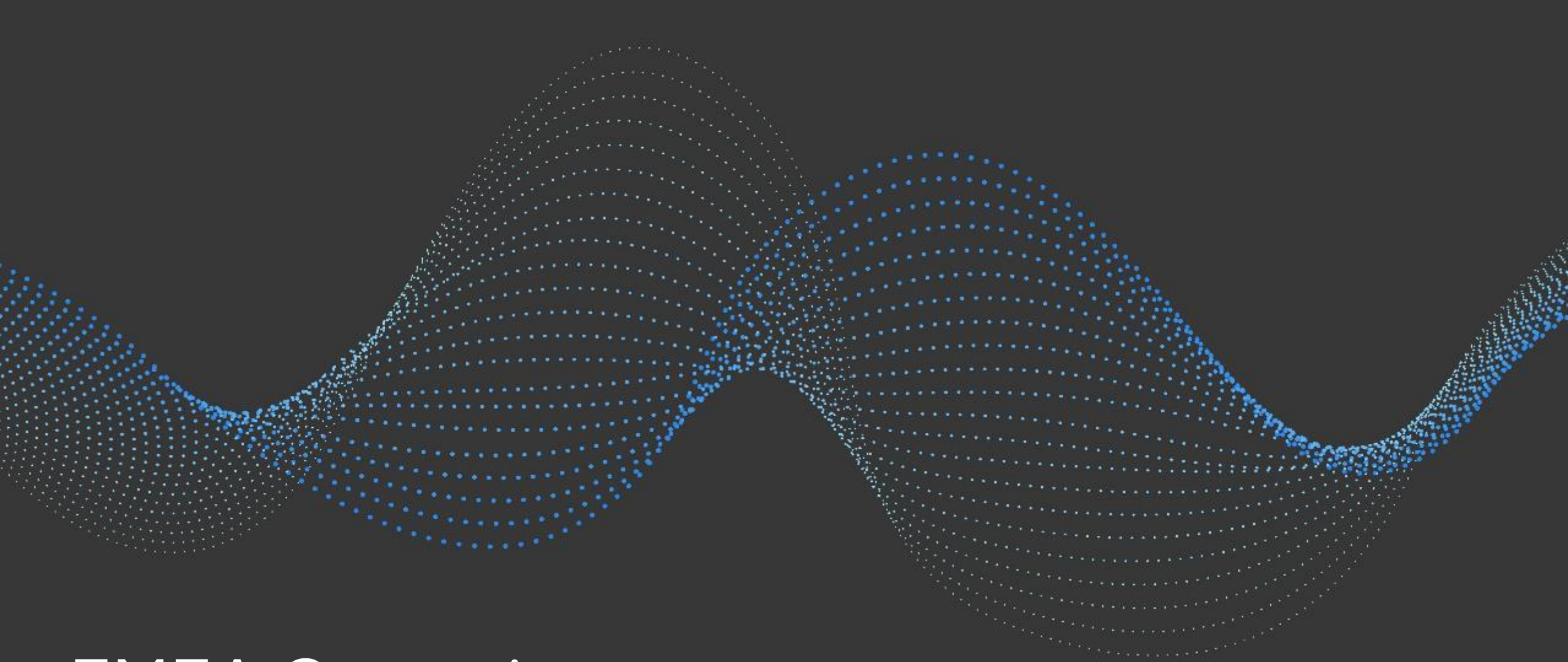




Munters – Analyst site visit

Hodonin, September 2023

Investor Relations



EMEA Operations



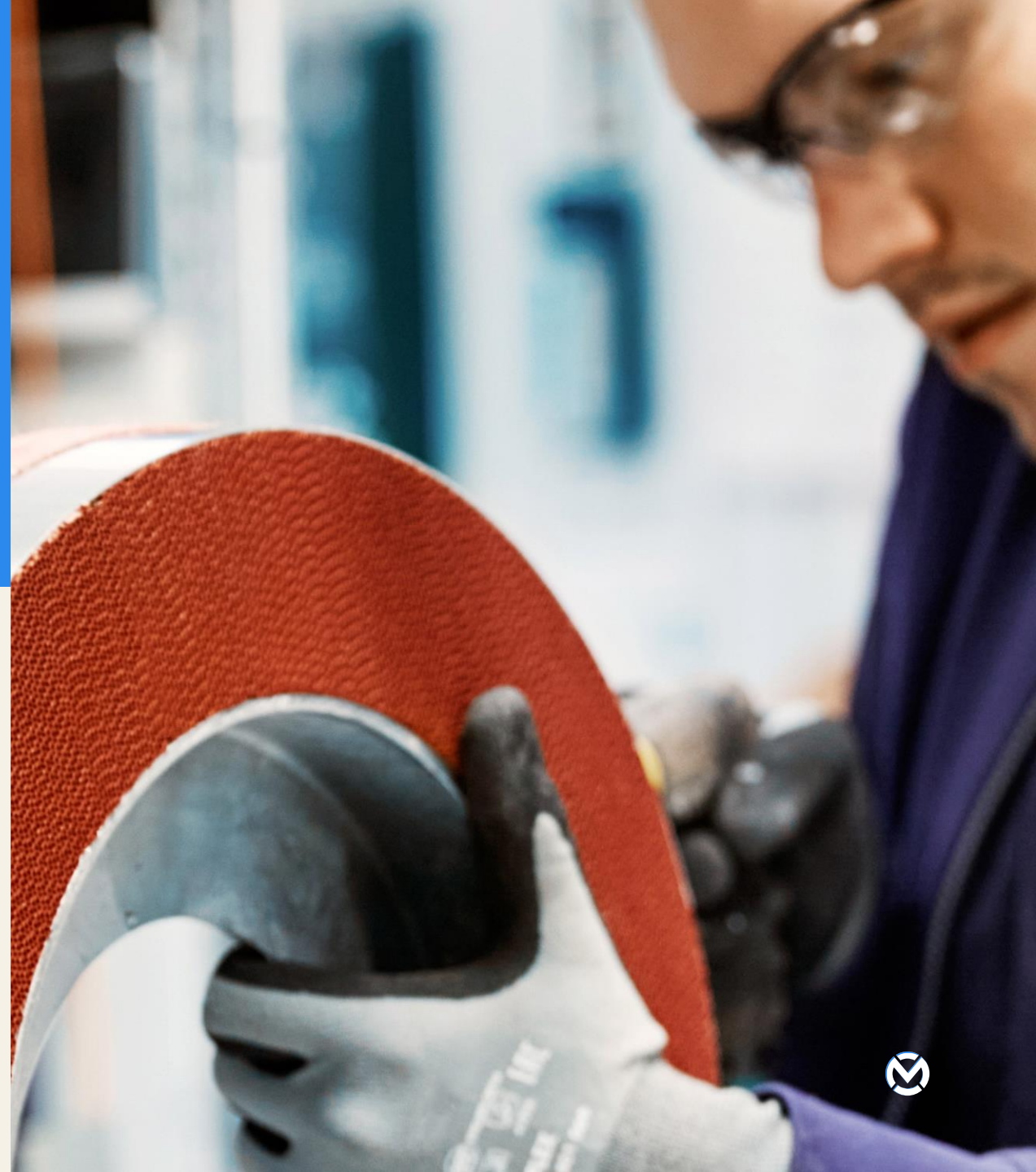
AT EMEA Operations & Sourcing

Integration to enhance value chain

Common processes to improve connection, efficiency with focus on customer

Multiple factories, integrated Strategy

- Tobo focusing on base products, media, components and Hodonin focusing on premium products for large customers
- Capacity installation, focus on automation
- LEAN and MPS, continuous improvement, cost-out projects: savings and efficiency as targets
- Sustainability commitment vs full autonomy



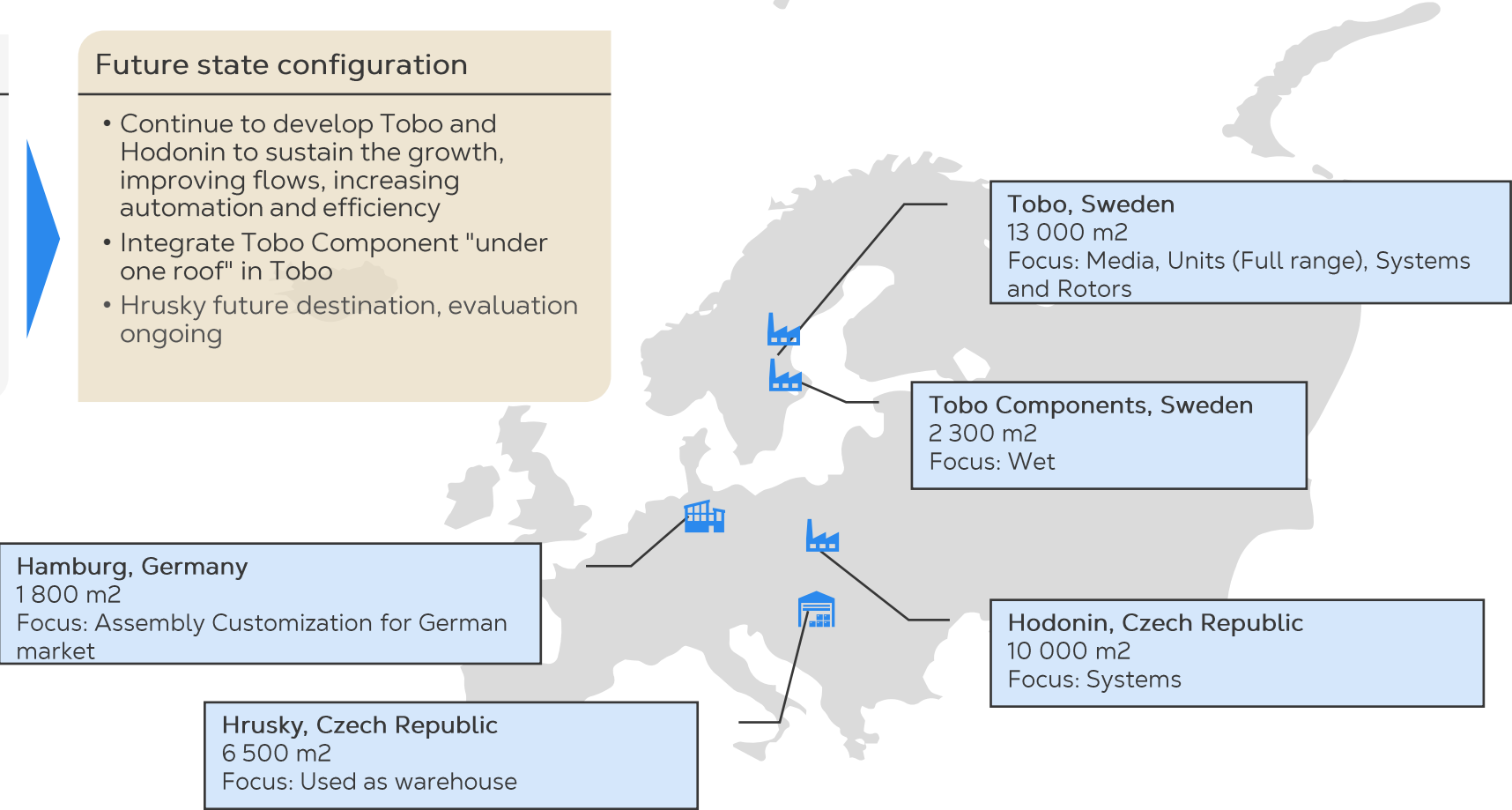
The current operational footprint in EMEA comprise four manufacturing sites and one warehouse

Current state configuration

- Two main factories: Tobo and Hodonin
- Tobo component acquired Q2/2023
- Hrusky still open (Hodonin start Q3/2022) used as warehouse
- Hamburg: small center

Future state configuration

- Continue to develop Tobo and Hodonin to sustain the growth, improving flows, increasing automation and efficiency
- Integrate Tobo Component "under one roof" in Tobo
- Hrusky future destination, evaluation ongoing



Hodonin and Hrusky Factories

→ Hodonin plant, 10,000 m²

"Centre of excellence for production of DSS Pro & customized systems"

- Employees: 220 (temps included)
- Potential for capacity growth
- Possibility to expand another 5,000 m²
- "Green Factory" - solar panel for full energy autonomy

→ Hrusky plant, 6.500 m²

- Currently used as warehouse for Finished Good
- Future destination, evaluation ongoing

→ Products, fully customized

- DSS/DSS Pro
- Spray Dry units
- CO² catchers

→ Capabilities

- Project Management & Engineering for full Customized units
- Local sourcing and Logistic team
- Metal production + Assembly & Welding



Tobo Factory

"Centre of excellence for production of media & rotors, components and standard units"

→ Tobo plant, 13,000 m²

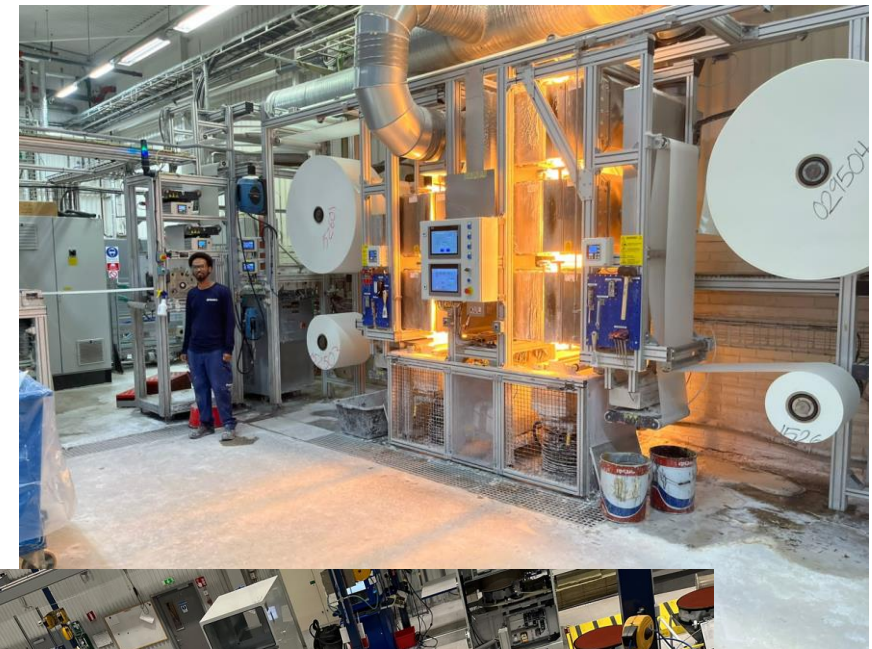
- Employees: 280 (temps included)
- Potential for capacity growth
- Possibility to expand another 10,000 m²

→ Products and Customized Systems

- MX2 & MX2 Plus
- MDC
- ML1, ML2, ML3 lines; ML Plus
- Smaller units
- Rotors and media

→ Capabilities

- Project management & engineering for full customized units
- Local sourcing and logistic team
- Metal Production + Assembly, welding and painting
- Media Production + Rotor Assembly Production



Tobo and Tobo Component (acquisition completed at beginning of Q2/23)



Tobo Component - Synergies

- Move of Tobo components "under one roof"
- Space availability for growth
- Metal production insourcing
- External warehouses elimination
- Free Tobo Component building to create new R&D laboratory



Hamburg Assembly Center

→ Hamburg shopfloor & warehouse, 1350 m²

Employees: 10

Additional 155 m² for Service and 250 m² for utilities

→ Products and Customized Systems

DH unit customization (specific for German market)

→ Capabilities

Project Management & Engineering for Customized units

Assembly





STOP – Safety Training Observation Program

March 2023

Management STOP
training in Kista

April 2023

STOP “Train the
Trainer” training
in Hodonin for AT,
FT EMEA, Japan,
China

May 2023

Full roll out plan for
Hodonin, Tobo,
Hamburg

Sep 2023

EMEA
leadership training
in Hodonin
(2024: BUs & Service)



The start of Munters Czech Republic



History of Munters Czech

1994

- Krako s.r.o. was founded in the garage of owner's family house dealing with wood dryers at that time

1999

- Merged with Dutch company HB Group (drying and cooling products and equipment)

2001

- New production hall and offices in Hrusky

2006

- Second production hall in Hrusky

2014

- Third production hall – storage & operating facilities of almost 6000m²

2017

- Acquired by Munters Group

2017-2020

- Production of wood dryers gradually phased out

2020

- Business name changed to Munters Czech

2020

- DSS units: products transferred from Dison

2021

- First Launch of DSS Pro units => Innovation of the DSS product

November 2021

- Foundation laid for new factory in Hodonín

September 2022

- Inauguration of the new factory



Krako founded in 1994 - originally wood dryers



DSS & DSS Pro – the Next Level of Dehumidification



Spray Dry Food (Pure systém) – Pure system 4500 – the biggest unit ever





Hodonín: Before and after reconstruction



Before – November 2021



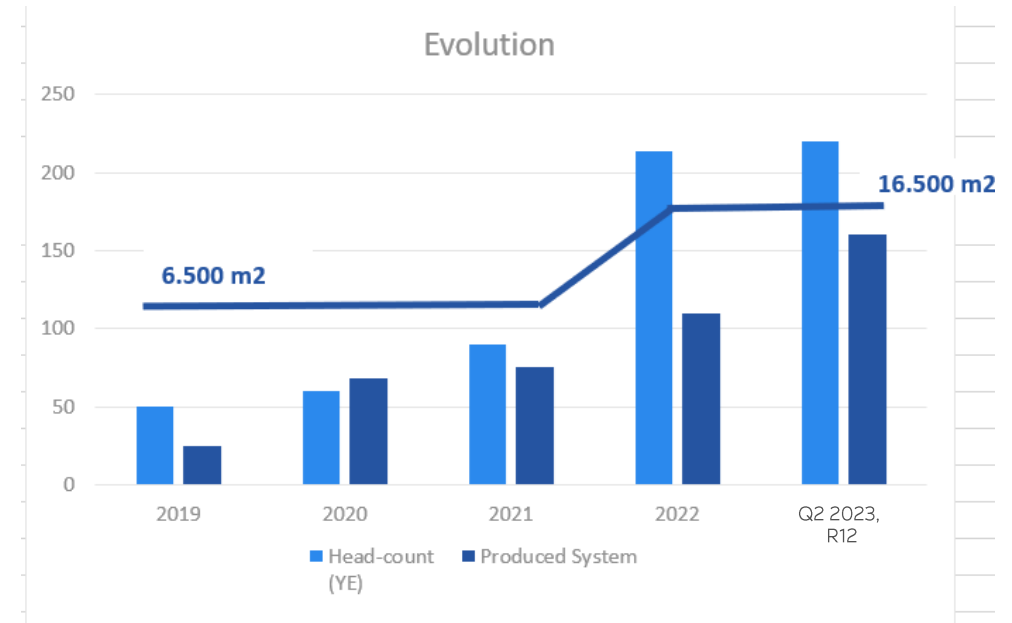
In production

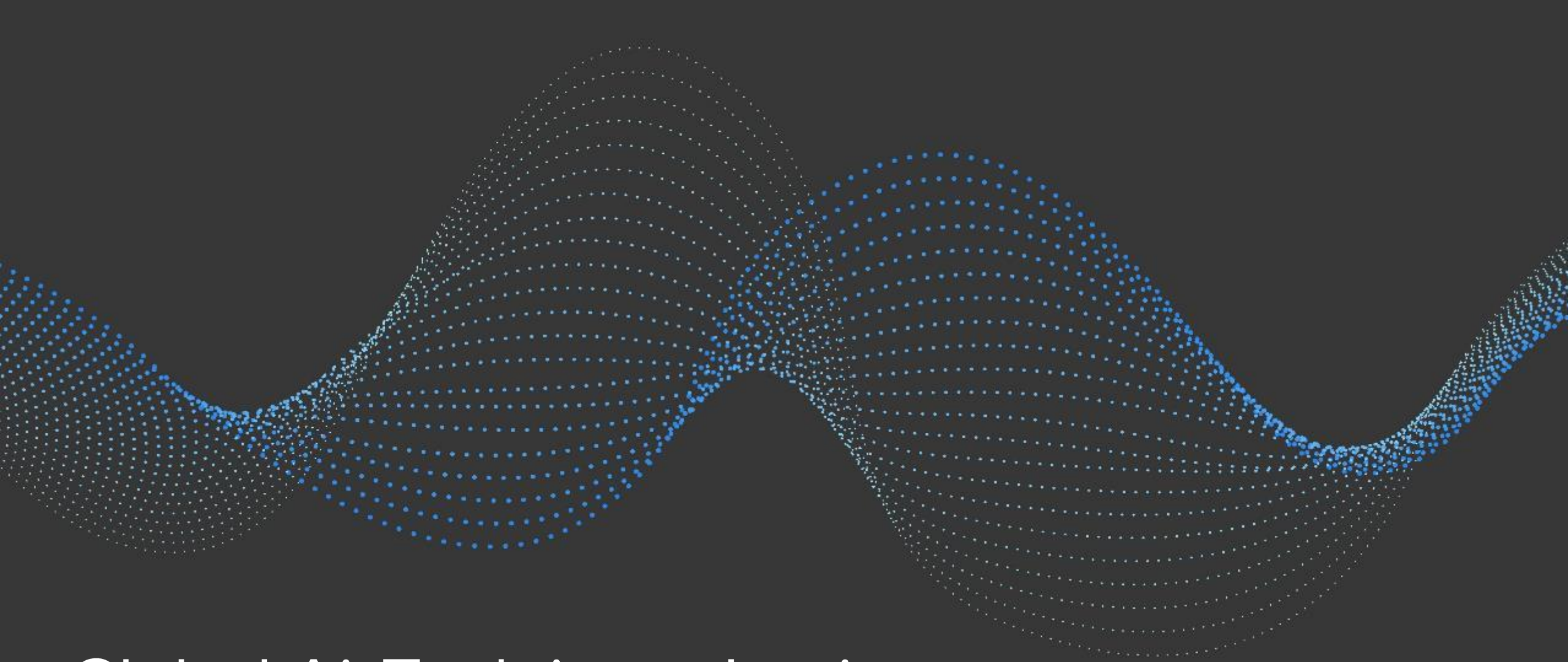


After – September 2022

Converting to a modern company for the future

- Management team reorganization
- Full integration in Munters organization
- Lean and MPS (Munters Production System)
- Implementation process approach
- Product standardization
- Line concept
- Increase of capacity
- Floor space - new facility construction
- Indirect headcount - white collar staff fully rebuilt and aligned to needs
- Direct Headcount - blue collars organization designed to new needs (skills, new location, volumes)
- Supplier base





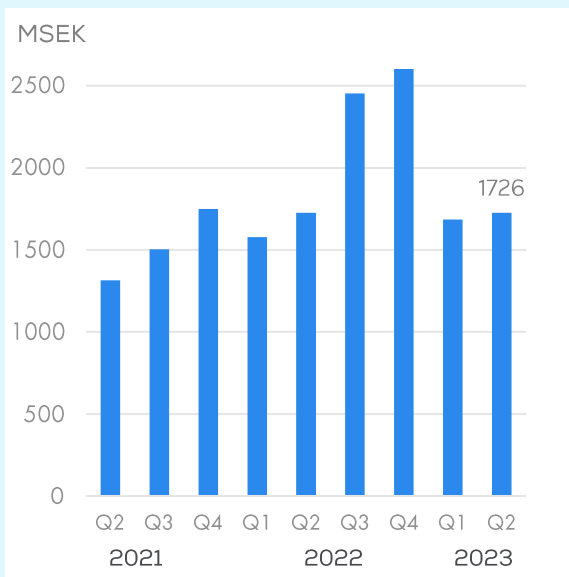
Global AirTech introduction



Global leader in air treatment for industry

Order intake, MSEK*

8,506



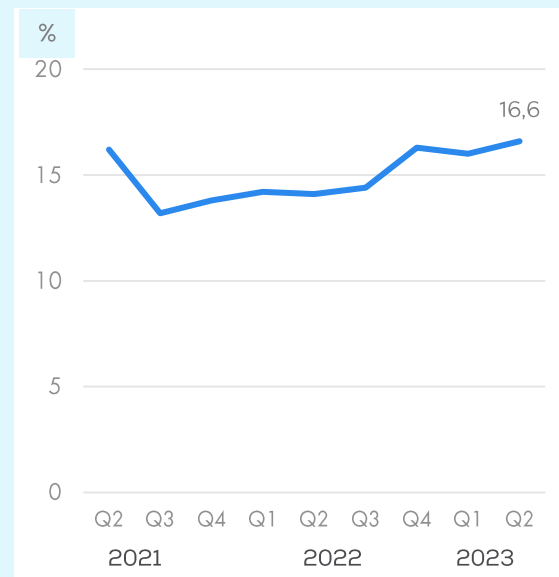
Net sales, MSEK*

7,808

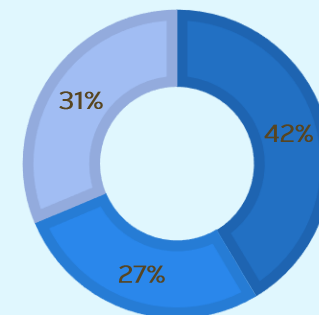


Adjusted EBITA margin*

15.9%

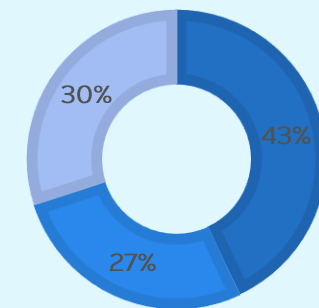


Net sales per region



■ Americas ■ EMEA ■ APAC





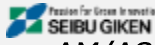

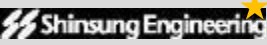




























Order intake per region



■ Americas ■ EMEA ■ APAC



Selection of market players - mainly small local players

		Small (<1 BSEK)				Medium (1-2 BSEK)	Large (2-10 BSEK)	Extra Large (>10 BSEK)
Humidity Control Technologies	Dehumidification	 AM	 AS	 AS	 AM	  AM/AS/EU	 ★ AS	
		 AM/AS	 AM	 EU	 AM		 ★ AM	
	 AM	 EU	 AS	 AS		 ★ AS		
	 AS	 AS	  AS	 EU				
	 AS	 AM	 AS		 EU/AS	 EU/AS/AM		
Clean Technologies	 EU	 EU	 EU	 EU	 AM	 AM/AS/EU	 EU/AS/AM	 EU/AS/AM

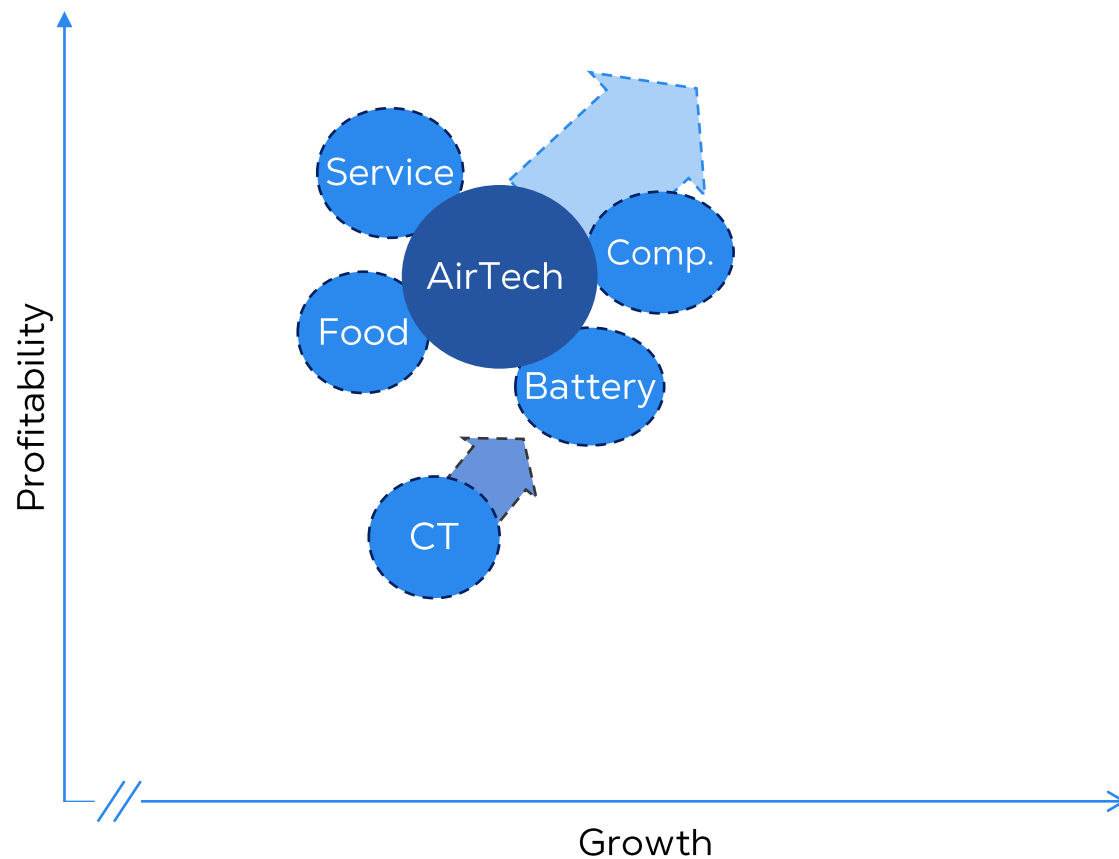


★ A small business within a large company/conglomerate

AirTech segments

ILLUSTRATIVE

Direction of positioning for AirTech – 2023 and beyond



Focus areas 2023 and beyond

Service

- Developing service offer in a three-pronged way
 1. Digitalization
 2. increased service share of installed base
 3. M&A

Battery

- Growth opportunities along the value-chain for battery producers and battery storage

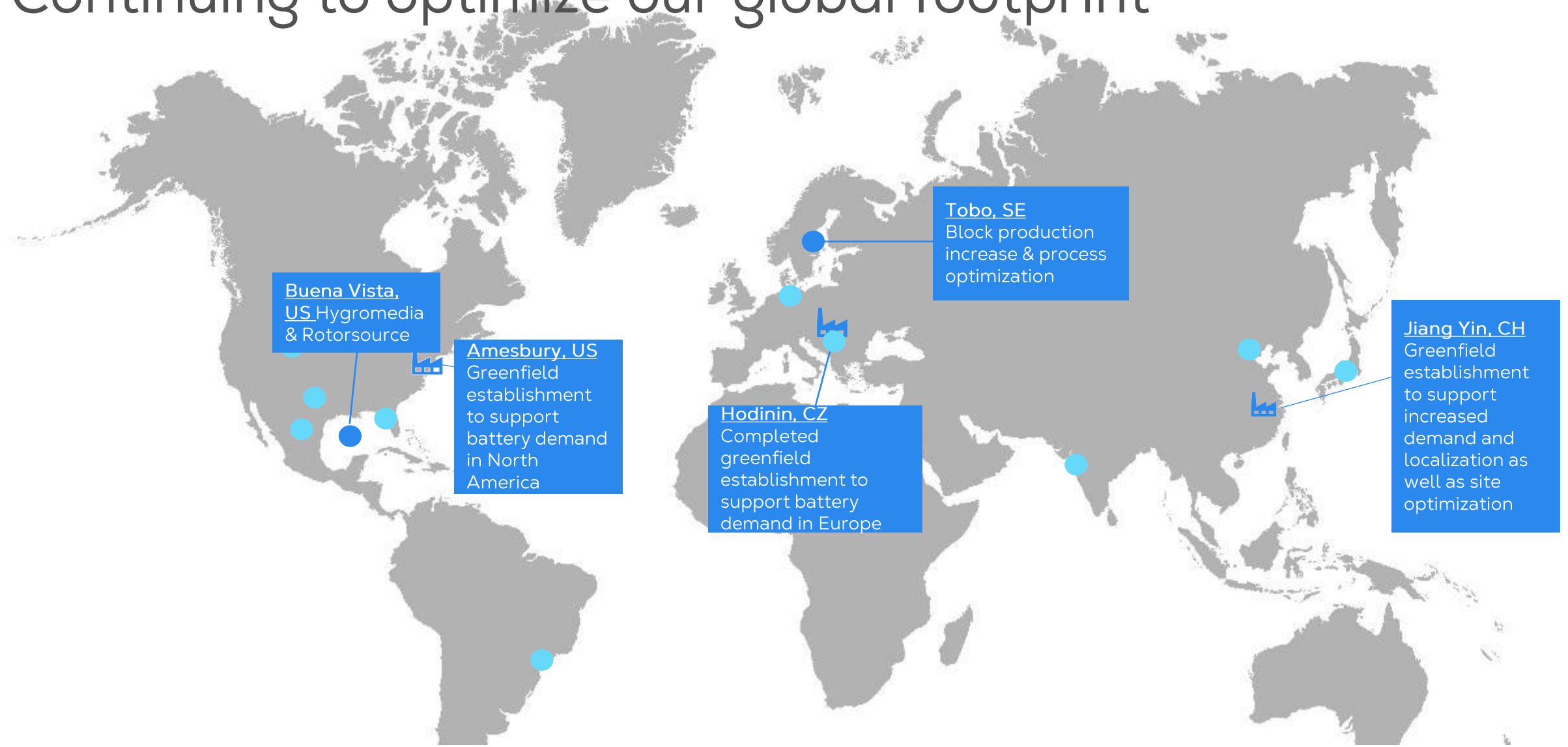
Components

- Increase channels to market

Clean Technologies

- Growth opportunities in carbon capture market & VOC

Continuing to optimize our global footprint



Buena Vista, US
Hygromedia & Rotorsource

Amesbury, US
Greenfield establishment to support battery demand in North America

Tobo, SE
Block production increase & process optimization

Hodinin, CZ
Completed greenfield establishment to support battery demand in Europe

Jiang Yin, CH
Greenfield establishment to support increased demand and localization as well as site optimization



AirTech strengthened with two new acquisitions

→ Tobo Component

- Swedish manufacturer of components, working with Munters since 2005
- Deal closed in May 2023
- Net sales 2022 ~MSEK 76, ~ 14 FTE
- Expand the humidification business & gives us full process control giving additional growth opportunities



→ SIFT

- Service business within climate control & cold storage in northern France
- Deal closed June 2023
- Net sales 2022 ~MEUR 3, ~ 17 FTE
- Following the strategy to increase market share within the service business in Europe



Agreement signed to acquire ZECO - strengthens our market position in India

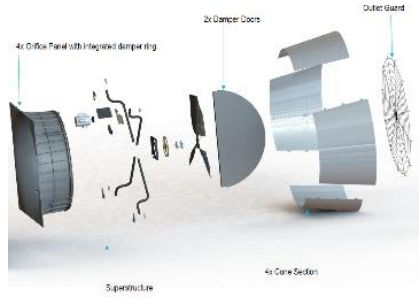
→ ZECO

- An Indian manufacturer of air treatment solutions - adds complementary products to our core offer
- Positions us for growth with the combined offering of Munters and ZECO products
- Provides a strong platform for growth – 3 manufacturing facilities across India and several sales offices
- Reported net sales of ~ MSEK 510* and an accretive EBITA-margin to the Group
- Estimated enterprise value of MSEK 790
- Expected deal completion before year-end closing



AirTech Core Innovation Areas

Further enhancing our technology leadership



- Calculation & systems simulation
- Value Analysis, Value Engineering, Cost Down
- Platform modularization & configuration
- Manufacturing processes

Design-for-X

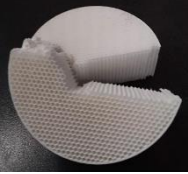
Drivers for Sustainable Innovations

Digitalization

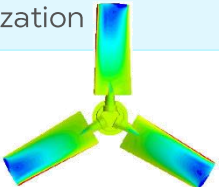
Material Science

Modelling & Simulation

- Novel materials
- Chemistry
- Assemblies/combinations
- Core processes

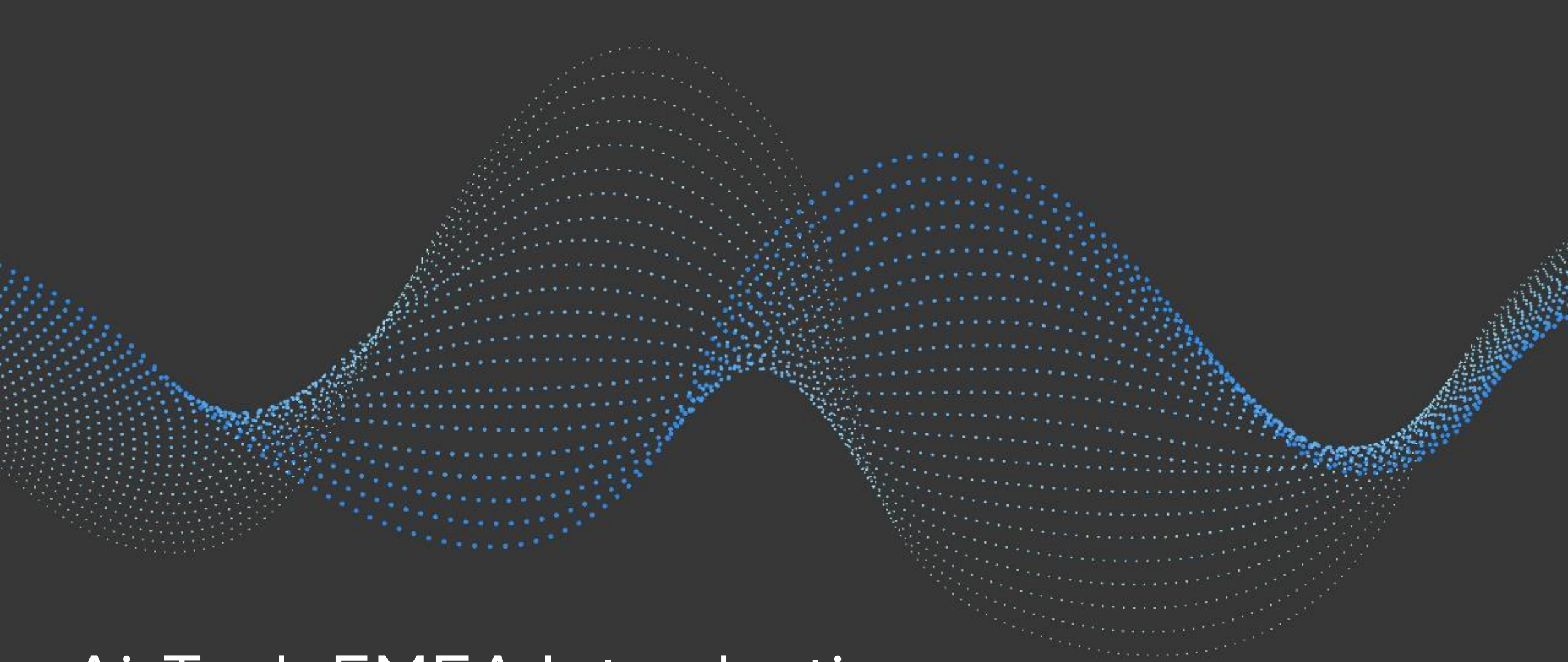


- Thermodynamics, heat transfer, physics, fluid dynamics
- Operating system optimization
- Life Cycle Optimization



- Smart Controls & Automation
- Connectivity
- Sensors
- Data analytics, AI & Machine Learning

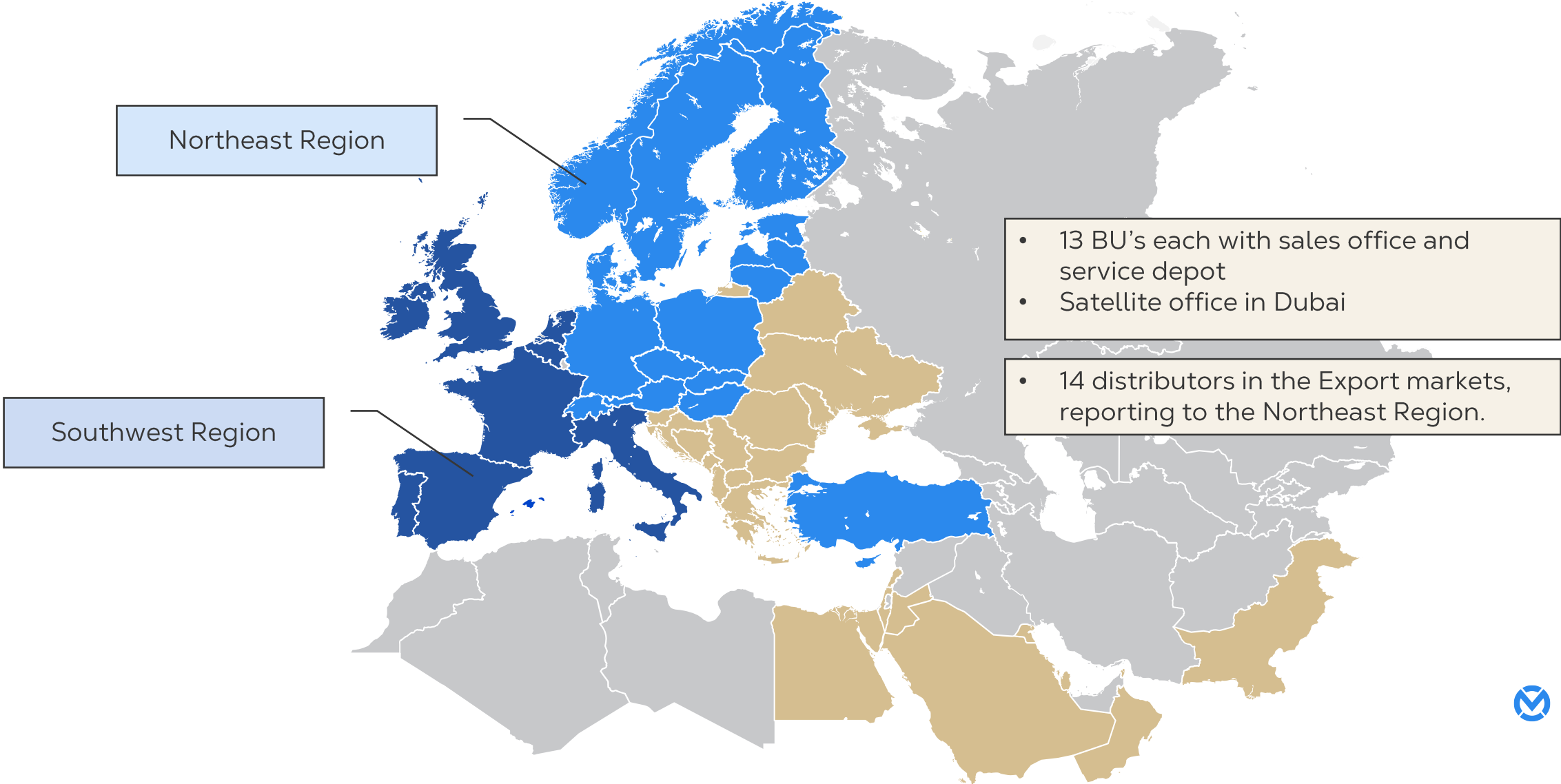




AirTech EMEA Introduction



HCT EMEA is managed as two separate regions, including sales offices and distributors in export markets



Utilizing expertise and competencies across the region, Center of Excellences support local Business Units



Battery CoE

- Sustaining momentum in a fast-paced market.
- The CoE will keep advancing people and customer partnerships.



Food CoE:

- Develop market position
- Enhance customer engagement
- Refine messaging to support growth



Media/Humidification CoE:

- Intensify efforts in all areas
- Recruitment
- Strategic customer mapping
- Engagement analysis.



Energy Solutions CoE:

- Promote Energy Solutions for Service
- Capturing sustainability opportunities for our customers.

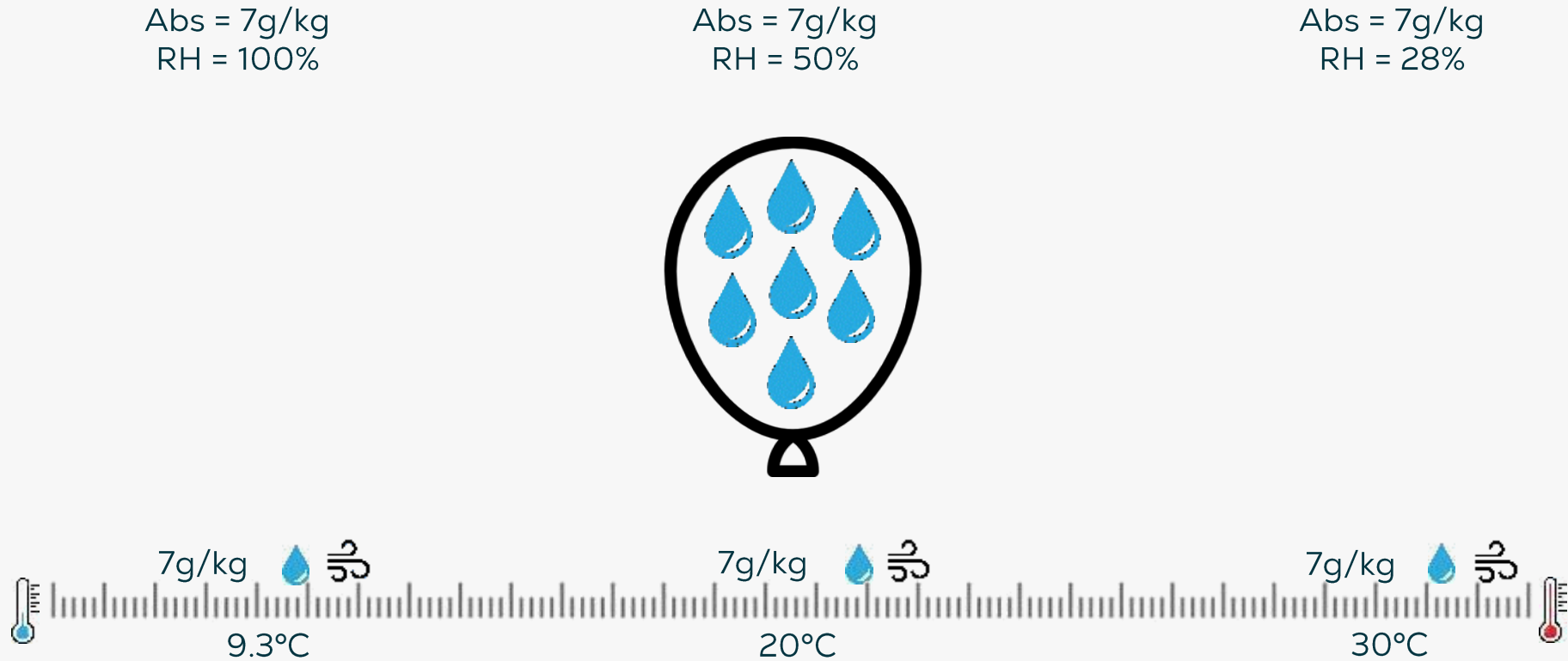
Why does Munters AirTech exist?

→ What is the common cause of these problems inside buildings?



- The common cause is humidity in the building
- Munters AirTech mission: Control the humidity
- What is humidity?

What is Absolute and Relative Humidity (RH)?



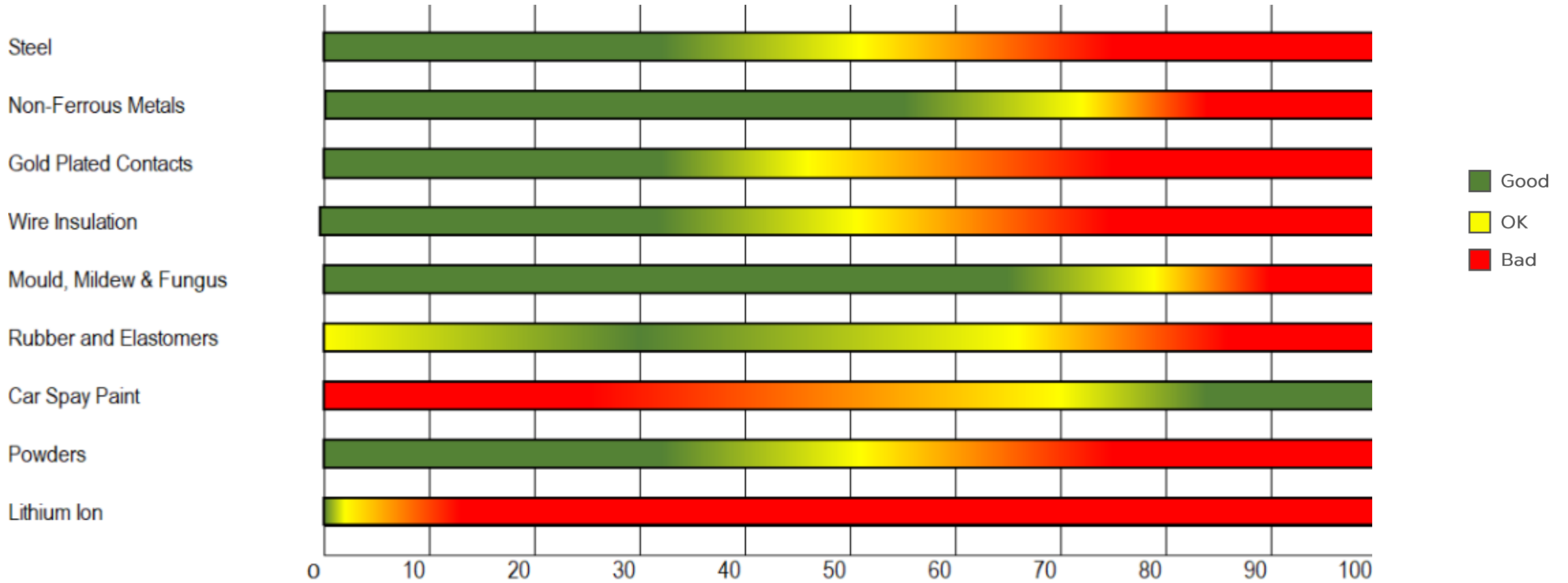
RH is a comparison between how much moisture is in the air, and how much moisture the air can hold.

At 100% RH the air is saturated, and water condenses out.

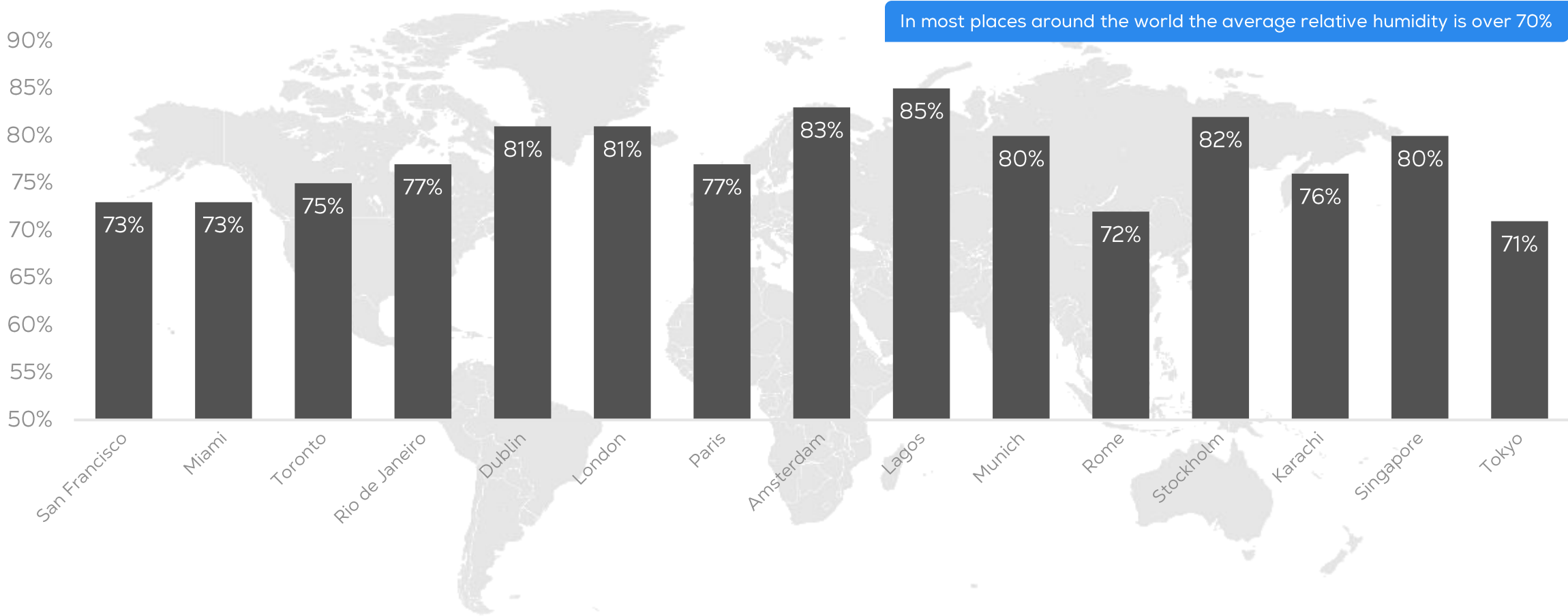
Absolute humidity (Abs) is the physical amount of moisture in the air.



Effects of humidity



Annual mean relative humidity



AirTech – why, how, what?

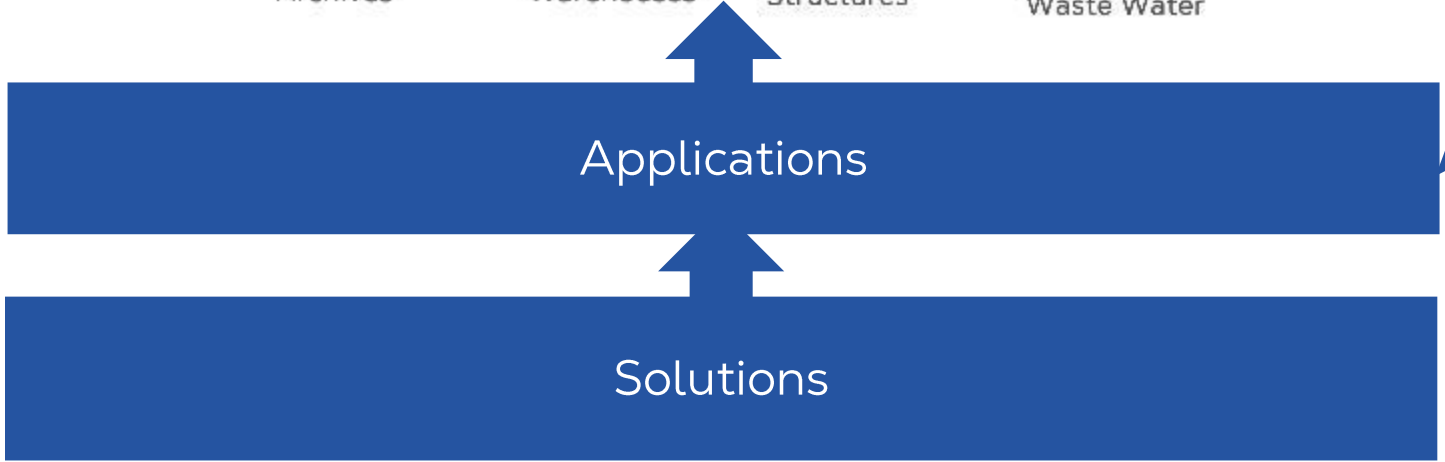
Climate affects the output & quality of many industries and commercial environments.

Most materials are unaffected by temperature – it's the humidity & moisture that matters.

Munters can create the best possible sustainable climate conditions for different applications

Munters technology, competence and experience.

World class in dehumidification & humidification solutions.



Food Application Examples

- Ambient Storage
- Chilled Storage
- Cold Storage
- Silos Storage
- Conveying
- Freezing Process
- Packaging/Labeling/Wrapping
- Drying
- Spray Drying
- Sorting/Weighing/Mixing
- Slaughtering
- Pan Coating
- Cooling Tunnels
- Hygiene Control





Food Production

We provide the world with healthier food through more hygienic production environments



Pharmaceuticals

We supply solutions for the pharmaceutical industry



Humidification

We supply components to OEM's who serve multitude of industries



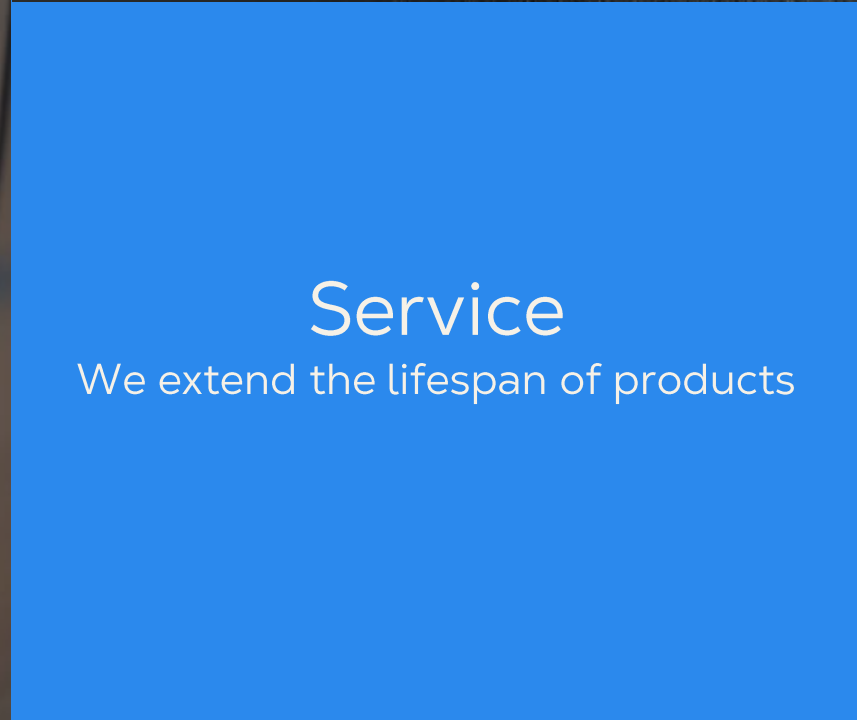
Infrastructure & Wind Power

Our climate control systems ensure low humidity



Battery Production

We produce a large share of the world's production of batteries



Service

We extend the lifespan of products

Making a difference



- **Battery Dry Rooms:**
Low dewpoint conditions for lithium R&D and production
- **Product Drying:**
Increase production and quality in food processing
- **Air Force:**
Dry air for Aerospace preservation
- **Wind Turbines:**
Prevent condensation & moisture from causing control errors & corrosion.
- **Chernobyl (Ukraine) & Preservation:**
Mission critical corrosion prevention
- **Bridges and Preservation:**
Reduce maintenance and stop corrosion
- **Museums, Archives & Preservation:**
Preserve and protect valuable assets from moisture damage

Munters Unique Selling Points

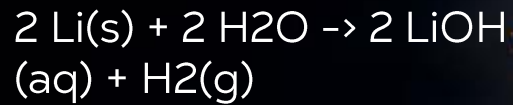


	Components	Products	Systems	Services
Product USP	<ul style="list-style-type: none"> Product quality and Performance Rotor and media innovation <p>PRS Rotors, FA6, FP3</p>	<ul style="list-style-type: none"> Product quality and Performance Energy efficiency Small to Large, the right size for every situation... <p>ComDry, ML, MX, MCD</p>	<ul style="list-style-type: none"> Product quality and Performance Energy efficiency CoE support. <p>DSS Pro, Pure, MX & ML Plus, CO²</p>	<ul style="list-style-type: none"> Product quality and Performance Energy efficiency Responsive service Fully trained Munters team <p>Agreements, Spares, Upgrades</p>
	Relationship	Knowledge	Other	
Other USP	<ul style="list-style-type: none"> Trusted advisor Responsive service – Remote or on-site Timely selections & quotes 	<ul style="list-style-type: none"> Application and solution expertise Meet future climate needs 	<ul style="list-style-type: none"> Capacity and lead time Turnkey capability Competitive pricing and OPEX 	



Battery application

Lithium reacts intensely with water, forming lithium hydroxide and highly flammable hydrogen. The colourless solution is highly alkalic.



Munters Dry-Room Solution

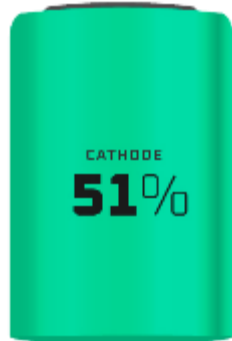
Munters supply (and build) solutions to control production environment for safe and high-quality battery production



HOW BATTERY CHEMISTRIES DIFFER, FOR A 60KWH LITHIUM-ION BATTERY

The name of the battery chemistry typically indicates the composition of the cathode.

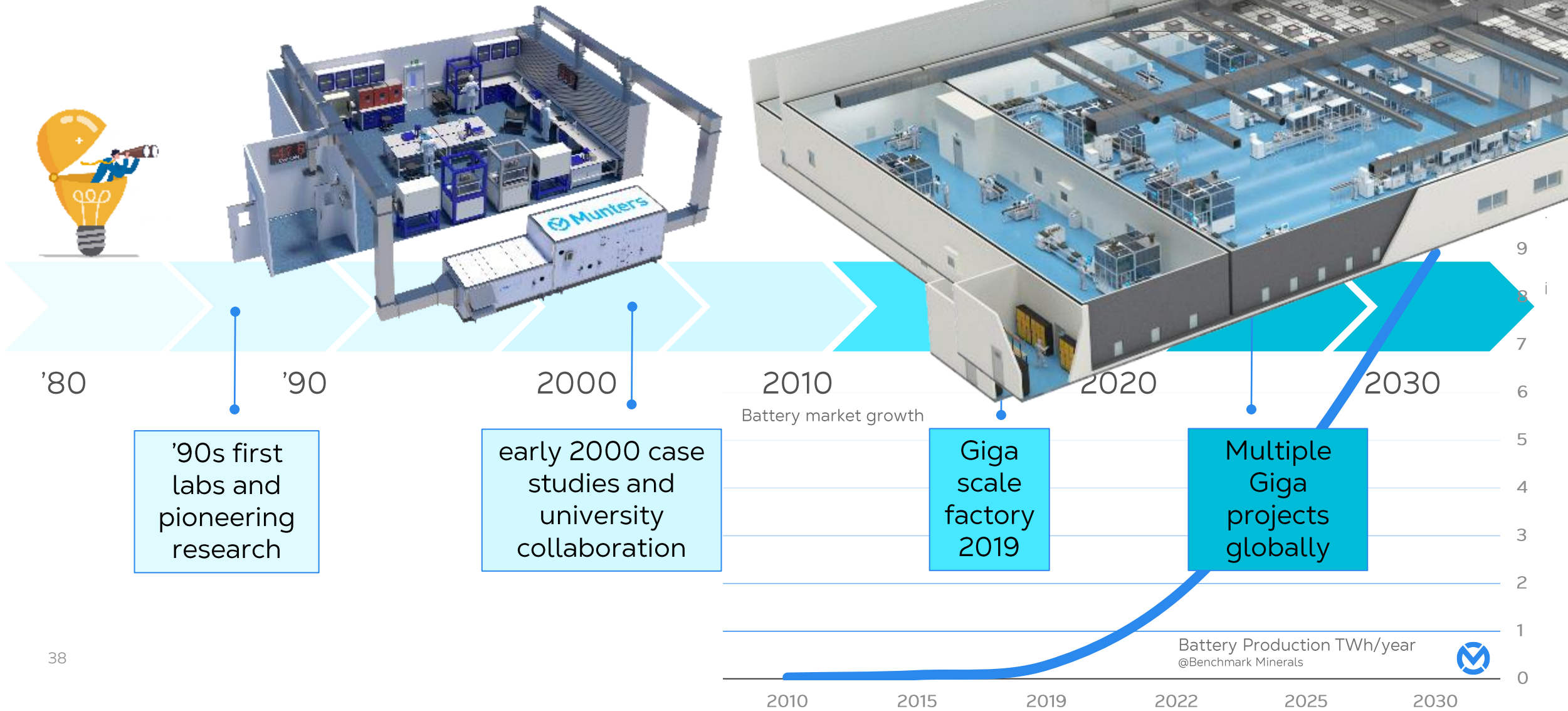
	NMC811 Nickel (80%) Manganese (10%) Cobalt (10%)	LFP Lithium iron phosphate
LITHIUM	5KG	6KG
COBALT	5KG	0KG
NICKEL	39KG	0KG
MANGANESE	5KG	0KG
GRAPHITE	45KG	66KG
ALUMINUM	30KG	44KG
COPPER	20KG	26KG
STEEL	20KG	26KG
IRON	0KG	41KG



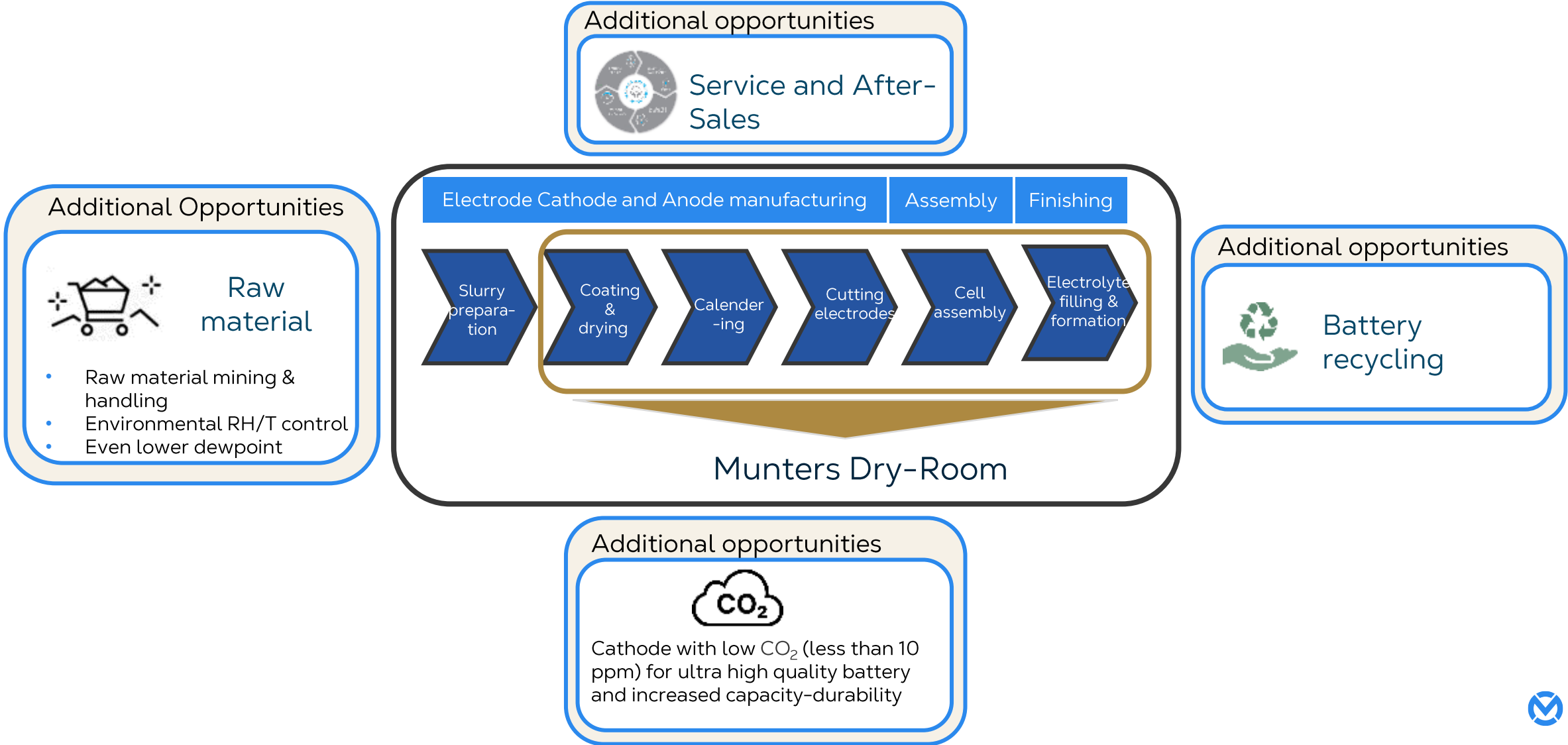
Cost of
Battery Cell



Munters journey in battery manufacturing



Capturing full value chain opportunity



The Product: DSS Pro



Battery production as of June 2023

Published by: **BATTERY-NEWS.DE**



NW: 125 GWh + X
FREYR 2028, Mo i Rana 83 GWh
MORROW 2024, Agder 32 GWh
BEYONDER 2024, Rogaland 10 GWh
elinor 2026, Trondheim X GWh

SE: 110 GWh + X
northvolt 2025, Skelleftea, Gothenburg & Borlänge 110 GWh + X

FI: 40 GWh
202X, Kotka 40 GWh
LV: X GWh
Anodox 202X, Riga X GWh

DE: 544.5 GWh + X
CUSTOMCELLS 20XX, Germany 40 GWh + 3.5 GWh
Leclanché 2020, Willstät 2.5 GWh
CELLFORCE 2024, Tübingen 1 GWh + X
SVOLT 2023, Überherrn 24 GWh
202X, Lauchhammer 16 GWh
QCC 2030, Kaiserslautern 40 GWh
northvolt 2026, Heide 60 GWh

Blackstone Resources 2024, Döbeln 5 GWh
PowerCo 2026, Salzgitter 40 GWh
CATL 2025, Erfurt 100 GWh
TESLA 202X, Grünheide 200 GWh
VARTA 20XX, Ellwangen 2 GWh
EAS 202X, Nordhausen 0.5 GWh
2026, Flintbek 10 GWh

EU: 170 GWh + X
SVOLT 2030, Europe 10 + X GWh
InoBat 202X, Europe X GWh
PowerCo 2030, Europe 120 GWh
TATA MOTORS 20XX, Europe X GWh
InoBat 20XX, Europe 40 GWh

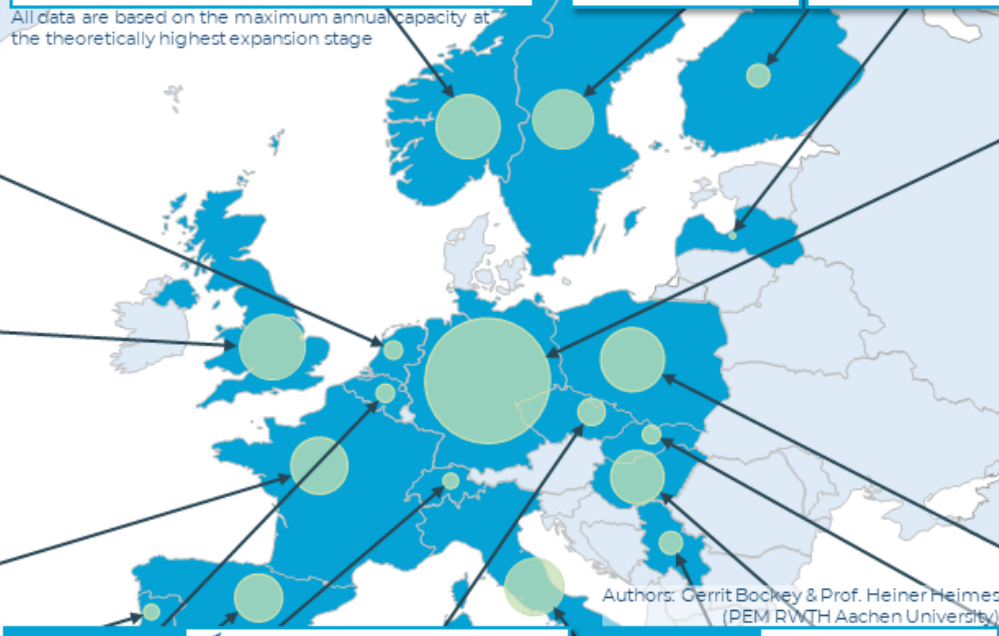
NL: 1 GWh + X
EUROCELL 2023, Europe 1 GWh + X

GB: 105 GWh + X
NE 202X, GB X GWh
WEST MIDLANDS 2025, Coventry 60 GWh
Envision AESC 2030, Sunderland 35 GWh
amte 2023, GB 10 GWh + X
BRITISHVOLT 2025, Blyth X GWh

FR: 169.5 GWh
QCC 2030, Douvrin 40 GWh
VERHOE 2030, Dunkirk 50 GWh
BlueSolutions 20XX, Quimper 1.5 GWh
Envision AESC 2029, Douai 30 GWh
ProLogium 20XX, Dunkirk 48 GWh

ES: 140 GWh
PowerCo 202X, Sagunt 60 GWh
Phi4tech 2027, Noblejas 20 GWh
BASQUEVOLT 2027, Spain 10 GWh
Envision AESC 2025, Navalmodal de la Mata 50 GWh

Σ = 2,014 GWh + X | +4% (as of February)
 All data are based on the maximum annual capacity at the theoretically highest expansion stage



PT: 45 GWh
CALB 2028, Portugal 45 GWh

BE: 3 GWh
ABEE 202X, Seneffe-Manage 3 GWh

CH: 7.6 GWh
SCB 202X, Frauenfeld 7.6 GWh

MES 2025, Horní Suchá 15 GWh

IT: 118 GWh
QCC 202X, Termoli 40 GWh
FAAM 2024, Terevola 8 GWh
ITALVOLT 2024, Italy 70 GWh

SB: 80 GWh
ElevenEs 2027, Subotica 48 GWh
InoBat 2032, Serbia 32 GWh

PL: 115 GWh
LG Energy Solution 2025, Wroclaw 115 GWh

SK 10 GWh
InoBat 2020, Bratislava 10 GWh

HU: 215.3 GWh + X
CATL 2025, Debrecen 100 GWh
EVE 2026, Debrecen 28 GWh
SAMSUNG 2021, Göd 40 GWh
202X, TBD X GWh
2028, Komarom & Ivancsa Up to 47.3 GWh
SK innovation

Authors: Gerrit Bockey & Prof. Heiner Heimes (PEM RWTH Aachen University)

Most of projects to be executed in the next 10 years
 2TW = ~ 25M cars (1/10 of current number of cars in Europe)



The journey continues...

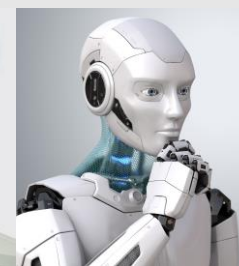
Today

Few years

~10+ years

Few decades

Market



Transportation & Storage

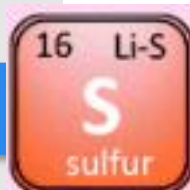
Battery Technology



Lithium-Ion (LFP & NMC)



Solid-State



Lithium Sulfur



Sodium-Ion



H2 Fuel Cell / battery

?

DH?

Lithium highly reactive to water

-30 to -40°C DP



-30 to -50°C DP

Sodium & Solid-State highly reactive to water

-30 to -50°C DP, and some even lower



Committed to our people, our culture, and core values



Sustainable value creation



Passion for results



There is always a better way



Team spirit



Deep dive - Food



Global Food Report 2023 - Big Trends

- Energy saving
- Low / No sugar
- Clean label
- Plant based protein

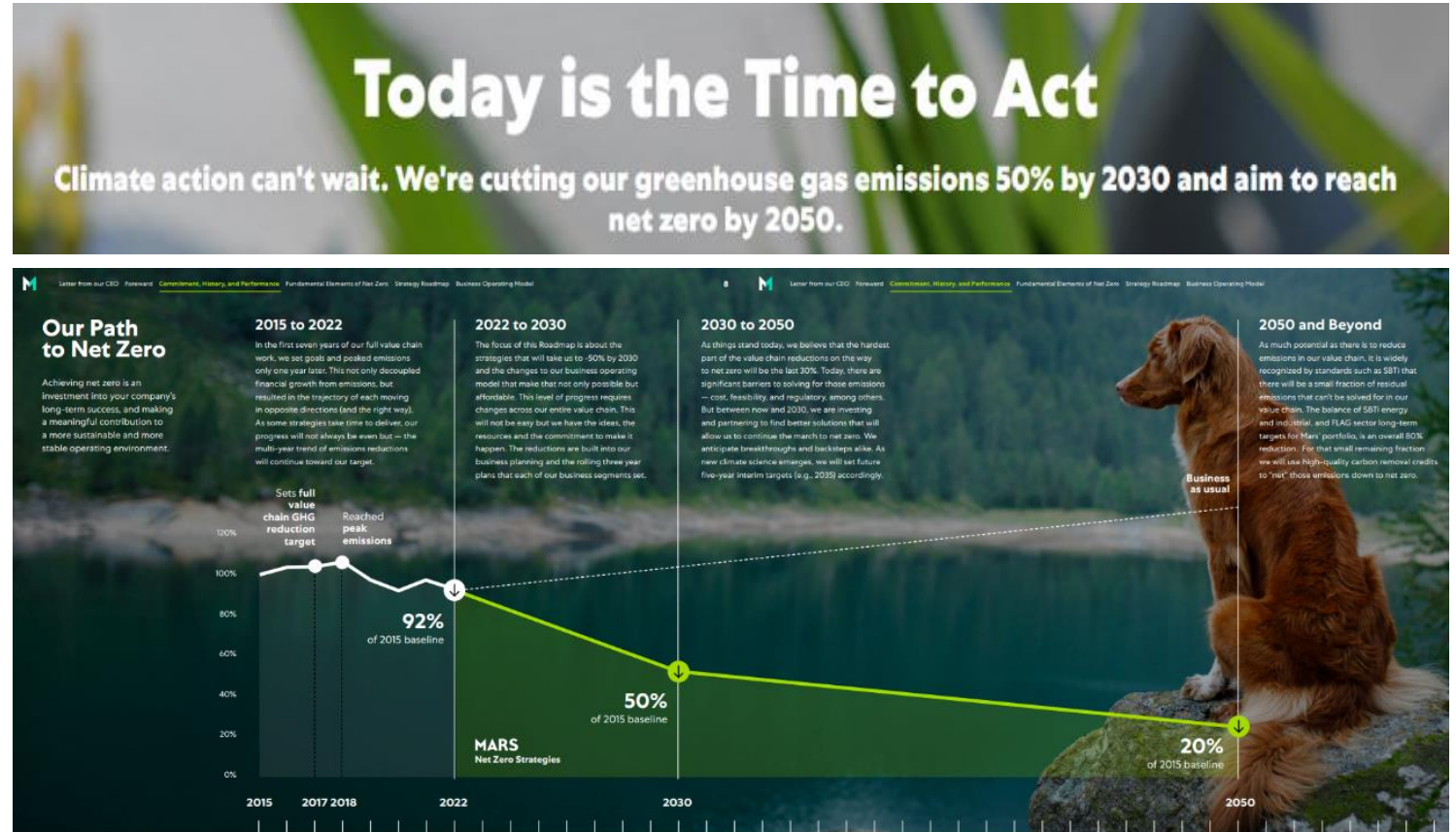


Munters position on energy saving



→ All food producers are trying to reduce energy consumption

- Cost
- Carbon footprint reduction
- Sustainability claims



The above is a recent example of a food producers sustainability act
Source: <https://www.mars.com/sustainability-plan/healthy-planet/net-zero-2050>



Munters position on energy saving

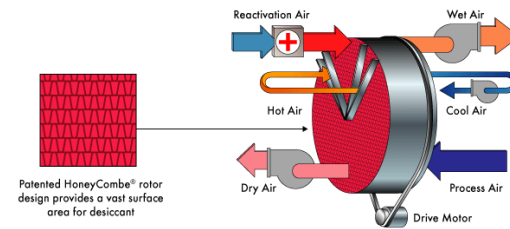


Energy Centre of Excellence offer expert advice how to optimise Munters & non-Munters products



Replacing old, inefficient fans with modern, lower energy consuming EC* fans

Munters HoneyCombe® Rotor Technology with PowerPurge™



Retrofit energy recovery purges on old Munters units to reduce energy consumption by approx 20%.



Rotor replacements for old Munters units to improve performance with lower energy usage

Munters position on Low / No sugar trend

- 42% of consumers want to reduce the amount of sugar consumed.*
- No sugar products require other sweeteners.
- Munters dehumidifiers and high performance rotors are ideal for this
- Growth in gum / gummy type products will also drive dehumidifier usage.



Munters position on clean label trend

- Some additives are used to reduce Water Activity (a_w)
 - A measure of how much water is available for microbes like mould and bacteria.
 - High Water Activity (above 0.7) can be bad (depends on the product).
 - Low Water Activity (below 0.7) is better, stops bacteria and mould
- More care is needed during production to prevent contamination
- Munters dehumidifiers can control humidity in production areas

Microorganism	a_w	RH%
Most bacteria	0.85 - 0.97	85-97
Most moulds	0.80 - 0.95	80-95
Most yeasts	0.75 - 0.88	75-80
Xerophilic yeasts	0.70 - 0.75	70-75
Osmophilic yeasts	0.60 - 0.70	60-70
Xerophilic moulds	0.60 - 0.75	60-75
No microbial growth	0.50	50



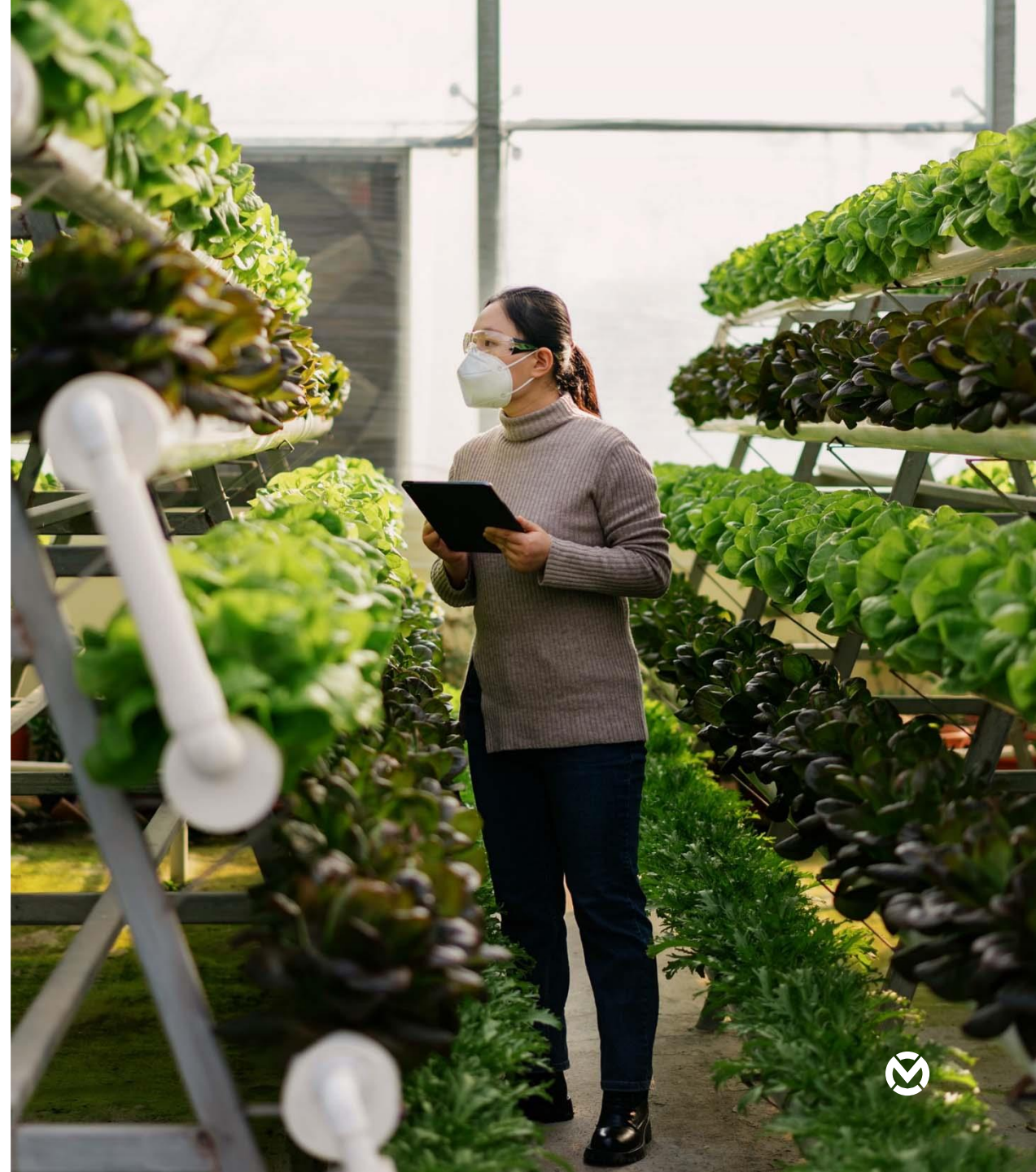
Munters position on plant based protein

→ Big growth predicted in 2021/22 but market has stalled:

- Cost of living – consumers switch back to meat
- Taste and texture are still not comparable to meat products

→ Market is still very small, >1% of traditional meat market

- Until price, variety and sensory issues are solved it will remain very niche



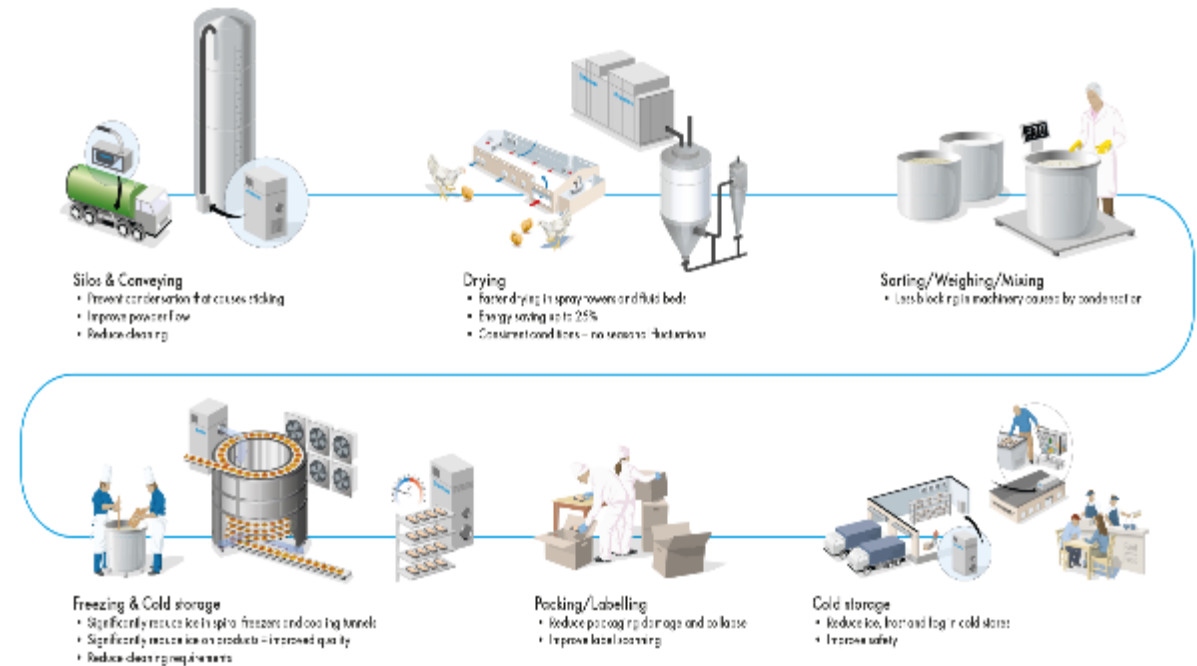


Deep dive: Food drying, food safety & food preservation



Climate control in every part of food production process

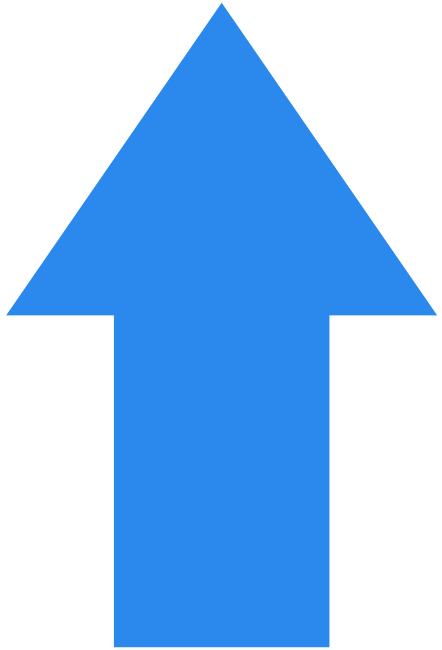
- Prevent mold & bacteria
- Prevent condensation-related contamination
- Prevent sticking, caking, softening, hardening of products
- Prevent packaging damage & collapse
- Prevent trips-and-slips
- HACCP* compliance



*Hazard Analysis Critical Control Point



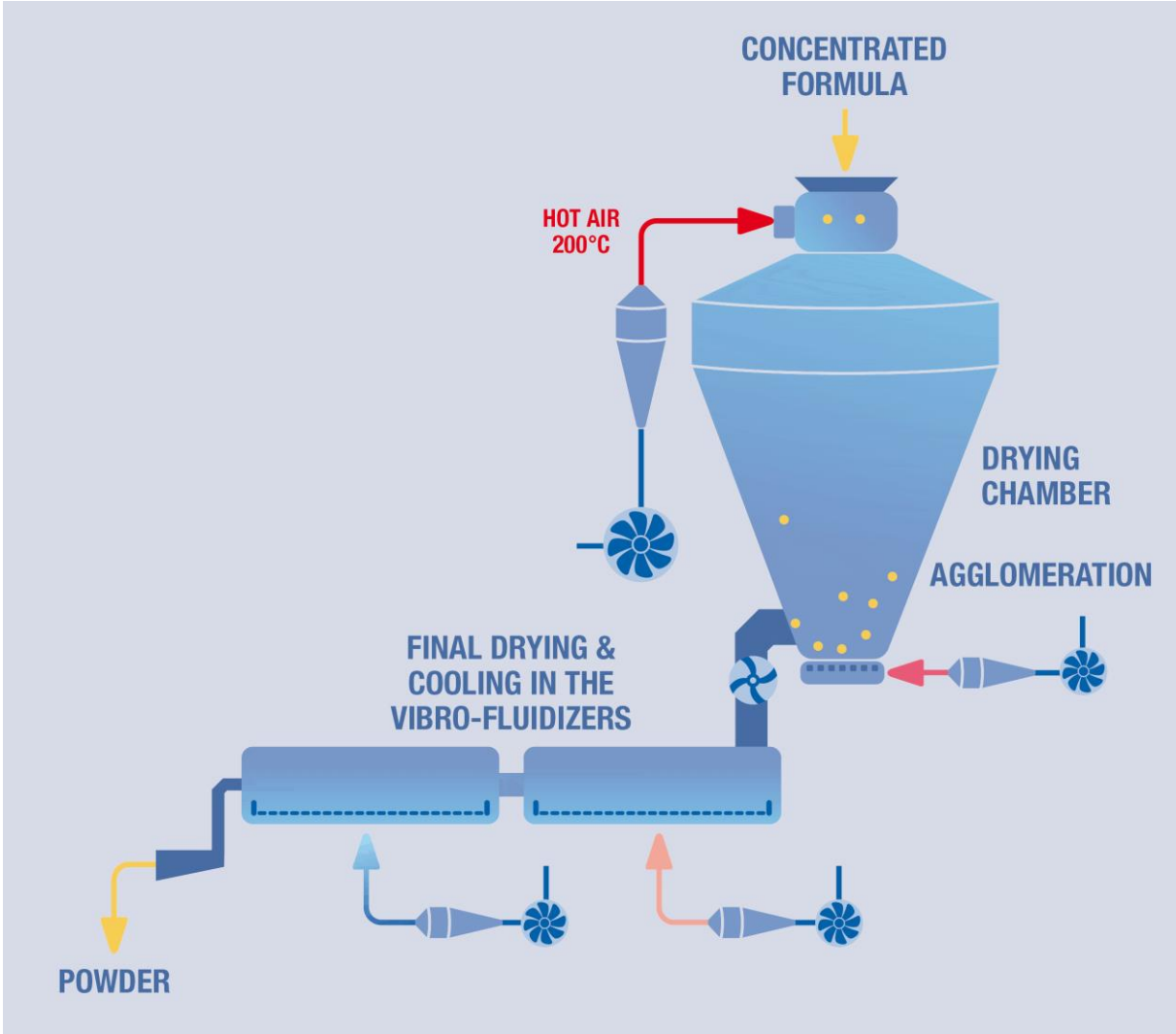
Munters Food Drying : Mastering the Climate



- Increase production
- Increase efficiency
- More uptime
- More product safety



Spray Drying Food



Spray Drying market outlook

→ EMEA

- 170 spray dryer projects in EMEA last 20 years
- >300 locations with ≥ 1 food dryers
- >10 OEM's multiple offices in different countries
- Approx 1.000 installed spray dryers within food
- Potential in Pharmaceutical and Chemical

→ Globally 3.600 listed spray dryers

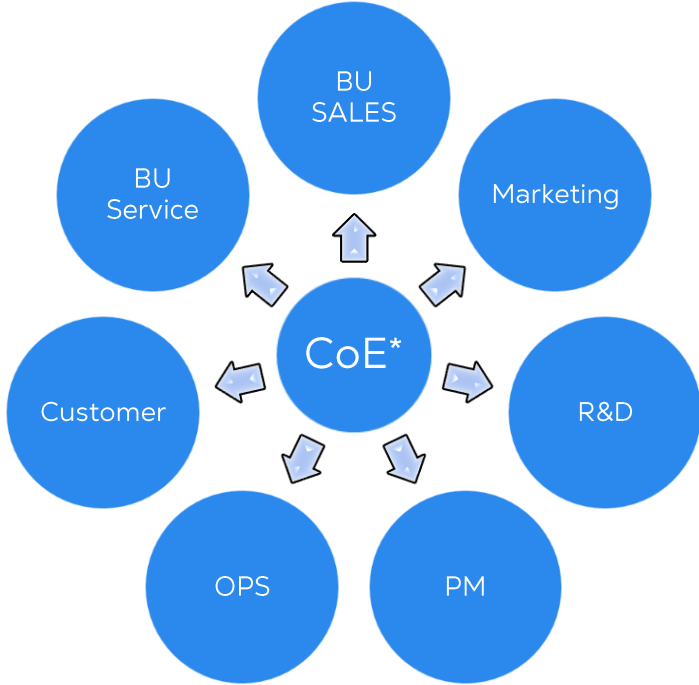


Top-5 Target Food Products

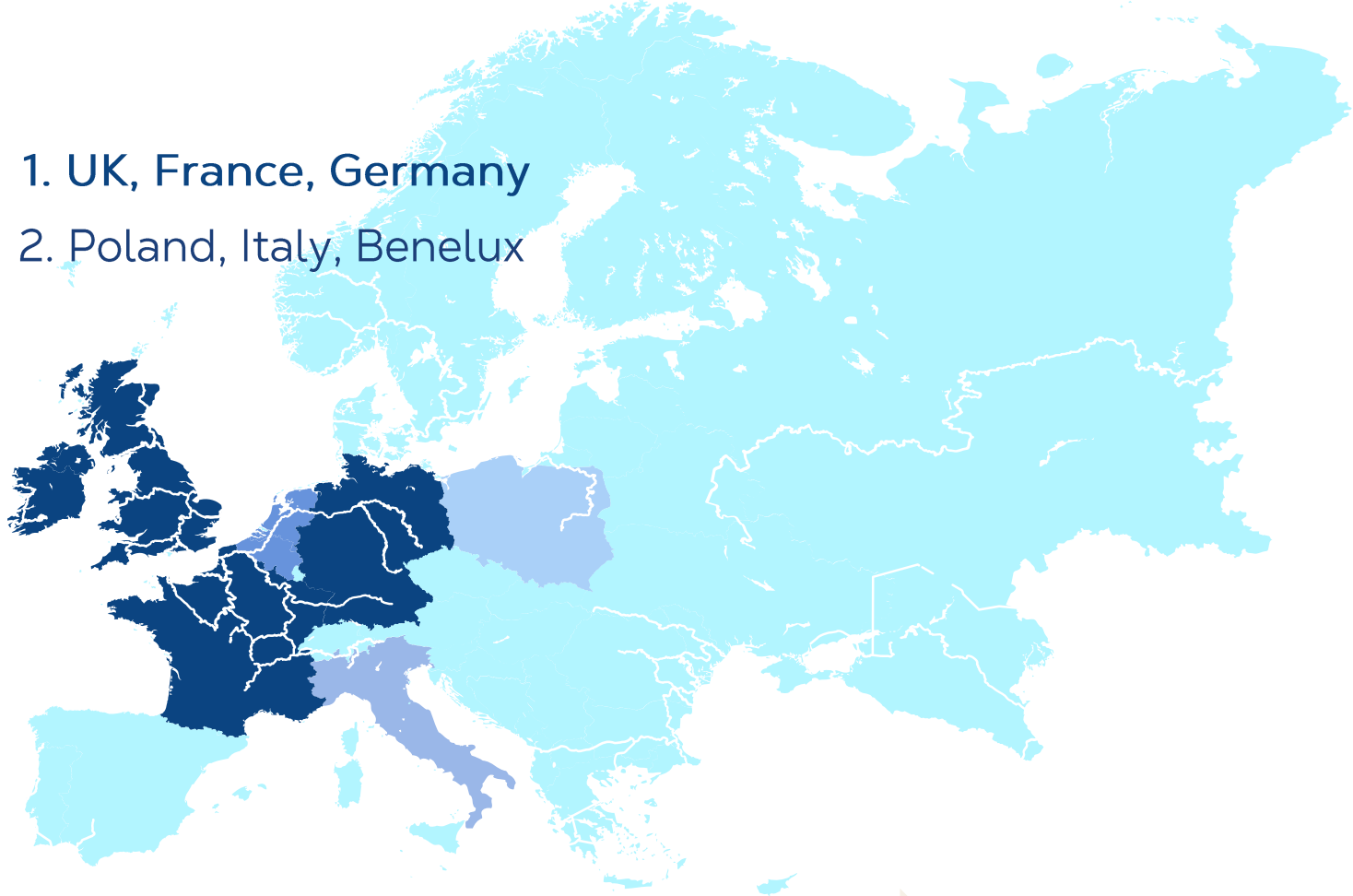
1. Infant formula
2. Yeast / Yeast Extract
3. Flavours
4. Lactose
5. Whey



Food drying focus 2023-2026



- 1. UK, France, Germany
- 2. Poland, Italy, Benelux



From reactive to proactive

*CoE = Center of Excellence



High-capacity, energy efficient Spray Drying

A new and more efficient spray drying process

MUNTERS SPRAY DRY SYSTEM

MUNTERS VARIMAX HEATER

Your benefits

Increase production capacity
26.9 %

Increase product per year
8 515 t

Yearly saving from improved uptime 
322 k€

Yearly revenue additional production
3 406 k€

Yearly energy saving
337 k€

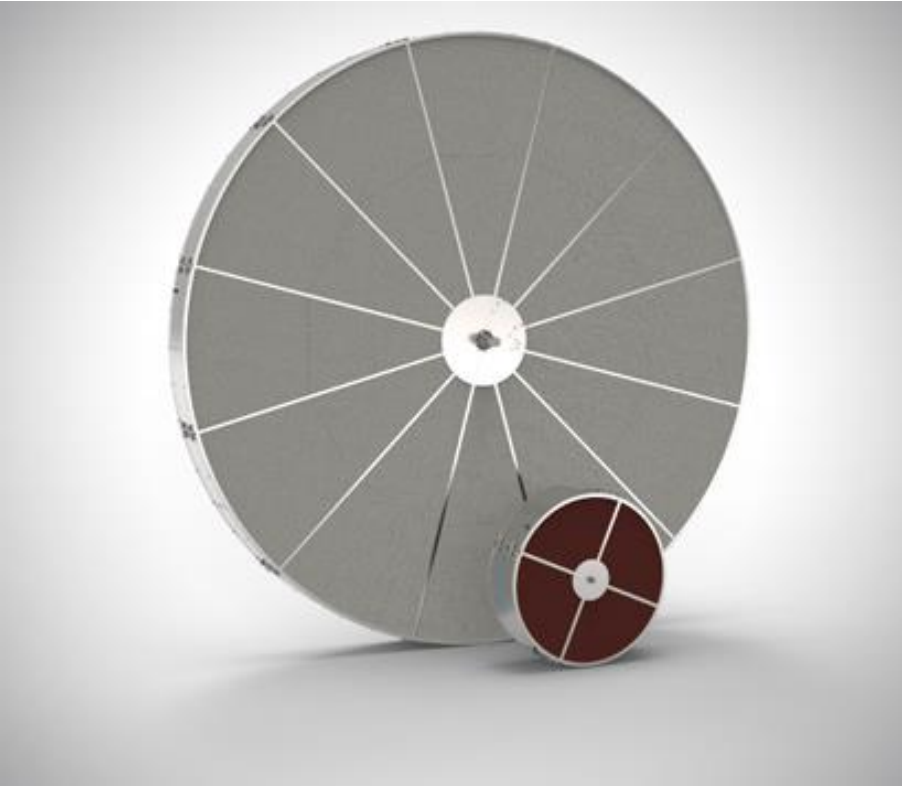
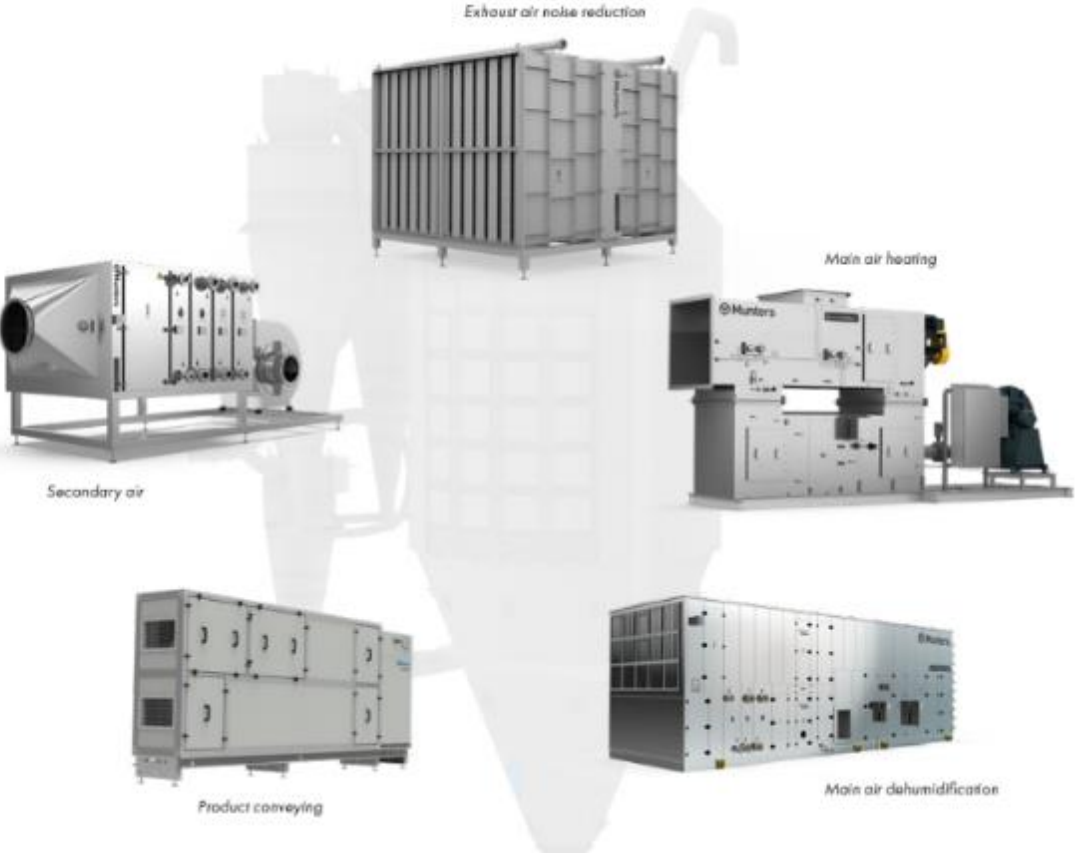
Yearly Saving CO₂ 
Select a site location to calculate



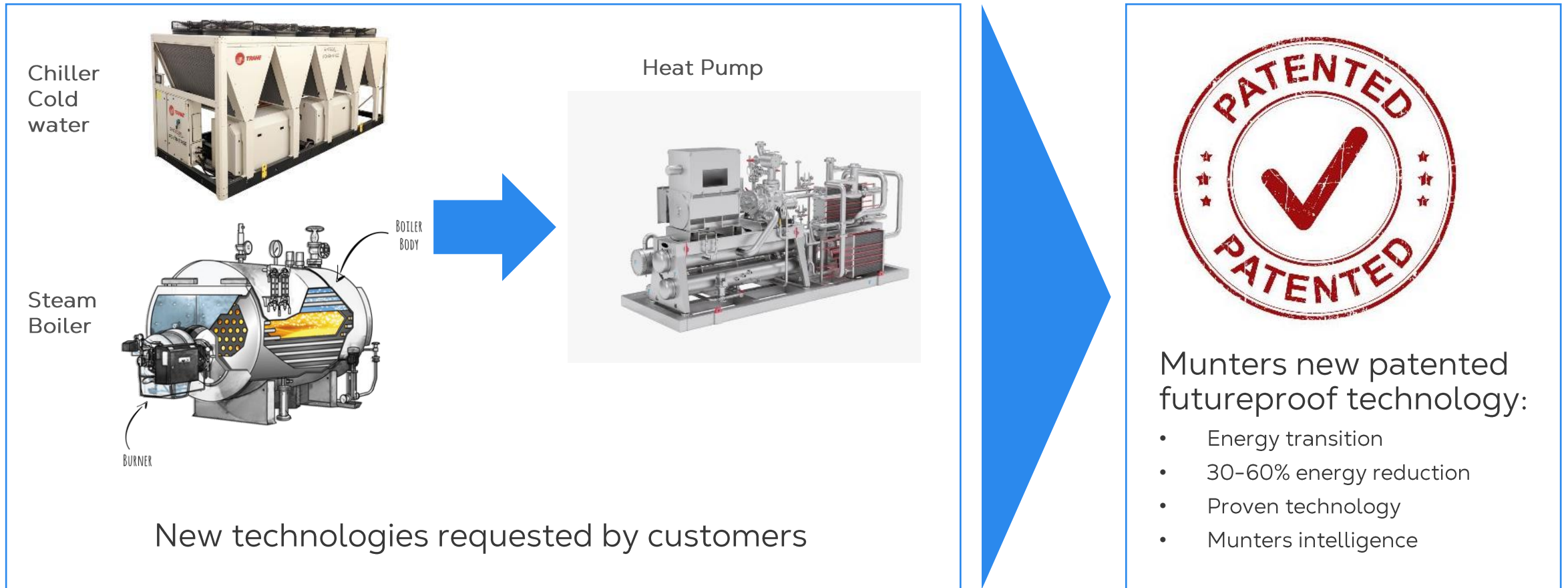
Calculator 1.0



Munters products for Spray Drying



We respond to the energy transition within food drying



Sensus, The Netherlands – climate is key



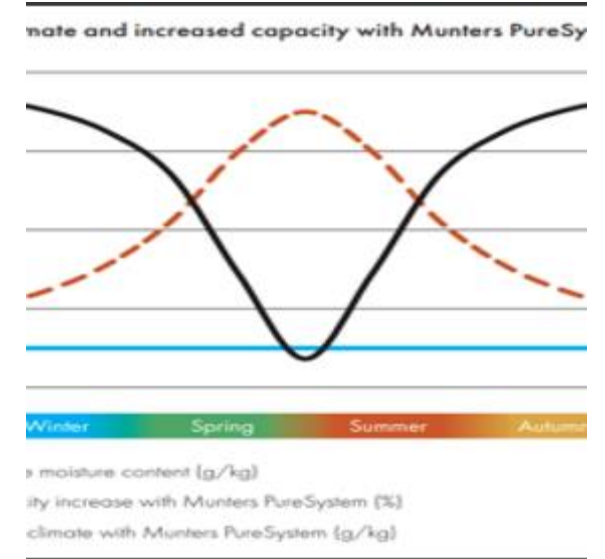
- Climate fluctuations
- Ensure stable product and full capacity



- PureSystem 3500



- Expertise
- Understanding
- Reliability
- Capacity to deliver



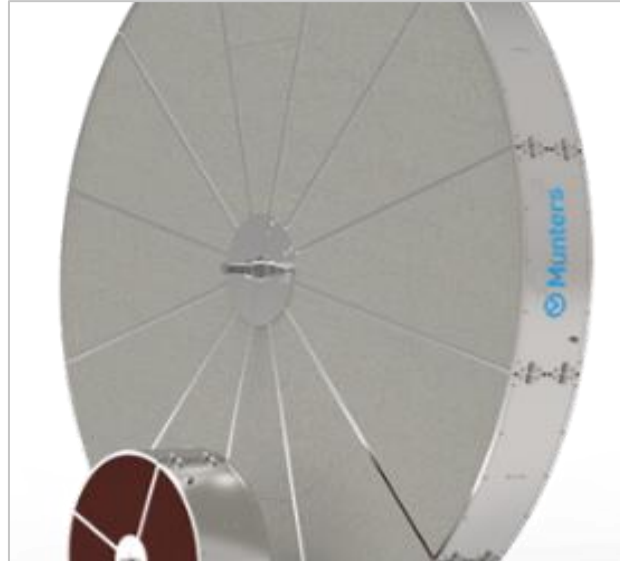
- Increase production 40%
- No production stops



Munters Service – Big rotor replacements



- Whey protein producers, Italy & UK
- Service agreement
- Maintenance & rotor replacement

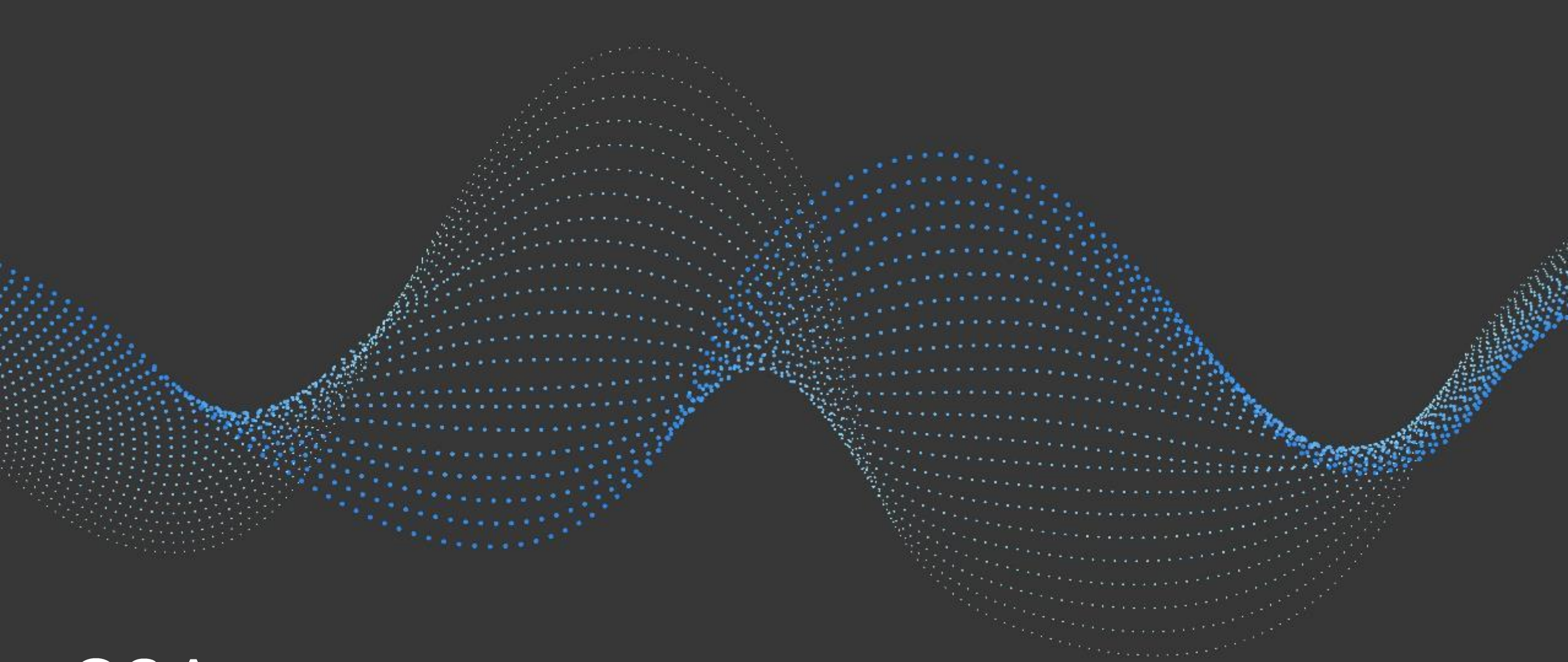


- Rotor Replacement
- (3546 x 400)
- (4000 x 400)



- Proprietary technology
- Reliable results & efficiency
- Long standing service agreement





Q&A

