



**va-Q-tec – Always the right temperature**  
**Company presentation**

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# Key Investment Highlights

**1** **Leading technological innovator**  
First class thermal insulation technology platform



**2** **Significant growth opportunity in multiple end markets**  
Disruptive product portfolio opening numerous potential applications



**3** **Control of the critical steps of the value chain**  
Selective vertical integration to secure technology and cost advantage



**4** **Market leading healthcare logistics services**  
Superior service offering for the high growth healthcare market



**5** **Strong financial track record**  
Dynamic growth trajectory and sustained profitability



**6** **Experienced management team with clear strategic vision**  
Significant scientific and operational experience



**va-Q-tec**  
CREATING ENERGY EFFICIENCY



# Mission statement



va-Q-tec – always the  
right temperature.

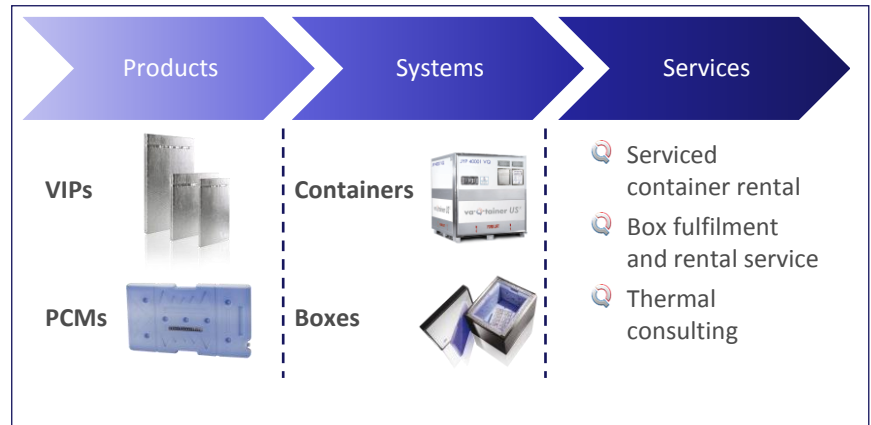




## We are a technology company at heart...

- Founded in 2001, we are a pioneer and **technology leader** in advanced thermal insulation products, systems and services
- In-house development and production of **Vacuum Insulation Panels (VIPs) and thermal energy storage components/ Phase Change Materials (PCMs)**
- Leading advanced **passive thermal packaging systems**
- Successful **forward integration into healthcare cold chain solutions/ services** with own managed box and container fleets
- Preferred partner for the **most demanding blue-chip customers**
- Geographic presence in 7 locations on three continents
- 281,5 FTEs<sup>(3)</sup> and have served c.1,300 customers globally

## ...with highly differentiated products and services...



## ...in attractive markets driven by strong trends...

Thermal energy efficiency	Globalization of supply chains	Product safety and regulation

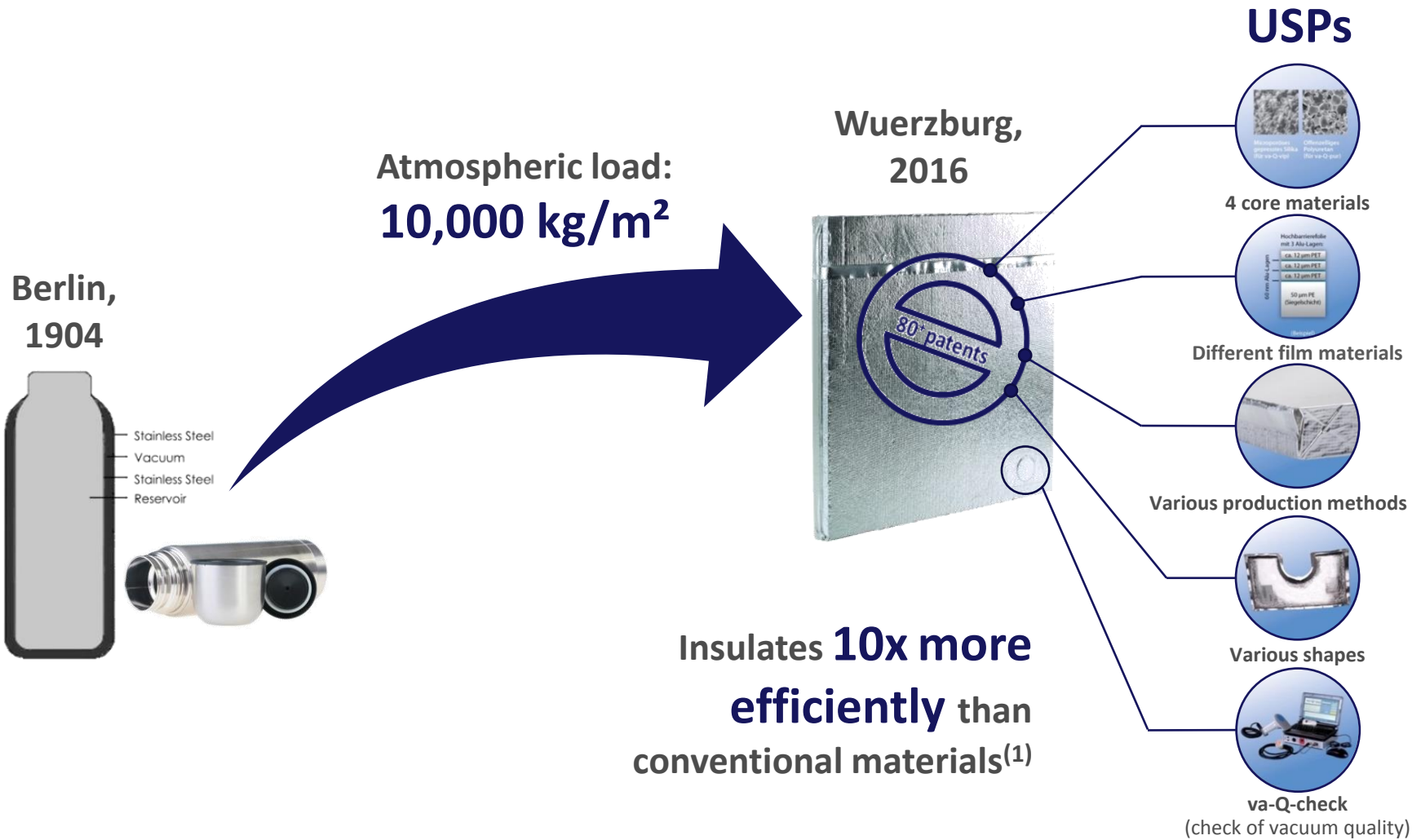
## ...and holding a leading position



<b>&gt;20</b> Awards in the last five years	<b>#1</b> No 1 VIP producer in the Western World <sup>(1)</sup>	<b>&gt;1,000,000</b> <sup>(2)</sup> shipments made deviation free	<b>&gt;80</b> Patents protecting our technology
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### Selected bluechip partners/ customers

Note: (1) Excl. building applications, (2) Based on customer feedback from shipments made by our customers in our products; (3) as of 31/12/2016  
Source: luxresearch (2015)



**We have taken the mastery of best physical insulation to the next level**

Notes: (1) Compared to insulation materials like mineral wool or aged PU foam in a range from 5x-15x

Products

### Vacuum Insulation Panels (VIPs)

Ambient (<100°C)



10x more efficient insulation or 10x less space<sup>(1)</sup>



### Phase Change Materials (PCMs)

Standard Ranges  
(-25°C to 25°C)

Speciality Ranges  
(<-60°C to -30°C & 30°C to 40°C)



10x more efficient energy storage<sup>(2)</sup>



### Advanced passive packaging solutions

Single use boxes

Multi use boxes



Multi use pallet-size for air and land transportation



Systems

Notes: (1) Compared to insulation materials like mineral wool or aged PU foam in a range from 5x-15x (2) PCMs store energy 10x more efficiently at a given temperature compared to thermal energy storage with pure liquid water  
Sources: (1, 2) BINE Informationsmanagement



# Key drivers defining our context



Thermal energy efficiency

**c.60%**

of primary energy consumption in Germany is used for thermal purposes



By 2020,

**27 of the top 50**

best-selling global drug products will require 2-8°C cold-chain storage and handling

Product safety and regulation



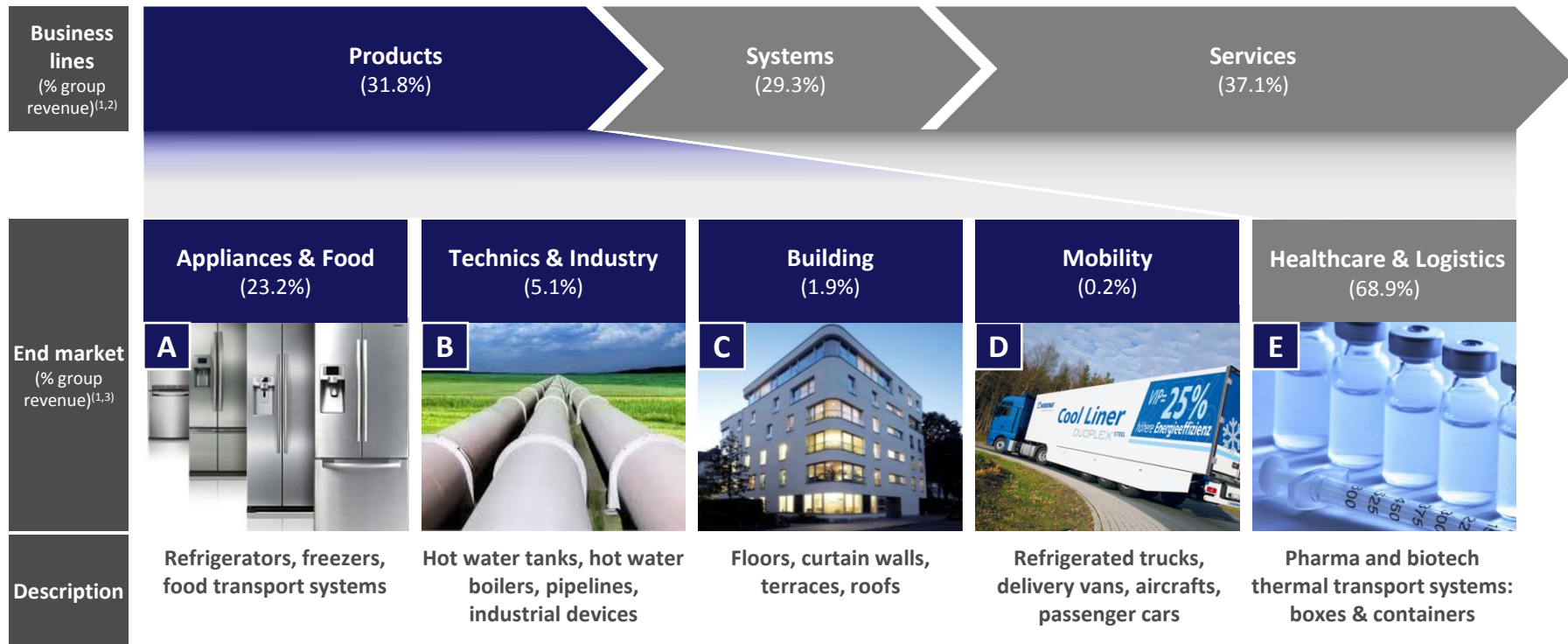
Globalization of supply chains

**Increasing globalization and outsourcing of clinical research and manufacturing creates huge requirements for efficient pharma cold chain packaging**



# One technology platform, multiple end markets

Our products, systems and services are tailored to markets which require **excellent thermal insulation** and have **space restrictions**



Note: (1) 2016 consolidated IFRS financials (2) Other revenues primarily comprise state funded research & development projects (2016: c. 1.8%) which can partially be allocated to va-Q-tec's key end markets (3) Excluding revenues from R&D projects (2016: c. 0.7%)

# Selective coverage of critical parts of the value chain

Technology and cost leadership through **selected backward integration**

Proven ability to capitalize on our technology platform through **profitable forward integration**

We are a **VIP & PCM pioneer** in our DNA

Production materials

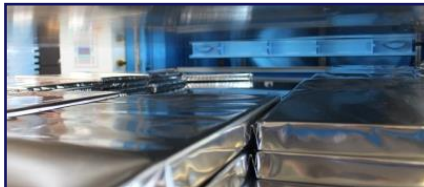
Products

Systems

Services



- Selective backward integration achieves cost advantages and exclusive access to innovative materials



- In-house engineering and manufacturing of VIPs and PCMS
- Deep R&D competence in core and film materials as well as thermal engineering and testing



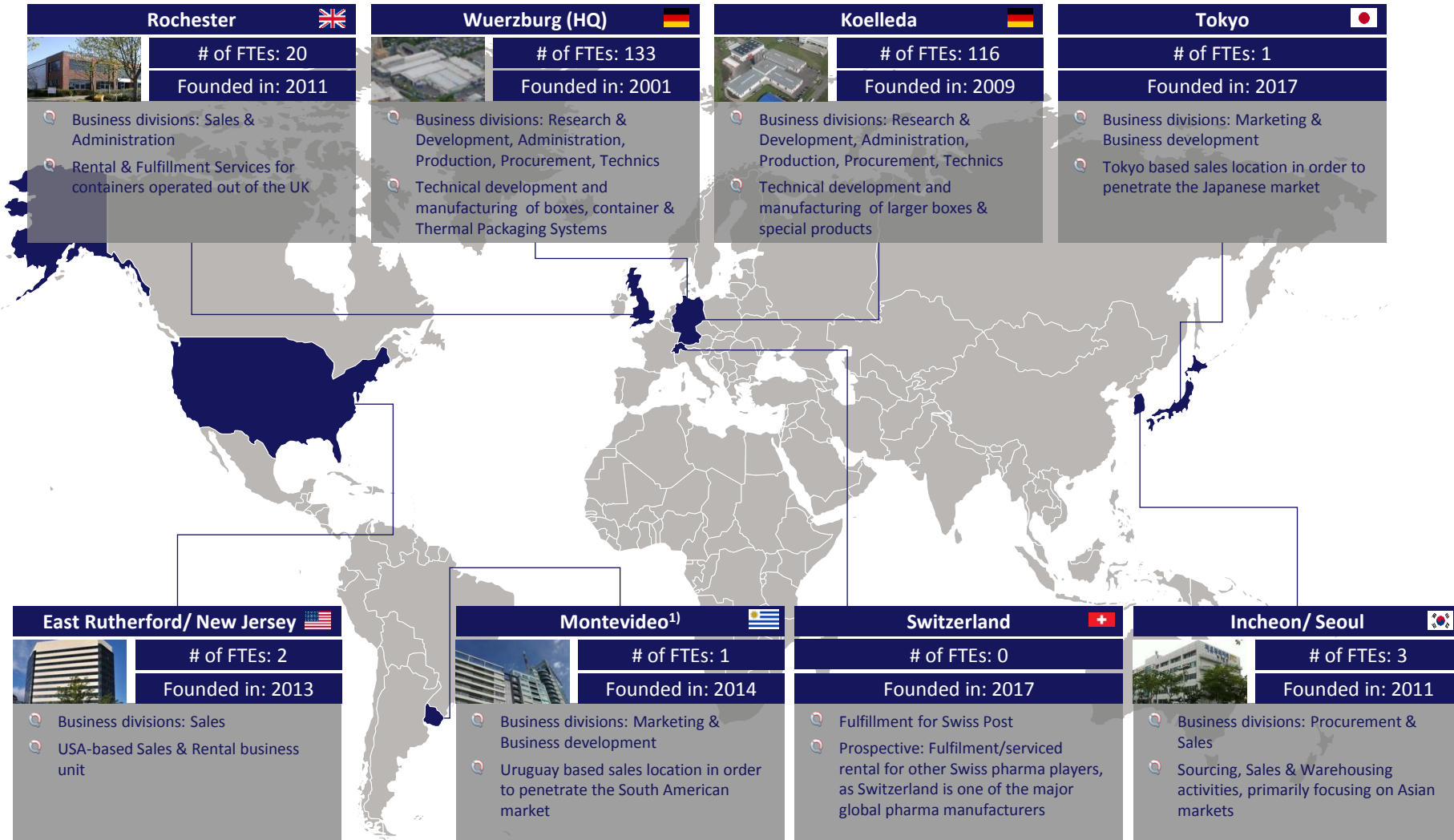
- In-house development and assembly of thermal packaging systems (airfreight containers and boxes)
- Extensive testing and simulation capabilities



- Serviced container and box rental offering
- Highly scalable by leveraging the global network of our blue-chip logistics partners

**Profitability** + **Barriers to entry** + **Quality** + **Recurring revenues** + **Differentiation** + **Customer loyalty**

# va-Q-tec's geographic footprint as the step stone for global expansion

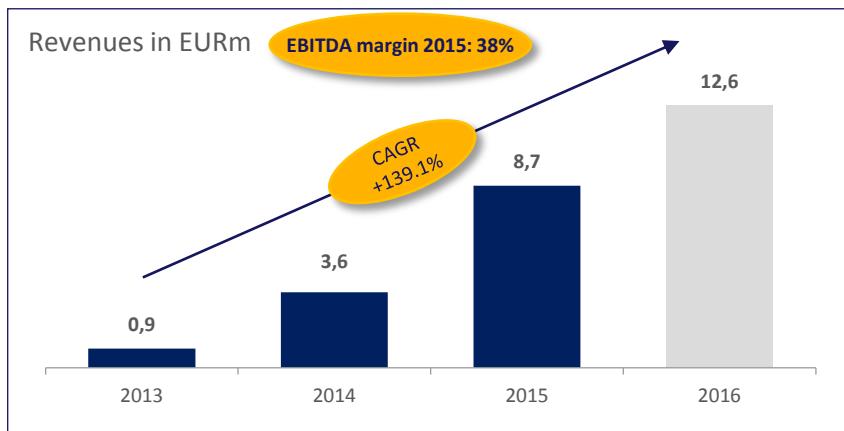


Notes: As of 31/12/2016 1) No own legal entity



## va-Q-tec UK Ltd. (Container rental)

### Massive revenue growth 2013-2016



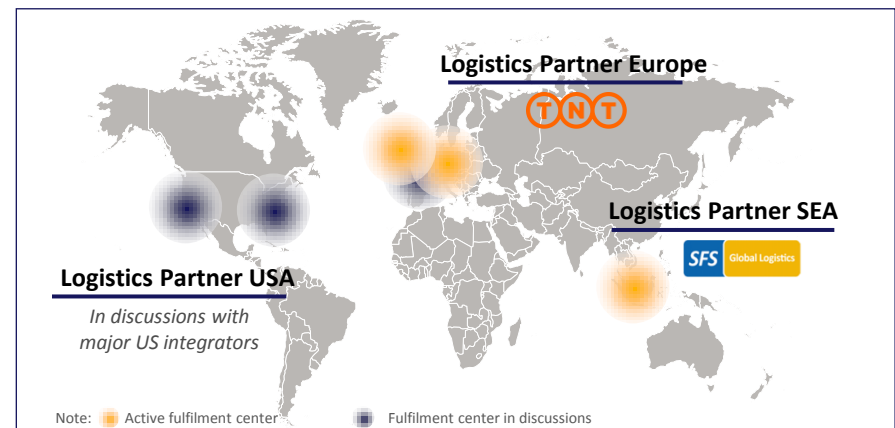
### Global container rental

- Launched in 2011
- 1<sup>st</sup> passive, reusable fleet in the market combining price advantage with superior performance
- Global transportation of bulk goods for commercial distribution and clinical trials
- 23 network stations and >500 drop points via airline partnerships



## Box rental

### Fulfillment centers and logistics partners



### Continental box rental

- Kicked off in 2015, pioneering box rental services for pharma and biotech customers
- Continental / Regional distribution
- Clinical trials logistics for Clinical Research Organisations
- Distribution of commercial goods
- Last-mile shipments from wholesalers to pharmacies
- Massive growth potential in next 4 years

# Case study: va-Q-tec partners with Swiss Post to provide temperature-controlled logistics in Swiss market

## Current situation and va-Q-tec's solution

- ❏ In **06/2015** Switzerland – one of the major pharma manufacturer countries – adopted *Good Distribution Practices (GDP)* for pharma logistics and manufacturing
- ❏ So far, Swiss Post lacked a GDP-compliant solution for pharma shipments in the ambient temperature range
- ❏ Swiss Post selected an advanced thermobox branded „ThermoCare Ambient“ based on vQt's va-Q-med® technology for last mile distribution

ThermoCare Box



## Neue Zürcher Zeitung

Post. Laut EU-Regelung dürfen Medikamente seit Anfang 2016 nur noch temperiert transportiert werden. Das gilt auch für die Schweiz. Die Post hat eine eigene Lösung entwickelt und Anfang Woche mit der Box «Thermo Care» erste Lieferungen ausgeführt. Der deutsche Hersteller Va-Q-Tec entwickelte die Box zusammen mit der Post, wie Post-Logistics-Chef Dieter Bambauer bestätigt. «Wir haben erst eine interne Lösung angestrebt. Als dies nicht funktionierte, gaben wir den Auftrag extern.» Pilotkunde ist die Voigt-Gruppe. (knu.)

## Key highlights of Swiss post partnership

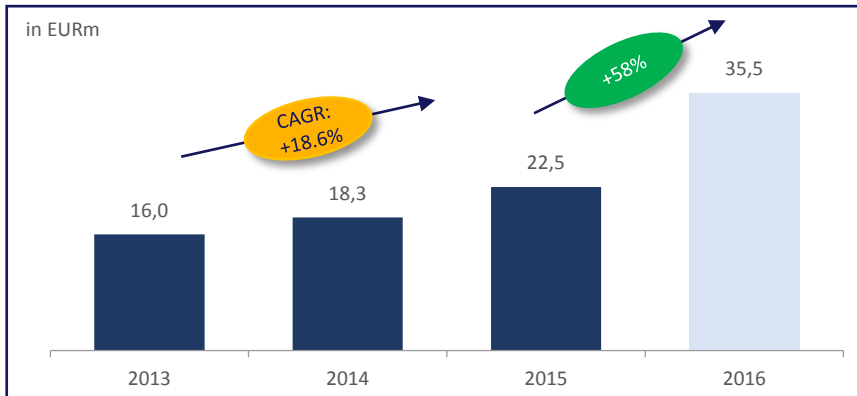
- ❏ One of the largest single orders in va-Q-tec's history
- ❏ va-Q-tec to supply multi-use thermal box fleet
- ❏ va-Q-tec to provide services for preconditioning, processing and dispatching of boxes in Switzerland, initially out of Swiss post's parcel center in Härkingen
- ❏ Foundation laid for strategic partnership between va-Q-tec and Swiss Post for temperature-controlled logistics in Swiss market

va-Q-tec's operations in Härkingen, CH

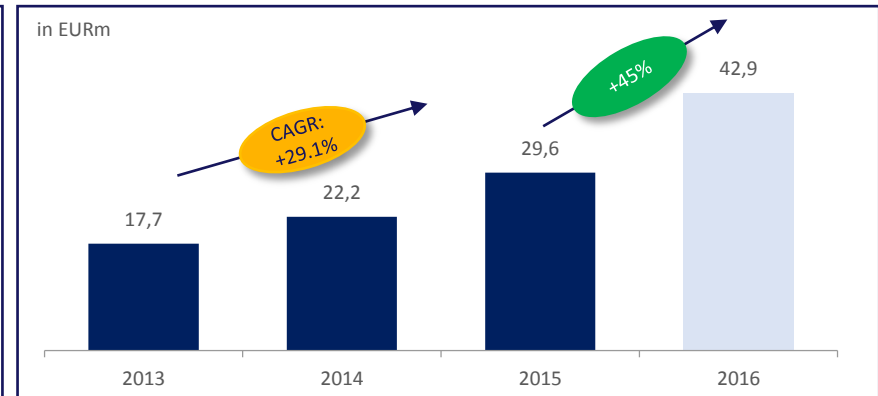


# Summary of key financials vQt group

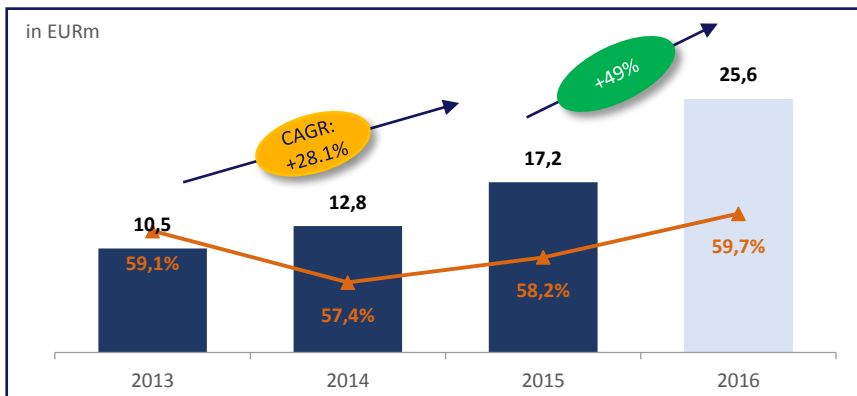
## Total revenues



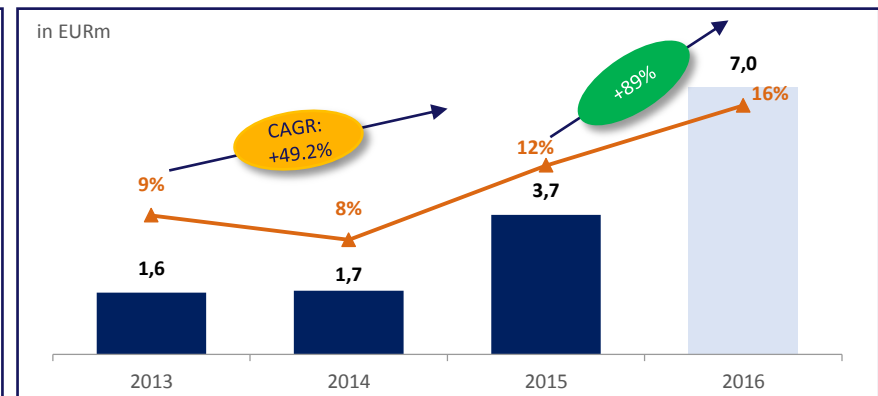
## Total income



## Gross profit



## Adj. EBITDA<sup>(1)</sup>



Notes: EBITDA and EBIT adjusted for non-recurring items, namely one-off cost associated with the offering like accrued IPO compensation in the form of employee stock options (worth €168k) and issuance costs (2016: €1.57m, 2015: €0,06m)



# Experienced management team with clear strategic vision



**Dr. Joachim Kuhn, CEO**

-  Since 2001: CEO and Co-founder 
-  1994-2001: Institute Operation Manager 
-  PhD in Physics of Thermal Insulation 
-  Diploma in Physics 



**Stefan Döhmen, CFO**

-  Since 2017: CFO 
-  2006-16: CFO 
-  2001-05: Controller Europe 
-  1991-2000 Mannesmann Group 
-  Diploma in Business Administration 



**Christopher Hoffmann**

- Member of the Executive Board,  
International Business Development  
va-Q-tec AG
-  Since 2013: Board member 
  -  2007-12: Growth equity investments 
  -  2001-07: Management Consulting 
  -  Master of Business Administration 
  -  Diploma in Political Science, Economics  
and European Studies  

# TICKER

Symbol: VQT

Bloomberg: VQT:GR

Reuters: VQTG:DE

ISIN: DE0006636681

WKN: 663668

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va-Q-tec

CREATING ENERGY EFFICIENCY