

## CASE STUDY : IRE, LOCATED IN FLEURUS, BELGIUM

**THE INSTITUTE OF RADIOACTIVE ELEMENTS (IRE), LOCATED IN FLEURUS, BELGIUM, HAS BEEN EQUIPPED WITH ONE OF THE MOST ADVANCED SECURITY SYSTEMS ON THE MARKET.**

Thermal and mobile cameras combined with a video analysis solution reinforce site security in terms of perimeter protection, access management and internal security via a comprehensive security platform.



**Organization:** IRE

**Location:** Fleurus, Belgium

**Sector :** Industrial / pharmaceutical

**Application :** Safety and Security

**Contractor :** Digital - IP Solutions

**Technology Partners :** ACIC, Axis and Genetec

### **Mission**

IRE is a leading global producer of radioactive elements used in nuclear medicine, whose primary mission is to contribute to public health and environmental protection. At IRE, security is a major concern, and that is why this institute manages its development business and services in accordance with the very strictest safety rules and quality standards. To ensure optimum security for its facilities and products, IRE executives have pledged to implement all necessary and useful methods in opting for a modern, global security perimeter and video analysis solution.

### **Solution**

In order to be able to remedy the existing system's deficiencies, IRE executives decided to deploy whatever resources deemed necessary. To that end, the old CCTV equipment was replaced by purchasing and installing IP cameras (AXIS) with a very advanced management and recording system (GENETEC Omnicast software), combined with video analysis (ACIC *ActivityDetection*), to improve site security. The new system had to allow security personnel to monitor and analyse access control and intrusion alarms.

### **Testimonial**

*"We are very pleased with the image analysis technologies selected, dedicated to perimeter protection. This selection was based on a comparison of various products' performance results. Deployment by Digital and ACIC went exceedingly well, and we achieved extremely high performance results, as required in the RFP. "*

Mr Philippe De Clerck, a consultant at Robrechts Thienpont Security Consultancy located in Overijse, Belgium.

### **Results**

Throughout this perimeter protection project, each part of the system complements the other parts, creating a very advanced security solution. The combination of high quality cameras, integrated with access control and a high performance, intelligent video surveillance system (a product called *ActivityDetection*) led to a significant reduction in false alarms and security incidents. Performance evaluations were conducted over a period of 3 months, and evidence clearly shows that the results perfectly match the performance commitment made by ACIC and its integrator, Digital, i.e., less than one false alarm per week, per camera. An article appearing in Belgian newspaper *La Libre Belgique* on August 18, 2012, described visiting American experts, who recently congratulated the Institute's management team for their progress, and the quality of implementation for the extra security measures. They believe that its facilities meet, and even exceed in many cases, international requirements in terms of physical protection.

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IRE is a non-profit foundation, active in the areas of health and the environment. Established in 1971, the Institute has about 140 employees at its site in Fleurus, Belgium, of which more than 80% are scientific or technical experts.

IRE is an important world producer of radioactive elements used in nuclear medicine, which helps protect the environment by implementing technology for monitoring and measurement of radioactive elements naturally occurring in soil, air and water.

IRE attaches great importance to the safety of its workers, citizens and the environment, which is why it is committed to following administrative procedures developed by regulators such as AFCN (the Belgian Federal Nuclear Management Agency) and BEL V. However, the security of the site had to be strengthened with the enactment in 2012 of relevant new regulations. A recent visit by U.S. authorities took place, and after a three-day audit, the delegation stressed the robustness of physical protection plans, excellent communication between the police and IRE, as well as excellent protection systems in place at IRE.

In order to improve its site's physical protection quality in the battle against potential bad intent, IRE created one of the most perfected security systems in Belgium. After several months of analysis, thanks to coordination by Mr. Philippe De Clerck, consultant at Robrechts Thienpont Security Consultancy, a team of IRE employees ended up choosing the solution installed by Digital in close collaboration with ACIC.

Digital has installed Axis cameras both inside and outside various buildings, and is also responsible for alarm and site access control system management via Genetec Security Center, a unified security system. The cameras are in fixed position and allow continuous monitoring of activity in sensitive areas within buildings. As for the exterior cameras, they have been positioned throughout the entire site perimeter. They consist of fixed thermal cameras and mobile, visible domes equipped with infrared lenses to also ensure proper operation at night. Choosing thermal imaging was justified by its ability to deliver quality images day and night, even in harsh weather conditions. Securing the site has a dual purpose: both pre-generation of alarms when a vehicle stops outside the gates, but also generation of alarms in the event of intrusion into the site. The thermal cameras' video stream is analysed by an ACIC video solution in an effort to optimise the security perimeter, while mobile domes allow verification of alarms generated by video analysis. The dome cameras actually focus on detection zones automatically, via software. To assist the operator during verification, the detection information from the ACIC software superimpose onto images from the cameras,

allowing operators to quickly understand the detection source.

IRE established a validation system in which different intrusion scenarios are taken into account, and tests were performed for each camera at regular distance intervals as well as at various speeds.

Images are recorded, stored and can be viewed at any future point in time in order to verify any potential intrusion or to provide evidence, as required. IRE has explicitly chosen this type of camera in order to detect an intrusion or trespassing, while guaranteeing a solution that works in all weather conditions, and that minimizes false alarms. Only authorized personnel may view surveillance imagery on the wall of images, which displays videos from site cameras, or on a PC, access to which is password protected. The cameras are operational 24 hours a day, allowing for optimal responsiveness.

### About ACIC :

*ACIC is a Belgian company that has been developing intelligent video software since 2003. ACIC provides an automated video surveillance solution tailored to your needs, based on its products, or on project customisation to your specific requirements. Thanks to support from technology partners, such as Axis and Genetec. ACIC solutions are applicable to sensitive sites, transportation infrastructure, shopping centres, etc.*

