



BLANCAIR

captures energy & cleans the air



IT'S TIME FOR
THE CLEANEST ENERGY

SPREEWINDTAGE
6TH NOVEMBER 2019

BEHIND THE SCENES



HEAD OFFICE
Finkenwerder
Product Development
Research & Engineering Services



CTC
Stade
Engineering Services
Manufacturing Engineering



Hamburg

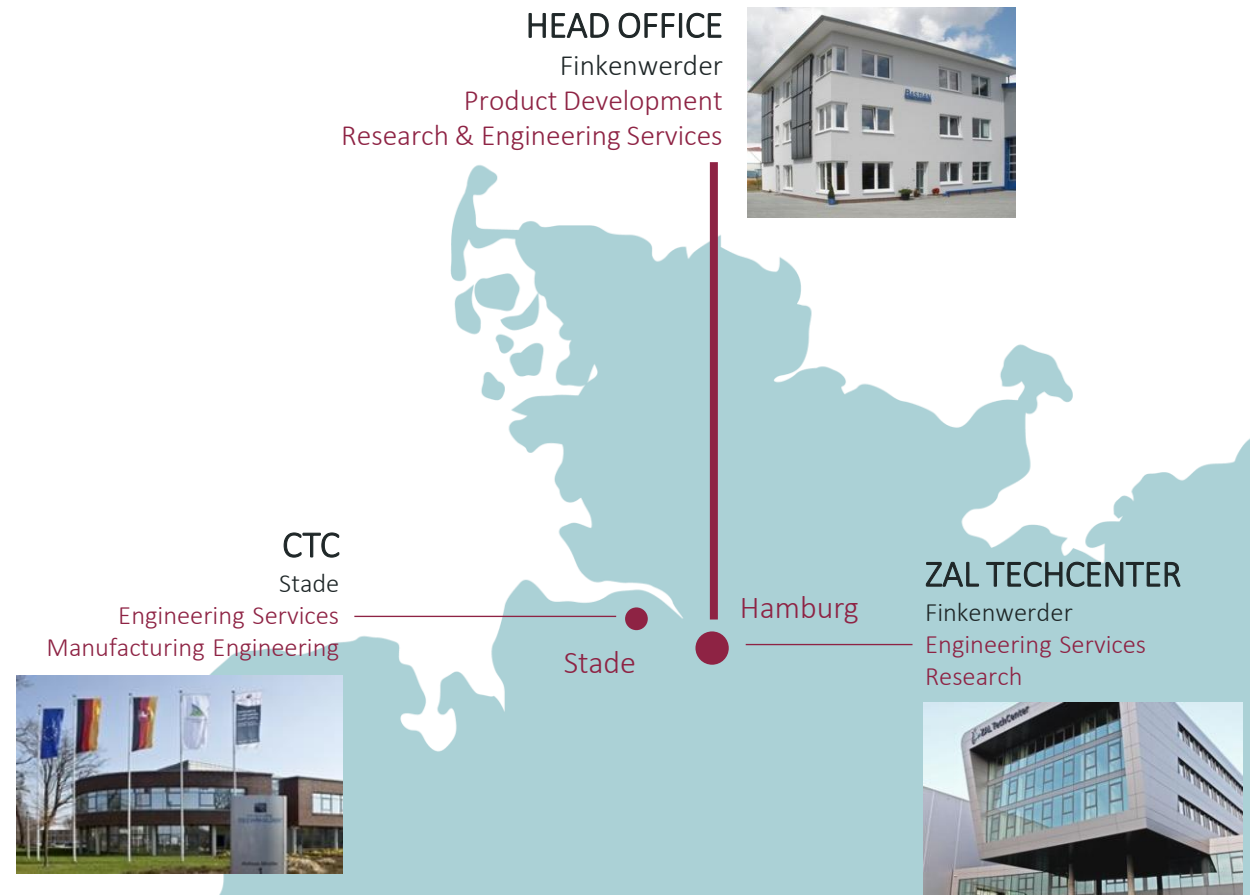
ZAL TECHCENTER
Finkenwerder
Engineering Services
Research



BEHIND THE SCENES



- 2007 founded by Jörg Spitzner
- SME with approx. 35 employees
- 3 locations
- Founder for 3 decades active in the aviation and wind energy industry
- Direct supplier status at AIRBUS (R&T)
- More than 80 publications and patents
- SPITZNER ENGINEERS GmbH is certified by

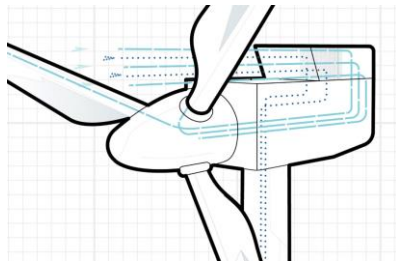




BEHIND THE SCENES

From wind energy
to climate engineering

since 2017: Climate Engineering



CEC
CLEAN
ENERGY ONE



since 2010: Wind energy industry



GERMAN
RENEWABLES
2013 AWARD
TECHNOLOGY | SYSTEMS | MARKET

BB
BEST
BLADES

WPA
NEO

Cross Innovation

To transfer developed
technologies & know-how
from one industry to
another

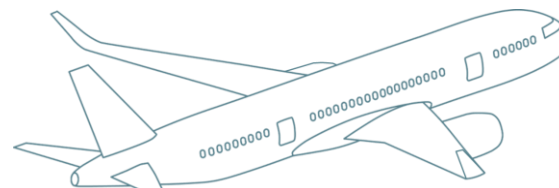
What does the future
of aviation look like?

2019



Engineering
3D Print
Solutions

since 2007: Aircraft industry

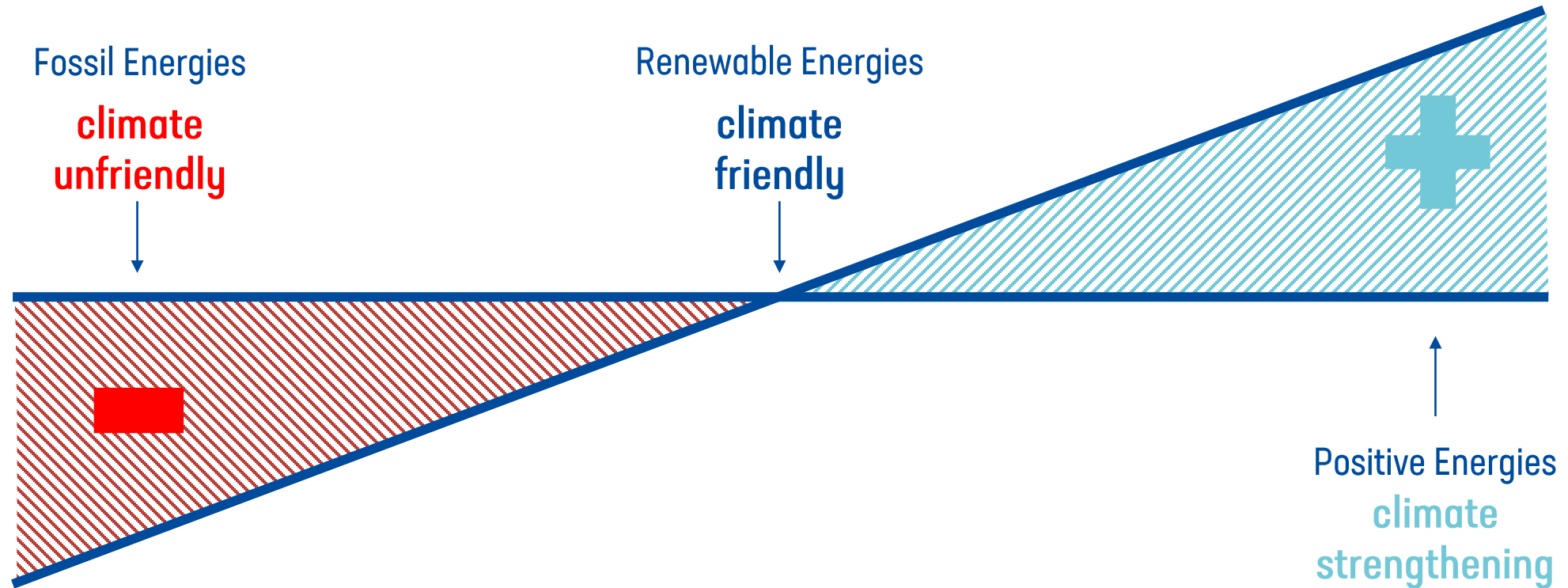


direct supplier
status (R&T)

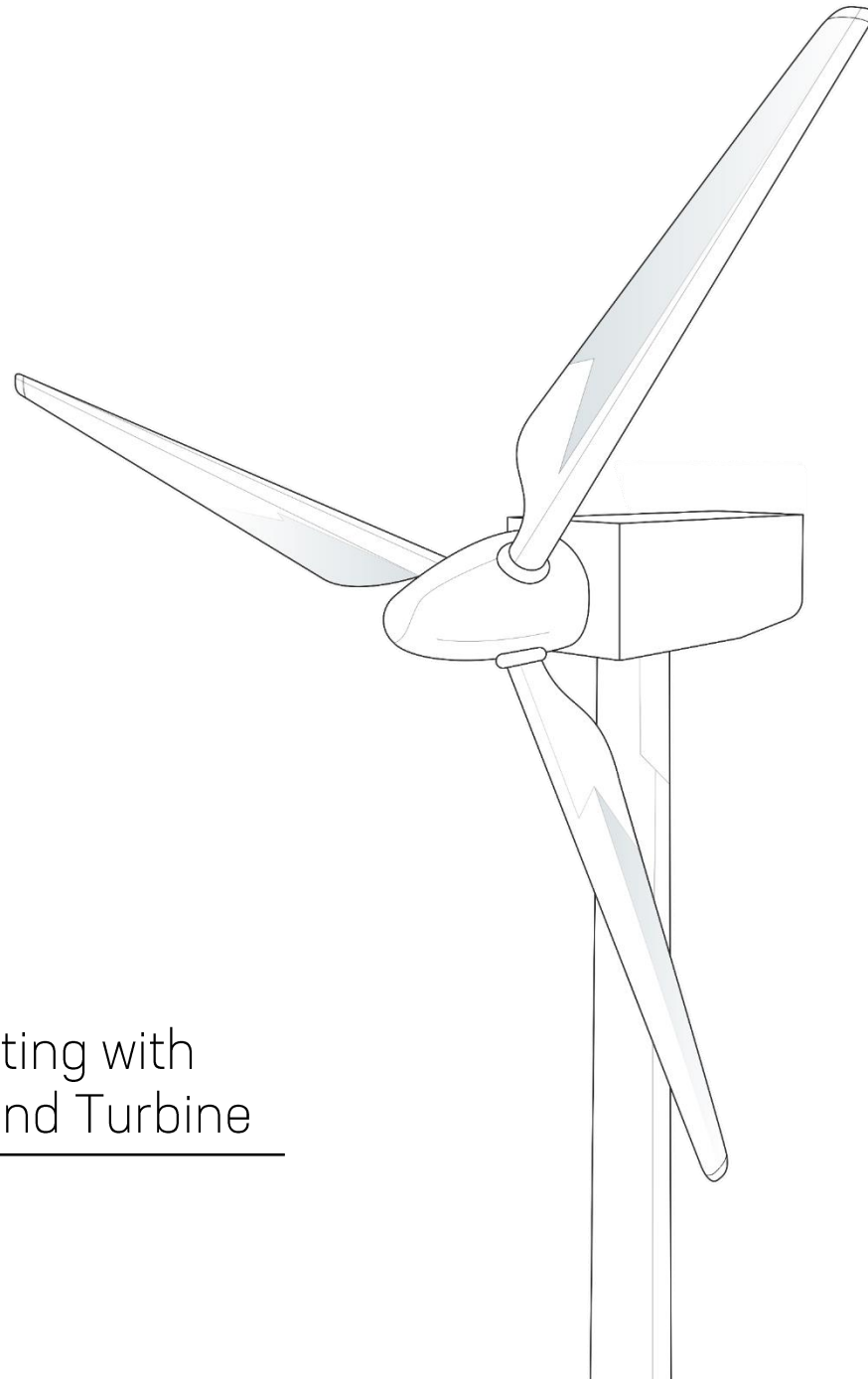
AIRBUS
GROUP

„From wing to wing“

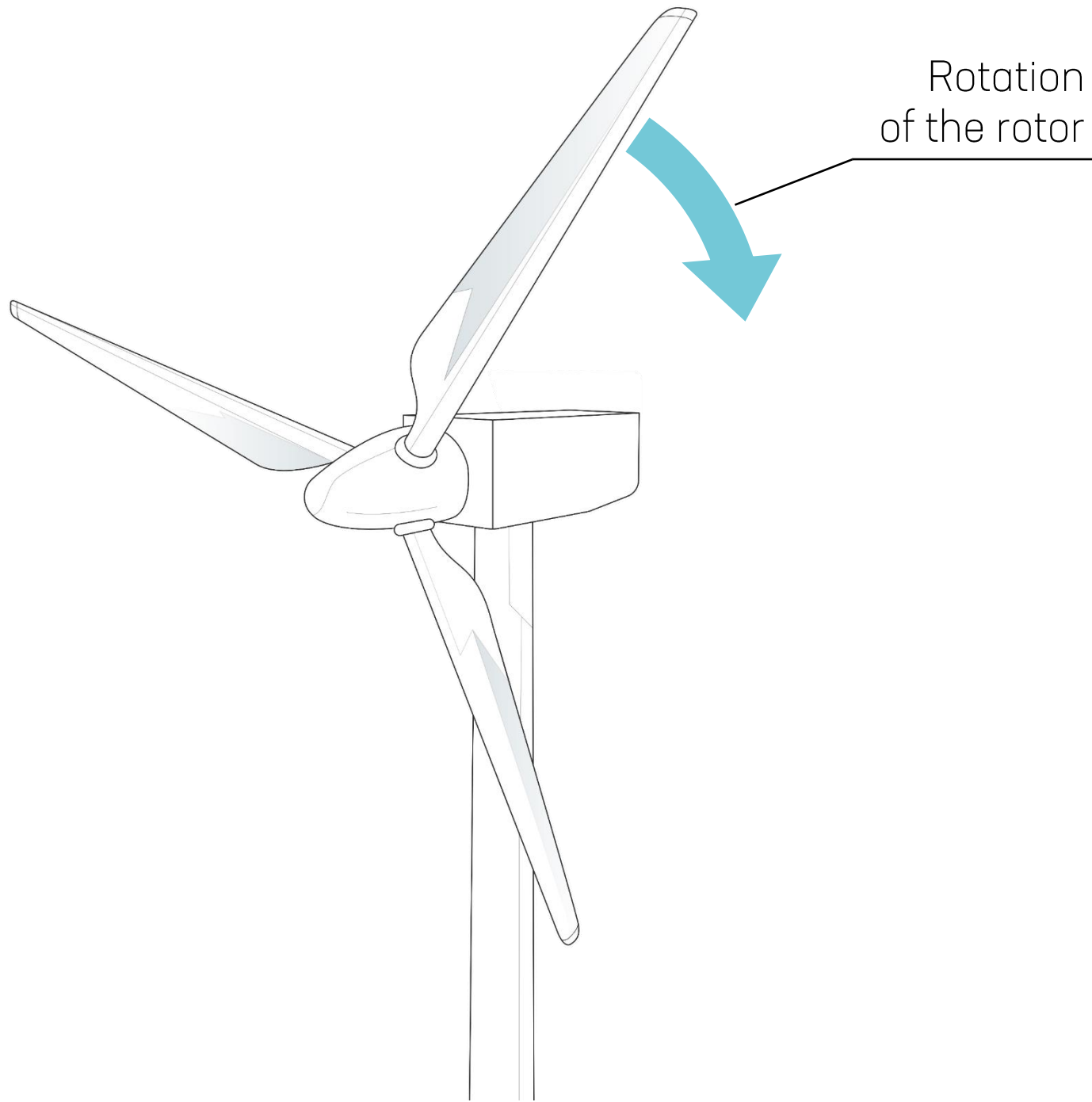
THE VISION



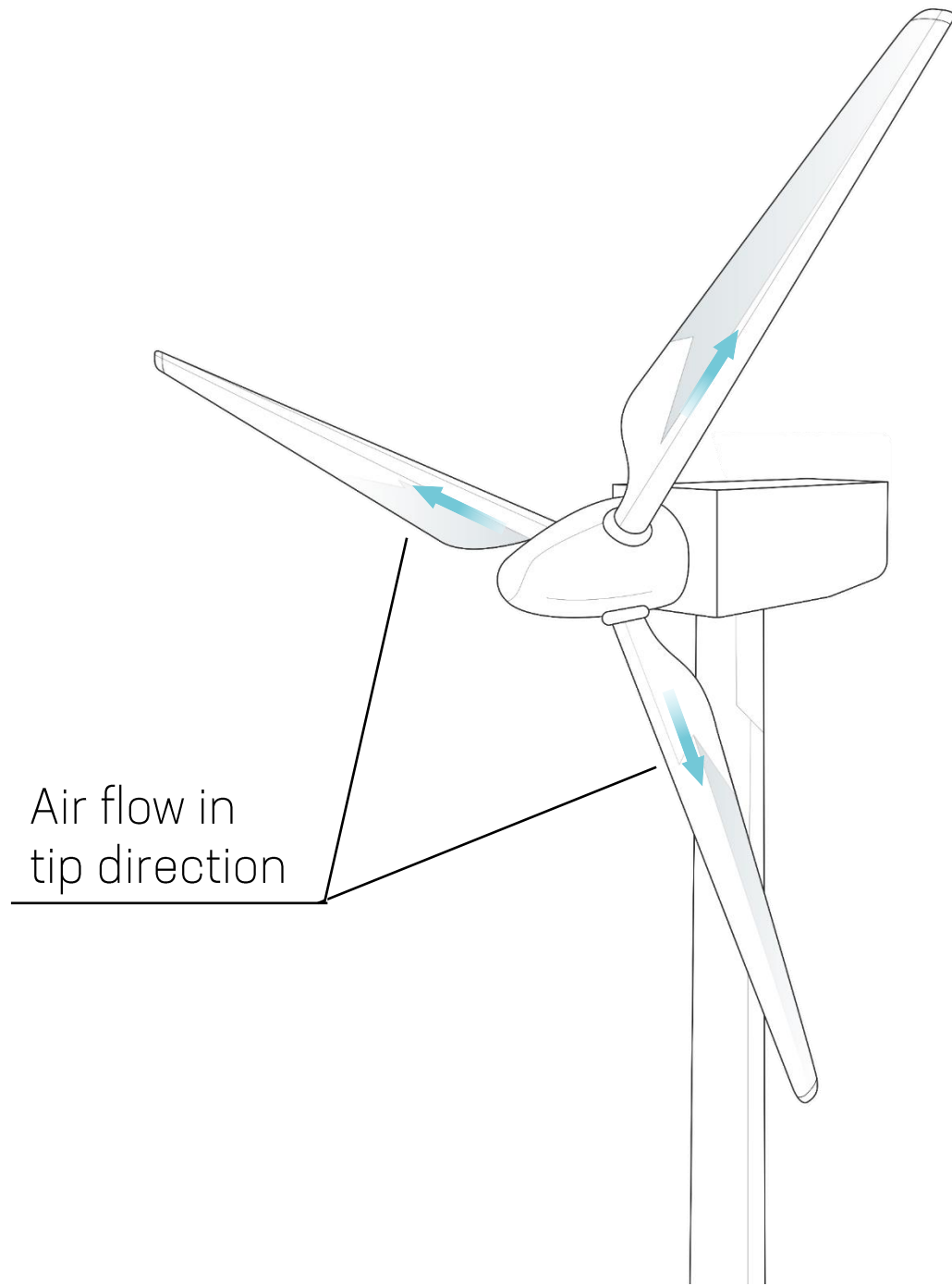
First industrial energy production that generates clean energy and cleans the air at the same time



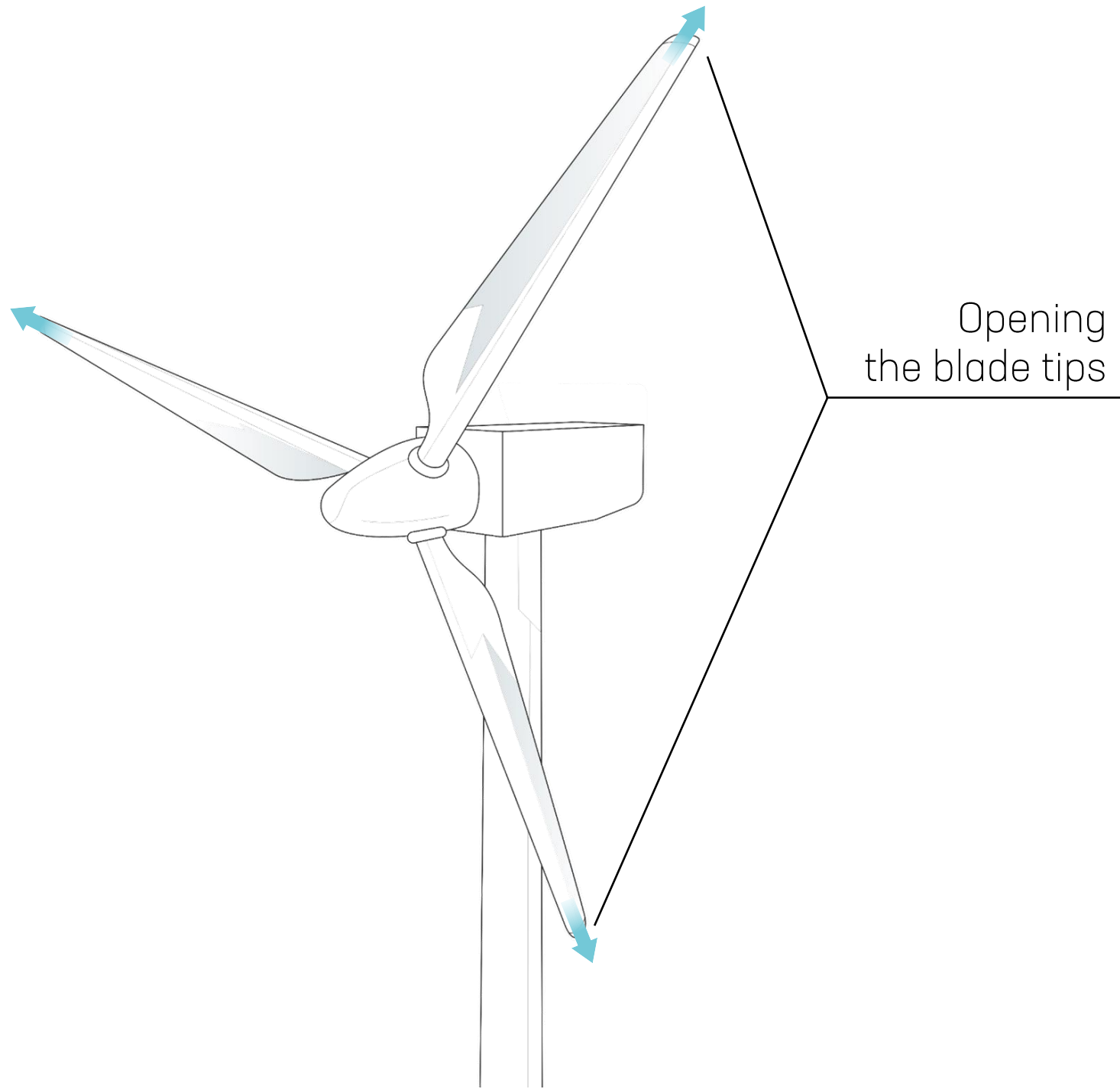
Starting with
a Wind Turbine



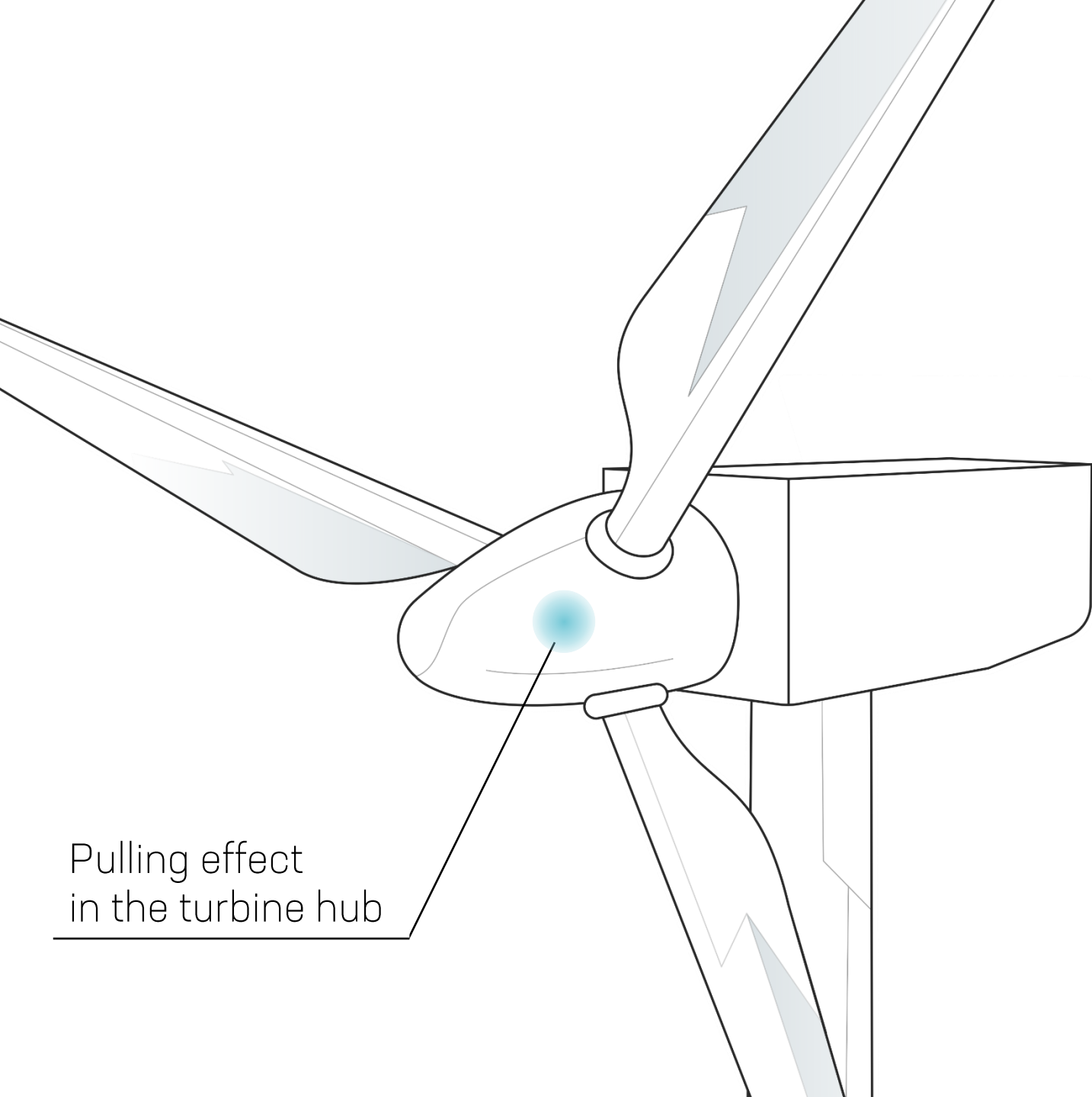
Blade
rotation



Blade
rotation



Blade rotation



Pulling effect
in the turbine hub

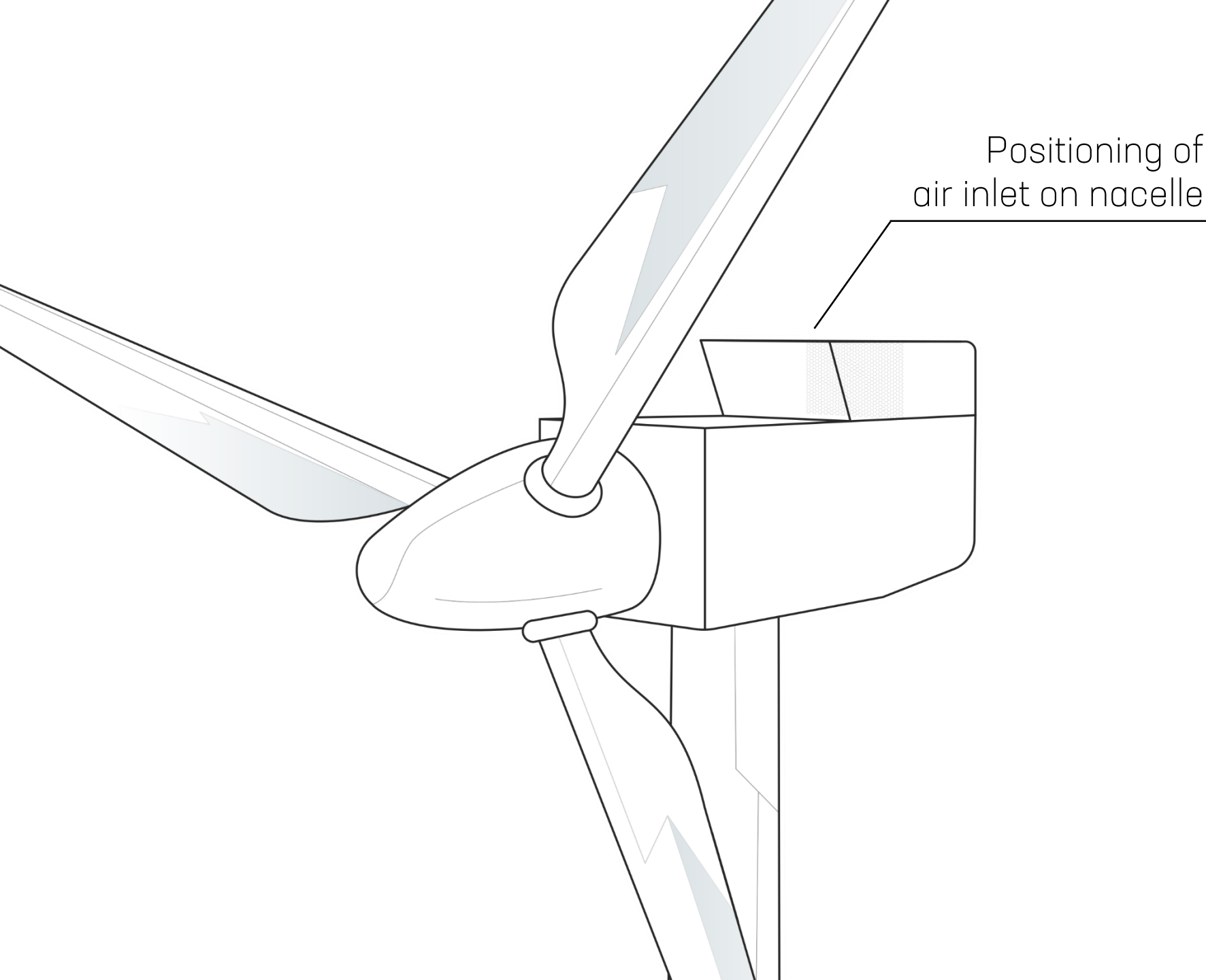
Pulling
effect



Blade
rotation



Positioning of
air inlet on nacelle



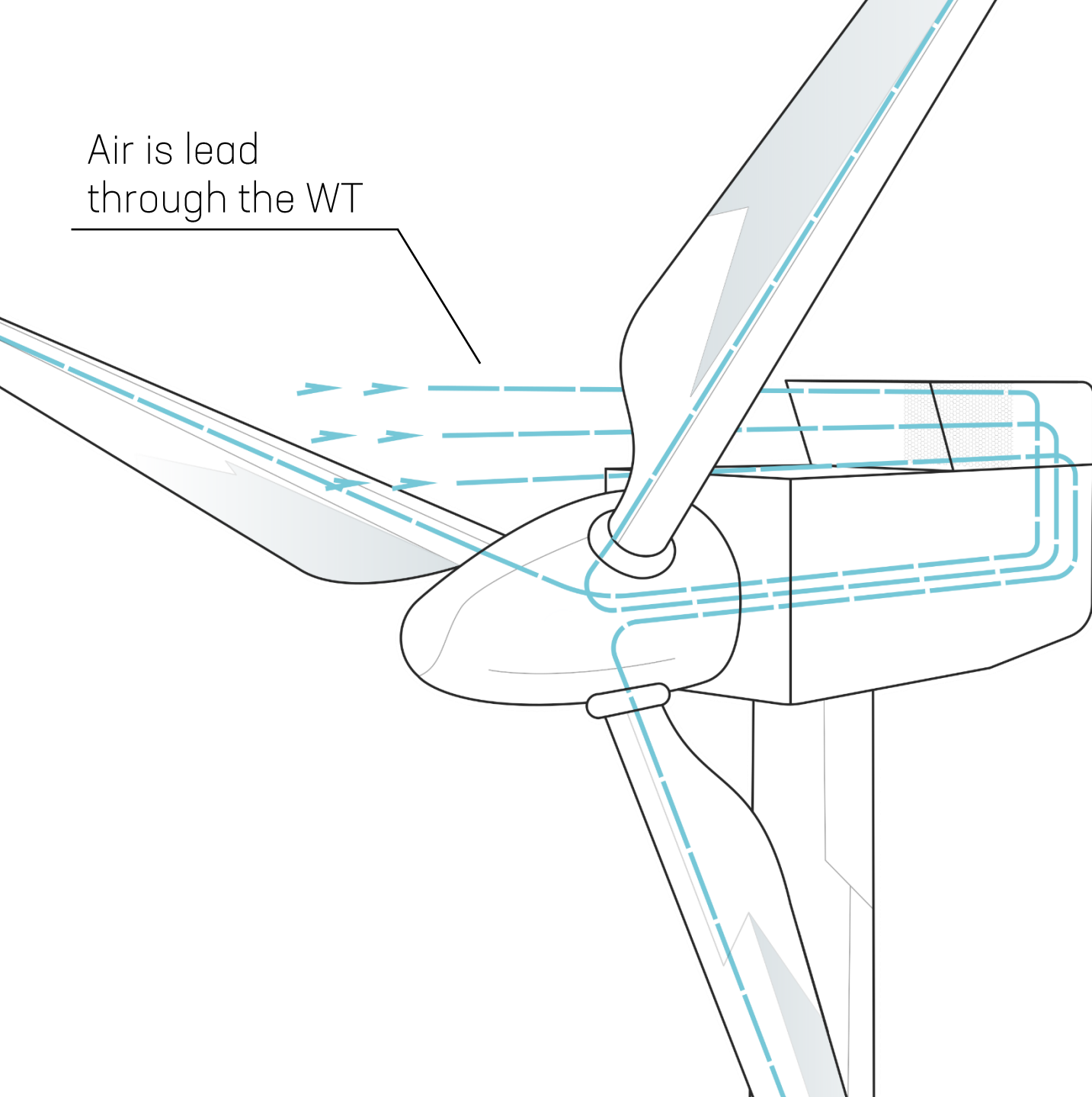
Air inlet



Blade
rotation



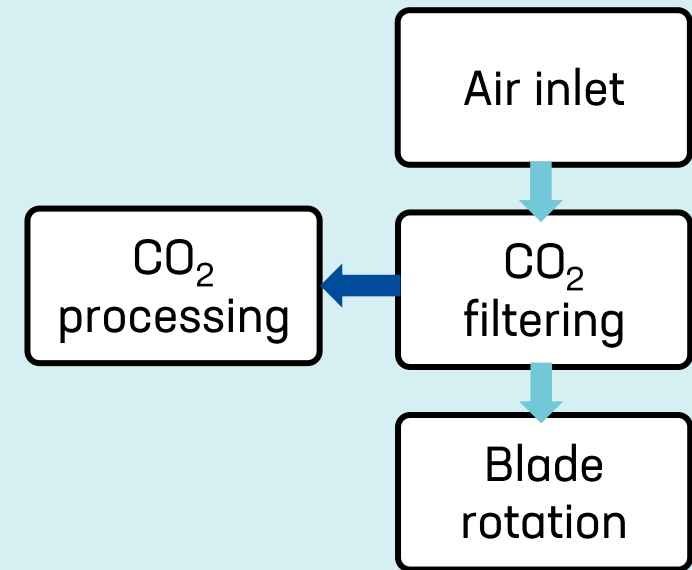
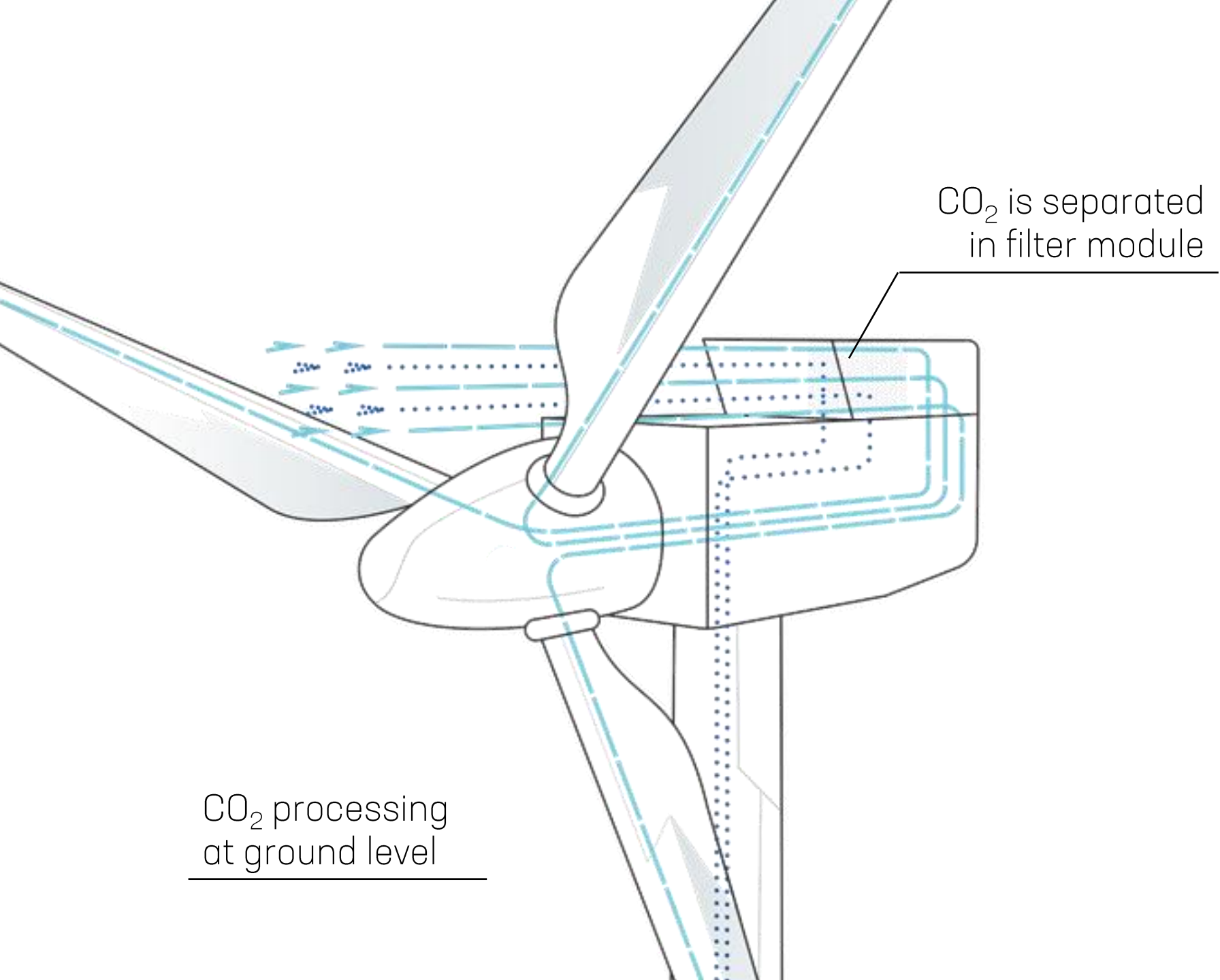
Air is lead
through the WT

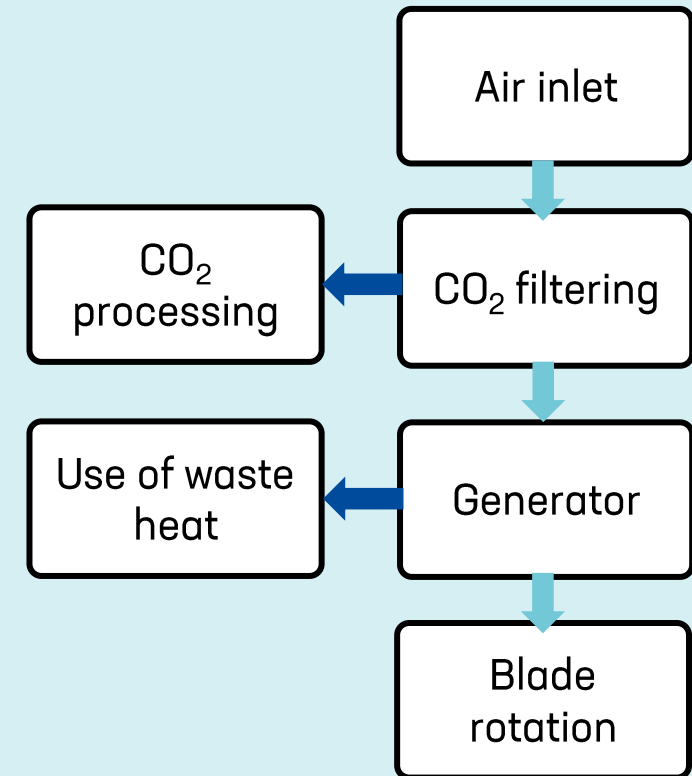
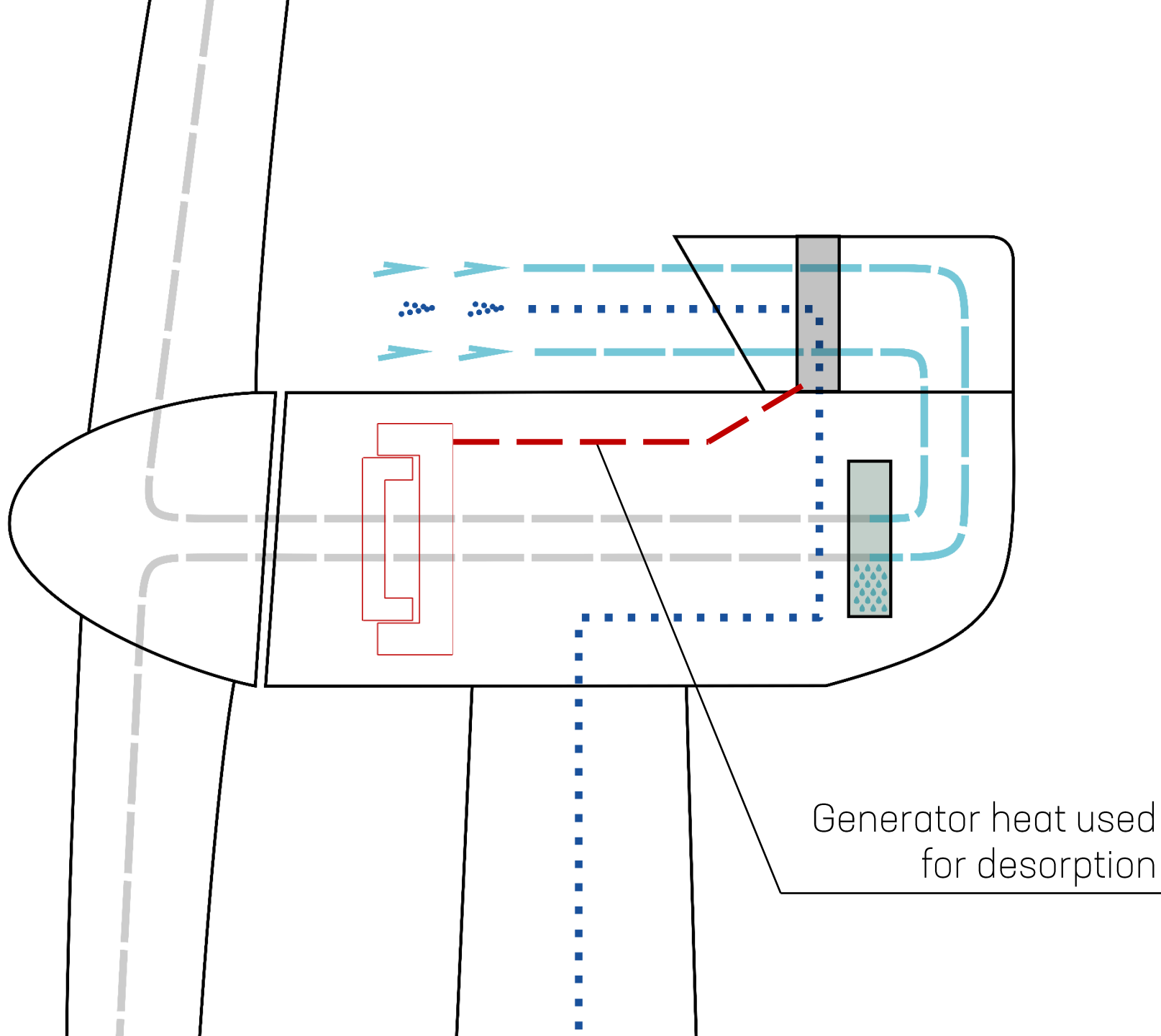


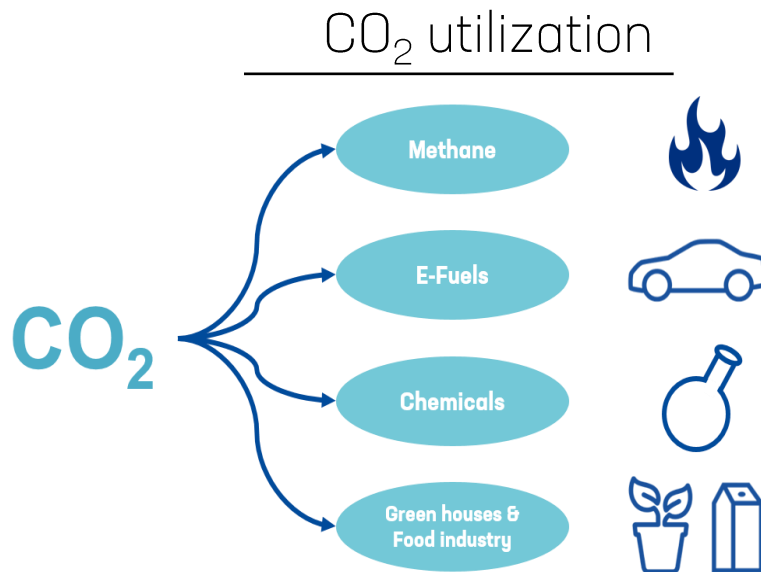
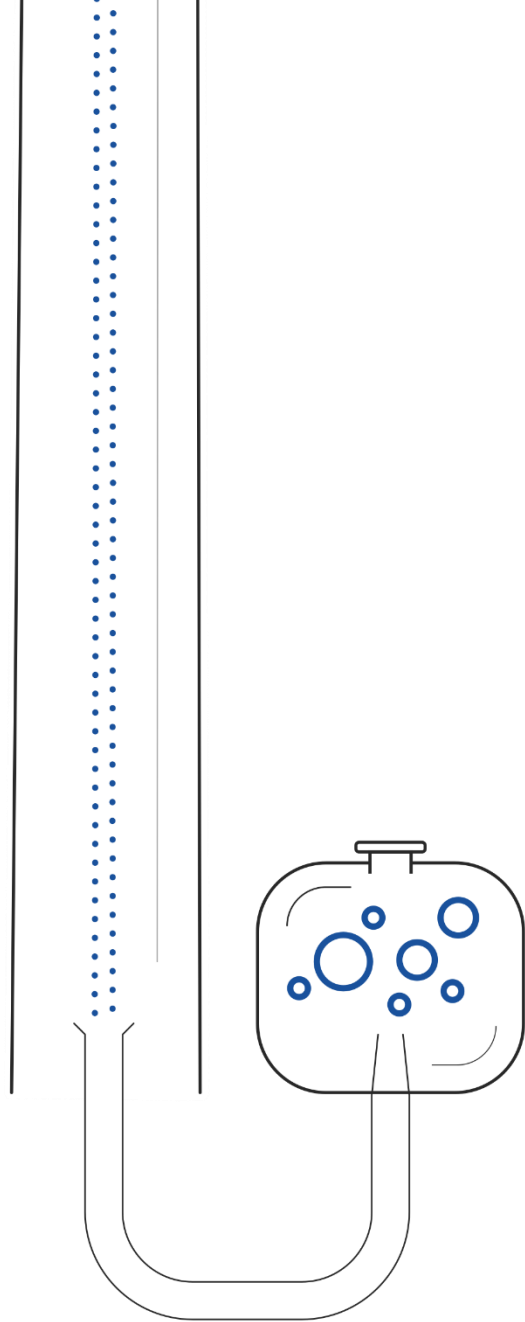
Air inlet



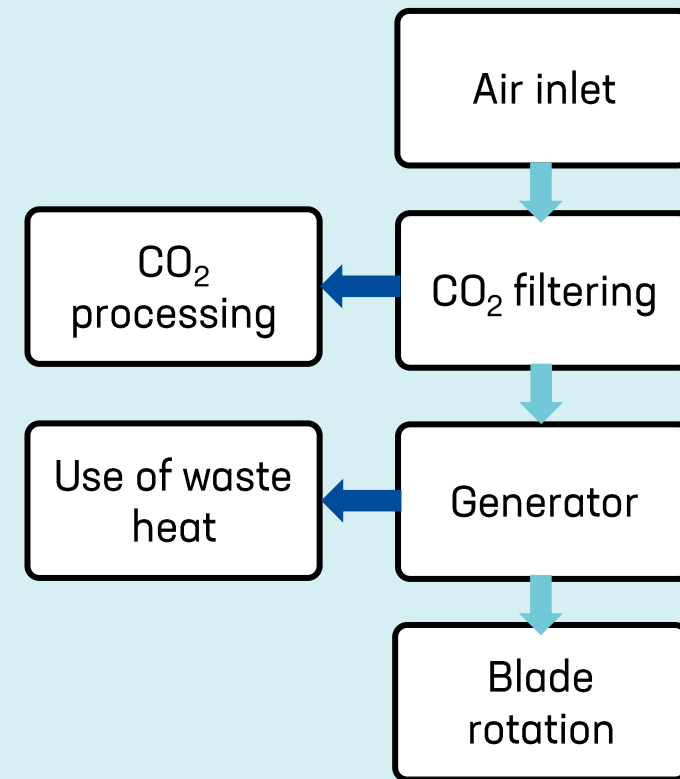
Blade
rotation



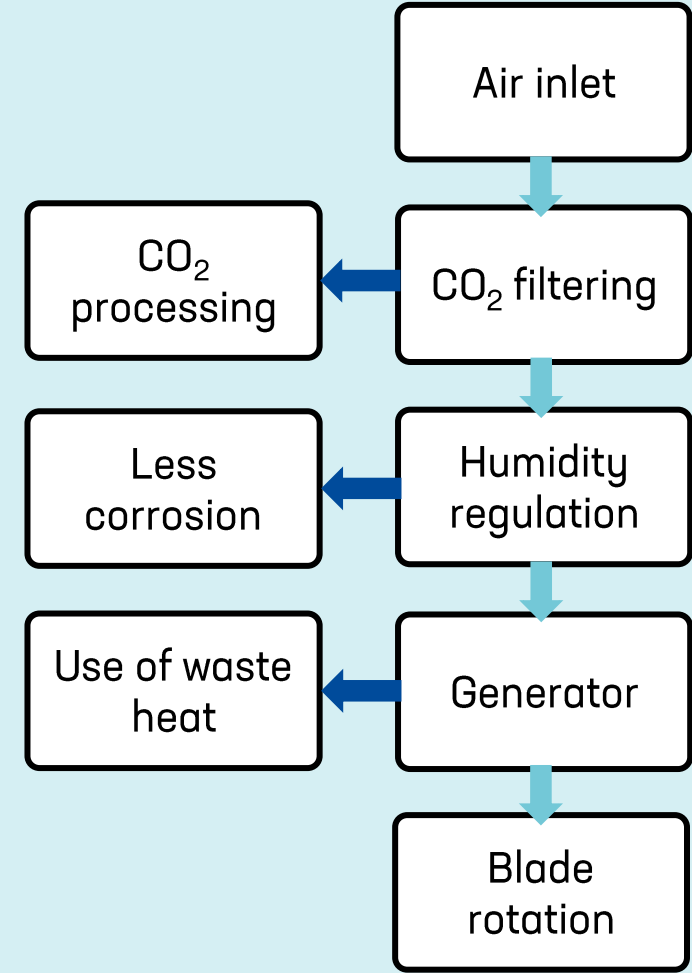
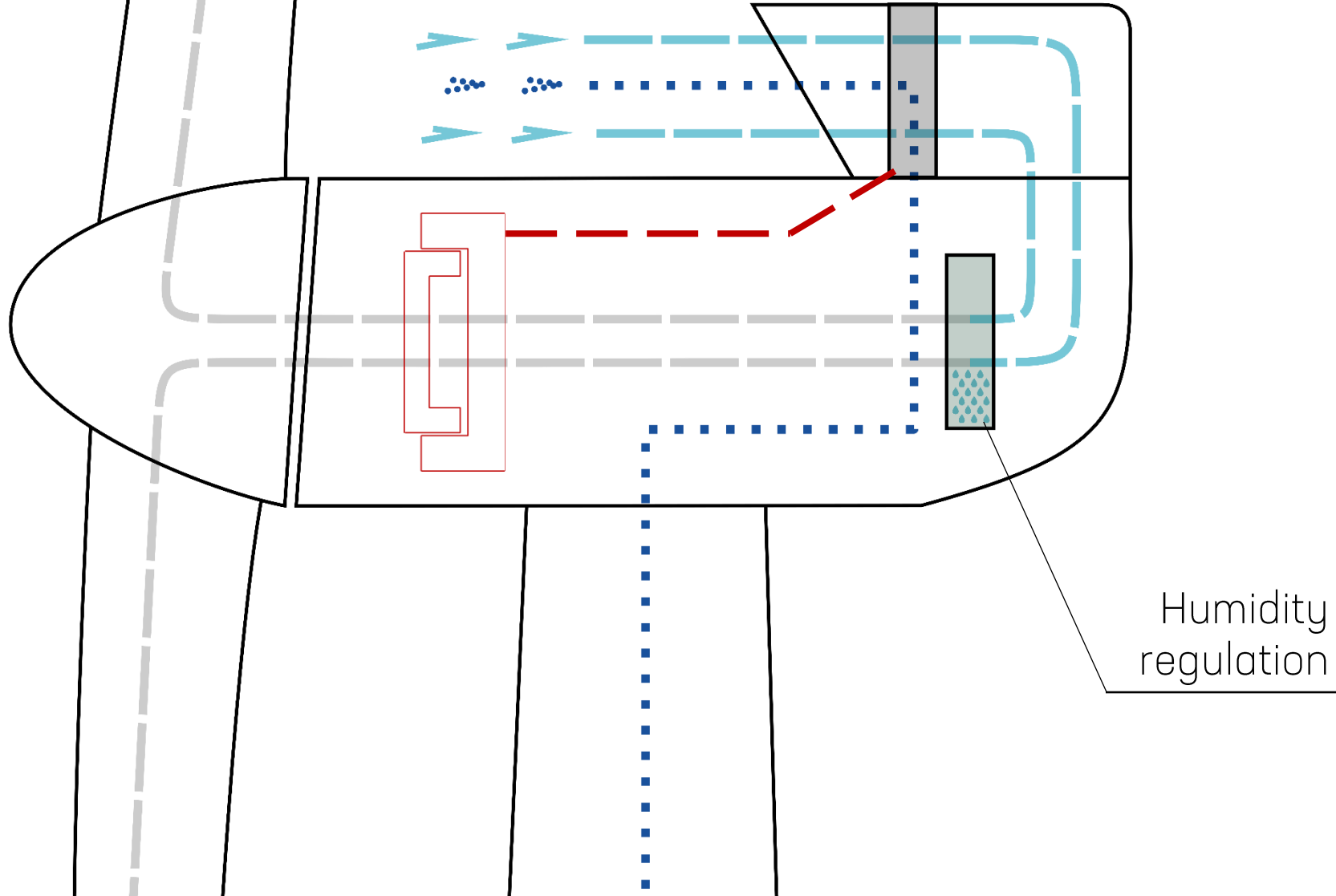




Vortrag: Jörg Spitzner
 BLANCAIR to X
 Kraftstoffe aus Wasser und Luft
 07.11.2019 - Forum 16 - 10:00 Uhr



D. Gibhardt *, A. Doblies, L. Meyer, B. Fiedler, *Fibers* (MDPI, ISSN 2079-6439), Effects of Hygrothermal Ageing on the Interphase, Fatigue and Mechanical Properties of Glass Fibre Reinforced Epoxy, 30.03.2019.



THE BENEFITS



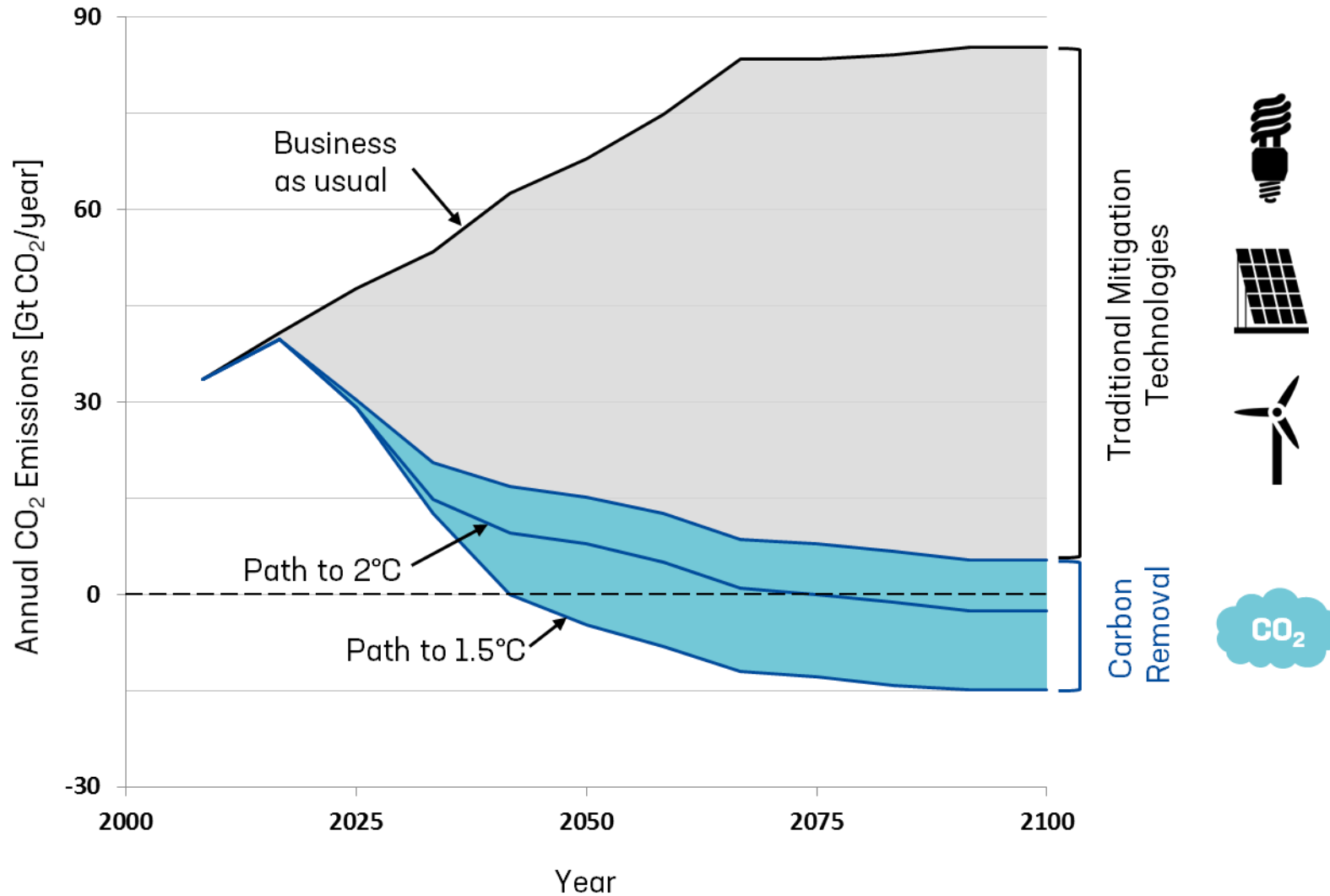
What is proven

- Energy production, collecting CO₂ and storage of synthesized fuels at the same time
 - Direct on-site energy storage
 - No turbine downtime
- Passive system
 - No competing energy consumption
- Optimized rotor blade tips
 - Higher turbine efficiency
- Increased turbine lifetime
 - Longer and more energy production
- Use the CO₂ for different purposes





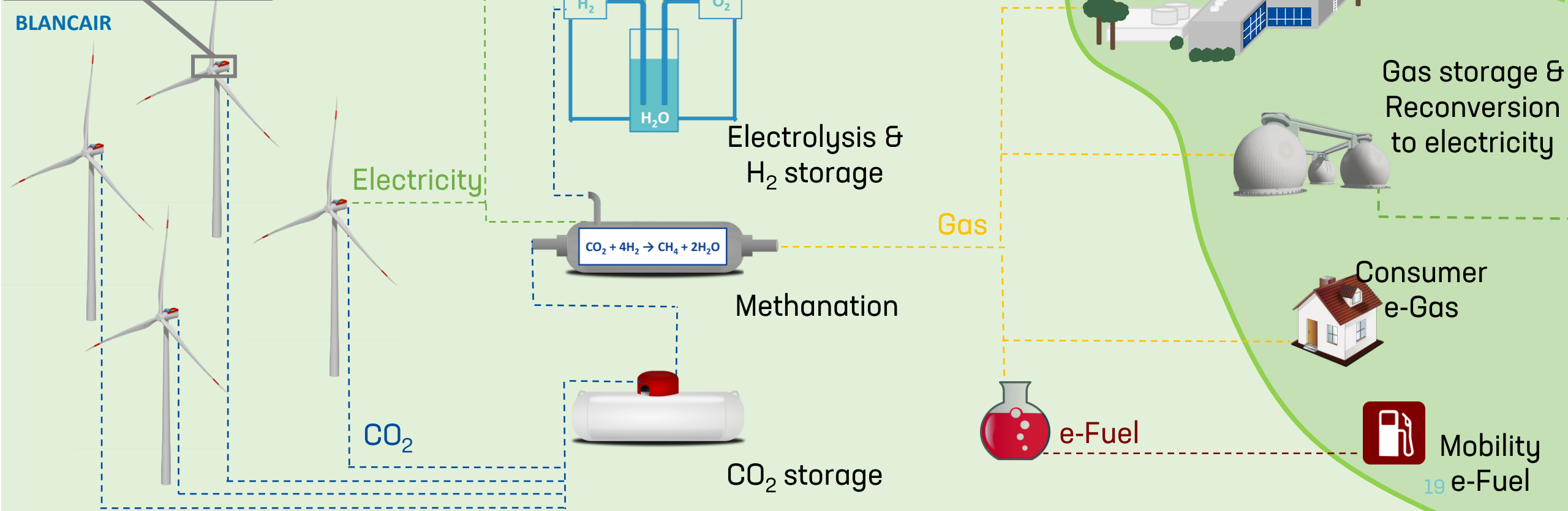
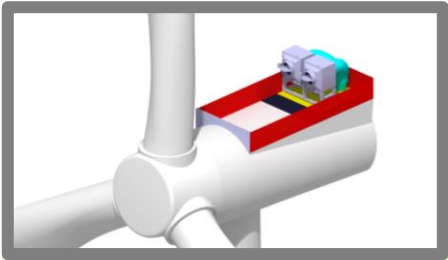
THE GLOBAL CHALLENGE



Energy demand worldwide is increasing.



BLANCAIR-TO-X



BESUCHEN SIE UNS AM STAND 215





BLANCAIR

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A large wind turbine is the central focus in the foreground, its three blades extending outwards. In the background, a vast field of smaller wind turbines stretches across a blue sea under a clear sky. The overall color palette is dominated by various shades of blue.

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