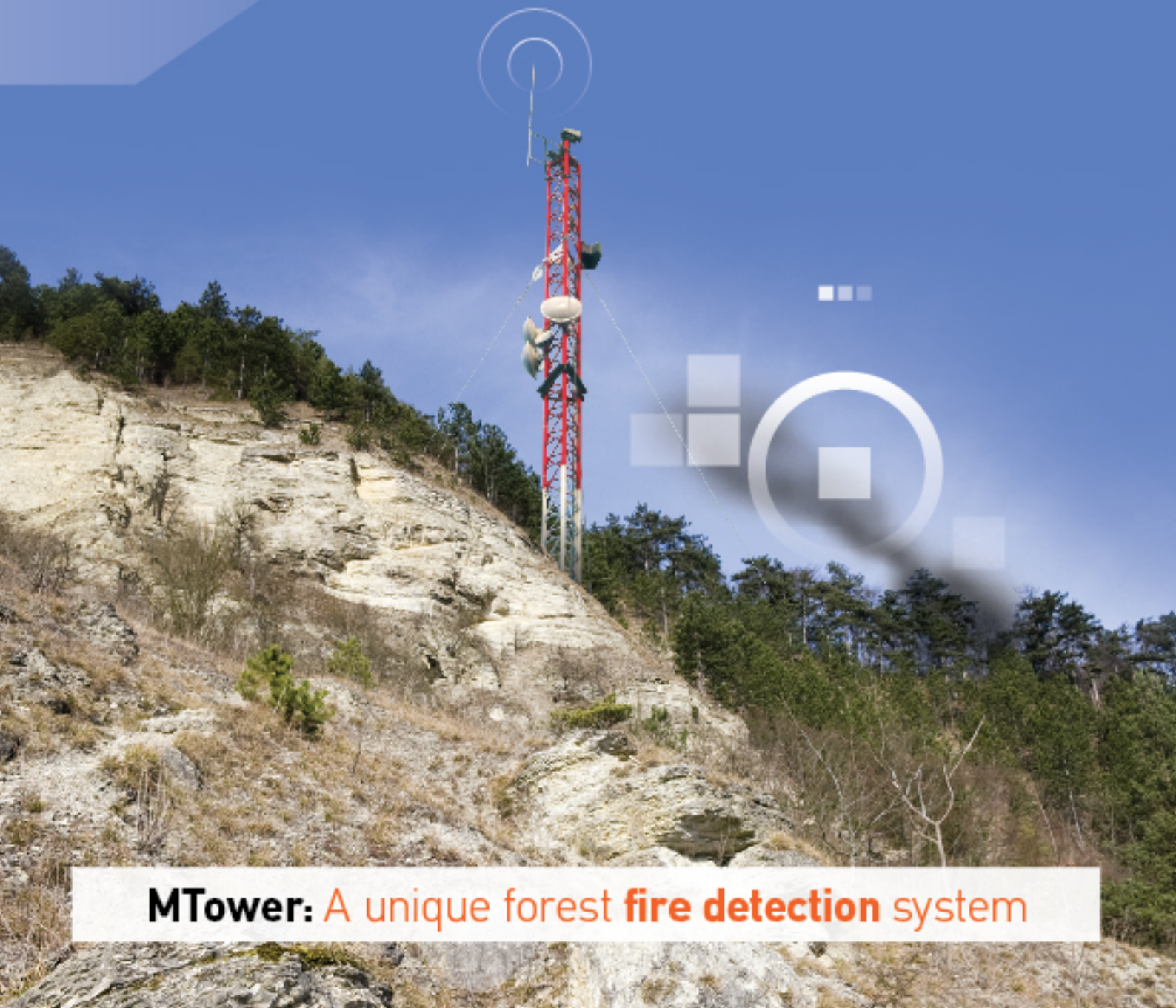
Meleagros

fire protection system



MTower: A unique forest **fire detection** system

MTower

Meleagros MTower

MTower is a high-end, turn-key solution for forest fire detection.
It is an autonomous solution that can efficiently monitor large (forest) areas.
It combines the quality of Meleagros fire detection algorithms as well
as a state-of-the-art aluminum tower that significantly simplifies its deployment.

Ideal for the protection of:

- Large forest areas
- Peri-urban forests, botanical parks and gardens, NATURA 2000 regions and other protected areas
- Cultural landscapes
- Sensitive ecosystems

Key advantages

- Early detection of forest fires with state-of-the-art algorithms (flame/smoke)
- Low false alarm rate via scene characterization and exclusion of zones
- Fire localization
- Can be easily transferred and deployed in harsh environments (e.g., mountain)
- Autonomous operation through renewable energy sources
- Remote software administration (upgrades, fine-tuning)
- Visual verification of the incidents
- Highly modular and compatible with off-the-shelf equipment (cameras, processing units)

Main solution components

The solution consists of the following components:

- 1 or more cameras (day /night)
- Computing unit with communication module
- Software for remote monitoring and management of events on a map interface and incident verification
- Renewable energy system (solar panel and battery)
- Aluminum tower

Optional accessories:

- Communication antennas
- Wind meter or weather station
- Wireless field sensors (e.g., linear heat detector, temperature, gas sensors)

Detection system specifications

- Effective detection range*: 3 km (line-of-sight)
- Effective tower area coverage*: 30 km^2
- Detection accuracy*: smoke clouds of 5m height in 3 km distance
- Energy consumption*: ~110W
- Communication modes: 3G/GPRS, WiFi
- Coverage of 360o in 10 minutes

Power specifications*

- 1kW PV panel solar array
- 300Ah battery bank
- 1kW Solar charger / inverter
- System sized for 10 days autonomy
- Optional 400W small wind turbine for higher load or autonomy requirements

*The values are indicative and refer to a typical IP PTZ camera (at least VGA resolution, lens focal length of 30mm). The system can operate with any type of camera. The power specifications are indicative and correspond to the aforementioned setup.

Tower specifications

- Proved durability & reliability aluminum towers manufactured by 2EN
- Tower height: depending on site characteristics, vegetation & surveillance covered area could vary from 10 to 50m
- Weight: light weight segments handled by manpower
- Limitless transportation even in inaccessible areas
- Fast deployment & safe assembly on the ground
- Foundation without concrete & no need for building permits
- Tilt up without a crane
- High quality aluminum alloy fully recycled
- Certified by TÜV NORD

Services provided

- Free site survey (inside Greece)
- Tower deployment and maintenance (in cooperation with 2EN partner)
- 24/7 area monitoring (in cooperation with surveillance control room of private security company)

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Mobics

A spin-off company of National and Kapodistrian University of Athens that develops innovative technology solutions and custom projects addressing various application domains.

For more details visit: **www.mobics.gr**

2EN SA Renewable Energy services and applications

Enallaktiki Energiaki (2EN)

Manufacturer of high quality aluminum towers and renewable energy components, holding vast experience in international projects.

For more details visit: www.2en.com

Want a quotation? Contact us!

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