

OTHER OPTIONAL SERVICES

The detection system is based on artificial vision algorithms backed up with artificial intelligence techniques to provide an extremely precise analysis of movements. Consequently, if requested, the system can also send alerts about ticket gate malfunction:

- Inactive gate
- Insufficient gate closing or opening
- Gate does not always open immediately, impeding continuous passenger access.

FGC, 'SMART TRAIN' AND THE INITIATIVE TO TACKLE FARE EVASION ON PUBLIC TRANSPORT

DETECTOR has been developed in conjunction with the Catalan regional and commuter train operator **Ferrocarrils de la Generalitat de Catalunya (FCG)** as part of the "Smart Train" programme.

FGC is very proactive in tackling fare evasion. In the last few years it has achieved a very low rate of fare evasion compared to the sector average.



RECOGNITION

DETECTOR was one of the four finalists at UITP's Operational and Technical Excellence Award (Milano, June 2015).



Awaait Artificial Intelligence (AWAAIT) is a Barcelona-based company focused on the streamlined development of innovative solutions using artificial intelligence and mobile technology.

For technical and commercial details about the DETECTOR system and enquiries about specific solutions to your problems and challenges, please contact us at:

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INNOVATIVE SOLUTIONS

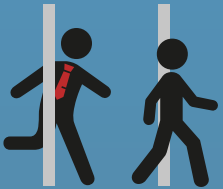
**DETECTOR:
SELECTIVE
INTERVENTIONS**

DETECTOR

DETECTOR is an automatic real-time video analytics system aimed to reduce fare evasion at public transport. Via Artificial Intelligence-Machine Learning algorithms, a camera over the ticket barrier alerts inspectors when detecting a fare dodger by sending a sequence of images to their smartphones within 3 seconds.

The system:

- Detects fare dodging in real-time
- Sends images to inspector's smartphones
- Registers the outcome of the inspections



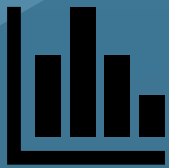
1. INFRACTION



2. ALERT



3. INSPECTION



4. ANALYTICS



MOBILE ALERT IN 3"

USE

A ticket inspector equipped with a smartphone with the DETECTOR app activated receives the alert and can intercept the fare dodger within seconds. The outcome of each inspection is fed back to the system to be seen in real-time by other inspectors, allowing coordinated ticket control deployments.

MONITORING

Since the system registers both the alert signals and the outcomes of the inspections in real-time, it provides transport managers with the following automatic information:

- Trends in fare dodging in real-time, with daily, weekly and monthly graphs
- Real-time intervention tracking
- Analysis of efficiency and effectiveness
- Recommendations for inspection routes that can be updated in real-time to tackle fare evasion more effectively

PERFORMANCE



Operational experience proves that DETECTOR is excellent in deterring fare dodging. The regional and commuter train operator in Barcelona FGC reported a 70% drop in fare evasion during initial evaluation tests.

SIDE BENEFITS

Besides the proven reduction effect in fare dodging, DETECTOR generates other side benefits:

- Drastic drop of checks on paying passengers thanks to the selective interventions
- Reduction of mass ticket controls, thus, improved overall mobility.
- Leaner, faster and more efficient ticket controls
- Improved economic sustainability for publictransport

