

E N G L I S H



COMPANY PROFILE

Leitwind



DRIVEN
BY THE WIND
OF *Change*





Wind is LEITWIND's mission, a force of nature that can be converted into energy. But wind is also

a symbol of change. We seek to perceive change in advance, anticipating tomorrow's trends and staying constantly focused on our customers' needs.

LEITWIND - the only Italian manufacturer of megawatt-class wind turbines - specializes in the construction and installation of patented Direct Drive wind turbines with synchronous generators and permanent magnets. It is a clever solution that has proven to be extremely reliable under all wind and weather conditions, and ideal for single-turbine and/or for self-consumption projects.

LEITWIND has charted out a path that reflects the company's philosophy: to achieve excellence in performance through simplicity and reliability. We believe in decentralised power generation, close to end consumers and accessible to any type of investor and community. **We specialize in Megawatt-Class (250 - 3,000 kW) installations designed specifically for small-scale wind farms and for energy self-consumption schemes of communities and industrial companies, ultimately reducing the cost of energy.** Through these projects, we establish an extensive electricity distribution network connected via smart systems to other renewable energy sources and storage installations.

AN *Innovative* COMPANY



THE *Strength* OF THE HTI GROUP

LEITWIND is part of the group of industrial companies High Technology Industries (HTI). The High Technology Industries (HTI) Group of industrial companies is operating on a global scale in the areas of ropeways (**Leitner, Poma, Bartholet** and **Agudio**), snow groomers, crawler carriers and vegetation management systems (**Prinoth** and **Jarraff**), snowmaking and dust binding systems (**Demaclenko** and **WLP**), digitalized ski area management (**Skadii**), wind energy (**Leitwind**) and hydropower (**Troyer**). The Group's companies offer innovative solutions with a high degree of specialization, cutting-edge technology, and often tailor-made to meet and surpass customers expectations. With 21 production sites and through 108 subsidiaries and 138 international sales and service centers, the HTI Group is poised to extend its success to the future.

At the core of HTI Group's success is the shared production philosophy and technological heritage that enables it to maintain the highest standards of quality and reliability in every market and industry, which is recognised on a global scale. However, the diversification of the single entities enables them to find the optimal solution even to the most demanding request.



LEITNER®

Rope-hauled passenger transportation systems for mountainous and urban environments.



Rope-hauled passenger transportation systems for mountainous and urban environments.



Rope-hauled material transportation systems.



Snow groomers and tracked vehicles for all kinds of slopes and terrain.



Complete solutions for fully automatic technical snowmaking.



Complete electromechanical equipment solutions for hydroelectric power plants.



Megawatt-class gearless wind turbines.



skadii

Open digital resort management platform.



Facts

NOT JUST WORDS

LEITWIND - Italy's only producer of megawatt-class wind turbines - has so far installed more than **400 wind turbines** around the world that contribute to the fight against climate change, by **avoiding the emission of thousands of tons of CO₂** each year.

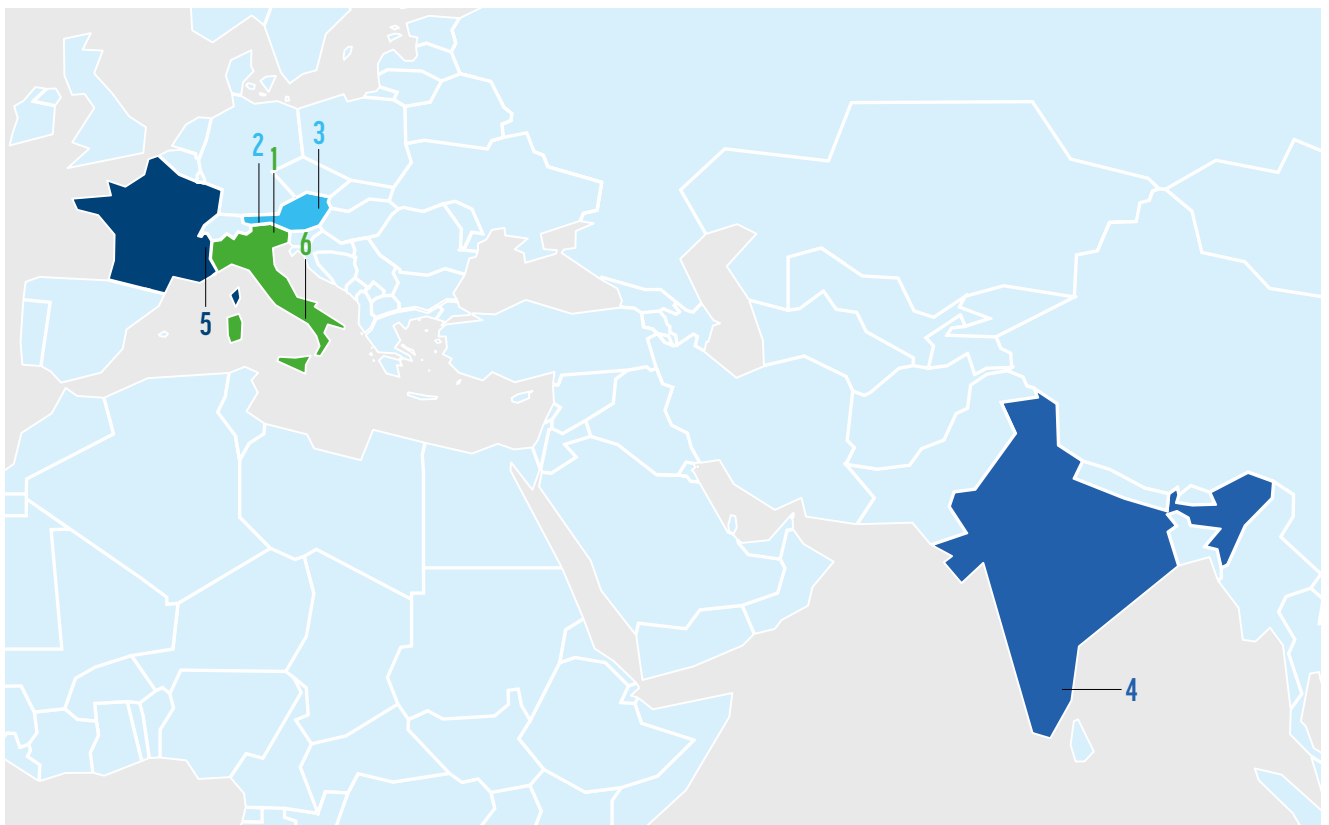


Find the updated installation list [here](#).

LEITWIND AROUND THE *World*

LEITWIND operates a world-class supply chain and has production facilities in several locations:

- 1 South Tyrol, Italy**
Headquarters in Sterzing and offices in Bolzano. Research & Development, Product Care, Sales, Project Management and Customer Service
- 2 Telfs, Austria**
Research & Development, Production of Major Components: Generators, Hubs and Frames. LEITWIND Test Center location
- 3 Vienna, Austria**
Research & Development, Remote Monitoring
- 4 Tamil Nadu, India**
Production of generators, hubs, frames and blades
- 5 Gilly-sur-Isère, France**
Production of wind turbines (generators, hubs, frames) by sister company Poma
- 6 Lacedonia, Italy**
Service and maintenance hub for southern Italy. Material storage, manufacturing, regeneration and assembly of components.



Services

FROM THE CONCEPT TO THE DAY-TO-DAY MANAGEMENT



In addition to designing and manufacturing wind turbines with a proven technological and efficiency track record, **LEITWIND also stands out for its ability to adapt to the customers' needs in terms of tower height, weather conditions, site conditions, rotor diameter, self-consumption or feed-in schemes, and O&M.**

LEITWIND guides the customer from the very beginning of a project such as the site location: the analysis of wind data and the overall site conditions by LEITWIND's team of experts ensures the correct positioning of the wind turbine, allowing for the perfect turbine configuration, increased project bankability and high performance. An on-site road survey providing information in terms of site accessibility concludes the wind & site assessment.

Building a wind farm is a complex process, involving many stakeholders: investors and insurance companies, project developers, communities as well as local, regional, and national authorities.

LEITWIND supports its customers with data, renderings, and technical guidance during the entire process, from the first contact to project completion.

LEITWIND is the ideal partner for realizing wind turbines in extreme conditions. Indeed, LEITWIND customers rely on the know-how and expertise developed within the HTI Group during decades of building technologically advanced installations often in challenging terrain.

Alongside the production of wind turbines, LEITWIND offers full-service O&M contracts to guarantee reliability, safety and profitability of each project.

LEITWIND also offers maintenance contracts for wind turbines from other brands. In addition, the strategic location of the LEITWIND SERVICE site in Lacedonia (AV), as well as service points strategically located in various countries like France, Turkey, Guadalupe and India, ensure a rapid deployment of service teams, increasing the timeliness and efficiency of maintenance.

Certified QUALITY



Quality is a fundamental requirement for LEITWIND, no matter whether during the design, manufacturing, project management or O&M phase. The attention to every single detail, the pursuit of excellence in the choice of materials, best practices, engineering, organizational and consulting activities have been recognised by leading international certification bodies, and are guaranteeing LEITWIND's reliability.

Certifications

- ISO 9001 including RT-05
- ISO 14001
- ISO 45001
- ISO 3834-2
- EN 1090-1

Sustainability **AS A GOAL**



LEITWIND'S SUSTAINABLE *Objectives*

LEITWIND strategy focuses on three key points: Customers, Innovation, Decentralization.

LEITWIND, with its wind turbine portfolio installed across 4 continents, creates value for its clients thanks to **the cutting-edge Direct Drive technology**, which was developed with the aim to satisfy even the most challenging customer requirements in terms of performance and reliability. Indeed, LEITWIND's mission is to design, **manufacture and install the most efficient and profitable wind turbine, which excels also in terms of user-friendliness and low maintenance.**

This is achieved by streamlining LETWIND's in-house R&D, manufacturing, project management and O&M capabilities through the parent company -HTI Group, global leader in the ropeway transportation (Leitner, Poma), snow groomer & vegetation management vehicles (Prinoth) & technical snow-making (DemacLenko) market.

In 2022, LEITWIND has won the Italian award *"Riconoscimento per la sensibilità all'inclusione e all'integrazione"* for its commitments towards social integration and net-zero emissions. Furthermore, the company started its collaboration with Treedom, planting trees for each and every LEITWIND wind turbine installed.

SUSTAINABLE DEVELOPMENT GOALS



LEITWIND's main goal is to install reliable wind turbines in the Megawatt class. The company is highly specialized in the construction of small-scale wind parks (up to 10 wind turbines), even in the most challenging environments, and believes in a more decentralized wind energy generation. Right where it is needed. This avoids major grid losses & grid infrastructure overhauls, **decreases the environmental impact, promotes self-consumption schemes such as RECs, ultimately increasing an area's energy autarchy.** The company, with its vision of a completely decentralized energy generation, self-consumption and energy efficiency, acts at the forefront of climate-change fight and is contributing to the following **UN Sustainable Development Goals (SDGs):**



As the population continues to grow, so will the demand for cheap energy, and an economy reliant on fossil fuels is creating drastic consequences to our climate, and thus to society as a whole.

Investing in PV, wind and thermal power, improving energy efficiency, and ensuring access to affordable and sustainable energy for all is vital, if we are to achieve SDG 7 by 2030. Expanding infrastructure and upgrading technology to provide clean and more efficient energy in all countries will encourage growth and help the environment. Indeed, **by increasing the share of renewable energy in the global energy mix, energy cost will drop and stabilize**, decreasing our dependence on geopolitical & economic turmoil, all while making our planet a whole lot cleaner.

LEITWIND FOR SDG N. 7

LEITWIND is ready to intensify its fight against climate change by enhancing its R&D efforts to build and operate cutting-edge wind turbines in the megawatt-class, suitable to produce cheap and reliable clean energy in a decentralized way. In fact, with its wind turbine portfolio, LEITWIND allows communities and/or companies and governmental entities to self-produce and consume their own green energy, thereby unlocking affordable clean energy for every area that meets the minimum wind requirements. Moreover, **LEITWIND acts at the forefront of the Renewable Energy Community movement in Europe by organizing workshops with local communities, closing ties with partners and designing its products to satisfy the needs of RECs.**



Investments in infrastructure and innovation are crucial drivers of economic growth and development. With over half the world population now living in cities, mass transport and renewable energy are becoming more important than ever, as are the growth of new industries and information and communication technologies. **Technological progress is also key to finding lasting solutions to both economic and environmental challenges, such as providing new jobs and promoting energy efficiency.** Promoting sustainable industries, and investing in scientific research and innovation, are all important ways to facilitate sustainable development.

LEITWIND FOR SDG N. 9

LEITWIND invests constantly in R&D and in its human capital to develop better wind turbines that serve the energy needs of society. In fact, the company developed the **LTW42 250 kW, the first small-scale wind turbine** specifically designed to allow mid-sized enterprises and/or communities to self-produce clean wind energy. Moreover, LEITWIND recently introduced: the new **LTW90 and LTW80 with a nominal power of 500 kW**, to respond to the current market's need for fast & nimble authorization processes without hijacking power output, the supercaps technology to replace batteries in the turbines' pitch control systems, and also **the concept of green ski-resort** by proposing renewable energy solutions in mountainous areas (i.e. LEITWIND turbines power LEITNER ropeways), **unlocking synergies across the Group HTI to better serve its customers.** Furthermore, LEITWIND constantly works to optimize the performance of every component of its wind turbines: blade and generator optimization, flexible tower design allowing for different heights, and noise reduction efforts are just some of the many fields the company strives in, to increase the quality of its products.

Innovation also plays a central role for the other brands of the HTI Group. Indeed, PRINOTH presented the LEITWOLF h2 MOTION, the world's first snow groomer with a hydrogen fuel cell, and the HUSKY eMOTION, the latest all-electric vehicle model. In doing so, PRINOTH is thereby paving the future for sustainable slope management.



Income inequality has increased nearly everywhere in recent decades, albeit at different speeds. These widening disparities require sound policies to empower lower income earners, and promote economic

inclusion of all, regardless of sex, race or ethnicity.

LEITWIND FOR SDG N. 10

In 2022, LEITWIND was awarded for its focus on social inclusivity and employee wellbeing by promoting the integration of young people from refugee centers in Lacedonia, Southern Italy. Indeed, LEITWIND **makes integration one of its core principles** and promotes everyone's social, economic and political inclusion, regardless of age, gender, disability, race, ethnicity, origin, religion and economic background, **ensuring equal opportunities and reducing outcome inequalities.**

Solidarity plays an important role also for the other brands of the HTI Group. In fact, POMA founded the "Foundation d'Entreprise", whose actions, among others, support the French Para Ski World Championships for fellow human beings with physical/mental disability. Furthermore, three employees helped children in the Institute for Pediatric Hematology and Oncology in Lyon to brighten up their daily lives. Another activity of the foundation was dedicated to people in precarious conditions, in cooperation with the "Ma Chance Moi Aussi" (Give Me A Chance Too) association. Within the scope of an educational project on the subject of mobility and travelling, children from socially disadvantaged families were given the opportunity to visit the ropeway in Grenoble.



More than half of us live in cities. By 2050, two-thirds of all humanity—6.5 billion people—will be urban. Sustainable development cannot be achieved without significantly transforming the way we build and manage

our urban spaces.

Turning cities sustainable means creating career and business opportunities, safe and affordable housing, and building resilient societies and economies. It involves investment in public transport, creating green public spaces, and improving urban planning and management in participatory and inclusive ways.

LEITWIND FOR SDG N. 11

LEITWIND works actively towards making cities and communities a whole lot greener, thanks to its wind turbine portfolio, specifically designed for decentralized energy production (i.e. for single towns, industrial areas, etc.) in the form of self-production and Renewable Energy Communities. LEITWIND firmly believes that **wind power is the prime technology to power RECs**, even better if in combination with photovoltaic units, as the two technologies tend to be complementary. But why does the company believe so much in RECs? For LEITWIND, RECs are an optimal tool in the fight against climate change. **Indeed, RECs encourage the installation of single renewable power plants in a decentralized way, therefore spreading renewables all over the country, reducing grid inefficiencies and allowing for self-production, which in turn lowers energy expenses for citizens.** Moreover in RECs, consumption patterns tend to align themselves to plant production, thereby reducing the amount of energy coming from the grid and reducing overall energy demand.

Furthermore, LETWIND's parent company HTI Group is an advocate for the expansion of alternative public transportation solutions to unlock affordable and environmentally-friendly links in urban areas, ensuring access to safe, cheap, accessible and sustainable cable-propelled transport systems that enhance the quality of life of millions of citizens.

Comprehensive
PRODUCT RANGE



LEITWIND: TAILORED WIND TURBINE FOR EVERY *Need*

LEITWIND design is based on the concept of modularity. LEITWIND - the only Italian wind turbine manufacturer in the megawatt class - can offer the best solution for every project by seeking the perfect combination of generator power, rotor diameter, height and number of tower segments, blade length, and a number of optionals.

LEITWIND applies a “project-centric” approach, meaning it can adapt the product to the specific needs of each customer and/or site. In fact, LEITWIND has a track-record of installing in extreme conditions, in settings which can go beyond the mere feed-in of the produced electricity, and in combination with photovoltaics and storage systems. In BC Canada, LEITWIND even managed to place an observation trestle on top of one of its wind turbines.

Indeed, LEITWIND customers can rely on both the know-how and expertise developed by the entire Group and the Customer Service Department, which offers targeted post-sales service packages that can simplify the processes of working on installations and thus provide added value to the buyer.

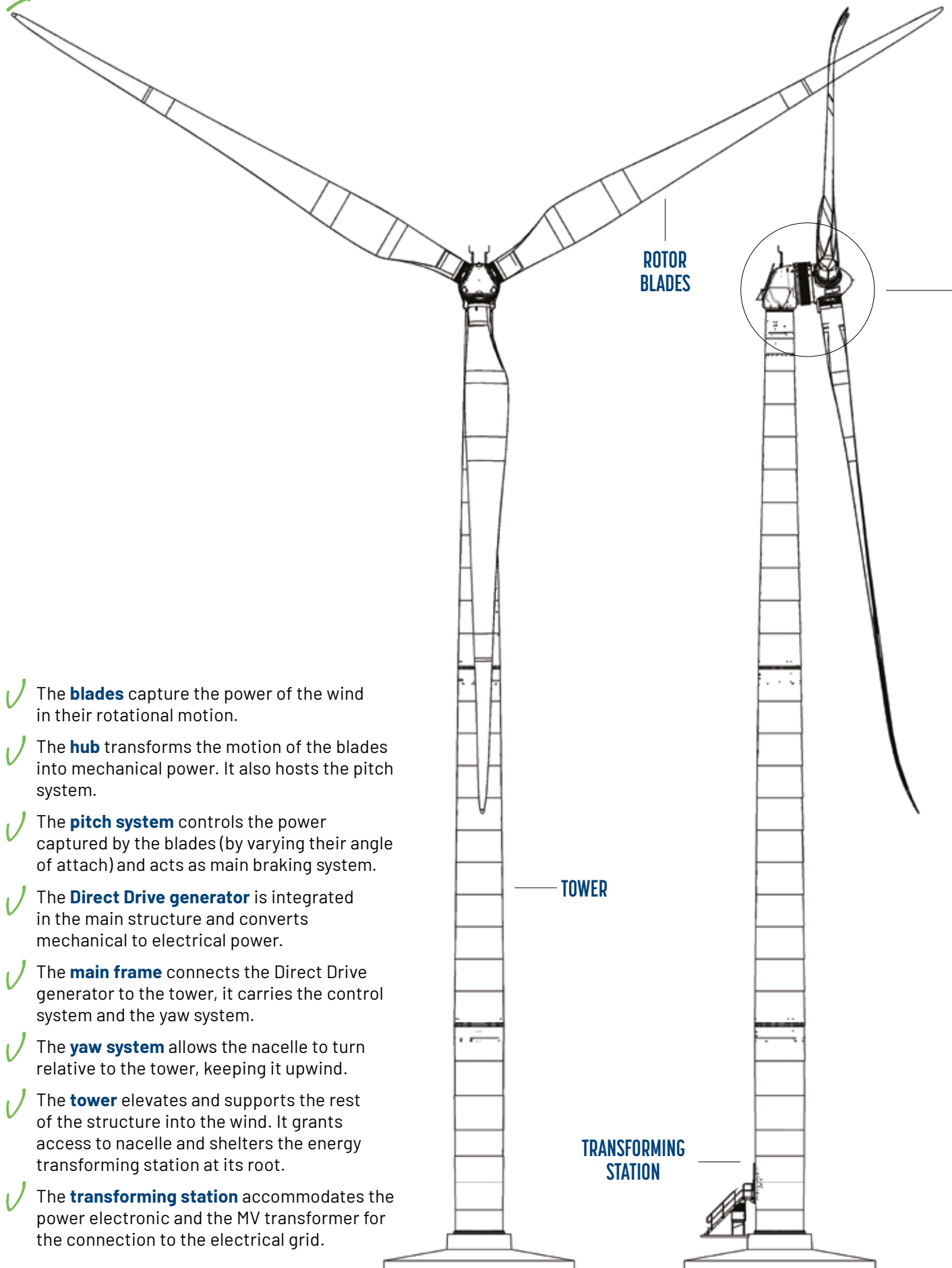


The LEITWIND portfolio includes a variety of products developed with the aim of meeting even the most complex need:

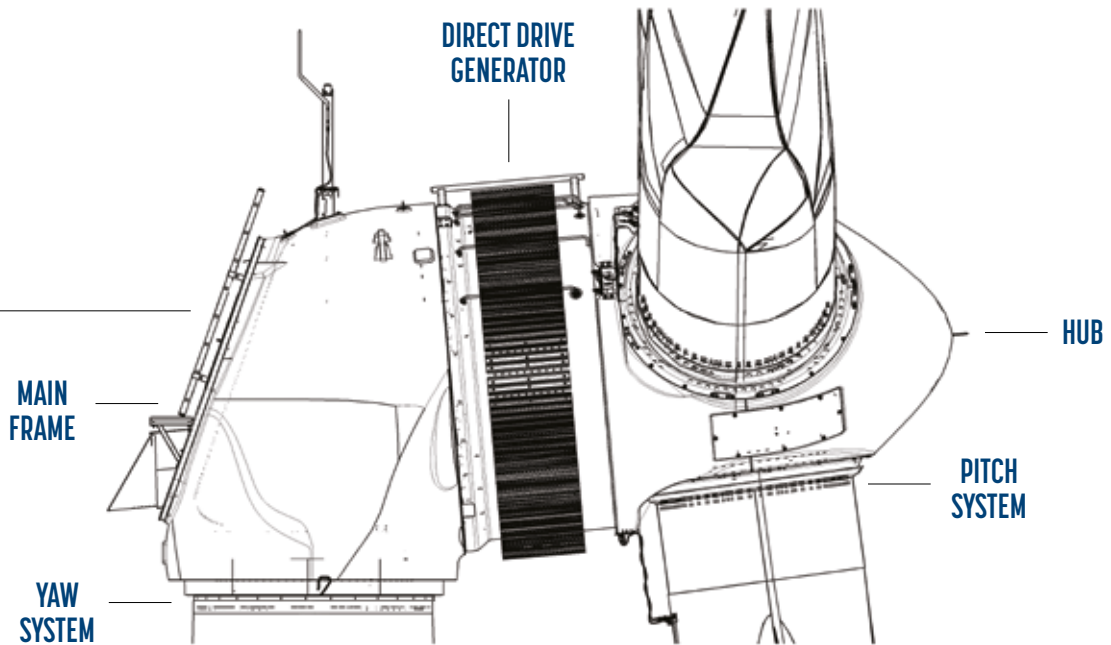
- LTW42** (250-500 kW)
- LTW80** (500-800-850-1,000-1,500-1,650-1,800 kW)
- LTW90** (500-900-950-1,000-1,500-2,000 kW)
- LTW101** (2,000-2,500-3,000 kW)

MODEL	RATED POWER (kW)	TOWER HEIGHT (m)	IEC WIND CLASS
LTW42	250	28	S
LTW42	500	39	S
LTW80	500	60 / 65 / 80	IIA
LTW80	800	65 / 80	IIA
LTW80	850	65 / 80	IIA
LTW80	1,000	60 / 65 / 80	IIA / S
LTW80	1,500	48 / 50 / 60 / 65 / 80	IIA / S
LTW80	1,650	48 / 50 / 60 / 65 / 80	IIA / S / WTC S (IIIA + Tropical Cyclone Class 1)
LTW80	1,800	48 / 50 / 60 / 65 / 80	IIA / S
LTW90	500	60 / 65 / 80	S
LTW90	900	65 / 80	S
LTW90	950	65 / 80	S
LTW90	1,000	65 / 80 / 97,5	IIIA / S
LTW90	1,500	80 / 97,5 / 100	IIIA / S
LTW90	2,000	80 / 97,5	IIIA / S
LTW101	2,000	80 / 93,5	IIA / IIIA
LTW101	2,500	80 / 93,5	IIA / IIIA
LTW101	3,000	93,5	IIA / IIIA

Leitwind WIND TURBINES



- ✓ The **blades** capture the power of the wind in their rotational motion.
- ✓ The **hub** transforms the motion of the blades into mechanical power. It also hosts the pitch system.
- ✓ The **pitch system** controls the power captured by the blades (by varying their angle of attack) and acts as main braking system.
- ✓ The **Direct Drive generator** is integrated in the main structure and converts mechanical to electrical power.
- ✓ The **main frame** connects the Direct Drive generator to the tower, it carries the control system and the yaw system.
- ✓ The **yaw system** allows the nacelle to turn relative to the tower, keeping it upwind.
- ✓ The **tower** elevates and supports the rest of the structure into the wind. It grants access to nacelle and shelters the energy transforming station at its root.
- ✓ The **transforming station** accommodates the power electronic and the MV transformer for the connection to the electrical grid.



Certified MODELS

To guarantee the excellence of LEITWIND's products, services and practices, it has obtained numerous international type certificates for its turbine models.

Below is an overview of our currently certified products:

MODEL	RATED POWER (kW)	WIND CLASS	TYPE OF BLADE	TOWER HEIGHT (m)	CERTIFICATIONS
LTW42	250	S	LS20	28	GL2010
LTW80	1,000	IIA	LS39	65	EN/IEC61400-22
LTW80	1,500 / 1,650 / 1,800	S	LS39	48 / 50 / 60 / 65 / 80	EN/IEC61400-22
LTW80	1,650	WTC S (IIIA + Tropical Cyclone Class 1)	LS39-H	48	EN/IEC61400-22 GL Tropical Cyclone Condition
LTW90	1,500	S	LS44	80	GL2010
LTW101	3,000	IIA / IIIA	LM48.8P	93,5	EN/IEC61400-22

Efficient
TECHNOLOGY



LEITWIND WIND TURBINES: SIMPLICITY, EFFICIENCY AND *Exceptional* PRODUCTIVITY

The Direct Drive is at the heart of the LEITWIND wind turbine and simply consists in connecting directly the rotor to the generator, eliminating the gearbox. Less parts rotating at high speed and therefore less friction leads to greater efficiency, increased reliability as well as decreased wear and maintenance costs.

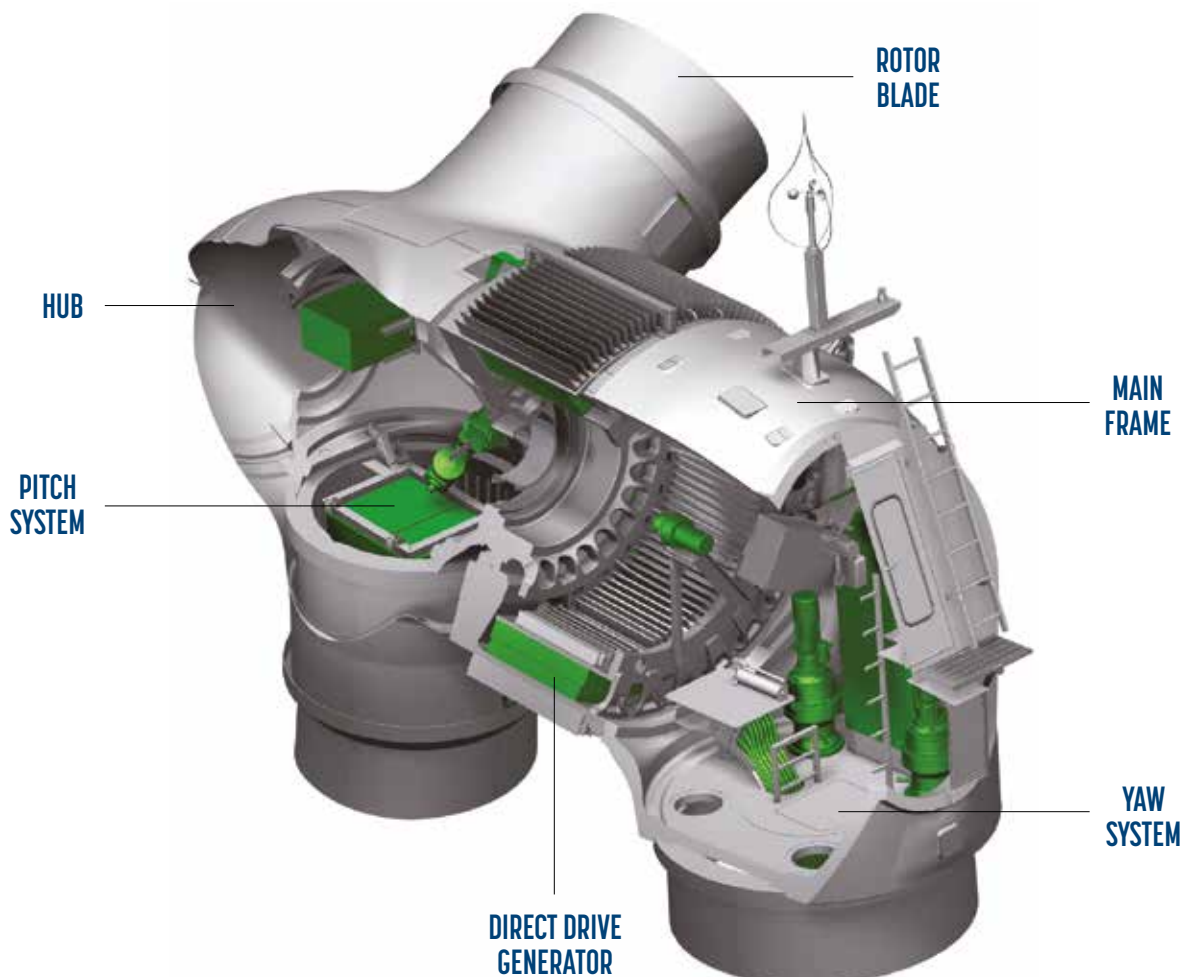
This patented technology, combined with exceptionally low specific power, make the LEITWIND wind turbines especially suitable for low wind sites.

THE *Advantages* OF LEITWIND MODULAR DESIGN

LEITWIND wind turbines are designed on a modular concept, by dividing the tower head into three main groups: the hub, the generator and the main frame. This offers a high level of standardization among different types of wind turbines.

The Direct Drive generator is central and integrated in the carrying structure for a very compact and robust design.

The main frame is a special design and is in common to the various models. Its construction guarantees safety and easy access from the inside to all parts that may require maintenance. Its modularity offers also advantages in its manufacturing, maintenance and logistics and unlocks installations also in difficult-to-access sites, such as mountainous areas.



AN INNOVATIVE FAMILY OF GENERATORS SUITABLE FOR EVERY *Application*



LEITWIND generators are available in different families (defined by their outer diameter) and several axial lengths, optimized for the rated power and rotor diameter of their hosting LEITWIND wind turbine.

They all benefit from the same design: multi-pole synchronous generators with permanent magnets to increase efficiency, they are compact

thanks to flux concentration and feature patented segmentation of the active parts (coil and magnets) for modular and reliable manufacturing.

Furthermore, segmentation offers also the possibility to perform maintenance to the generator directly from the tower head, thereby avoiding heavy cranes and thus reducing servicing costs.

SPECIFIC GENERATORS FOR VARYING POWER OUTPUTS



D2.2
≤ 500 kW



D3.0
≤ 1,000 kW



D3.0
≤ 1,650 kW



D4.1
≥ 1,500 kW



IN-HOUSE BLADE *Design* AND MANUFACTURING

LEITWIND designs and manufactures its blades in-house. They consist of an internal spar box with prefabricated root elements and of the aerodynamic shells. Each of these parts is made of glass fibre reinforced epoxy resin, manufactured using RIM technology. The technical solutions and modular manufacturing principles offer easy to inspect, high-quality finishing which demonstrate great reliability. Indeed, they are the backbone of all blade models currently in production, such as the LS39, the LS44, the LS39 typhoon and the LS20.



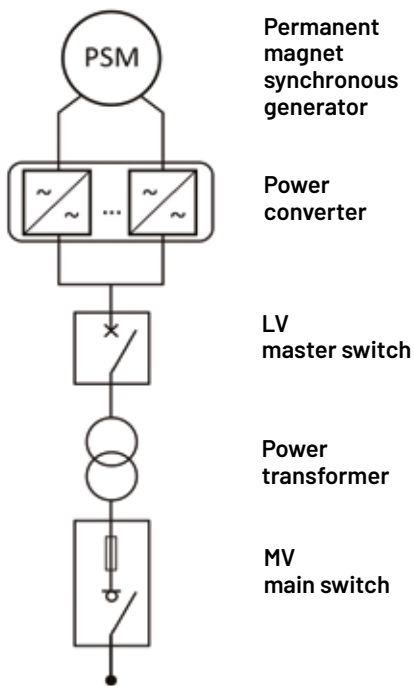
Grid
CONNECTION



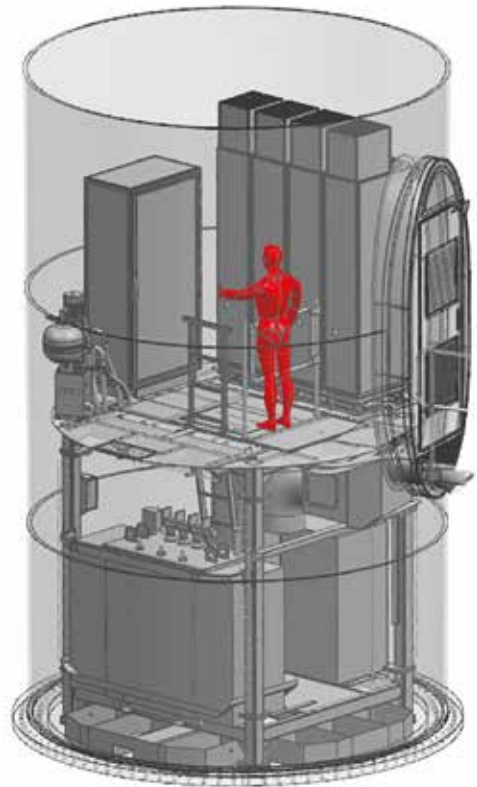
MODULAR FULL POWER *Converters*

The combination of LEITWIND's synchronous generator with permanent magnets, the full power converters named **LEITDRIVE** and the cutting-edge system control unit ensure optimal grid compatibility.

LEITDRIVE full power converters developed by LEITWIND can be adapted to complex and differing requirements of grid operators. Full power converters and their control unit contribute to maintaining the voltage and frequency in the grid and can thus dynamically support weak or unstable grids.



TOWER BOTTOM ARRANGEMENT*



* The image represents the concept of LEITWIND wind turbines.

Modular ELECTRICAL DESIGN

The modular design concept of LEITWIND wind turbines allow for continued electricity generation, at reduced power output, even if one or more systems fail, ultimately reducing downtimes and ensuring strong energy yields.

ELECTRICAL PROPERTIES AND TO GRID REQUIREMENTS

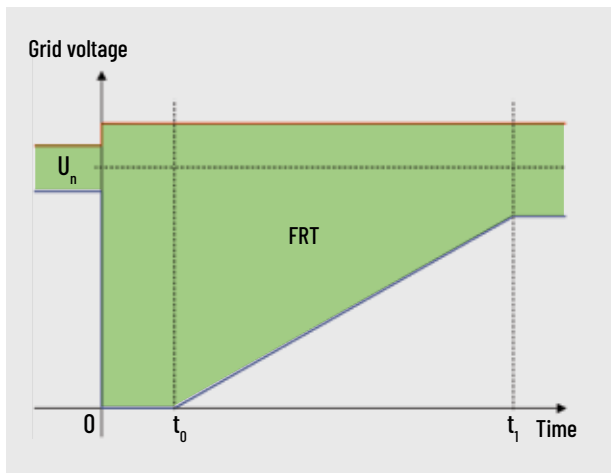
Conformity

Grid compatibility according to IEC standards and FGW guidelines are ensured (e.g., CEI 0-16, VDE-AR-N 4110, etc.).

- ✓ Active power control
- ✓ Reactive power control
- ✓ Dynamic grid support
- ✓ Fault Ride Through (FRT: LVRT, HVRT)
- ✓ Load frequency control
- ✓ Gradient ramp control

LOW VOLTAGE RIDE THROUGH

Example of grid voltage dip



LEITWIND wind turbines are able to ride through disturbance-related grid anomalies, such as sudden voltage dips, and continue to operate within the marked area of the diagram, thus supporting the grid.

REMOTE MONITORING AND CONTROL

Monitoring

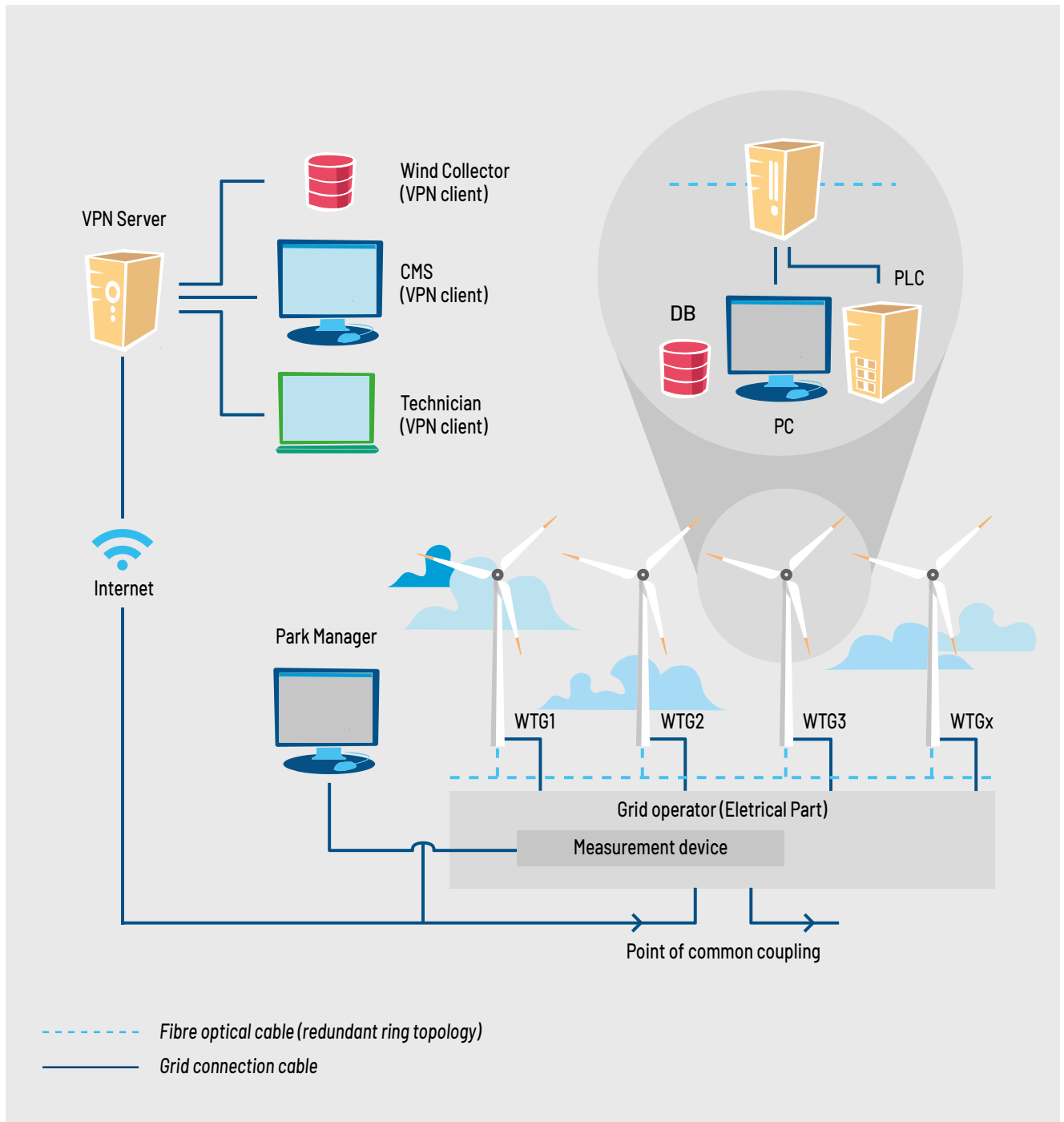
LEITWIND PARK MANAGER offers the opportunity to control and manage both the individual wind turbines and the entire wind farm in real time.

Find below an overview of the features implemented in LEITWIND PARK MANAGER:

- Real-time monitoring of the wind farm and individual wind turbine generators
- Control of active and reactive power generated by the wind farm
- Interface to the grid operator
- Data acquisition and reporting



LEITWIND PARK MANAGER



LEITWIND SCADA

enables the control, management and monitoring of an individual wind turbine generator in real time.

LEITWIND WEB PARKVIEWER

is a dedicated portal for our customers that provides real-time performance monitoring and analysis - anywhere and from any device with an internet connection.

Below are its specific features:

-  **Turbine Reporting**
(statistics, daily reports and event logs)
-  **Service Report and Production Report Management**
-  **Wind Turbine Generator Monitoring**

Customer
**SERVICE
ALWAYS AT YOUR SIDE**



Customer Care stems from LEITWIND's need to offer high value-added services with its wind turbines. Through specific skill management, LEITWIND controls and plans service processes, optimises them, and minimises waiting times. But the real added value is the constant relationship and constructive dialogue with customers.

LEITWIND's Customer Care is offered on both LEITWIND turbines and turbines from other brands, and it is divided into four areas:

Dedicated service, Field service, Troubleshooting, and **Spare parts management.**

Dedicated SERVICE



For LEITWIND, every customer is a partner with whom to build a sustainable future. That is why LEITWIND's Service Department is committed to ensuring the quality, safety and profitability of each project, by offering customers the opportunity to interface with our Region Managers in charge of managing and coordinating all service and maintenance operations.

FIELD Assistance



Field service involves three main activities:

- 1 Ordinary maintenance** to improve reliability through a proactive approach.
- 2 Extraordinary maintenance** to eliminate reliability issues as directly as possible, in response to a wind turbine malfunction.
- 3 Retrofit works**, aimed at fine-tuning the operation of the wind turbine, carried out after defining an action plan approved by the Vipiteno headquarters.

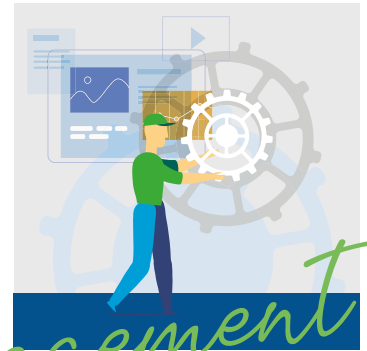
Troubleshooting



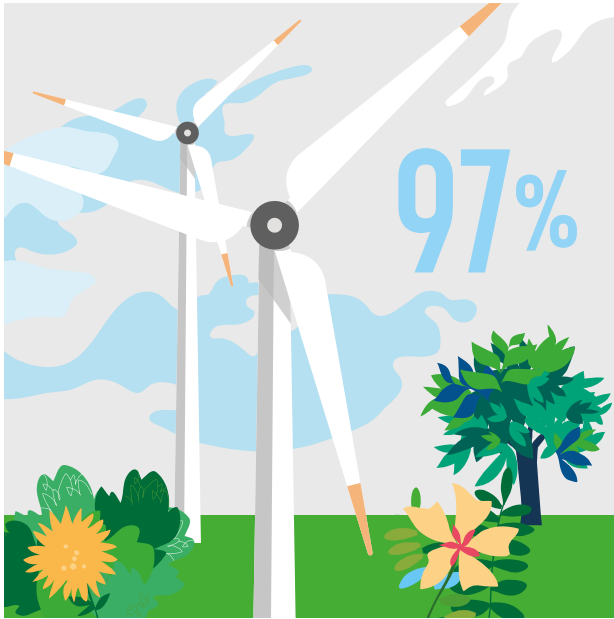
The CMS (Central Monitoring Station) manages 24/7 monitoring. When a problem on a wind turbine occurs, the CMS instantly detects it and tries to solve it remotely. Should the problem require a different type of service, CMS contacts the WTO (Wind Turbine Operation) department, which, after finding the solution to the problem in collaboration with the Park Manager, arranges an on-site intervention.

SPARE PARTS

Management



Materials management is the foundation for logistics operations, and it includes purchasing, planning and handling activities. All LEITWIND warehouses are connected to the main warehouse in Vipiteno, which supplies them and monitors their management, after performing quality controls on purchased materials.



97% GUARANTEED TECHNICAL *Availability*

LEITWIND is committed to guaranteeing up to 97% technical availability, motivated as we are by our goal to maximise productivity and minimise downtime.

The majority of LEITWIND customers choose to sign a full service contract, thereby guaranteeing an optimal WTG maintenance. Drawing on its extensive experience in the O&M field, LEITWIND offers customized service contracts even for wind turbines of other manufacturers.

FOR LEITWIND WIND TURBINES

- ✓ Full Service Contract

FOR OTHER WIND TURBINES

- ✓ 24/07 Remote monitoring
- ✓ Data analysis and Reporting
- ✓ Ordinary maintenance
- ✓ On-site interventions
- ✓ Replacement of main components
- ✓ Repair following vandalism
- ✓ Bop
- ✓ Spare parts
- ✓ Blade inspection and repair
- ✓ Full Service Contract

LEITWIND has more than 10 Service Centers around the world.

SERVICE HOTLINE

TEL. +39 0472 727 000

Administration and offers:

customer.care@leitwind.com

Technical assistance:

service@leitwind.com

Monitoring and remote control of the turbines:

wtgemail@leitwind.com

SERVICE	LEVEL	LOCATION	FUNCTION
Support Processes	Global	Headquarters LEITWIND	Management and Coordination
CMS (Central Monitoring Station)	Global	Headquarters LEITWIND	Wind turbine monitoring
WTO (Wind Turbine Operation)	Global	Headquarters LEITWIND	Remote wind turbine operation and Management
Remote service technicians	Global	Headquarters LEITWIND	Remote support to technicians working on site
Service Planning	Regional	Wind farm area	Planning for on-site maintenance work
Technical Team	Local	At Wind Parks	Direct maintenance works



THE OPERATING BRANCH IN *Lacedonia* WAS OPENED IN 2020

Young and versatile team of more than 50 members

The current staff includes more than 50 people with a very low average age: 25 years. LEITWIND invests in the young Italian workforce, providing training and enabling professional and personal growth. The highly qualified team is divided into three macro-areas: Maintenance, Production and Warehouse/Logistics.

Proximity to customers

Lacedonia is an ideal location for LEITWIND, as it ensures optimal proximity to customers: LEITWIND is the market leader for megawatt class wind turbines in Italy. Proximity to customers ensures rapid deployment of service teams, dramatically increasing the timeliness and efficiency of maintenance operations.

Over 130 wind turbines

LEITWIND SERVICE currently manages the operations of more than 130 wind turbines located in the Italian regions of Puglia, Basilicata, Campania and Molise. Moreover, the team also provides technical assistance to LEITWIND's domestic and international customers in countries such as Bulgaria, the U.S. or Greece.

✓ Indoor storage area:
About 1,000 sqm

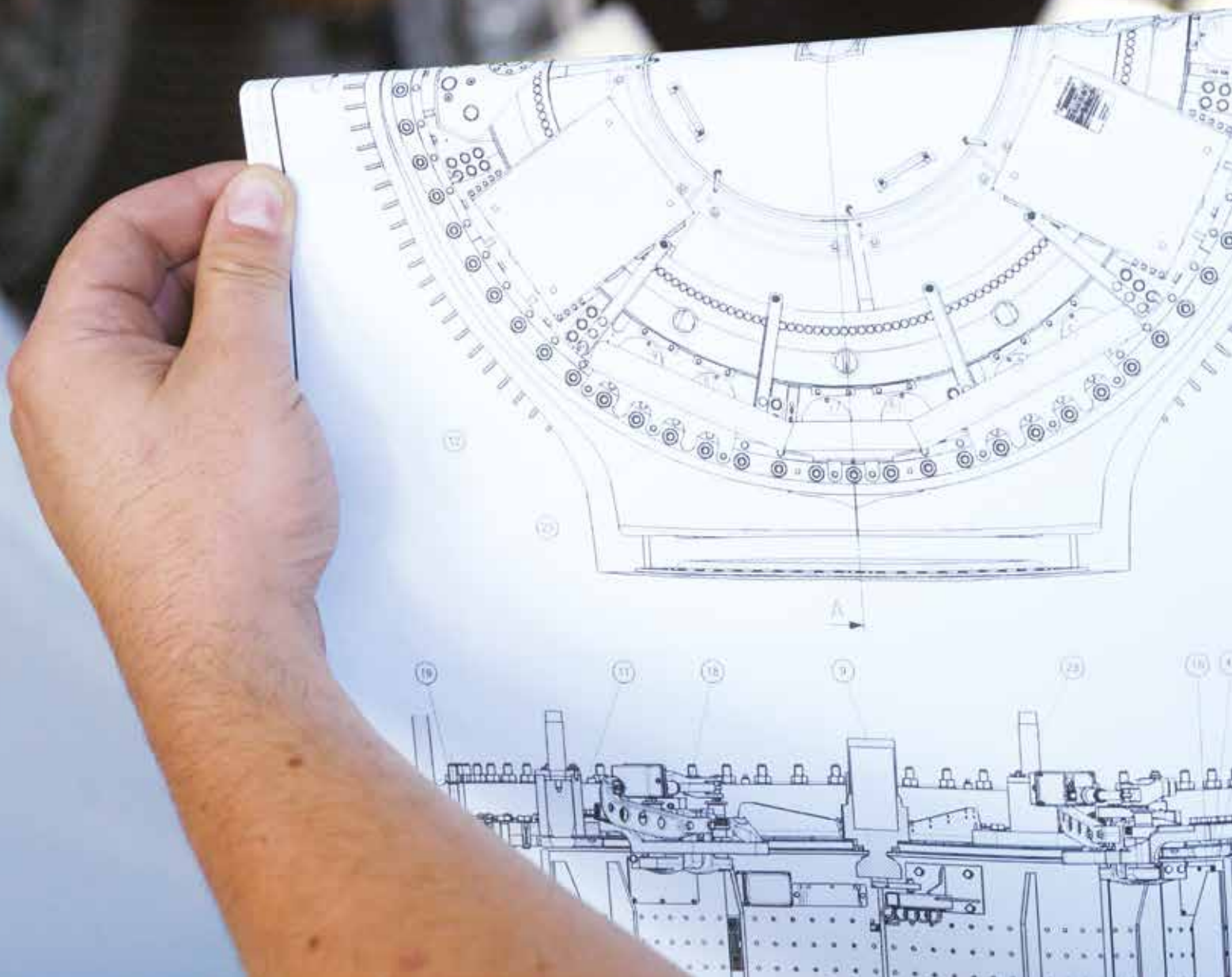
✓ Production area:
About 1,500 sqm

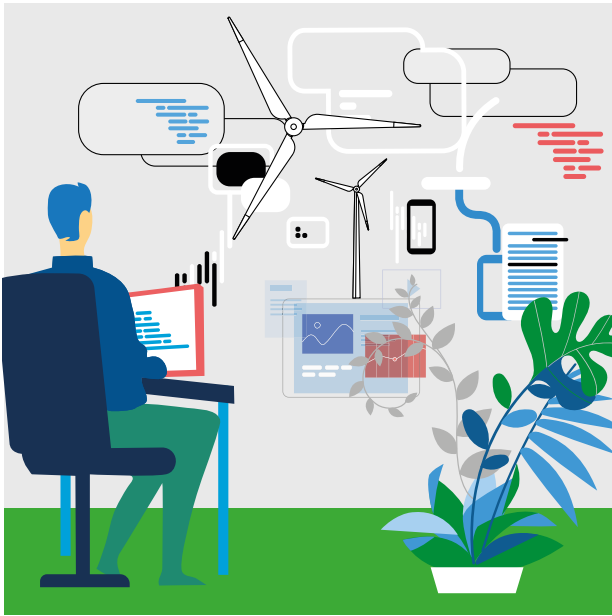
✓ Outdoor storage area for components:
About 12,000 sqm

✓ Office space:
About 400 sqm

Continuous

**RESEARCH
AND DEVELOPMENT**





Competence TO FORM THE FUTURE

R&D is LEITWIND's most valuable asset. Our Technical Office provides highly-specialized expertise in wind turbine engineering and specific know-how.

Every day, the engineers at LEITWIND work on our products to turn them even more reliable and sustainable.

KEY COMPETENCES:

New product development and continuous product improvement

Adaption of our products to new markets to guarantee availability and compliance with relevant directives and regulations all over the world

Product customization providing our clients with highly flexible products and meeting their special requirements

Wind analysis, siting and installability as well as wind park optimization

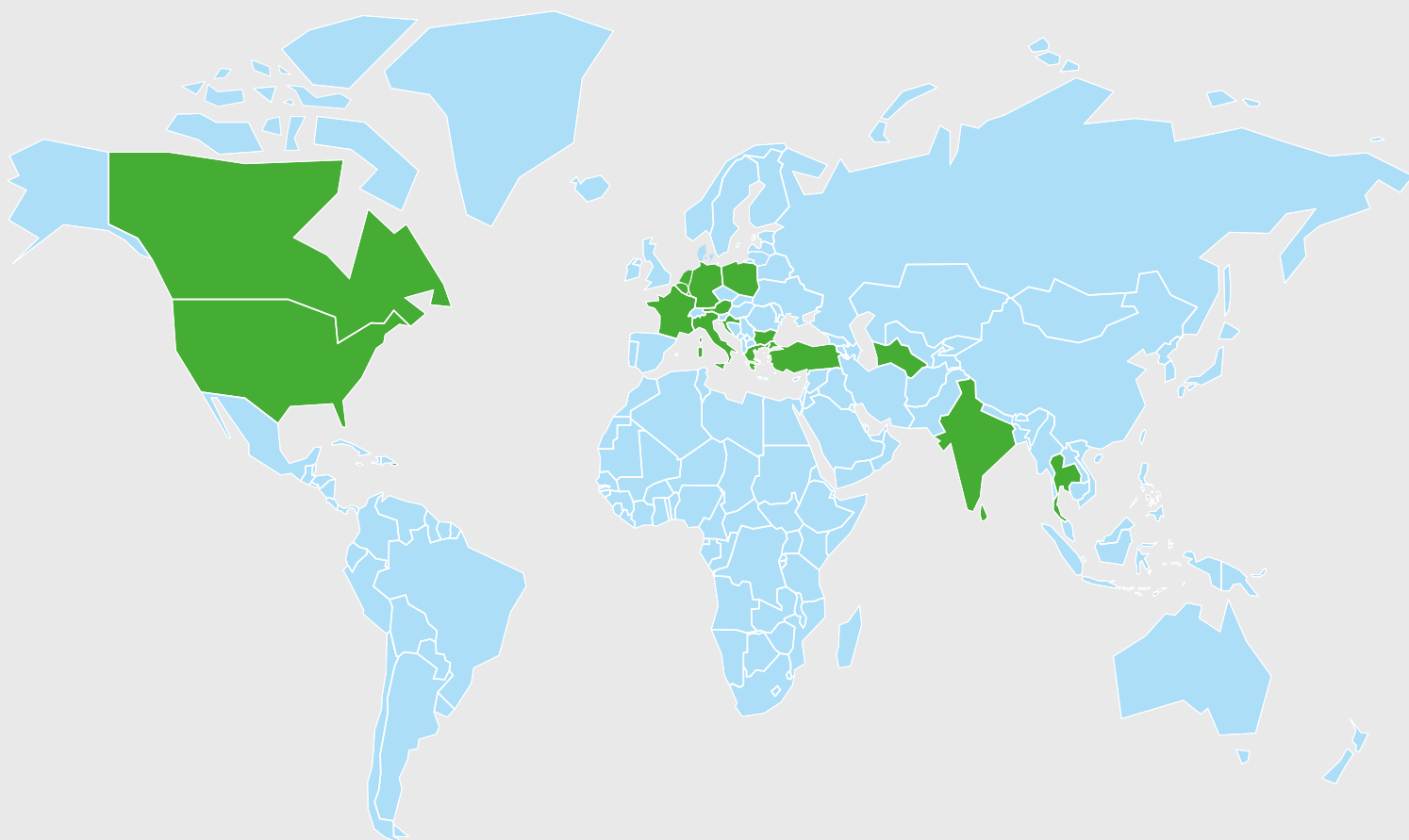
Technical support

ORIENTED TOWARDS CONSTANT *Product* OPTIMIZATION

LEITWIND is constantly focused on increasing the performance and reliability of its WTGs, while reducing their costs.

- ✓ Blade optimization is a continuous process and concerns mainly new materials and structural improvements. Currently, we are also evaluating the design of longer blades and their aeroelastic impact on existing WTG types.
- ✓ Developments on towers concern adaptation to target applications and specific manufacturing capabilities, within the limits of the oversize load to the building sites. We are mainly collaborating with HTI Group's supply chain and its suppliers, optimizing our technical solutions to their manufacturing capabilities and vice versa.
- ✓ Optimization of the generators' active parts through an increase of the electrical power train's efficiency and/or reduction of their costs, quantities, materials and therefore their environmental impact: e.g. the latest version of the 1.0MW LTW90 uses 11% less permanent magnets, and matches the performance of its predecessor.
- ✓ The WTG control system benefits also from regular updates and optimizations, both in the Hardware (e.g. by introducing more powerful PLC) and in the Software (e.g. by introducing new and more sophisticated algorithms for better diagnostic and predictive maintenance, systems integration and connectivity).
- ✓ LEITWIND turbines are usually designed with low tip speed to minimize air born noise. We also use noise optimized air foils, serration and/or vortex generators. Sophisticated algorithms in the LEITDRIVE power converter grant for the absence of tonal noises. Last but not least, an automatic and settable operational mode manager can modify the set point of the WTG to further reduce its noise emission (e.g. during night-time).

OUR *References*



AN *International* SUCCESS

Apart from a solid positioning on the Italian market, LEITWIND has already installed numerous wind turbines that reflect LEITWIND's international success: Europe, Asia, America. LEITWIND is present all over the world.



For more information on our installations, please visit the related section on our website.

INSTALLED TURBINES *Worldwide*

- | | |
|---------------|----------------|
| ✓ India | ✓ Greece |
| ✓ Sri Lanka | ✓ Germany |
| ✓ Thailand | ✓ Austria |
| ✓ Italy | ✓ Canada |
| ✓ Bulgaria | ✓ USA |
| ✓ Croatia | ✓ Guadalupe |
| ✓ Turkey | ✓ Belgium |
| ✓ Poland | ✓ Slovenia |
| ✓ France | ✓ Turkmenistan |
| ✓ Netherlands | |

CONTACTS

LEGAL HEADQUARTERS

LEITNER SpA, ITALY

Via Brennero, 34 | 39049 Vipiteno (BZ)
Ph: +39 0472 722 111
info@leitwind.com | sales@leitwind.com

HEADQUARTERS & PRODUCTION SITES

LEITNER SpA, ITALY

Via Gabriel Leitner, 1 | 39049 Vipiteno (BZ)

LEITNER SpA, ITALY

Zona Artigianato Est, 8 | 39040 Casateia, Racines (BZ)

LEITWIND SERVICE Srl, ITALY

Zona Industriale Calaggio | 83046 Lacedonia (AV)

LEITNER GmbH, AUSTRIA

Michael-Seeber-Str. 1 | 6410 Telfs

POMA LEITWIND, FRANCE

396 Routes des Chênes,
ZAC de Terre Neuve | 73200 Gilly-sur-Isère

WINOMECHANIC Pvt Ltd, INDIA

D-17, Sipcot Industrial Complex |
Gummidipoondi-601 201 Thiruvallur District, Tamil Nadu

SALES

ITALY

Paola Oldani: paola.oldani@leitwind.com

GERMANY

Danilo Petricio: danilo.petricio@leitwind.com

AUSTRIA AND SWITZERLAND

Iwan Planatscher: iwan.planatscher@leitwind.com

TURKEY

Can Guven: can.guven@leitwind.com

FRANCE

Denis Baud-Lavigne: denis.baud-lavigne@poma.net

REST OF EUROPE

sales@leitwind.com

CUSTOMER SERVICE

SERVICE HOTLINE

Ph: +39 0472 727 000

Administration and offers

customer.care@leitwind.com

Technical Support

service@leitwind.com

Remote monitoring and control of wind turbines

wtgemail@leitwind.com

MARKETING

marketing@leitwind.com



leitwind.com

