SORHEA

MANUFACTURER OF PERIMETER
INTRUSION DETECTION SYSTEMS
FOR SENSITIVE SITES

SPECIFIC APPLICATION

RAIL
INFRASTRUCTURES

SORHEA

LEADER IN PERIMETER PROTECTION **AT YOUR SERVICE**

The earlier you detect, the more you reduce the risk of intrusion and potential malicious acts or thefts on a site.

Perimeter intrusion detection on your premises allows for:

- **advance warning of an intrusion,**
- **early verification upon receiving an alarm notification,**
- **early response triggered through the centralised alarm information system.**

Perimeter intrusion detection is our business. We have developed a wide range of technologies that includes wireless and solar powered systems, offering the most innovative solutions for protecting your critical infrastructure sites.

The reliability of our product's detection and their high quality ensure that you can meet your customer's requirements effectively.

TECHNOLOGICAL ANSWERS
TO MEET EVERY NEED

- **Approach detection** by thermal detectors & video analytics associated with dual technology sensors.
- **Intrusion detection** by active infrared
- **Intrusion detection and deterrence** by physical barriers : fence-mounted shock detection cables and electrified detection fencing.

COMMITMENTS
THAT MAKE THE DIFFERENCE

- **Guaranteed quality:** over 30 years of experience in supplying our customers.

ISO 9001 BUREAU VERITAS Certification

- **A customised service** to support you at every stage of your project.
- **On-site technical support for engineering, pre-sales support and site commissioning.**
- **A network of trained installers and integrators** worldwide.

OUR RAIL INFRASTRUCTURE **SECURITY SOLUTIONS**

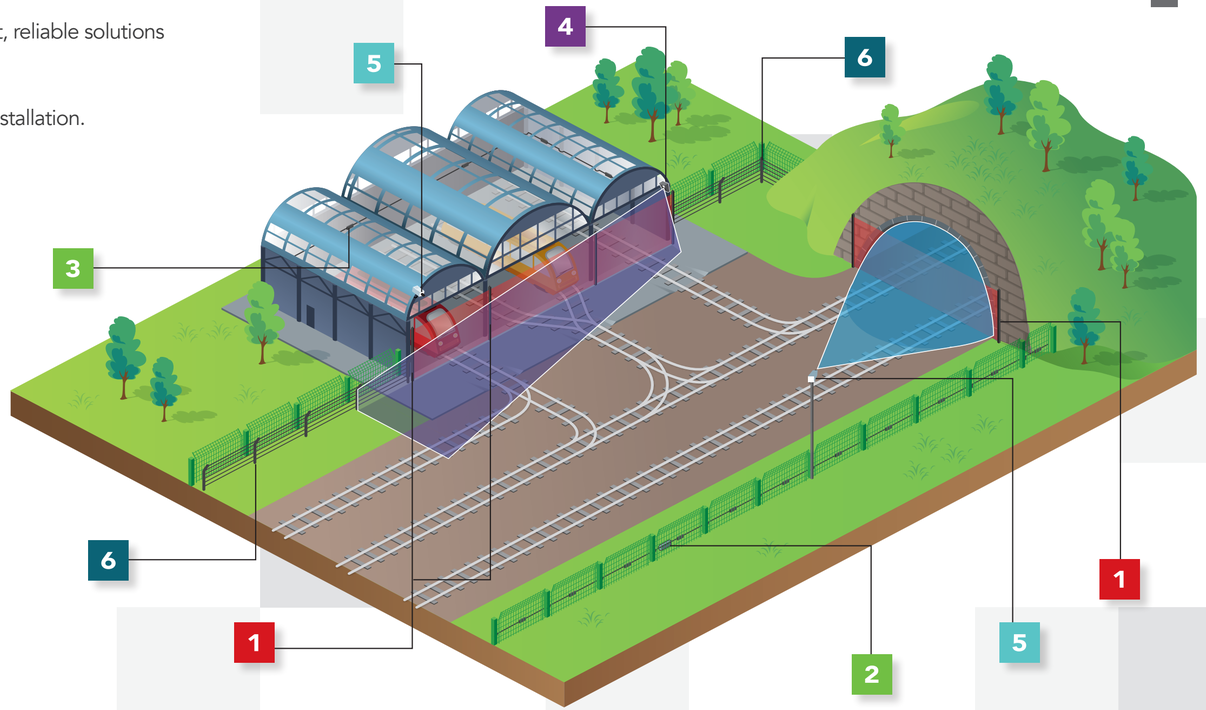
For all rail infrastructure security managers, network and site protection are key issues that represent a technical and economic challenge.

Whether the security issue is accidents on the track, a terrorist threat, vandalism or even theft, SORHEA offers various intrusion detection solutions to solve it.

For SORHEA, it is about offering permanent, reliable solutions that are quick to install.

This is a key consideration given the impact of suspending rail traffic on a track during installation.

1. MAXIRIS DISCRI-TRAIN
2. G-FENCE 2400
3. G-FENCE 600
4. PIRAMID
5. ONETRACK
6. SILUR



TUNNEL

- RISK: **Terrorism / Accident on the track**
- SOLUTION: **MAXIRIS TRAIN-DISCRIMINATION**

WHY SORHEA?

Our specific train detection algorithm, DISCRI-TRAIN, can differentiate between a vehicle (train or metro) and an individual passing between two infrared columns.

The purpose of this filtering is to not trigger an alarm if all the infrared beams are cut (i.e a train passing) and to trigger an alarm if several beams are cut (i.e. a pedestrian passing).

Each DISCRI-TRAIN solution installed is customised with the exact configurations of the specific site and location. The algorithm is also **customised according to the type of train** that runs on the railway. Configurations are based on the **length and height of the train, number of wagons**, etc.

NEW **This function now comes as an autonomous solution: SOLARIS TRAIN-DISCRIMINATION**

MAINTENANCE SITES

- RISK: **Vandalism / Graffiti / Cable theft**
- SOLUTION: **MAXIRIS DISCRI-TRAIN**

WHY SORHEA?

Train maintenance sites attract criminals due to the materials that can be stolen. The high number of tracks makes these sites dangerous and therefore particularly important to protect. **For more than 33 years, SORHEA's strength has been in developing customised solutions in response to the specific issues of its clients.** With extensive experience in active infrared, we enhanced the MAXIRIS, the most reliable barrier on the market, with a specific algorithm to provide a technological response to a specific client need. This gave rise to the MAXIRIS TRAIN-DISCRIMMINATION.

TRAIN DEPOT

- RISK: **Terrorism / Vandalism**
- SOLUTIONS: **PIRAMID and our fence-mounted solutions: G-FENCE, SILUR and SI-TOP**

WHY SORHEA?

In border zones, there is a significant threat of terrorist attack on trains. Moreover, it can be expensive to clean graffiti from trains. It is therefore about providing maximum protection for these sites by choosing the right security solution for each specific issue.

The PIRAMID makes it possible to **detect an individual approaching and/or moving away** from a critical zone.

The G-FENCE can **protect a fence**, preventing any attempt at climbing, cutting or removal. We also offer fence-mounted electrification solutions: for example, the SI-TOP electrified outrigger offers **triple protection**: firstly, the height of the electric fence acts as a deterrent, it then provides detection and finally repulsion of criminals.

SORHEA offers various technological responses suited to each specific need. SORHEA's added value lies in the possibility of combining and operating each of these solutions as part of a centralised integrated solution: the MAXIBUS Universal. This simplifies site operation and maintenance as it is combined in a single point.

RAILWAY LINES

- RISK: **Human casualties, suicides / Disruptions to rail traffic** (delays to trains)
- SOLUTIONS: **G-FENCE 2400 and ONETRACK)**

WHY SORHEA?

Easily accessible to pedestrians, there are thousands of deaths on the European railway network each year. These zones are a key issue in track security and rail traffic management, due to suicide attempts and attempts to cross the track.

Quick and easy to install, the G-FENCE solution can be deployed rapidly, meaning fewer interruptions to traffic during installation. In particular, the G-FENCE 2400 solution connects directly to the IP network, offering the possibility of **remote configuration** adjustment, **without the need to be physically onsite**. Then simply adjust the sensitivity and number of impacts on the sensors to correctly detect intrusions, while eliminating false alarms.

The ONETRACK can complete the installation with an image analysis solution that provides **effective video verification**.

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