RUNNING FOR CLEAN AIR

AIR QUALITY MONITOR SPECIFICATIONS

To measure air quality as part of the **Running for Clean Air** project, World Athletics installs **Kunak Air Pro** device on the location.

DIMENSIONS: 257 x 270 x 225 mm
WEIGHT: 3.5 kg

DEVICE DESCRIPTION

Kunak AIR Pro
Air Quality Monitor

The air quality monitor Kunak Air Pro is the most advanced air quality monitoring station on the market. Its multipollutant cutting-edge design includes environmental sensors as well as connectors for external weather sensors or probes which operate on solar panel and transmit real-time wireless data.

This excellent accuracy/cost ratio device is rapidly deployable, and perfectly suitable for measurements in a sports context.

WHAT IS MEASURED

CO — Carbon monoxide

CO_2 — Carbon dioxide

NO — Nitric oxide

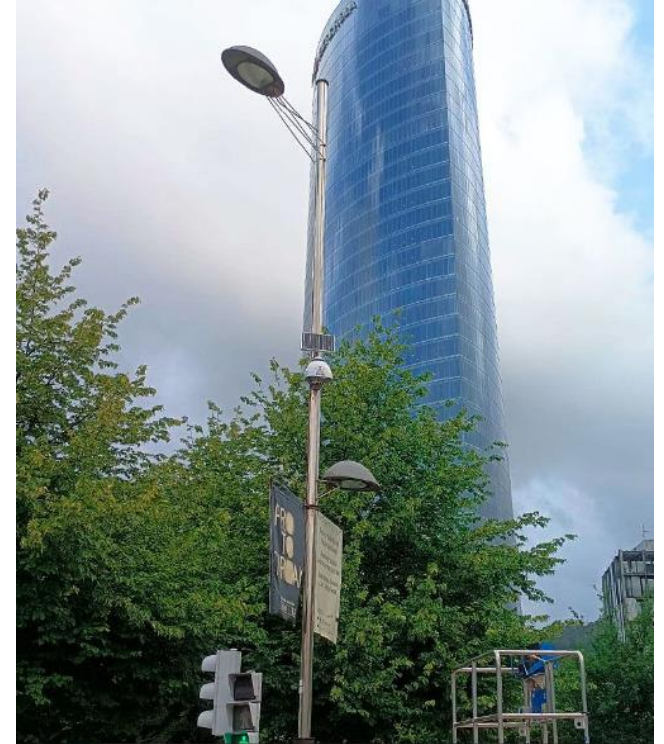NO_2 — Nitrogen dioxide

O_3 — Ozone

OPC — PM_1 - $PM_{2.5}$ - PM_{10} — Particulate matter

+

temperature, humidity, atmospheric pressure, dew point, wind direction, WBGT index

REQUIREMENTS FOR INSTALLATION

- ACCESS TO SUN, FACING SOUTH
  - the device runs on solar power so while it does not require to be plugged, it requires sufficient sunlight

- POLE / RAILING
  - the ideal position for the device is 2-3 meters high above the ground
  - it is mounted on a railing/pole/lamp (max. 10 cm in diameter)

- SAFETY
  - to avoid vandalism and other unwanted damage on the device, it is important to find a safe location
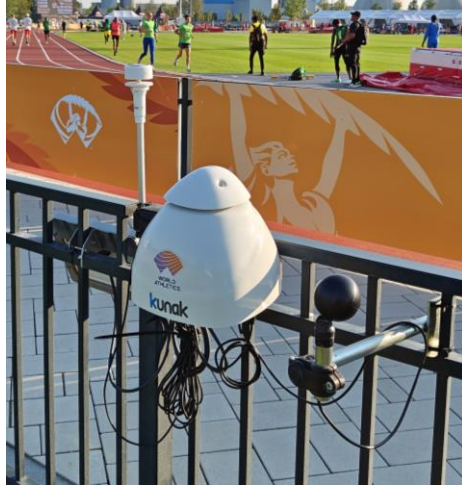
INSTALLATION & MAINTENANCE

It is useful if someone from your team can join World Athletics for the installation to be able to support locally during the measurement period, if needed. The installation takes around 45 minutes and does not require any special technical knowledge.

No on-site maintenance should be required during the 6 month period. After approximately one year of measurements, the cartridges will need to be changed (easy plug-in system).

EXAMPLES OF PREVIOUS INSTALLATIONS

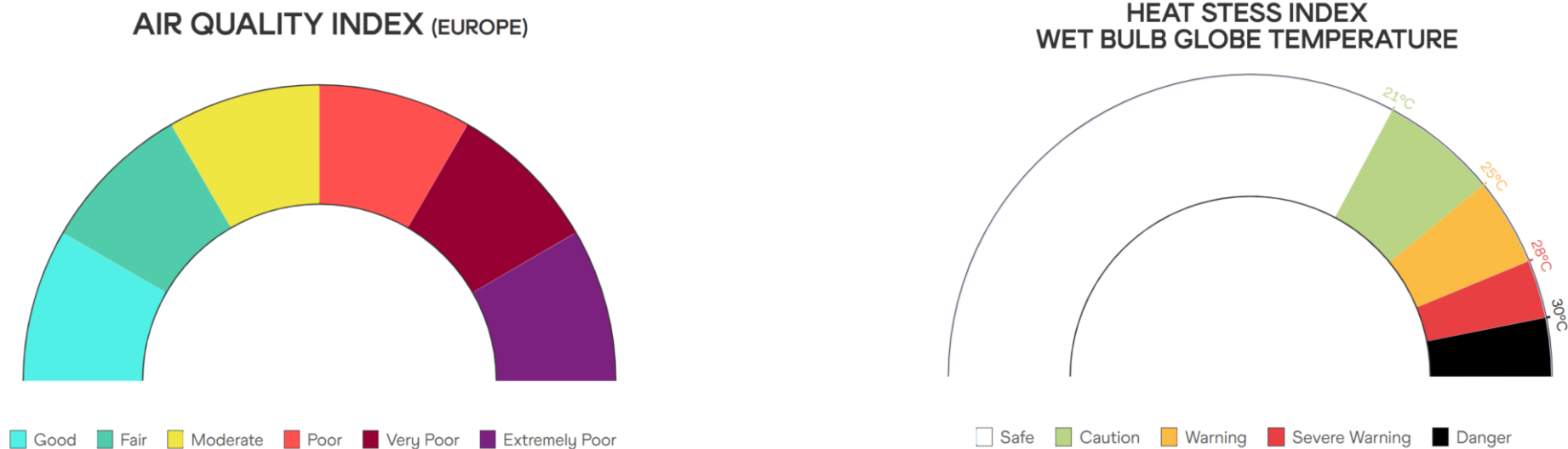on a railing inside of a
stadium, *Budapest*

on a pole close to a finish line,
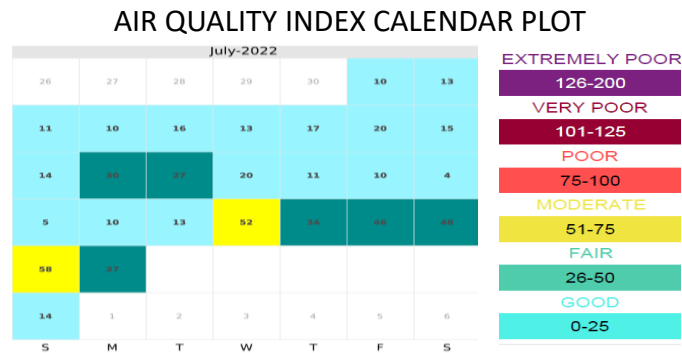*Riga*

on a traffic sign, *Lagos*

LIVE DATA

Once the device is installed, a URL & QR code will be generated to access the live data widget.

The widget shows an hourly average of **air quality index** and **heat stress index**, as indicated in the screenshots above.

MONTHLY REPORTS

On top of the live data, World Athletics will provide the project stakeholders with a monthly report (6x). These reports will include aggregated data analysis to identify specific air pollution patterns.

AIR QUALITY INDEX CALENDAR PLOT

TIME ANALYSIS

MULTIPARAMETER ANALYSIS

PROJECT LEGACY

After the project is concluded, World Athletics will gift the device to local stakeholders. It is up to the city government, marathon organizers, and local athletic federation to agree on who takes over the device ownership. The ownership comes with a small administrative fee paid annually to the device manufacturer (Kunak Technologies) for the backend data storage and support as well as with the responsibility for maintenance (e.g., changing the cartridges at own cost).

If you have any further questions about the device, do not hesitate to contact us.

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website: https://www.worldathletics.org/athletics-better-world/running-for-clean-air

RUNNING FOR CLEAN AIR

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