



Post-Brexit trading opportunities and challenges in the UK wind energy industry

30.03.2022, Edinburgh

Corriegarth, United Kingdom
23 x E-82

AGENDA



Y Introduction

- Y ENERCON Management Team
- Y Regional Organisation
- Y Western Europe Region Figures

Y Market Overview

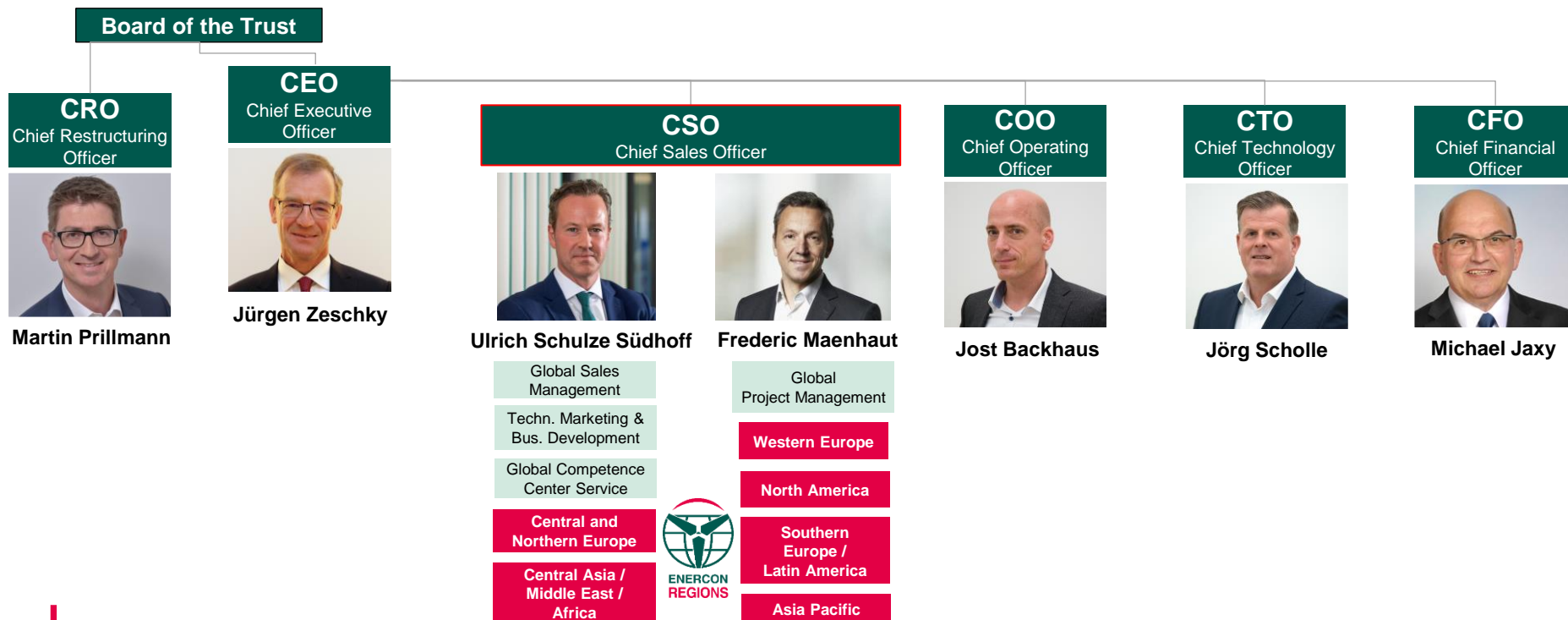
- Y Europe Onshore Wind
- Y Market Overview Great Britain

Y Capabilities

- Y Product Portfolio
- Y Project Management & Service
- Y Supply Chain Transformation

Y Brexit Challenges

NEW ENERCON BOARD



As April 1st 2022, new dual leadership for CSO:

- End-to-end customer-related functions: Sales & After-Sales, Project Management, Service
- Lead ENERCON Regions

REGIONAL ORGANISATION



Western Europe Region
launched on June 4th 2021.

MISSION WESTERN EUROPE



Operate and perform as **ONE empowered regional ENERCON team** across the functions Sales & After Sales, Project Management and Service



Establish ENERCON Regions **team set-up** aiming at sustainable **cost-efficient structure**, clear and strong responsibilities and **power of decision** in the region



Maximize customer satisfaction by being a reliable, **trustful**, close partner which is **selling, installing, and maintaining** ENERCON wind turbines **cost-competitive, in time and quality**



Setup a **flexible, innovative organization** with **fast and result oriented ways of working** which is able to manage challenges successfully



WESTERN EUROPE REGION FIGURES



10 GW capacity

5,000 wind turbines

1,400+ employees
with wide range of skills & experience

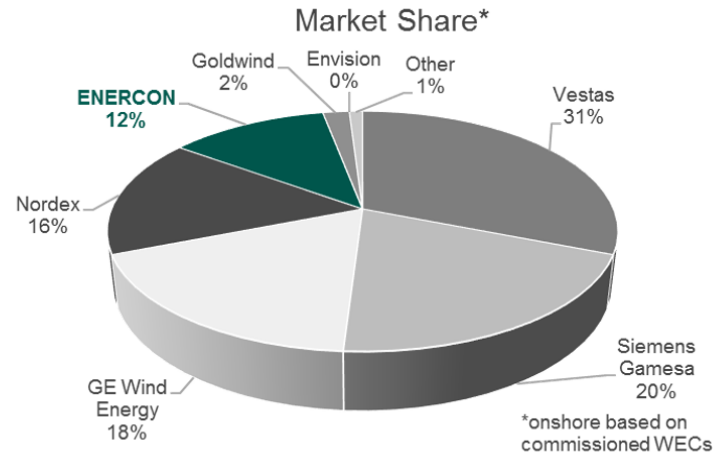
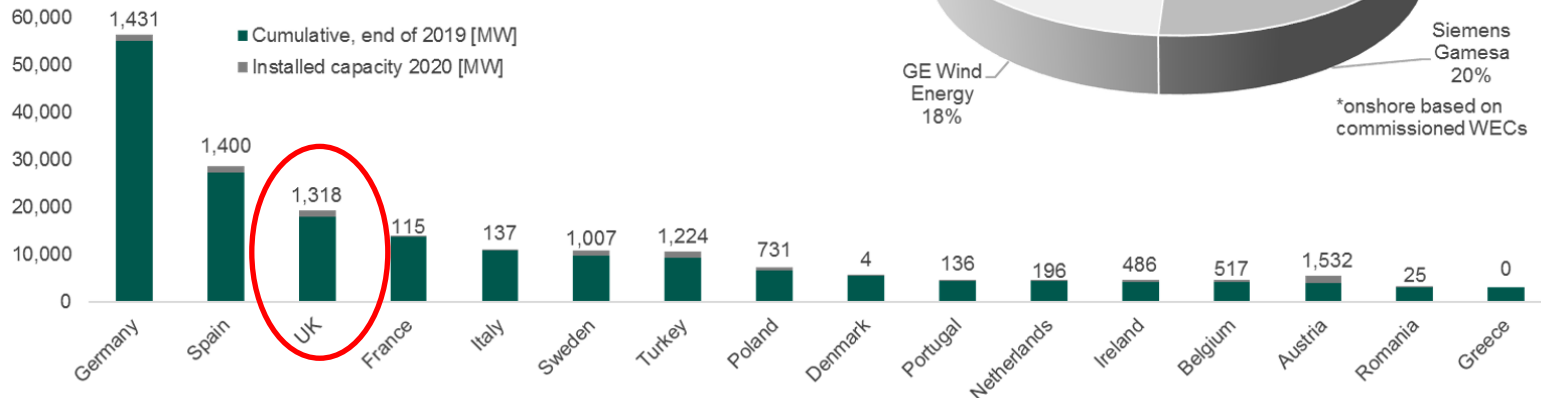
70 service stations

- High market shares
- Historical presence & proximity to customers
- Strong technological capabilities
Prototypes in the Region:
 - E-115 EP3 E3, 4.2 MW (in BE)
 - E-138 EP3, 4.2 MW (in NL)
 - E-160 EP5, 4.6 MW (in NL) awarded
“Best Turbine 4.5 MW+ 2020” by Windpower Monthly
- Large network of Service Stations
- Unique Know-How: near-shore wind farms, industrial zones, powered-plants, repowering

MARKET OVERVIEW – EUROPE ONSHORE WIND

Installed capacity 2020
11,813 MW

Cumulative, end of 2020
194,533 MW



Sources: Bloomberg „2020 Global Turbine Market Shares“ (03/21), Wind Europe: “Wind energy in Europe in 2020” (02/21)

MARKET OVERVIEW – GREAT BRITAIN

- June 2015



- March 2020



- March 2022



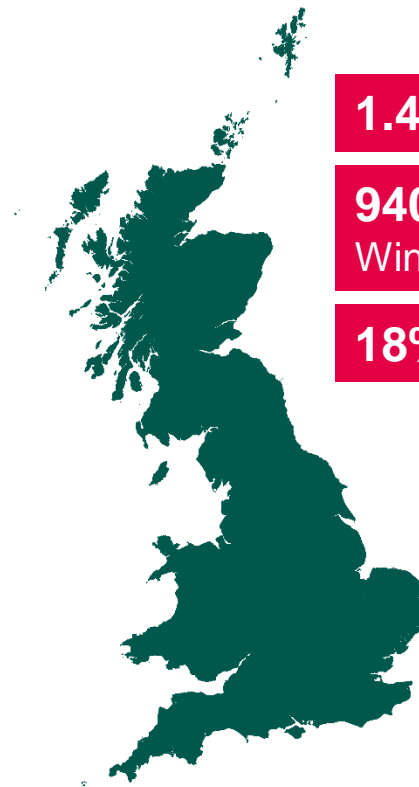
MARKET OVERVIEW – GREAT BRITAIN

GB Market

- Government tariff cuts in 2015 encourages small subsidy free market
- Subsidy free grows through corporate PPAs, backed by very high electricity price
- Government CFD auctions now returning, boosting market for 2023 onwards
- Strong commitment now to onshore wind
- Market will return to peak of 5 years ago, between 1000-1500 MW a year

Our strengths

- Established since 1995
- Turbine sweet spots according to tip heights:
 - E-115 4.2 MW @ 125m tip
 - E-138 4.2 MW @ 150m tip
 - E-160 5.5 MW @ 200m tip
- Very close cross country regional relationships within ENERCON
- Can leverage partnerships with customers with multi-country interests




1.4 GW

940
Wind Turbines

18% Market Share

PRODUCT PORTFOLIO

	IEC/EN IA (strong)	IEC/EN IIA (medium)	IEC/EN IIIA (weak)
EP5			E-160 EP5 E2 5,500 kW E-160 EP5 E3 5,560 kW
EP3	E-115 EP3 E3 2,990 / 4,200 kW E-115 EP3 E4 4,260 kW	E-138 EP3 E3 4,260 kW	E-138 EP3 E2 4,200 kW
EP2	E-82 E4 2,350 / 3,000 kW <div>E-70 E4 2,300 kW</div> <p>➔ Last contract signature: 12/2022</p>	E-82 E2 2.000 / 2.300 kW <div>E-92 2.350 kW</div> <p>➔ Last contract signature: 12/2022</p>	<p>You can find all the WEC data here:</p> 

- With our broad portfolio we are pursuing our goal of offering at least one competitive wind energy converter in every power class.
- GB Trends – EP2 phasing out, EP3 increasing, EP5 entering

PROJECT MANAGEMENT



Experienced multidisciplinary team with +120 members across the 6 countries in the region.

Proximity to the clients for optimization of projects from permitting phase to tendering, interface management or special engineering solutions, and increasing the attention to customer expectations.

Full expertise in project management for construction of wind projects:

- from “delivery & installation” projects, to full EPC and Turn Key contracts, including electrical and civil infrastructure.
- Complex locations, as industrial/harbor/dikes sites, especial transport or crane solutions.

Regional organization > faster reaction, local decision-making and a direct and optimized interface with all corporate functions as supply chain or engineering.



SERVICE



PAST

- ✎ Global decisions using averages; i.e. GB is different
- ✎ Changing market, politics, economics + pandemic = impact to our works

TODAY

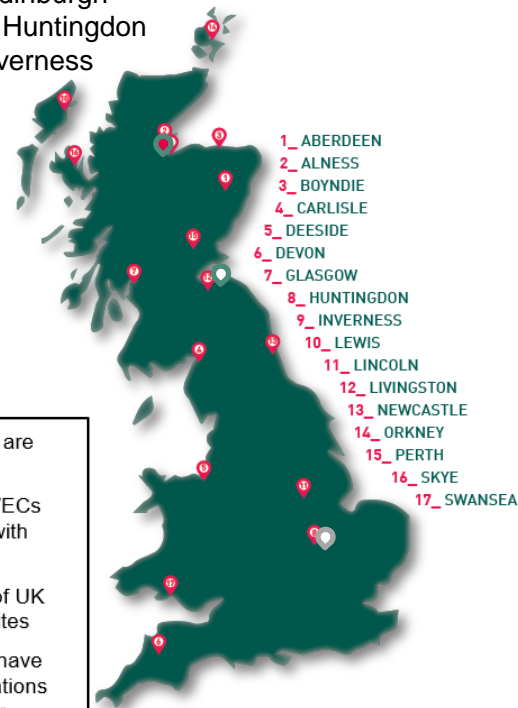
- ✎ Region takes control!
- ✎ Key topics = support, responsiveness, customer centric approach!
- ✎ Significant increase in field and support, +20 FTE

FUTURE

- ✎ Dedicated clusters; Field Area Manager / Technical Support / Coordinator
→ close to our Technicians and close to YOU
- ✎ Support and growth for GB 2022/23
- ✎ Service levels to ENERCON standards and market expectation

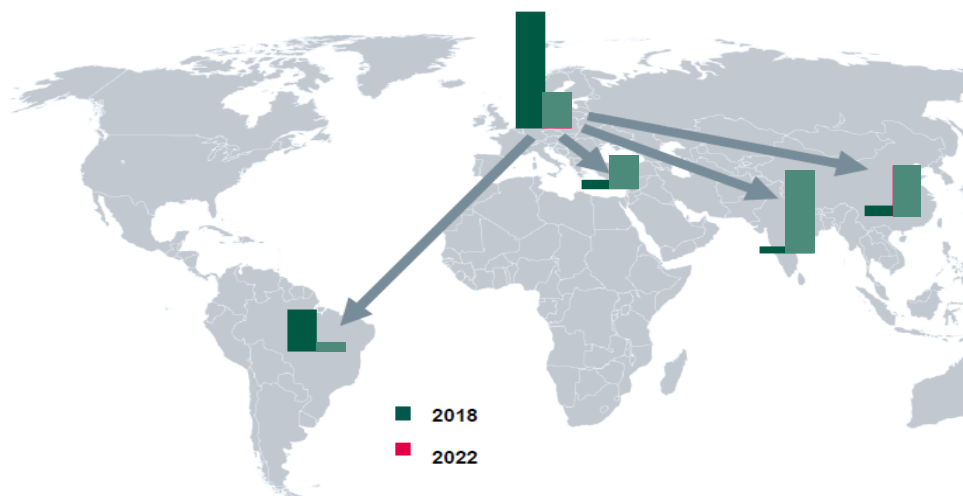
DELIVER WHAT WE PROMISE!







- 📍 Sales Main Office: Edinburgh
- 📍 Service Main Office: Huntingdon
- 📍 Main Warehouse: Inverness



- ~ **EP1** - 54% of UK WECs are EP1 or smaller
- ~ **Islands** - 12% of EP2 WECs are on Scottish islands with ferry access only
- ~ **Single turbines** - 35% of UK fleet are single turbine sites
- ~ **Remote** - 16% of EP2s have remote high altitude locations with winter access issues

SUPPLY CHAIN TRANSFORMATION



Component	Value Add	Act. 2019	Target 2022
Blade 	Buy ¹	11%	> 70%
	International ²	58%	> 100%
Hub 	Buy	0%	> 40%
	International	0%	> 40%
Nacelle 	Buy	0%	> 25%
	International	0%	> 35%
Generator 	Buy	6%	> 55%
	International	32%	> 70%
E-Module 	Buy	0%	> 25%
	International	0%	> 35%
Tower 	Buy	53%	> 100%
	International	69%	> 100%
Steel & Castings	Buy	25%	> 80%
	International	40%	> 80%

- ~ Implementation of global supply chain with capacities in best cost countries for EP3-EP5: secured contracts with external suppliers for key components in India and China
- ~ EP2: 100% manufactured in Europe
- ~ EP3: 67% (towers based on best landed costs)
- ~ EP5: 40% (towers based on best landed costs)

BREXIT CHALLENGES

Global mobility

- Difficulty in bringing teams to work on UK projects. Complex visa and business visitor rules.
 - Mitigated by significant admin and focus on UK talent

Spare parts

- General delays, volatility and uncertainty in bringing spare parts to UK. UK Customs hold some of our consignments at the border for inspection – particularly if they are “dangerous goods” e.g. Capacitors; batteries etc.
- Previously in 2021 our German Freight Forwarder (Schenker) was not able to handle deliveries into the UK immediately post Brexit and they suspended their services.
 - Mitigated by higher stock levels, better planning, better risk management

Material supply

- Delays in material coming from our factory in Portugal to the UK
 - Mitigated by higher stock levels, better planning, better risk management

Company structure

- Significant additional admin & cost due to requirement to set up 2x new UK Limited companies to replace the Branch organisation
 - Costs need to be absorbed

TO SUMMARISE

Wrap up:

- ENERCON has a historically strong position in the GB market
- We rode out the bad years when the market collapsed
- Market is coming back strong now, through organic subsidy free growth backed by government auctions
- Brexit brings it's challenges, and adds to costs, but impacts can be handled
- Great future opportunities for exports to GB for ENERCON





ENERCON
ENERGY FOR THE WORLD