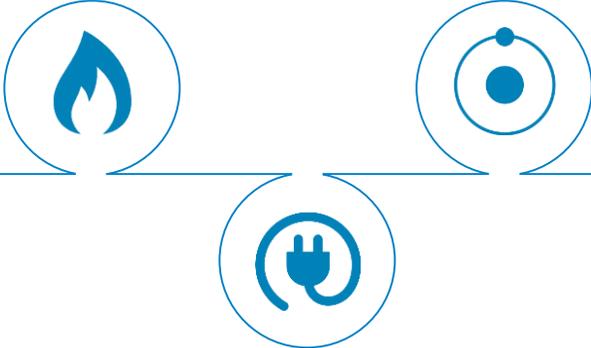




Driving the clean energy transition.

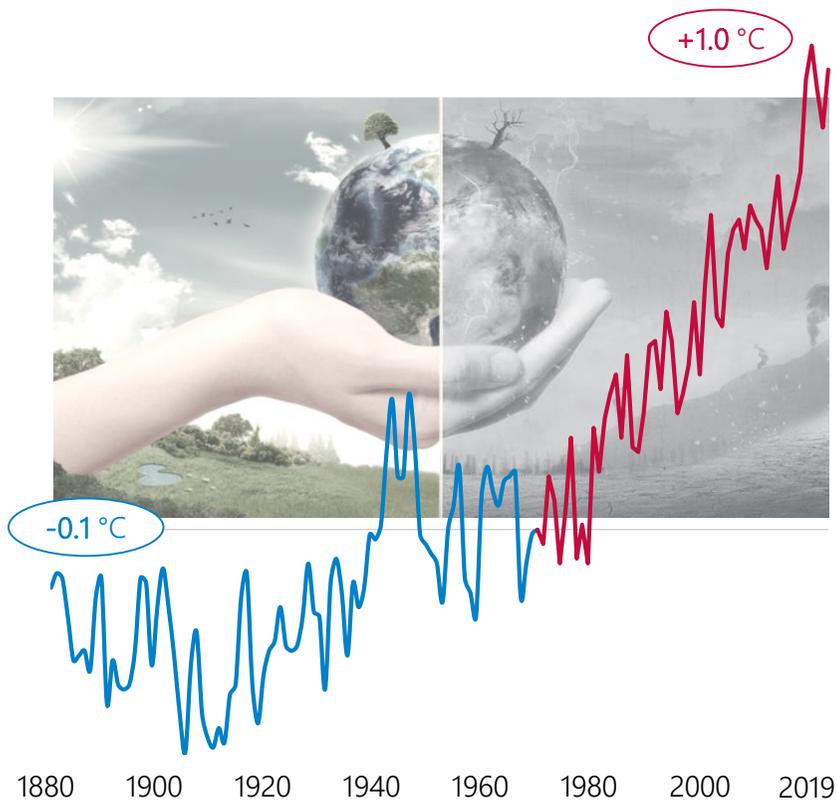


May 2021

# Escalating climate change forces governments to take drastic action

## Global surface temperature anomalies

Land and ocean; temperature anomaly with respect to 20th century average

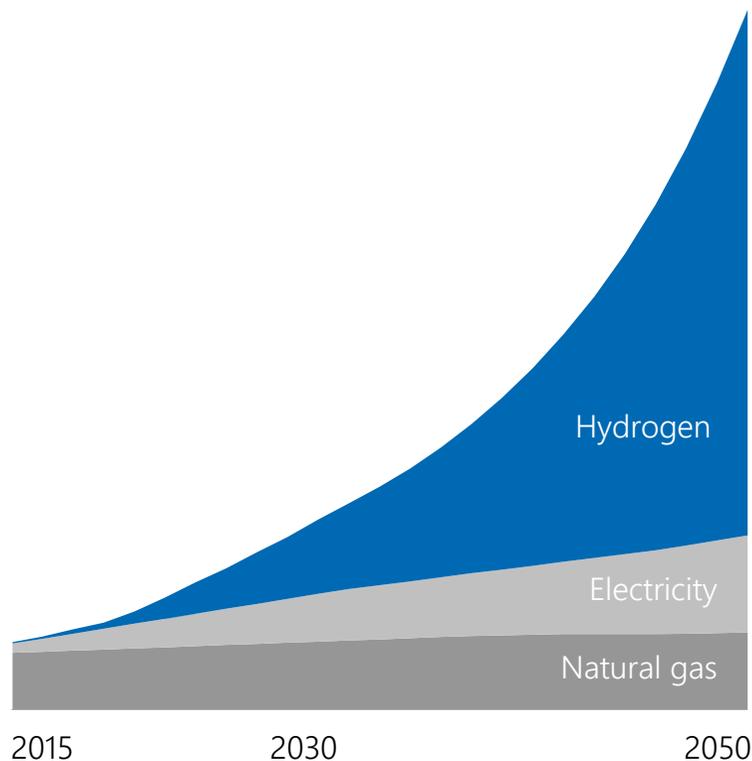


## Global government action

- 
**Paris agreements**  
 Limit global warming to a maximum of **1.5°C** by 2050
  
- 
**EU Green Deal**  
 Achieve net **carbon-neutrality** by 2050
  
- 
**Climate Action Plan 2050**  
 Reduce greenhouse gas emissions by **80-95%** by 2050

# Clean energy transition requires gas, electricity and hydrogen

Planned energy infrastructure investments<sup>1</sup>



Key catalysts



## Natural gas grid expansion

Expansion of natural gas infrastructure to compensate for coal and nuclear phase-out



## Electricity highways

Realization of electricity highways to enable distribution of renewable wind and solar energy from the point of production to consumers



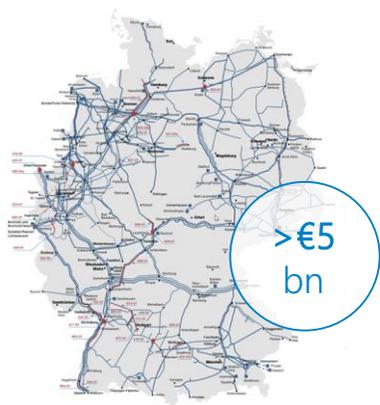
## Green hydrogen ramp-up

The only long-term clean molecule that can replace the fossil molecule fuels needed in industry, mobility and heating

<sup>1</sup>) Schematic representation  
Source: Management estimate based on Network Development Plan (NDP) Gas and electricity, Fraunhofer Institute;

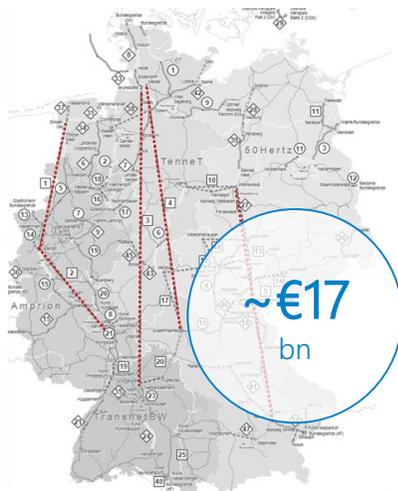
# Clean energy transition commands unprecedented investments in energy infrastructure

Natural gas



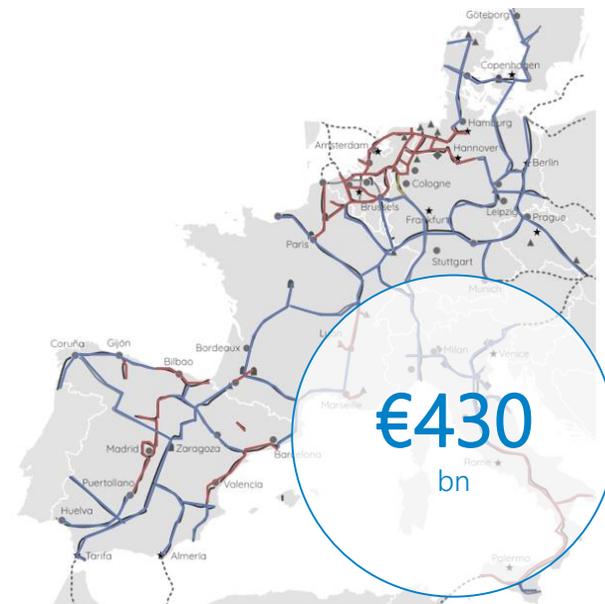
Planned investment until 2026<sup>1</sup>

Electricity



Planned investment until 2026<sup>2</sup>

Hydrogen



Planned investment until 2030<sup>3</sup>

1) NDP investment volume 2020-2026; volume attributed to year of planned project completion

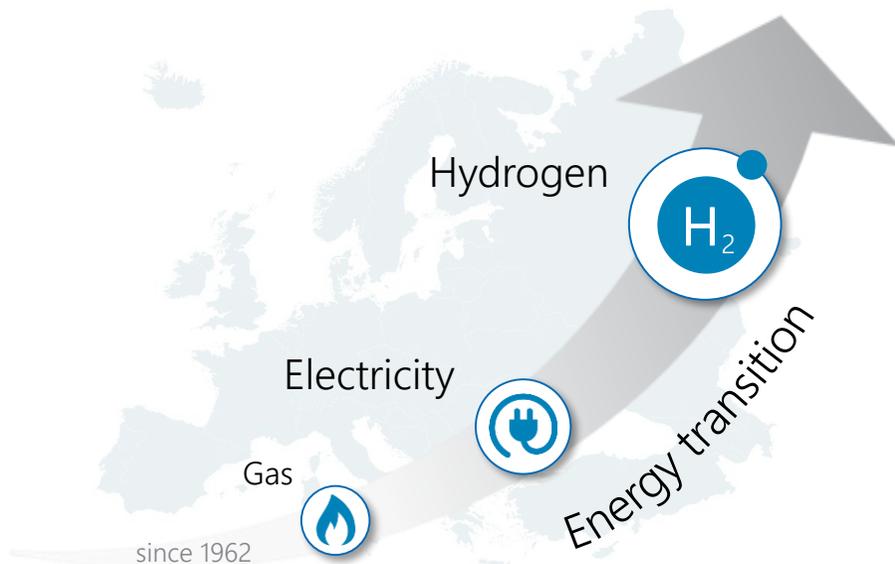
2) Total NDP volume of €61bn (NDP Electricity 2030 (2019)), thereof at least €17bn of investments into the DC grid by 2026 which is by law primarily realized as underground cable

3) Maximum cumulative investment volume until 2030 to achieve targets defined in European Hydrogen Strategy as outlined in the European Clean Hydrogen Alliance

VORWERK plans, realizes and operates the energy infrastructure of the future

In highly attractive markets

With success



€291m  
revenue



>1,300  
employees



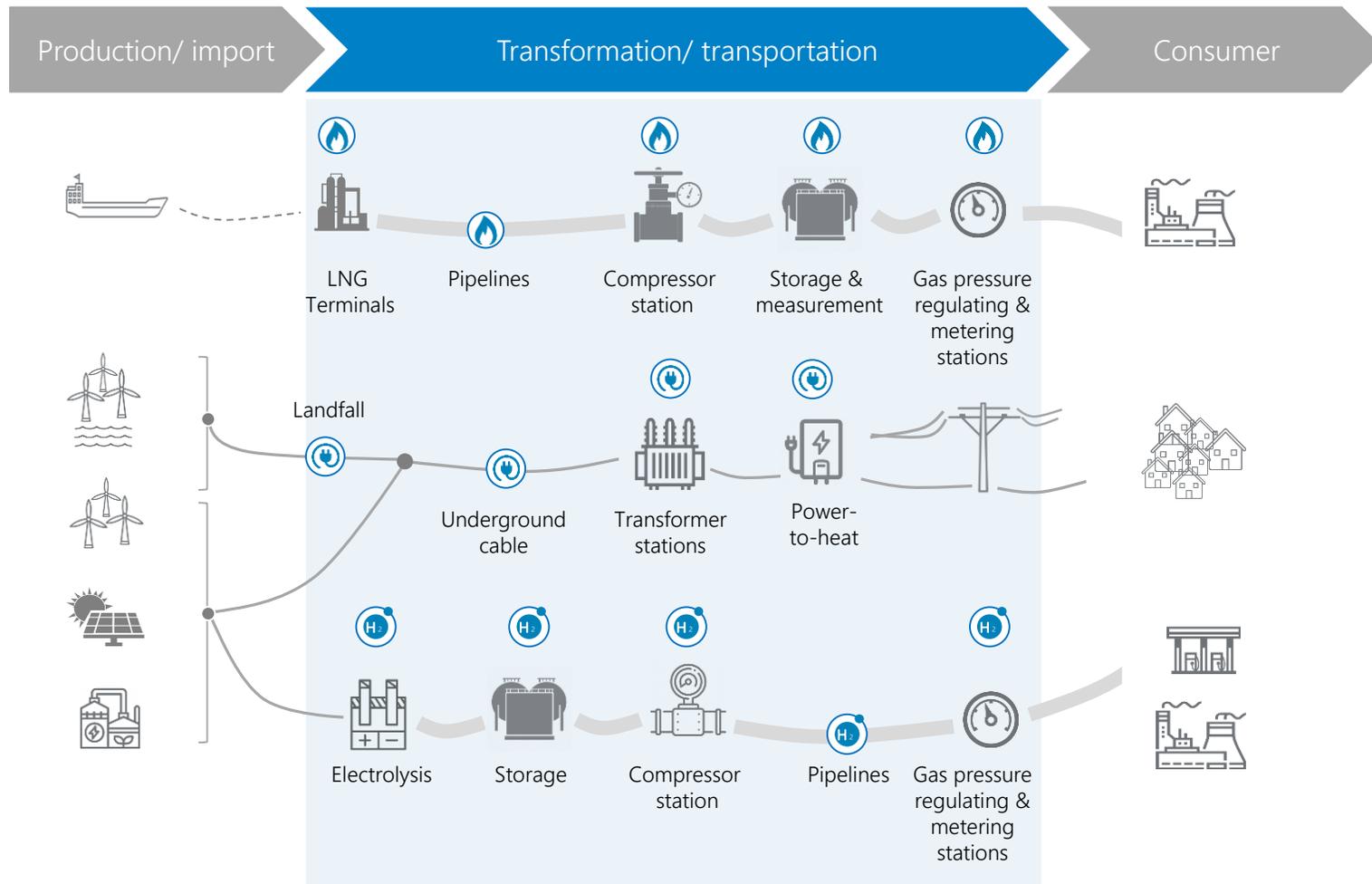
16%  
EBIT margin



>15%  
organic CAGR<sup>1</sup>

1) CAGR based on 2014-2020

VORWERK is critical in transforming and delivering energy from producers to consumers



VORWERK solutions

# VORWERK benefits from intact and sustainable market entry barriers

## Customers & References



## Turnkey competence

- Energy grids
- Energy transformation
- Service & Operation
- Intelligent Infrastructure Mgmt.



## Regulation & accreditation

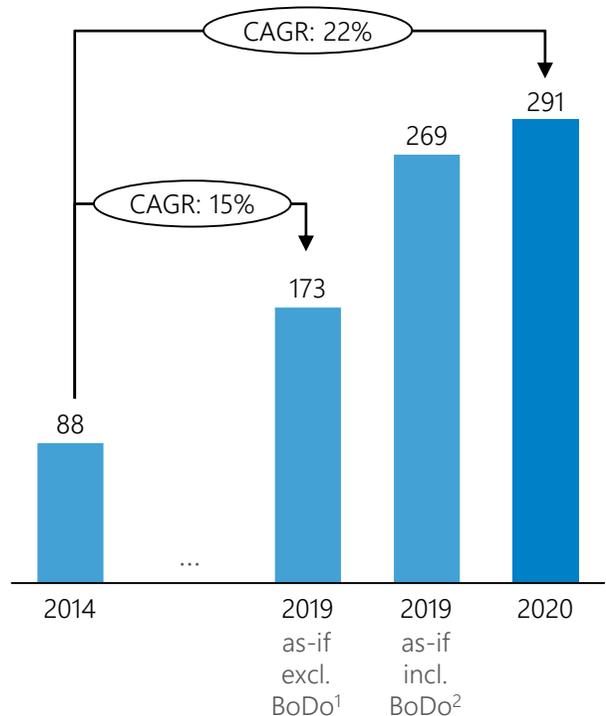


## Technology & Patents

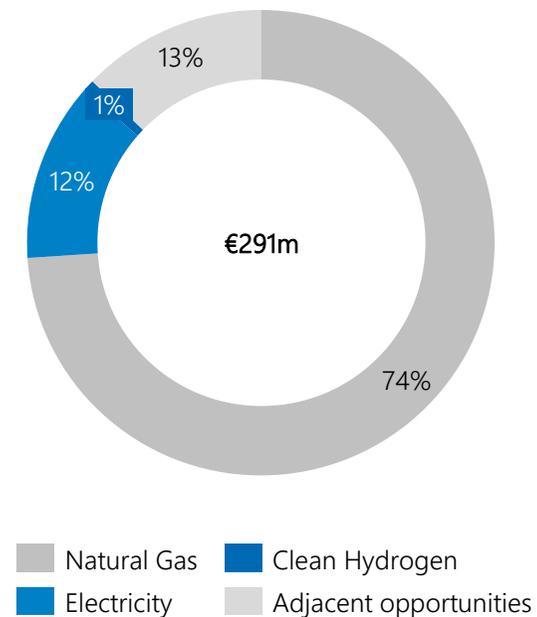
- OrQa® flow metering
- HDD drilling
- Cathodic anti-corrosion protection
- Carbon capture
- Heat management
- Knock-out drums
- Gas analysis
- + many more
- Heat exchangers

# Dynamic growth track-record with >15% CAGR

Revenue development  
in €m



Revenue 2020 by segment  
revenue split in %



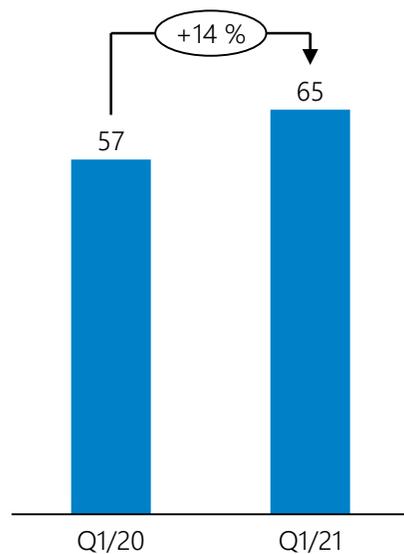
1) Presentation as if Bohlen & Doyen had not been acquired by VORWERK in 2019

2) Presentation as if Bohlen & Doyen had been part of the VORWERK group starting 1 Jan 2019; excl. discontinued operations with revenues amounting to ~€7.5m

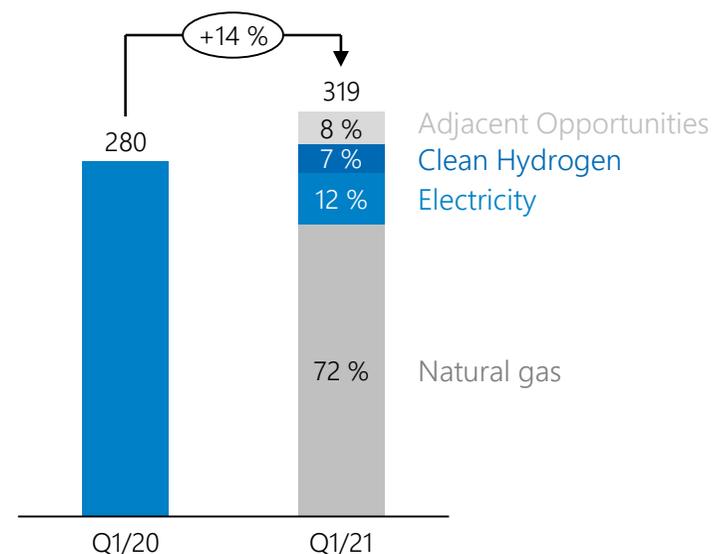
Source: VORWERK

VORWERK was able to further expand its considerable order backlog

Order intake  
in €m

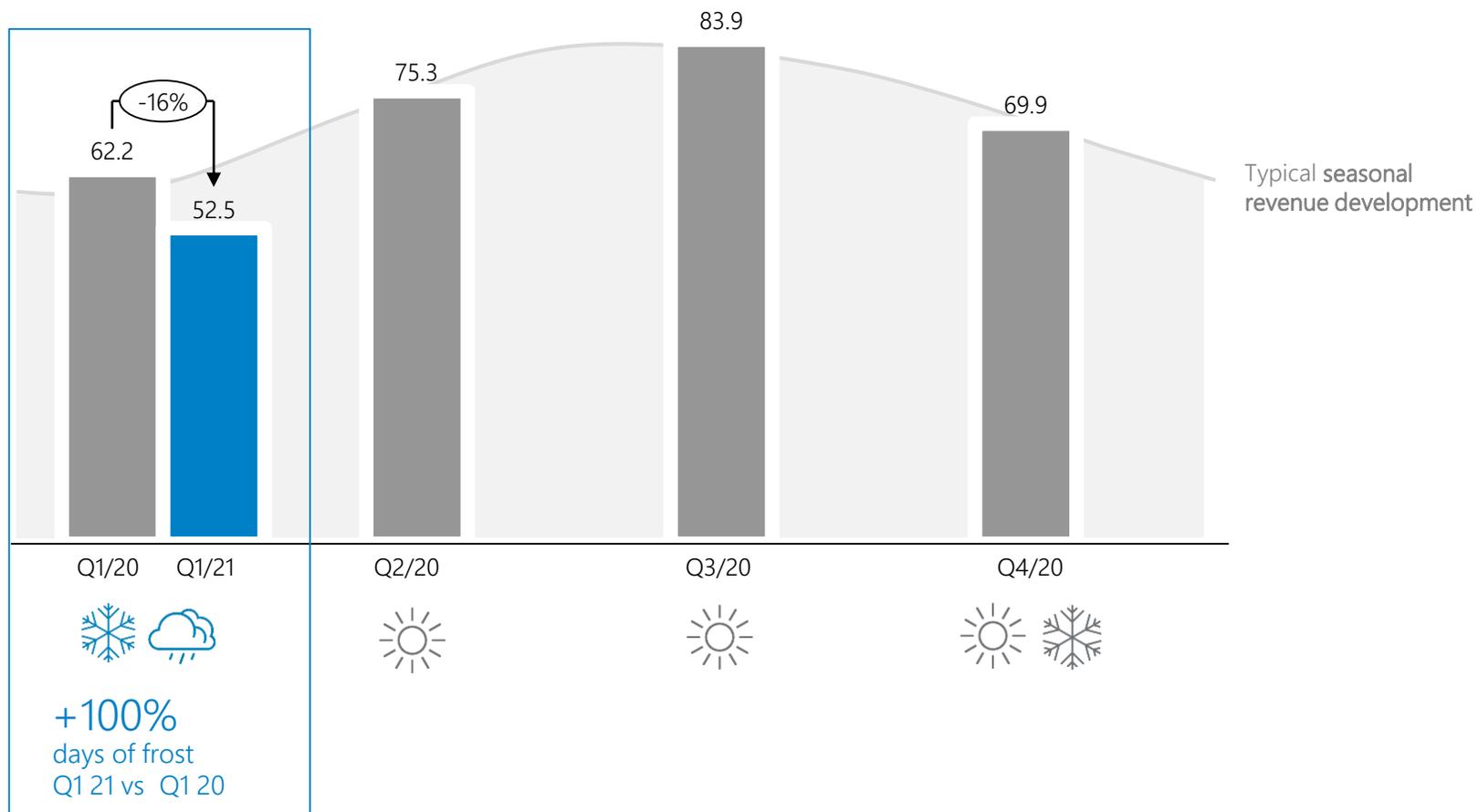


Order backlog  
in €m



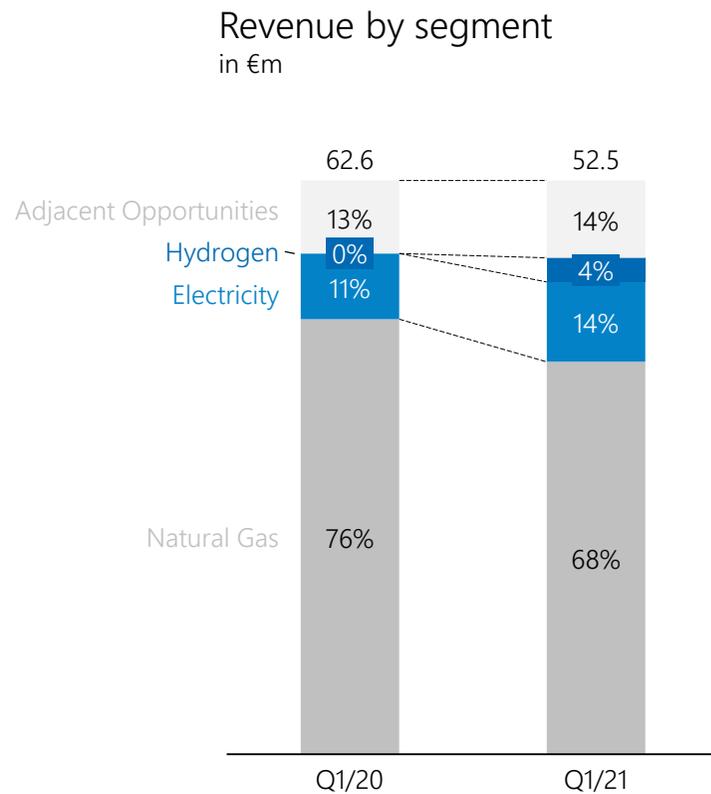
# Traditionally slower first quarter in 2021 additionally impacted by bad weather

Revenue  
in €m<sup>1</sup>



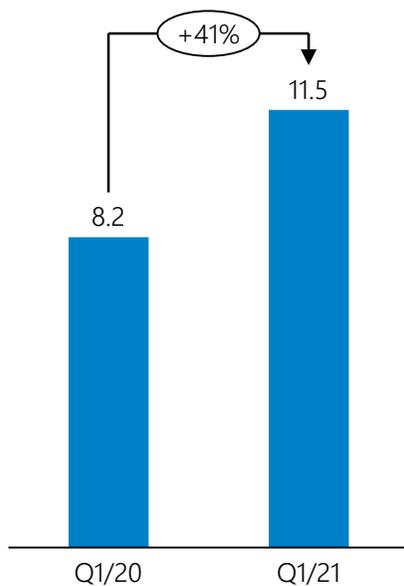
1) Revenues represent revenues as reported adjusted for the revenue contributions from offshore operations conducted by Bohlen & Doyen which were discontinued following the acquisition  
Source: Weather Online

Electricity and clean hydrogen segments significantly increased compared to Q1/20

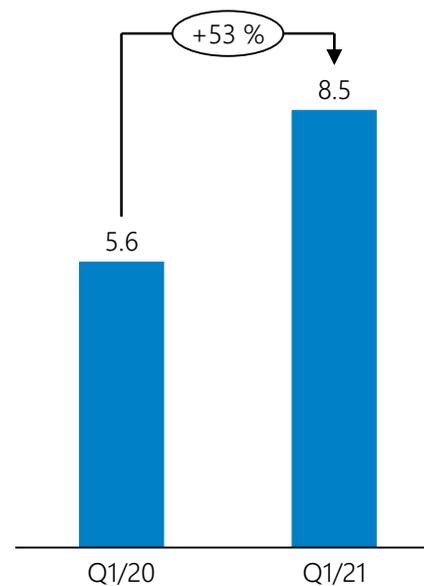


# Vorwerk maintains its superior profitability based on unique market positioning

EBITDA (adj.<sup>1</sup>)  
in €m

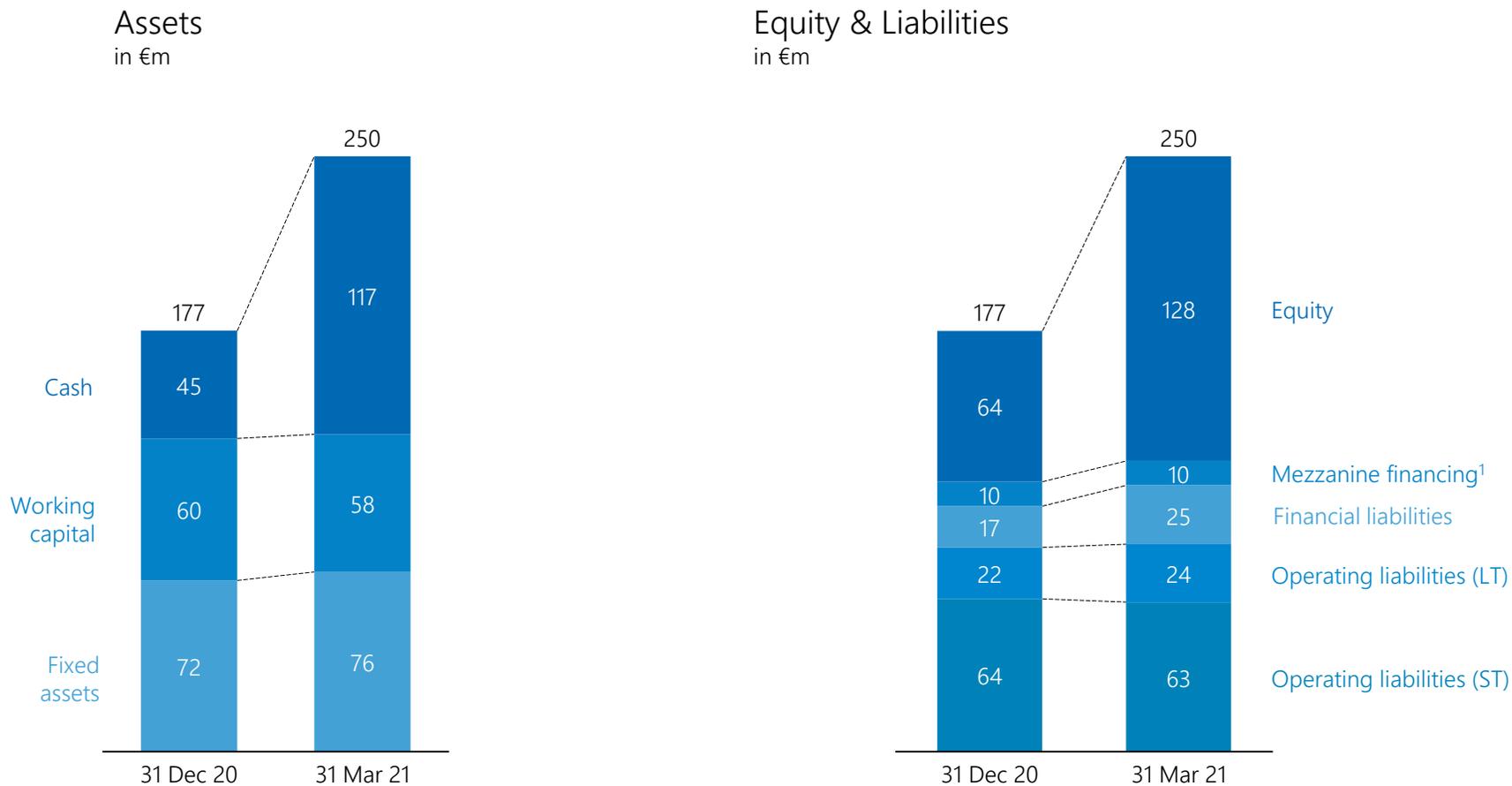


EBIT (adj.<sup>1</sup>)  
in €m



1) Adjustments primarily refer to IPO-related costs

# Vorwerk benefits from a rock-solid balance sheet as basis for further growth



1) Financed by Irene und Friedrich VORWERK Stiftung: Non-profit foundation focusing on the promotion of young engineers, basic interest rate: 2-5% p.a.  
Source: VORWERK

# VORWERK is already spearheading the European hydrogen revolution

## Recently won project: Hydrogen feed-in plant Haren

Planning and realization of H2 plant to feed green hydrogen from wind energy into the natural gas grid

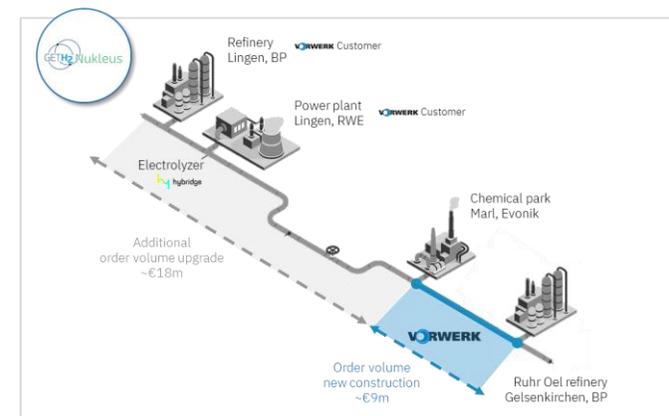


Customer: OGE

- Current status:
- Project successfully acquired
  - Engineering and procurement in progress
  - Start of construction planned for Q1 2022

## Current project: Get H2 Nucleus

Realization of 14 km hydrogen pipeline as nucleus for later pan-European hydrogen backbone



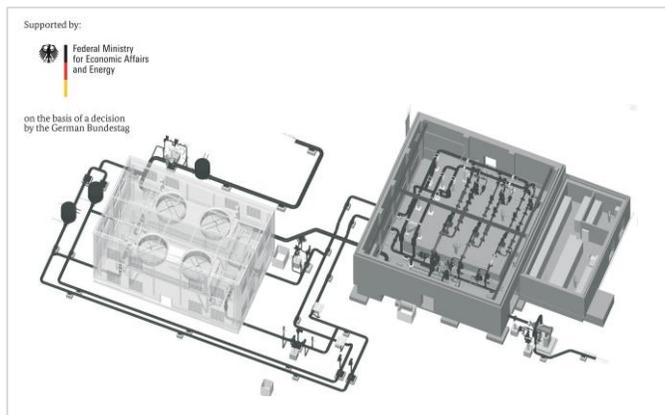
Customer: EVONIK

- Current status:
- 9.5 km HD drilling completed
  - Completion planned for August 2021

# VORWERK is driving decarbonisation with unique proprietary solutions

## Backlog project: Nesselgrund

The world's first CO<sub>2</sub>-neutral gas pressure control station using VORWERK proprietary technology



Customer:



Current status:

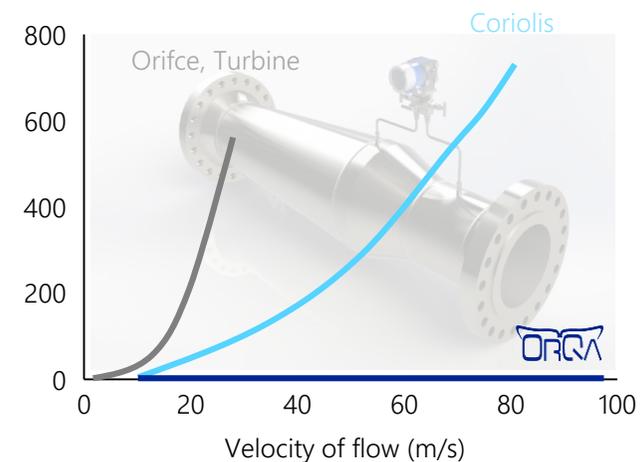
- VORWERK's OrQa passed official testing
- Plant installation planned within next weeks
- Completion planned for September 2021

## Proprietary product development: OrQa flow meter



Highly versatile proprietary flow meter for precise monitoring of gas flow speed and quantities

Loss of pressure (mbar)



- Virtually **no loss of pressure**
- Higher **flow speed range**
- Higher **precision** in flow measurement
- Significantly **lower OPEX**

## Key Investment Highlights



Climate change commands **billions in infrastructure investments** in VORWERK core end markets gas, electricity and hydrogen



**50+ years of technology leadership** in design, realization and operation of system critical energy infrastructure



**Key player in ramping up the European hydrogen infrastructure** thanks to a unique combination of know-how and decade-long customer relations



**Double-digit revenue growth** with a stable **>16% EBIT margin** as an ideal starting point for **exponential growth potential** ahead



**Owner-managed business** with an **ambitious strategy** to further accelerate profitable growth

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Driving the clean energy transition