CAMERA COUNTING

PROCESS

For camera counting, cameras (3D sensors) are placed above each entrance and exit of the event location, at a height of three to six metres. The cameras count all visitors in a zone of about six by six metres below the camera. They also register the direction in which the visitors are moving and simultaneously measure the inflow and outflow. This gives the organiser a real-time overview of the number of people present throughout the event.

Events without entrance restriction
For events without clearly identifiable entrances, camera counting is a less optimal counting method. Zone counting can offer a solution in such cases. If the entire area can be divided into clearly delimited, interconnected zones of about 40 m² each, a camera can be installed per zone. This makes it possible to estimate the number of people present, even at events without defined entrances and exits.

Entrance and exit combined with zone counting
Combined camera counting, covering zones and entrances, provides more information than just the number of visitors. The additional cameras can, for example, track how many people are in a particular zone, or which zones are visited more frequently. If several adjacent zones are monitored, the cameras can also record the percentage of people moving from one zone to another.

ADVANTAGES

+ **Real time:** the number of attendees is counted in near real time and can be broadcasted on a live dashboard. This offers added value in terms of crowd control, queue management and optimal personnel deployment strategies.
+ **Movements:** the deployment of additional cameras in certain zones provides information on crowd density in these zones and the movement of visitors within and between such zones.

DISADVANTAGES

- **Infrastructure:** electricity and a power distribution system are required on the site. In order to install the cameras at a sufficient height, a ceiling or other on-site structure is also required.
- **Double counting:** camera counting does not provide insights in the unique number of visitors. Those who leave the event location and then re-enter are counted twice by this method.

COST (EXCL. VAT)

Cameras are priced between €500 and €1,000 each, including installation and rental.
A camera must be mounted at every entrance up to 6 metres wide. If density measurement is also required in selected zones, additional cameras can be deployed. Each camera covers a zone of 40 m².

ACCURACY

Camera counting has a 10% margin of error (results of TETRA study Crowd Counting conducted in 2021). This means that if cameras, for example, count 1000 people, the actual number of people will be between 900 and 1100.

POTENTIAL SUPPLIERS

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www.crowdcounter.be

Centre of expertise Public Impact
publiekeimpact@kdg.be
www.publicimpact.be