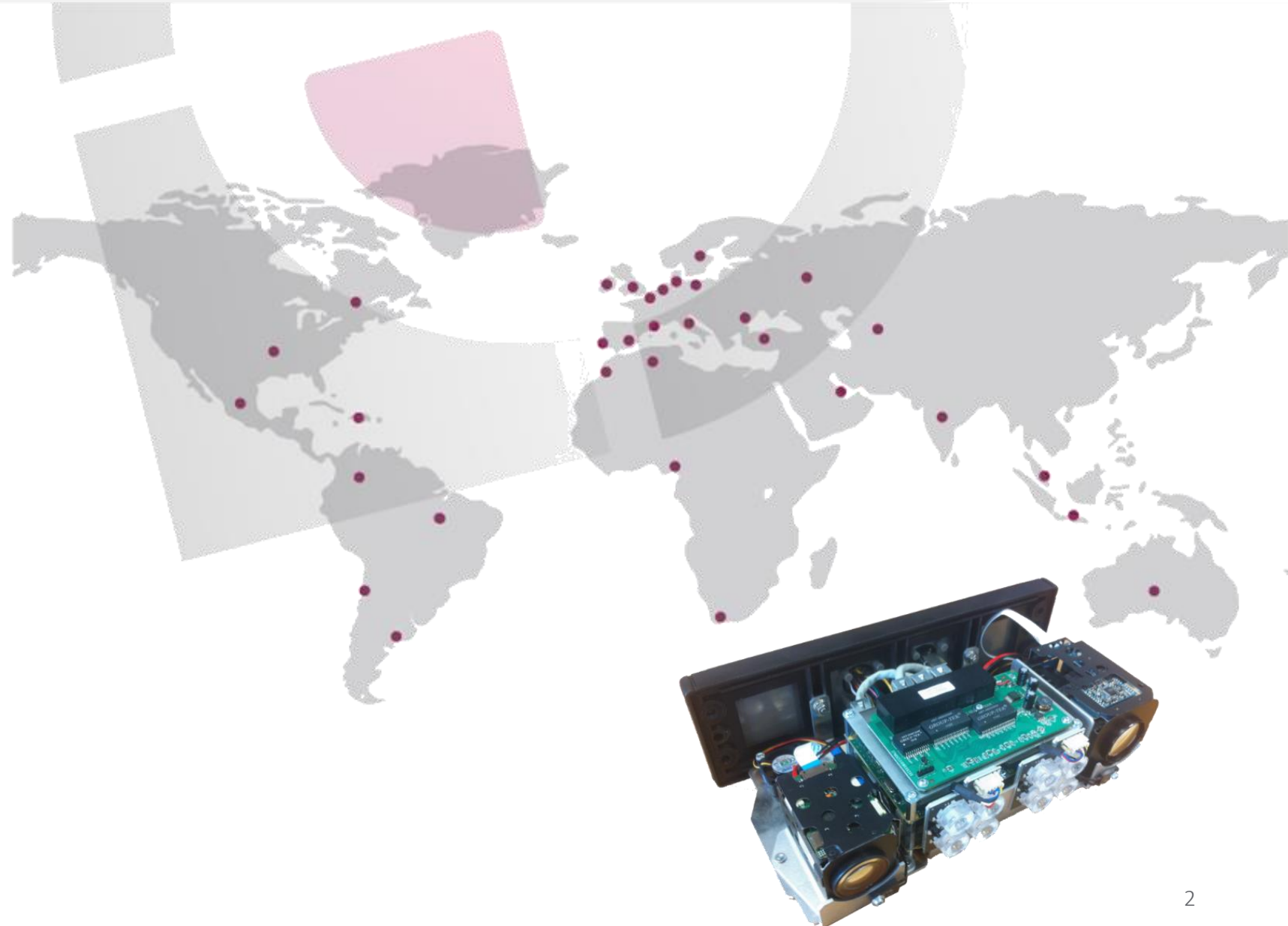# survision
ADVANCED TRAFFIC SENSORS

VEHICLE CATEGORISATION TECHNOLOGY

SURVISION Presentation

Who are we ?

- ▶ ERMIC Group, 31 MIOS € Turnover and 130 employees

- ▶ Based in Paris area

- ▶ Over 12,000 cameras worldwide

- ▶ Over 400 projects completed

- ▶ With over 250 active partners

  ...IN 30 COUNTRIES

MISSION AND TECHNOLOGIES

TO PROVIDE INTEGRATORS THE BEST VEHICLE DETECTION
AND IDENTIFICATION VIDEO CAMERAS

PARTNERSHIP WITH PHONICA
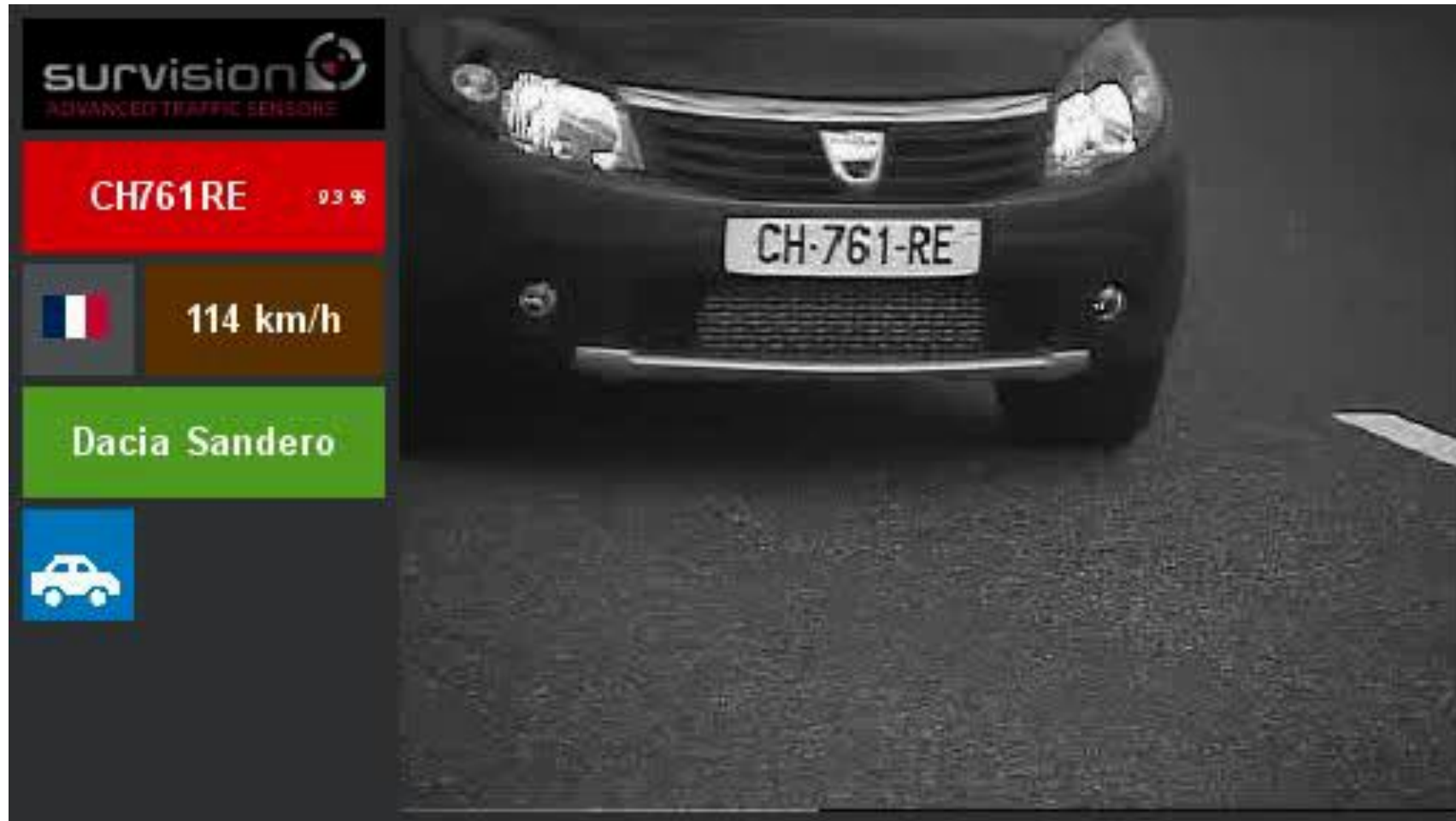
- Automatic number plate recognition (ANPR)
- Automatic dangerous goods plate recognition
- Categorisation by means of radiator grill analysis, (makes and models, …)
- Instantaneous speed, average speed and inter-distance
- Vehicle classification using vehicle size and number of axles

Number plate recognition

- **Recognition distance :**
  2 - 20 metres (controllable zoom)
- **Coverage width :**
  Up to 3 metres
- **Image analysis :**
  50 images/second
- **Illumination :**
  IR 850nm pulsed
- **Internal memory :**
  Up to 5,000 plates

Electronic characteristics

- **Communication bus :**
  Ethernet 100Mbit/s, RS232
- **Power supply—Consumption :**
  24V - 24W (2m cable provided)
- **Homologation/Certification :**
  EMC 55022, photobiological safety
- **MTBF :**
  56,000 hours minimum

Mechanical characteristics

- **Connectors :**
  Waterproof push-pull IP67
- **Temperature:**
  From -20° to +55°C on "start-up" and from -40° to +55°C when "in use"
- **Casing :**
  RAL 7048 highly resistant IP67 stainless steel
- **Dimensions (mm)—Weight :**
  158 (L) x 154 (P) x 75 (H) - 2.2 kg

INSTALLATIONS

toll installations

roadways

car-parks

survision
ADVANCED TRAFFIC SENSORS

Nanopak ANPR

Number plate recognition

- **Recognition distance:**
  2 - 12 metres (controllable zoom)
- **Coverage width:**
  Up to 3 metres
- **Image analysis:**
  50 images/second
- **Illumination:**
  IR 850nm pulsed
- **Internal memory:**
  Up to 5,000 plates

Electronic characteristics

- **Communication bus:**
  Ethernet 100Mbit/s
- **Power supply - Consumption:**
  12V or 24V - 10W
- **Homologation/Cetification:**
  EMC 55022, photobiological safety
- **MTBF :**
  56,000 hours minimum

Mechanical characteristics

- **Connectors:**
  Ethernet and relay
- **Temperature:**
  0°C to +55°C
- **Casing:**
  Black aluminium, IP50
- **Dimensions (mm) - Weight:**
  67 (L) x 78 (P) x 116 (H) - 0,640kg

USAGES

car-park

embedded

prosecution procedures

Focus on Categorisation

Categorisation refers to the **possibility to automatically differentiate** a type of **vehicle** from another

Categorisation works by calculating a **"fingerprint" on the** **Vehicle's Front Grill's**

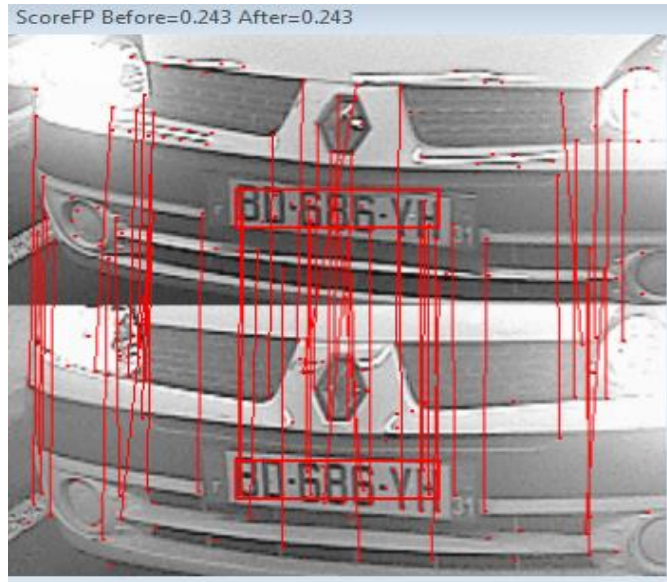**Categorisation** is carried out in real-time using the SURVISION video cameras

These sensors incorporate in a **single unit**

- the video grabbing and light management
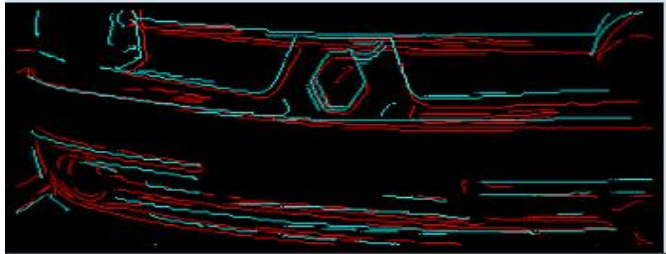 - the image processing platform
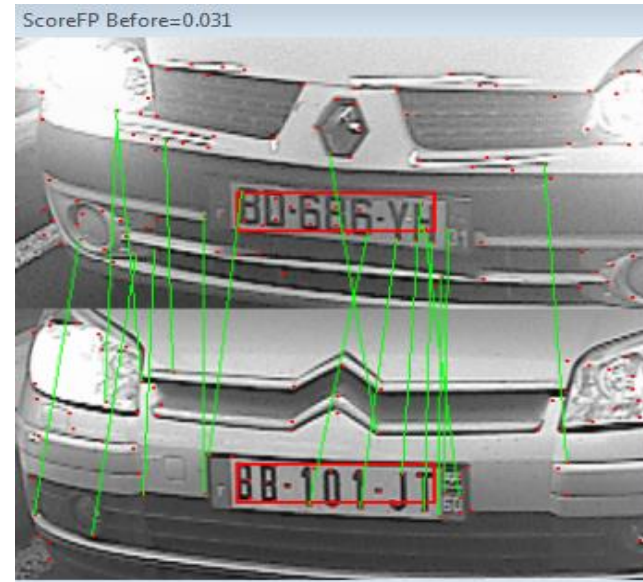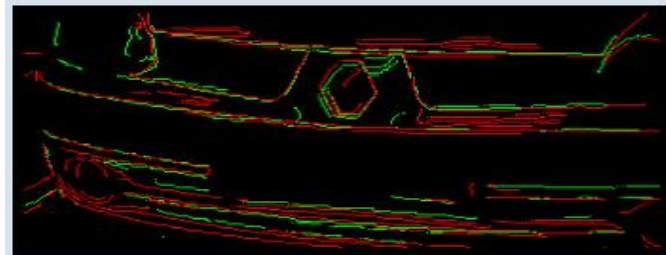
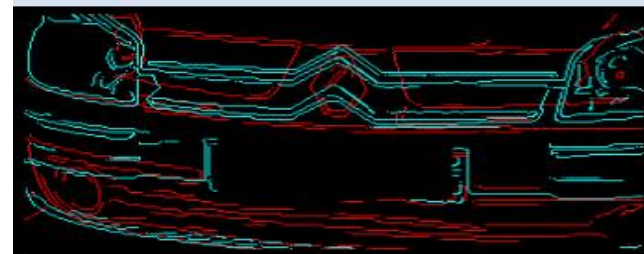SURVISION owns a patent on vehicle categorisation

Focus on Categorisation

Examples of uses of categorisation
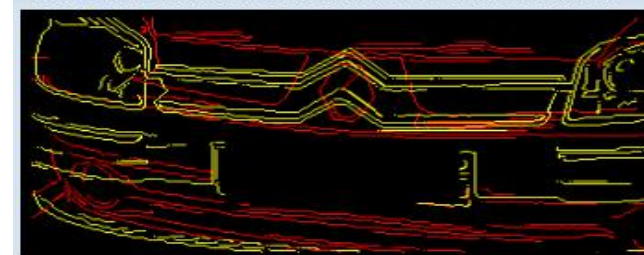
Used by the Police, road-management companies, local authorities and car-park management companies

- Application of different prices depending on vehicle category (small/medium/large, Electric/Thermal…)

- Reduction of false alerts at the exit of car parks

- Automatic matching between the number plate and the make and model data mentioned on the vehicles registration files

- Reinforced car-park security

Benefits of Categorisation

Benefits of SURVISION Video Categorisation

- Low installation costs

- Low maintenance costs

- Unique vehicle identification

- Administrative data not required

Installation constraints

Simple installation, but still a few constraints to respect

- STOP AND GO configuration

- Permanent lighting required

- Learning phase

Case studies

Quick Parking Italy: Vehicle Categorisation

Application of different prices depending on the vehicle category(small/medium/large)

Case studies

Thank you

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