

## LETSCROWD tool presentation cards

LETSCROWD - Law Enforcement agencies human factor methods and Toolkit for the Security and protection of CROWDs in mass gatherings - aims to develop an integrated system for crowd protection during mass gatherings, by providing the following to security policy practitioners:



A **dynamic risk assessment methodology** for the **protection of crowds during mass gatherings** centred on human factors in order to effectively produce policies and deploy adequate solutions.



A set of **human centred tools for Law Enforcement Agencies (LEAs)**, including real time crowd behaviour forecasting, innovative communication procedures, semantic intelligence applied to social networks and the internet, computer vision techniques.



A **policy making toolkit** for the long-term and strategic decision making of **security policy makers**, including a database of empirical data, statistics and an analytical tool for security policies modelling.

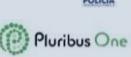
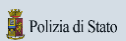
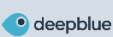
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## LETSCROWD Human Centred Computer Vision Tool



The Human Centred Computer Vision (HCV) tool provides three functionalities aimed at supporting LEA operators and forensic investigators in the use of video surveillance systems for monitoring and investigation activities during and after mass gathering events.

The HCV tool comprises the following modules:

1. **Appearance-based person re-identification**, to search for an individual of interest in several recorded videos, based on clothing appearance, using an image as a query.
2. **Attribute-based people search**, to search in several recorded videos for individuals who match an attribute profile of clothing appearance (e.g., colours), gender, carried items.
3. **Crowd counting**, for real-time estimation of crowd size and detection of related anomalous behaviours, e.g.: overcrowding with respect to an user-defined threshold, sudden increase or decrease of crowd size.

**IN SHORT:** Video analytics technologies for the security of mass gathering events.

**VIDEOS:** 1. [youtu.be/RLJwB2PFEH0](https://youtu.be/RLJwB2PFEH0)

2. [youtu.be/gBHnCph7eh0](https://youtu.be/gBHnCph7eh0)

3. [youtu.be/28BPGqTcQLQ](https://youtu.be/28BPGqTcQLQ)

### WHO IS THIS TOOL FOR?

**LEA operators** and **forensic investigators** using video surveillance systems for monitoring and investigation activities during mass gathering events.

### WHEN SHOULD THE TOOL BE USED?

- During **event execution**, to monitor the size of a crowd in one or more regions of interest of the event venue.
- After a **mass gathering event**, in forensic investigations on crimes or incidents, to search for suspect individuals in the videos recorded by video surveillance systems.

### WHAT IS THE ADDED VALUE OR BENEFITS FOR LEAS OPERATORS AND OTHER STAKEHOLDERS?

- **Reducing LEA operators' burden** in real-time **crowd monitoring tasks** during event execution.
- **Reducing forensic investigators' effort and time to search for suspect individuals** in recorded videos during post-event investigations of crimes and incidents.



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