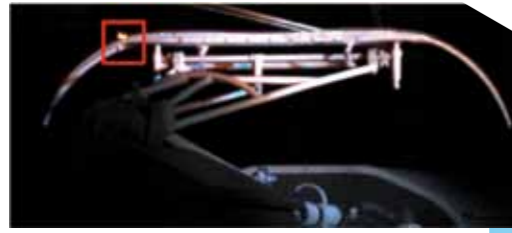
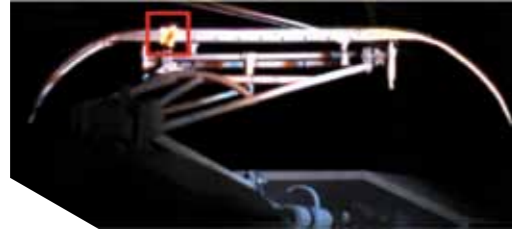


## Other examples



Extraneous object on the pantograph



Left pantograph horn damaged



good



damaged

### PantoCheck Measurements

- |                           |                            |
|---------------------------|----------------------------|
| • pantograph shape        | • pantograph thrust        |
| • pantograph integrity    | • wire uplift              |
| • pantograph geometry     | • wire tension             |
| • pantograph horns        | • wire voltage             |
| • missing parts of carbon | • wind direction and speed |
| • carbon strips wear      | • pantograph temperature   |

**Selectra**vision

Via delle Nazioni, 3/5/7 - 44123 Ferrara - Italy - Tel. +39 0532 748000  
www.selectravision.com - info@selectravision.com

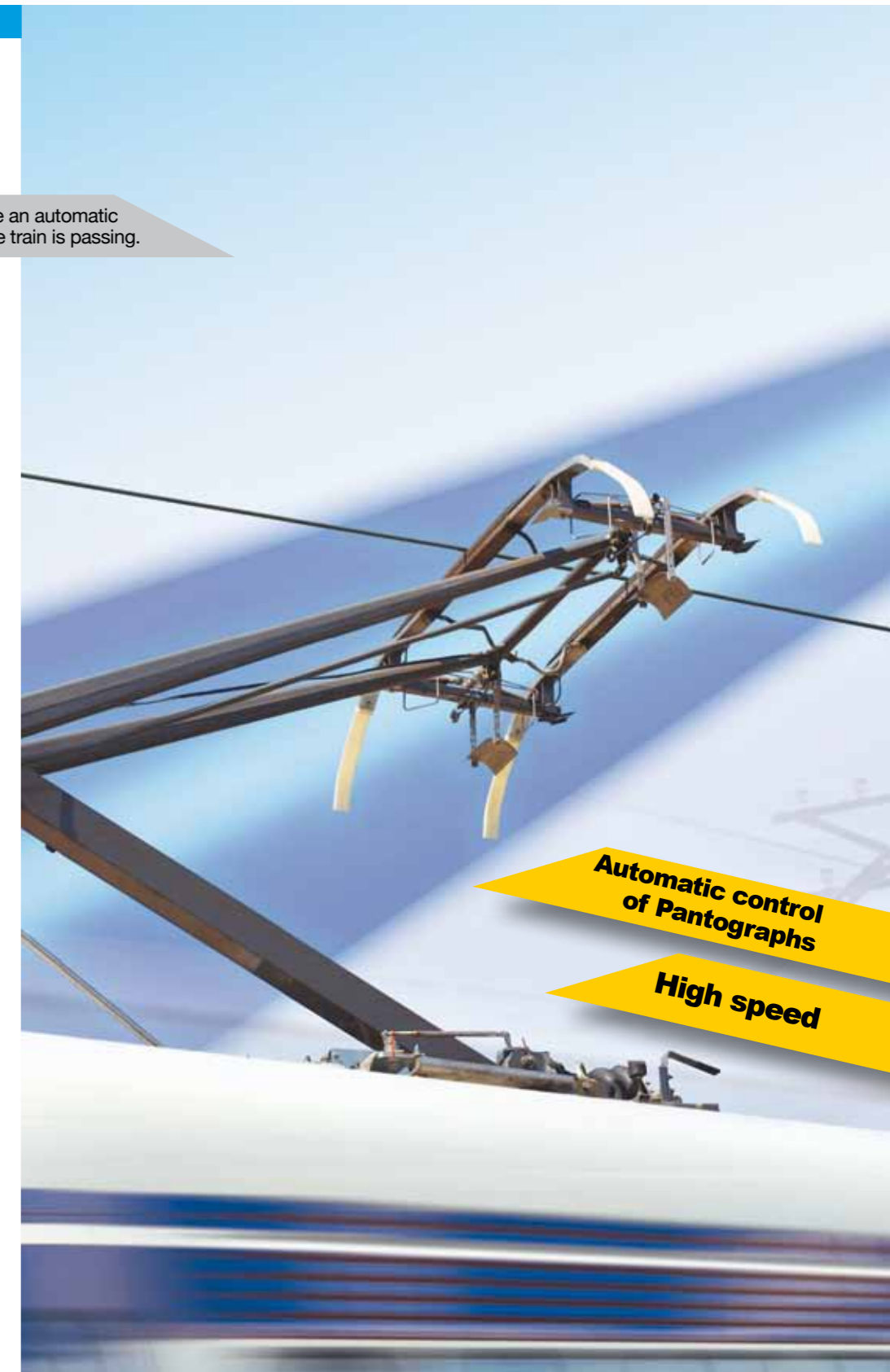
# PantoCheck

Automatic video inspection system for Pantographs

Video and laser system able to make an automatic control of each pantograph when the train is passing.



Qualified by RATP  
Paris Metro



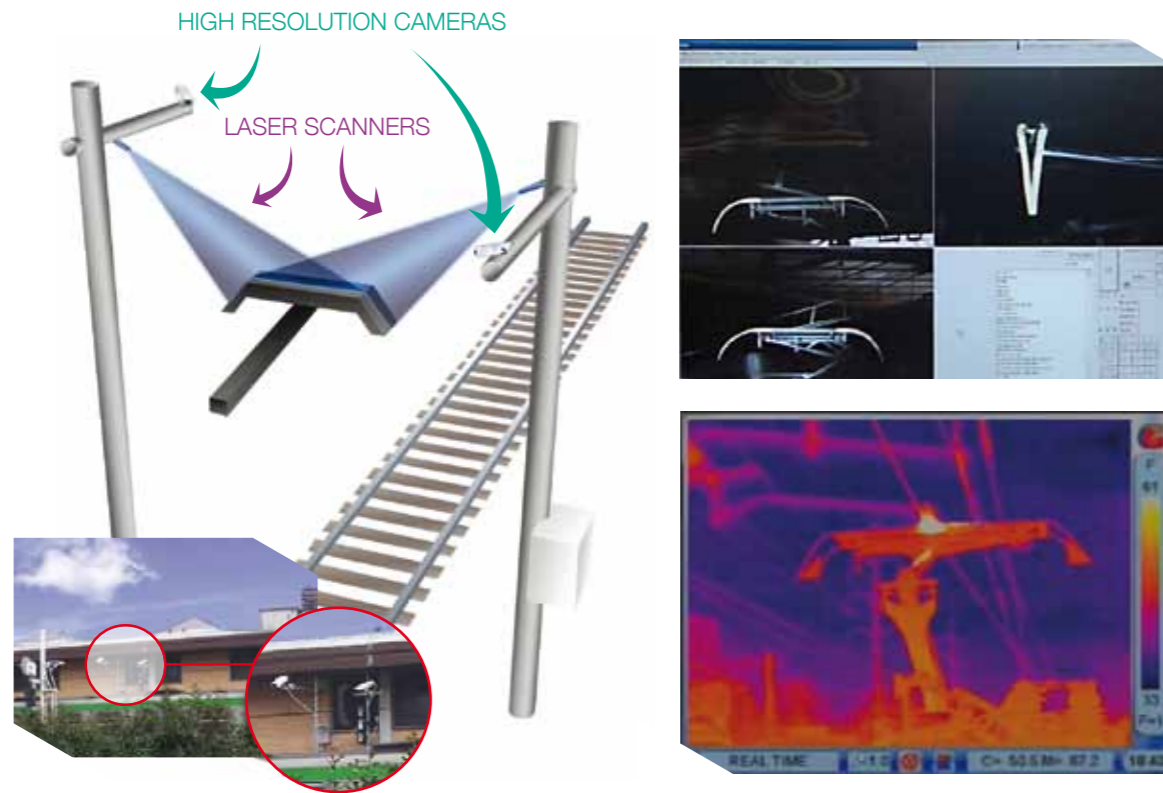
Automatic control of Pantographs

High speed

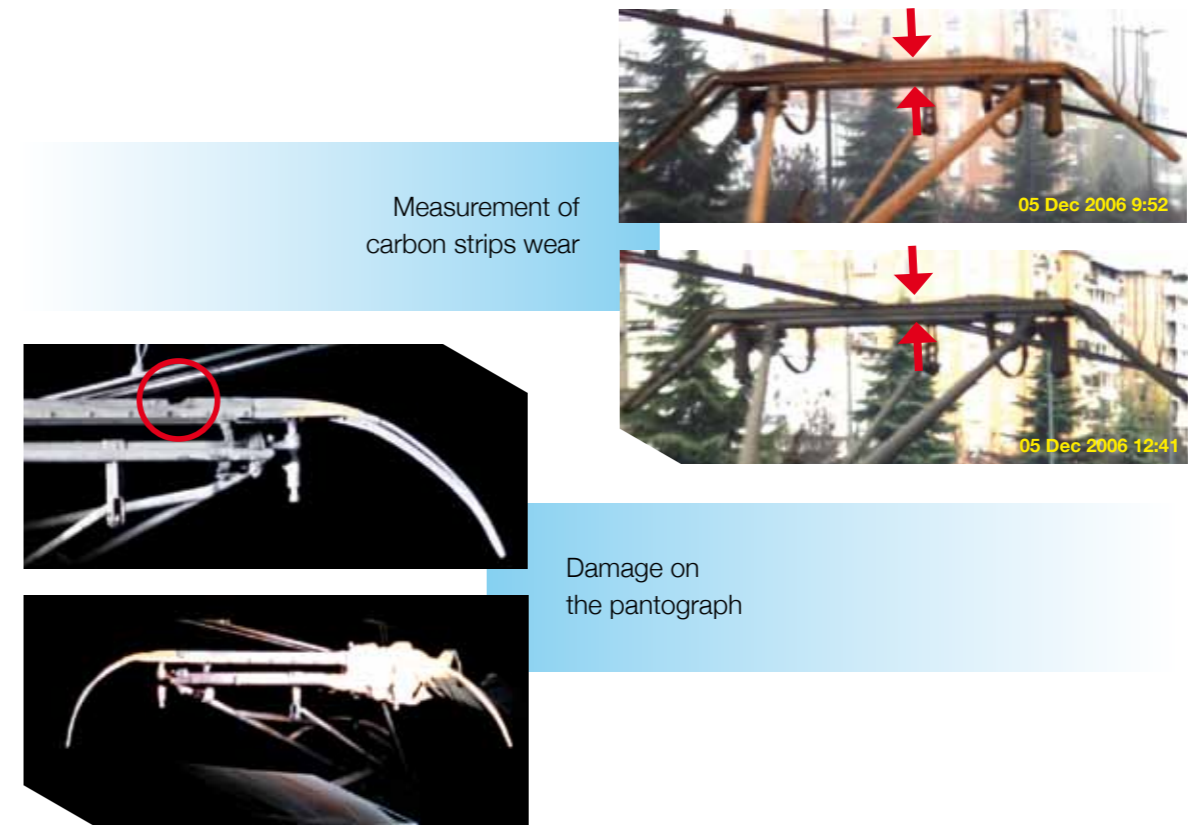
**Selectra**vision

# The complete solution for checking the pantographs

## Working modes



## Examples



## Composition

**Cameras:**

- high resolution
- high speed
- multiple cameras

**Lightning:**

- day and night acquisition

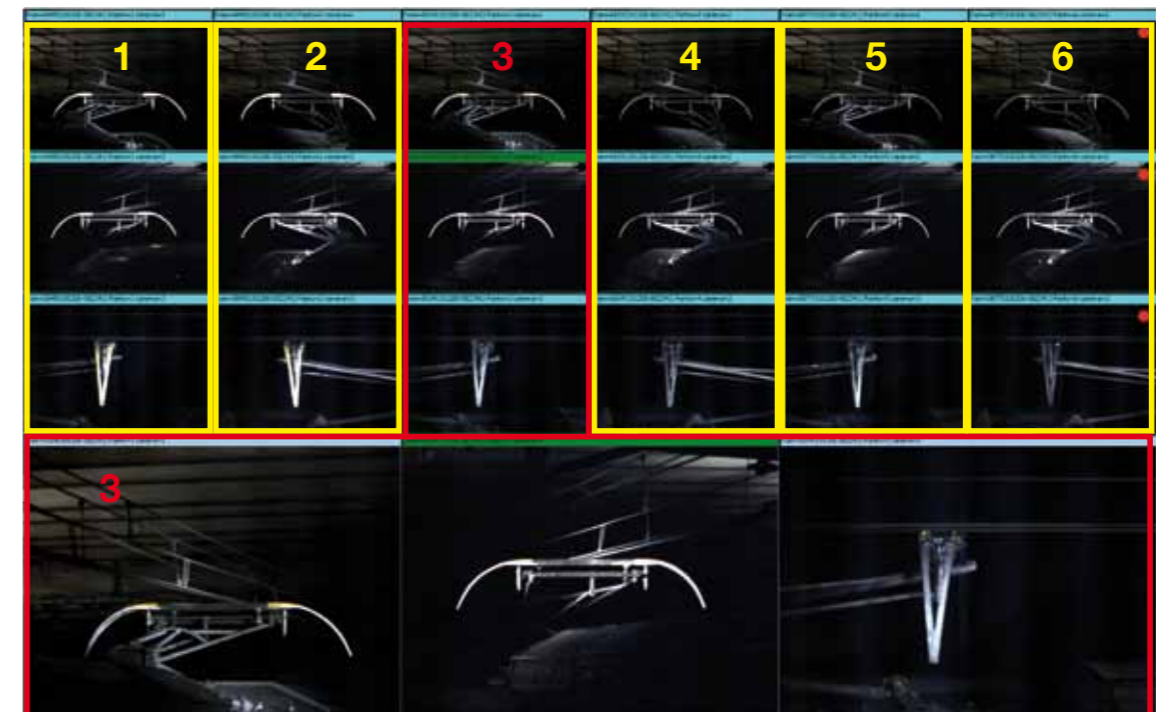
**Laser Scanners:**

- 3D reconstruction
- high accuracy

**Software:**

- Computer vision image processing for automatic detection

## Display



Real example of train with 6 pantos. The computer shows in real time the 3 different views of each pantograph: **frontal**, **rear** and **lateral view**.