MediaFPV

Professional drone services

&

Media agency

ABOUT US

Our services focus on the industrial, commercial and private use of drones for surveys, inspections, special analysis and aerial photography.

Traditional services in the field of drone operations are now standardised and widely available.

Our mission is to integrate bespoke customer requests into practice in such a way that they perform optimally in complex working environments and comply fully with relevant local regulations.

As our services are tailor-made we are able to meet the most demanding requirements.

Deploying drones saves you time and money while reducing risk and uncertainty; People performing the same task are vulnerable to fatigue and human error, with the possibility of delays, injury, or inaccurate results.

When you assign us to undertake drone operations, we deliver insightful, targeted results that add value to your business and help lead you to success.

Projects within scope include solar fields, wind turbines, cell phone masts, power lines, bridges, dams, cooling towers, chimneys of power plants, railway lines, and many more…

With our broad service portfolio, we are well equipped to offer you the most fitting project solution, and deliver the high-quality data needed for post-inspection analysis.

OUR SOLUTIONS

- To achieve optimal results we use drones developed in-house instead of commercially available drones.
- Our drones are designed for professional industrial use, available in many sizes and configurations, and can be adapted to all site conditions.
- Our drones autonomously fly specified routes quickly and precisely.

We strive to deliver quick request to deployment response times.
Our drone pilots are professionally qualified and we have more than 10 years of experience in drone operations.

- Early and inexpensive detection of defects.
- Using artificial intelligence and machine learning processes, we are able to derive deep and up to date insights for real-time decision making.
- Thanks to automation, inspection times and evaluation periods are shortened.
- The use of ultra high-resolution cameras ensures comprehensive and clear imaging with resolution of up to 150 megapixels.
- Live transmission, extreme ranges, extended flight times and short recharging times are distinctive features of our hardware.

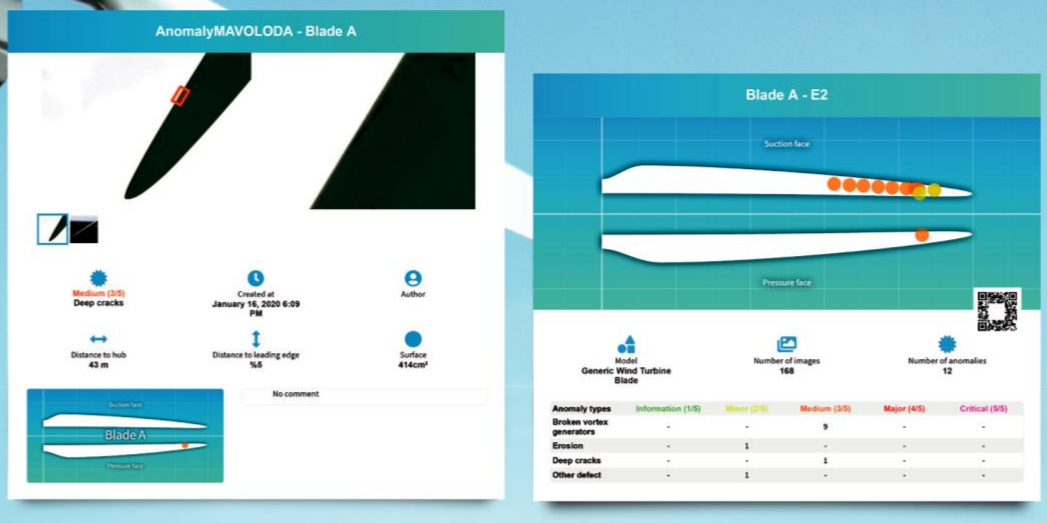
WORKING AREAS

We operate our drones across multiple areas/industries.

Our tasks include environmental analysis as part of strategic planning, visual inspections of entire systems and areas, measurement of complex areas and documentation of these with image and video recordings.

Areas include:

- Wind energy
- Solar power
- Power distribution lines and infrastructure
- Industrial plants (facades, bridges, dams, cooling towers, railway lines, etc.)
- Real estate
- Cellular network infrastructure
- Offshore platforms

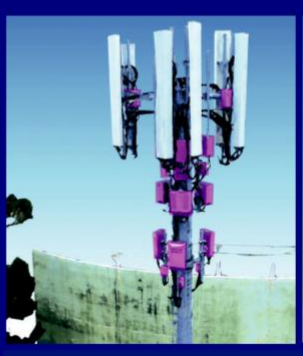


DRONE INSPECTION FOR WIND ENERGY

- Monitoring and inspection of turbines and towers with less than 30 minutes of downtime.
- Visual inspection of both on-shore and off-shore wind turbines.
- High-resolution cameras enable detailed visual inspections further from the object, reducing the risk of collision.
- Adjustment of blade position or pitch is not necessary mid inspection; the drone is programmed to intelligently account for different positions and orientations of the turbine.
- Damage to blades and tower structure, including corrosion, impact damage, and other, are recorded completely and precisely.

DRONE INSPECTION FOR CELL TOWERS 3D MODEL

- Measurements and inspections using 3D recordings, which can be automati-cally accessed from desktop, tablet or smartphone via WiFi or 4G.
- Creation of AS-Built models that show the structure as it was constructed. From AS-Built documentation and AS-Built control, a uniform overall model is created that can be used as the basis for an operator model.
- Automatic AS-Built control of the nature and shape of the mast, the manu-facturer, the dimensions, the inclination and the antenna efficiency.
- Automatic detection of damage, defects and corrosion.
- Recording and measurement of EME (earth-moon-earth connections) and RF (radio frequency) using exact 3D simulations.
- Creation of detailed reports that are required for the development of com-munication concepts and the installation of radio transmission links.



LOS-TESTING FOR CELL TOWERS

- Precise line of sight (LOS) testing for determi-nation of radio transmission characteristics.
- Accurate time-saving measurements for Fres-nel calculations.
- It is possible to test LOS between Cell Towers over 20km apart using our drones.
- Drone mounted cameras for this purpose are equipped with lenses providing over 30x opti-cal zoom.

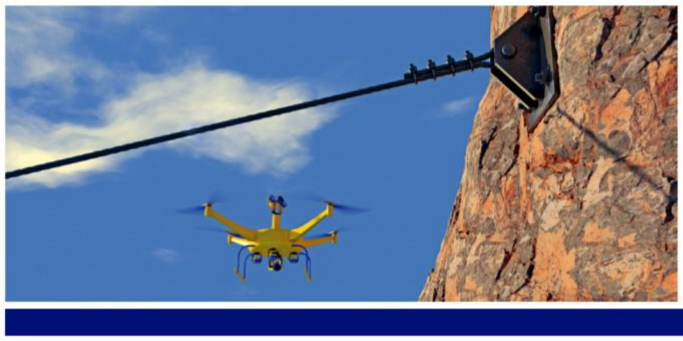
DRONE INSPECTION FOR POWER LINES

- Detailed infrastructure inspection with drones and AI can be performed as a fully automatic workflow.
- Automated capture of geospatial data calculated from multiple images.
- 3D reconstruction and documentation of objects / systems on a single surface. Here, a combination of satellite and drone 3D photogrammetry models is used to take photos from a bird‘s eye view.
- Creation of digital twins that transform material or immaterial objects or processes from the real world into the digital world - This gives you information about the desired properties of the object to be developed in the real world.
- Detection and management of individual components that are required for the transmission network.
- Automatic detection of device types (isolator, transformer, wooden pole, etc.).

Analysis of the equipment inventory per tower or the entire network.

DRONE INSPECTION FOR BRIDGES / DAMS / COOLING TOWERS

- Visual inspections of facades and industrial facilities.
- Calculation of terrain surfaces and contour lines.
- Determination of masses and volumes.
- Inspections of chimneys and towers by internal and external aerial flights.
- Drones can be programmed to detect damage and cracks smaller than 0.1 mm.
- Automatic detection of damage points on industrial surfaces that have damage / defects.
- Minimization of extended operating times, which are usually required for reporting.
- Save up to 90% on inspection, data analysis and reporting costs.



DRONE INSPECTION FOR RAILWAYS

- With the use of drones specially designed for railway lines, multiple kilometers of track can be inspected.

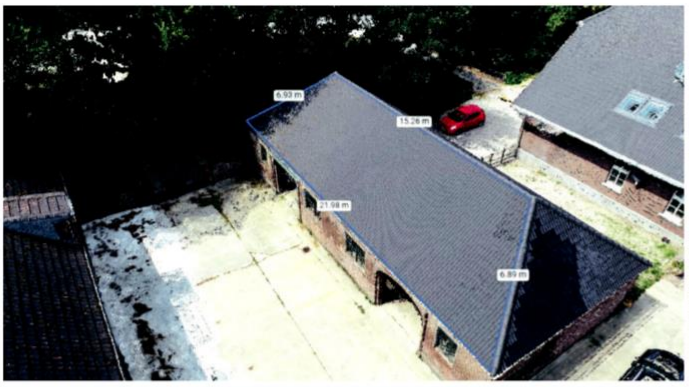
- Measurement and evaluation of several tracks at the same time.

- Comprehensive range of recognition and identification features:

  - Rail breaks and gap detection
  - Railway sleeper (crosstie): Detection of compliance with the gauge
  - Identification of the type and condition of crossties
  - Identification of the type and number of fasteners
  - Identification of animals / small animals
  - Detection of spikes and hole patterns
  - Detection of switches and their position
  - Detection of ballast contamination

DRONE INSPECTION FOR SOLAR ENERGY

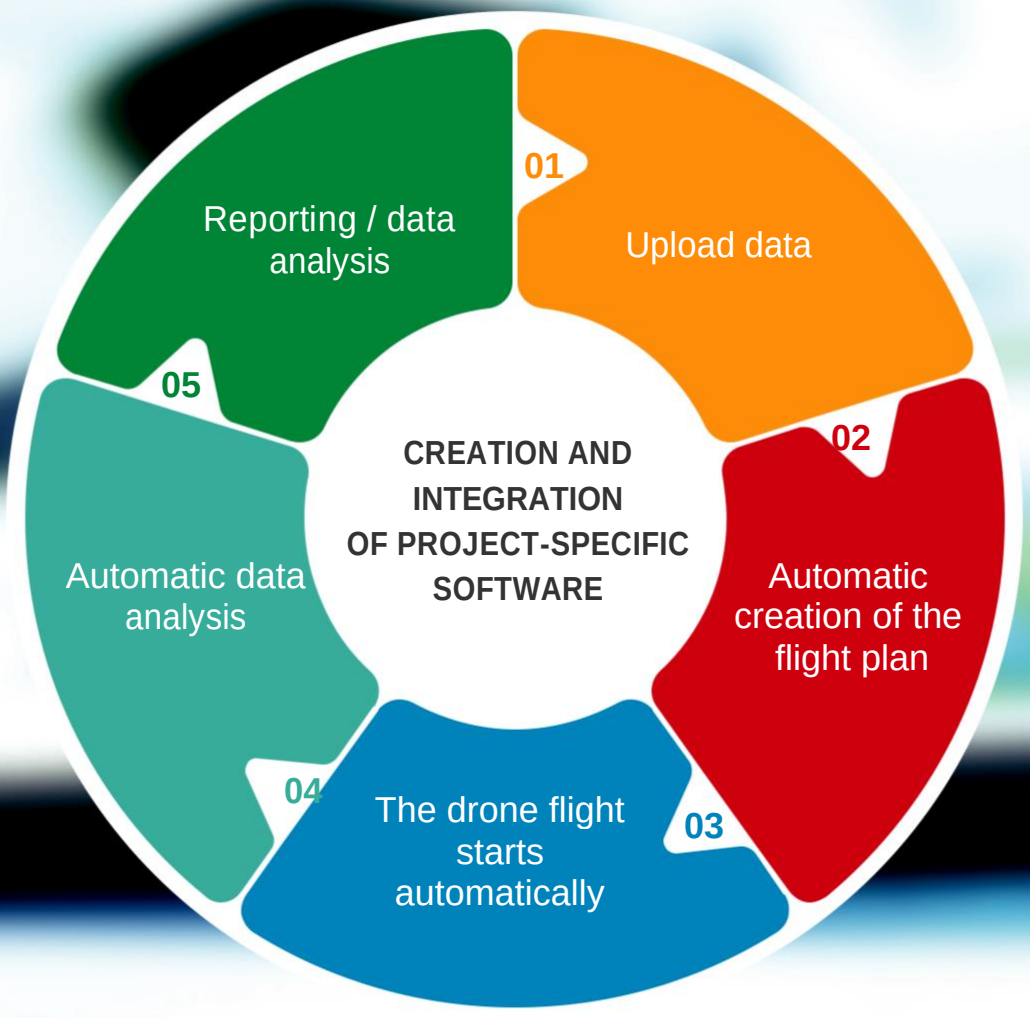
- Simple and efficient inspections with thermographic aerial photographs using high-resolution thermal imaging cameras that detect anomalies invisible to the naked eye.
- Detection of optical defects such as broken glass or cell damage.
- Detection of cracks in modules, moisture penetration, faulty cabling, aging or permanent stress.
- Detection of unusual heat developments (hotspots).
- Creation of high-precision reports and 3D models.
- Targeted data analysis for precise assessment of valuable information.
- Keep your team safe on the ground and your data safe in the cloud.



MEASUREMENT

- Fast, efficient and very economical way to capture objects of different sizes from the air.
- Significantly lower costs and lead times compared to alternative methods.
- Accurate, inexpensive and continuous monitoring with fast recording and evaluation times.
- Precise modelling and positional information replace the rough estimates of the previously common measurement procedures.
- Measurement results and data acquisition are perfected via photogrammetric evaluations and model formats, 3D meshes, high-resolu-tion camera images and videos, 2D drawings and 3D models.

PROCESS FLOW



VALUE

COST EFFICIENT

400% more productive than traditional methods
200% more productive than industry-standard drone solutions

SAFE & EFFECTIVE

Minimize human error and dangerous situations

RELIABLE

Robust drones are able to operate in the most extreme environments

COMPATIBLE

Transfer inspection data to digital systems for in-depth analysis

We offer our customers and partners not only the most cutting edge inspection services, but also the most efficient solutions for individual bespoke requirements.

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