

3 keys to navigating sand & dust storms

1. Understand the threat*

300 mil.
people

affected globally
by sand & dust storms

That's approximately **4%** of the
globe's population.



2000 mil.
tons

of dust emitted
annually

That's the **equivalent of**
307 Great Pyramids of Giza.

Sand & dust storms
can cause

visibility loss,
health risks
and disruptions
to transport

* World Meteorological Organization, Sand and dust storms, 2025 (<https://wmo.int/topics/sand-and-dust-storms>)

2. Detect early, act fast



**VAISALA
FORWARD
SCATTER
SENSOR FD70**

Detects sand/dust
vs. water-based
particles

Reduces false
alerts with precise
visibility data



**VAISALA LIDAR
CEILOMETER
CL61**

Identifies
sand/dust
layers through
depolarization

Tracks storm
movement for
early warnings



**VAISALA
WINDCUBE® SCAN**

360°/3D wind and
aerosol tracking up
to 10 km

Enables storm
trajectory
monitoring



**VAISALA
AIR QUALITY
TRANSMITTER
AQT560**

Measures air
particle count and
mass for PM₁, PM_{2.5},
and PM₁₀, including
sand levels in PM₁₀

3. Build resilience

Combine sensors for full
situational awareness and
enable proactive decisions
to protect people, assets,
and operations.

