
The end of the energy giants? E.ON SE (EOAN.DE)



COMPARISON WITH DAX



The end of the energy giants and the beginning of a new era

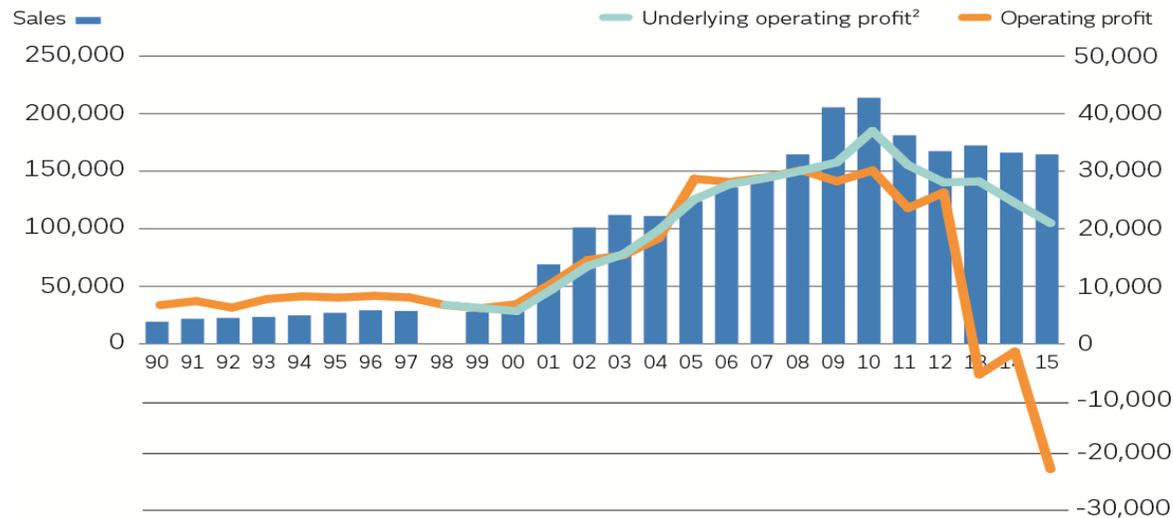


The new era

- Decreasing electricity prices due to:
 - Increasing volumes of RES and decentral assets
 - Decreasing residual load for baseload power plants
 - Overcapacity with subsidized assets
- Shrinking value of large scale fossil power plants

The end of the energy giants and the beginning of a new era - also true for Vattenfall -

Sales and operating profit, SEK million, 1990–2015¹



1) Starting in 2004, Vattenfall reports in accordance with IFRS. Prior to this, reporting was conducted in accordance with Swedish GAAP.

2) Underlying operating profit is defined as operating profit excluding items affecting comparability.

VATTENFALL'S TRANSFORMATION

From a "traditional utility"...

- Large-scale, centralised production
- Wholesale-focus
- 50% fossil power

- Customer focus
- Growth in renewables drives decentralization
- Heat as a strong business opportunity
- Partnering becomes more important
- Low emitting large-scale production with high efficiency
- Lean and agile organization

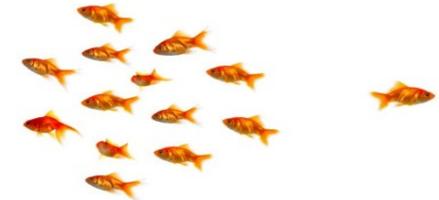
...to capturing the business opportunities in the transformation

green:field

Vattenfall's open innovation platform

WHAT DO WE DO?

- green:field is a platform for entrepreneurs
- We connect people with promising business ideas inside and outside Vattenfall
- We support them to build strong business models and realise their ideas
- We want to realise the most promising ideas to:
 - create new offers to our clients
 - increase efficiency in our daily work
 - drive the Energiewende



THREE AREAS OF INTEREST



1) Renewable energy and storage

- Onshore & offshore wind (development, financing, O&M)
- Photovoltaics and batteries
- Alternative storage technologies and flexibility options

2) Customer relationship

- Customer access and marketing in Renewables
- On-site customer services
(configuration, installation, operation & maintenance)
- Customer relationship management
(contact & contract mgmt, energy data processing, invoicing, GPKE)

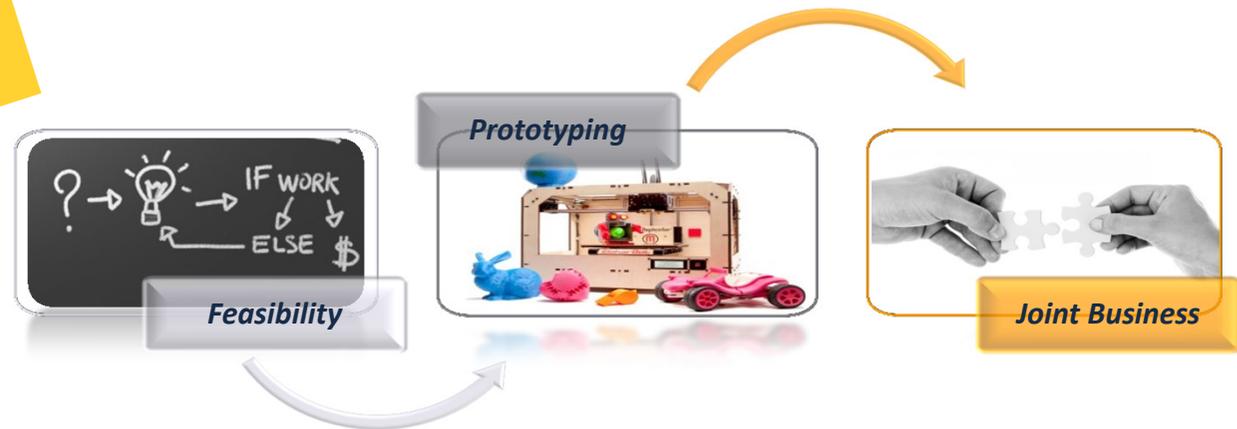
3) Big energy data

- Whatever you can come up with
- BTB concepts
- BTC concepts outside smart home

green:field & STARTUPS

**Cooperation first,
Investment later**

We build up relationships to the most promising startups with their dynamic, fast and creative culture and excellent ideas

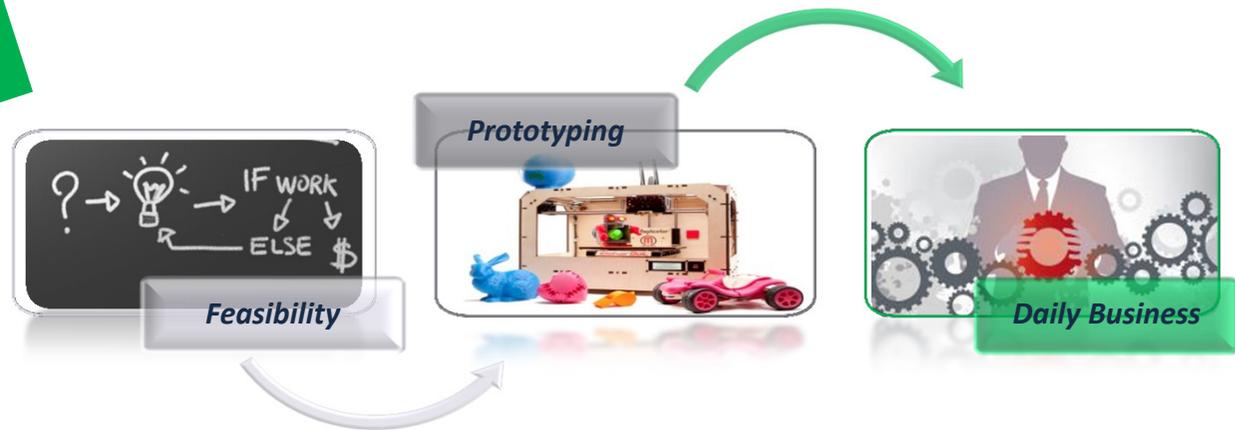


Throughout the whole process we support you, if you need help, e.g. with access to market experts, assets or data.

green:field & EMPLOYEES

Entrepreneurs
inside the company

Develop the most promising ideas to minimal viable products, prototypes and finally integrate them into our everyday business.



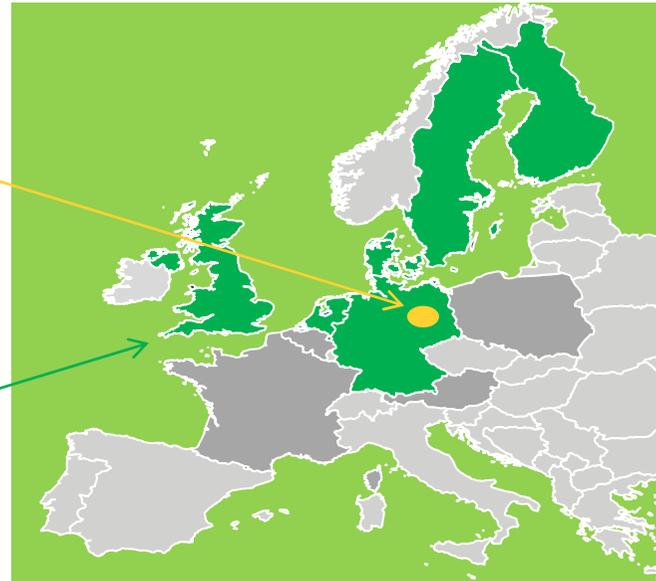
Top management-support is crucial. Internal idea competitions and cooperation with external incubators support the whole process.

OUR CURRENT REGIONAL FOCUS

Startups from Berlin

Cooperation first
Investment later

Focus on ideas relevant for our core countries:



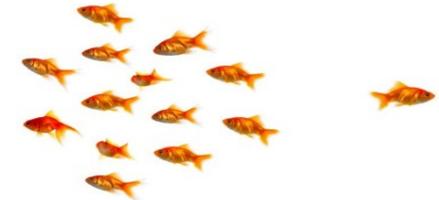
Our employees in renewable business

Entrepreneurs
inside the company

- Sweden
 - UK
- Netherlands
 - Denmark
 - Germany

FIRST INITIATIVES

- Blockchain conference
- Support of Vattenfall Vision
→ coaching and training events
- Sponsoring Ecosummit Berlin
- First startup cooperation:
→ Solandeo, talks with others
- Corporate Startups:
→ greenHAUS
→ sunBESSY



FIND US



Juliane Schulze

E-mail: green-field@vattenfall.de

Web: www.vattenfall.de/greenfield